July 1, 19 98 through June 30, 99

Site Identification Number GD-089-2735 Permit Number OC-0228B

14 All Facilities: Provide all calculations used to compute the quantity (expressed in wet-weight tons) of solid waste received at the facility. Landfarm facilities must provide the calculations used to compute the quantity (in dry-weight tons) of solid waste received at the facility. Surface impoundments must provide all calculations used to compute the quantity of total suspended solids disposed in the facility.

8A. Calculations: The total sediment processed from this facility this year is equal to the sum of its various components:

Metal Cleaning Waste Pond:	0.00	tons
Boiler Blowdow Pond:	0.00	tons
Low Volume Pond:	0.00	tons
West Ditch Enlargement:	0.00	tons
NOTE: All of the above components were closed in fiscal year 96-97.		
Total sediment processed from this facility:	0.00	tons

9A. Calculations:

All components were out of service and closed in fiscal year 96-97.

Component	Previous Remaining Capacity (tons)	Sludge Added(tons)	New Remaining Capacity (tons)
Metal Cleaning Waste Pond (MCW):	0.00	0.00	0.00
Boiler Blowdow Pond (BBD):	0.00	0.00	0.00
Low Volume Pond (LVP):	0.00	0.00	0.00
West Ditch Enlargement (WDE):	0.00	0.00	0.00

Total Present Remaining Capacity (tons): 0.00

9B. Calculations:

All components were out of service and closed in the 96 - 97 fiscal year.
Therefore, the estimated remaining life for the facility is 0 months.

11B Calculations: All of the components of this facility receive flow from process area drains only. Therefore the sediment collecting in the components of this pond is industrial solid waste.

Quantity received this year = 0 tons

13B. Calculations:

All components were out of service and closed durinig this reporting period.

Component	Waste Code	Av. Annual Sludge Acc. (tons)	Adjustment Factor	Amount Collected (tons)	Differences in Operation
MCW	2735-200	N/A	N/A	0.00	(out of service)
BBD	2735-357	N/A	N/A	0.00	(out of service)
LVP	2735-357	N/A	N/A	0.00	(out of service 10/1/94)
WDE	2735-357	N/A	N/A	0.00	(out of service 4/1/95)

Quantity of 200 received this year = 0 tons
Quantity of 357 received this year = 0.00 tons

Amount of Industrial Solid Waste Collected = 0.00 tons

State of Louisiana

Department of Environmental Quality

M.J. "MIKE" FOSTER, JR.
GOVERNOR

J. DALE GIVENS
SECRETARY

June 30, 1999

RECEIVED
JUL - 6 1999

CERTIFIED MAIL P 531 457 971
RETURN RECEIPT REQUESTED

Mr. Robert O. Bourg
Senior Environmental Analyst
Entergy Services, Inc.
Post Office Box 61000, L-ENT-5E
New Orleans, Louisiana 70161-1000

RE: Notice of Deficiency #1
Louisiana Power and Light Company
Little Gypsy Plant
Surface Impoundments
GD-089-2735/OU-0194/PA# 472
St. Charles Parish

Dear Mr. Bourg:

We have conducted a technical review of the above-referenced Permit Renewal Application.

The following comments are presented regarding items not considered in conformity with the applicable sections of the Louisiana Solid Waste Regulations (LAC 33:VII):

TECHNICAL REVIEW:

519.I	Provide proof of ownership such as a deed, etc.
521.A.1.e	Please submit any additional correspondence from the Dept. of Recreation, Culture, and Tourism.
521.B.1.c	Please request a buffer zone waiver under separate cover.

	Please state that in accordance with 709.B.2.a, no storage, processing, or disposal of solid waste shall occur within the buffer zone.
521.B.1.f	Please indicate how the solid waste is estimated. For example, how the amount of waste is determined to report on the annual report. Please provide the latest annual report.
521.G.1.a	Please incorporate the standards in LAC 33:VII.713.C.1.a.i into this section.
521.G.1	Address LAC 33:VII.713.C.1.b.iii.l, o, p, and d and incorporate into this section.
521.G.1.b	Please note that the minimum personnel listed shall be required on-site during the operational hours stated.
521.H.1.	Include the maximum quantities of wastes per year. In the operational plan, address LAC 33:VII.713.D.3.b & d and 713.D.5.a & b. Also, address the operational changes that will occur during wet weather.
521.H.1.a	State LAC 33:VII.713.D.1.a in this section.
521.H.1.f	Please address the attached requirement.
713.E.2.a	Address this regulation.
713.E.3	If these requirements are not addressed, a closure plan modification shall be submitted when the facility notifies their intent to close the facility.

521.J.2.c	Please estimate the maximum amount of solid waste in the impoundment.
521.L	Please submit the most recent financial assurance documentation for this facility.
523	Address the expanded "IT" questions. See attachment.

ENGINEERING REVIEW:

521.J	Closure of the surface impoundment shall meet the requirements of LAC 33:VII.713.E.3, please modify the steps necessary for closing the facility to meet the requirements.

GEOLOGICAL REVIEW:

521.D.1.a	Please submit the data obtained from the six (6) HydroPunch boreholes which were used to investigate the Boiler Blowdown Pond, Metal Cleaning Waste Pond, Low Volume Waste Pond and West Ditch Enlargement. Please submit an isometric profile and cross sections using all boring logs associated with the solid waste impoundments. Include onto the isometric profile and cross sections all boring logs for existing as well as any plugged and abandoned monitoring wells and piezometers. Please superimpose screen intervals of piezometers onto the isometric profile and cross sections. On the isometric profile please superimpose the bottom elevation of

the impoundments. Each of these features should be depicted with respect to mean sea level (MSL).

521.D.1.b

Please note that the requirement of LAC 33:VII.709.C.1.i states that a geotechnical borehole spacing shall be no greater than four hundred and fifty (450) feet or (a minimum of four (4) borings required). After review of the master plan labeled as Figure 1A it was noted that only three (3) borings surround the Oily Waste Pond. Therefore, a forth boring shall be installed to adequately delineate the subsurface geology below the Oily Waste Pond.

Please note, that if existing facilities can demonstrate that the geology and hydrogeology is adequately characterized, a request for an exemption to these requirements may be submitted in accordance with LAC 33:VII.307.

Please supply the background borehole log as it could not be located in the application.

521.E.1.a.i

Please provide the isopach map (show thickness and aerial extent) for each permeable zone within thirty (30) feet below the ground surface using all lithologic data available in the vicinity of the solid waste ponds. As stated previously, all boring logs should be used for a thorough characterization of the facility's geology and hydrogeology.

521.E.1.a.iii

Please provide a table showing the screen intervals (MSL) of all piezometers along

with corresponding water level measurements with respect to MSL and the date of the measurement.

Please submit all available potentiometric maps of piezometers TP-1,2,3,4,5, and 6.

521.F.5.a After review of the as-built drawings of piezometers TP-5 and TP-6, it was noted that the piezometers are screened in Zone II not Zone I as stated in the application.

521.F.5.b Prior to approving the proposed groundwater monitoring system the facility must have sufficient groundwater data submitted to determine seasonal groundwater flow directions.

The relevant point of compliance must be drawn on a scaled map assuming the facility has supplied sufficient groundwater data to determine seasonal groundwater flow directions along with the proposed monitoring well locations. Please note that the line drawn on the scaled map representing the relevant point of compliance must intersect the downgradient monitoring well locations.

521.F.5.c The following comments apply to the Sampling and Analysis Plan (SAP) provided in Appendix D.

1.0 Groundwater Monitoring Program Overview

After reviewing the boring logs for piezometers TP-4 and TP-5 it was noted that they are screened in Zone II which is a brown clayey silt sand and not a gray clayey silt as stated in the application.

2.0 Detection Monitoring Parameters

Please supply an analysis of the bottom sludges of the Oily Waste Pond to justify the detection monitoring parameters found in this section of the Sampling Analysis Plan.

3.2.2 Groundwater Purging Techniques

Purged water shall be contained and not poured onto the ground until groundwater sampling results are determined to be non-detect.

Your response to these items shall be sent to this office within ninety (90) days of receipt of this letter. Please refer to the sections and denoted regulations when responding to the comments. Additionally, four (4) copies of your response, including appendices, shall be provided.

If you have any questions concerning this matter, please contact Ms. Renee Pittman (Technical and Financial Review), Mr. Hoa Van Nguyen (Engineering Review) or Mr. Hamilton Shaw (Geological Review) of the Solid Waste Division at (225) 765-0249.

Sincerely,

William J. Mollere
Administrator
Solid Waste Division

WJM:RP:mo

Attachment

523 Address all applicable sections of the following:

523.A Address the following categories in detail:

1) What are the potential (possible) adverse environmental effects of the facility? 2) Which medium of the environment may possibly be affected (air, water, soil, groundwater, other)? 3) How may the medium be affected (leaking, discharging, emitting, disposal, other)? 4) Who/what may be affected (human health, animals, plants or vegetation, wetlands, cultural/historical, traffic/roads)? 5) What are the real(definite) adverse environmental effects of the facility? 6) Have these adverse environmental effects been avoided to the maximum extent possible? If so, what measures are proposed to protect the environment? 7) Are there any measures that would afford greater protection to the environment than those proposed?

523.B Address the following categories in detail:

1) Does the cost benefit analysis show that the environmental, social, economic, and other benefits outweigh the environmental, social, economic, and other costs? 2) Those positive and negative costs and benefits resulting from the facility which impact air, water, soil, flora and fauna. 3) Those social, economic, or other costs and benefits resulting from the facility (traffic, odors, dust, litter, safety of students, jobs, tax revenues). 4) Explanation of cost/benefit analysis.

523.C Address the following categories in detail:

1) List all alternative projects considered which are related to the purpose of the applicant's facility; explain why they were not chosen. 2) What other alternative projects are available besides those that were considered; explain why they were not considered. 3) Would it be possible to further modify the facility to maximize environmental protection?

523.D Address the following categories in detail:

1) Did the site analysis examine environmental costs and benefits taking mitigating measures into consideration? 2) Address the following possible environmental impacts: a) Does the site impact environmentally sensitive areas? b) Is the site flood prone? c) Is the ground water protected?

d) Is the air quality protected? e) Is the water quality protected? f) Is the site vulnerable to hurricanes? 3) Address the following possible social, economic and other impacts: a) What is the zoning and existing land use of the site and nearby area? b) What costs and benefits does the facility have on the enjoyment and use of the surrounding property? c) Is the site noted for aesthetic beauty or historical or cultural sites? d) does the site pose potential health risks? Is it in proximity to schools, hospitals or residential areas? e) Will the facility create nuisances such as odors, unwanted light, or noise? 4) Was the geographical coverage on the site analysis large enough to consider all reasonable sites? 5) Were there sufficient alternative sites to choose from considering the scope of the project? 6) Was the site election process sufficiently detailed to discern which were the best sites? 7) Did the site analysis indicate that this site would offer the most protection to the environment after weighing costs and benefits?

523.E Address the following categories in detail:

1) Demonstrate that the techniques proposed are the most efficient mechanisms to control the wastes or pollutants without unduly curtailing non-environmental benefits. 2) What quality assurance controls will be utilized to protect the environment? 3) Is there anything more that could be done at the facility that could decrease or prevent environmental or human health effects?

PARISH OF ST. CHARLES

DEPARTMENT OF PLANNING & ZONING

P.O. Box 302 • Hahnville, Louisiana 70057
(504) 783-5060 • (504) 466-1990 • Fax: (504) 783-6447

CHRIS A. TREGRE
PARISH PRESIDENT

JOSEPH P. LASSUS
DIRECTOR

October 3, 1994

Robin J. Boudouin
Rust Environmental & Infrastructure
8919 World Ministry Ave.
Suite 201
Baton Rouge, LA 70810

RE: Zoning Affidavit Request - Little Gypsy

Dear Ms. Boudouin,

As per our phone conversation and your written request, I have confirmed that the Little Gypsy facility is located within an M-2 zoning district and therefore in compliance with local zoning law. If you need any further information, please contact me at (504) 783-5060.

Sincerely,

Earl J. Matherne, Jr.
CZM Planner

MITCHELL J. LANDRIEU
LIEUTENANT GOVERNOR

State of Louisiana

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF STATE PARKS

ANGÈLE DAVIS
SECRETARY

STUART JOHNSON, PH.D.
ASSISTANT SECRETARY

RECEIVED
MAY 1 2006
By

April 25, 2006

Mr. Richard Labranche
Entergy, Little Gypsy Location
17420 River Road
Montz, LA 70068

Dear Mr. Labranche,

The Division of Outdoor Recreation in the Louisiana Office of State Parks under the Department of Culture, Recreation and Tourism is responsible for the administration of the Federal Land and Water Conservation Fund (L&WCF) grant program for the state. As such, the Division of Outdoor Recreation reviews grant applications from potential project sponsors of appropriate political subdivisions across the state of outdoor recreation projects seeking federal matching funds. The Division of Outdoor Recreation continues to monitor and inspect those projects selected for L&WCF assistance to ensure the developments comply with all provisions of the L&WCF Act. As such, each project must remain a viable recreation facility with no overhead utility wires and no environmental infringements in perpetuity. Sites deemed no longer viable as recreational facilities must seek a conversion in accordance with Section 6(f) of the L&WCF Act of another property to be developed as equal recreational value with the prior approval of the National Park Service. Our office inspects funded projects periodically and holds project sponsors accountable for compliance to all aspects of the L&WCF Act.

The Division of Outdoor Recreation does not maintain data on other recreational facilities located across the state that have not been funded in part by the L&WCF Act. Accordingly, the Division of Outdoor Recreation cannot provide assurance of environmental infringement on recreational facilities that were not funded by the L&WCF.

Sincerely,

Cleve Hardman
Director of Outdoor Recreation

MITCHELL J. LANDRIEU
LIEUTENANT GOVERNOR

State of Louisiana

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF STATE PARKS

ANGÈLE DAVIS
SECRETARY

STUART JOHNSON, PH.D.
ASSISTANT SECRETARY

JUL 28 2005

July 25, 2005

Mr. Richard C. Labranche
Environmental Analyst III
Entergy Services, Inc.
639 Loyola Ave.
P.O. Box 61000, L-ENT-5E
New Orleans, LA 70161-1000
New Orleans, LA 70161-1000

RE: Recreational Resources Data
Little Gypsy Plant/Oily Waste Pond
OU-0194/AI#687/PR 19990004
St. Charles Parish

Dear Mr. Labranche,

I am in receipt of your letter dated July 20, 2005 regarding the Solid Waster Permit Application for Oily Waste Pond located at the Little Gypsy Electric Generating Plant in Montz, Louisiana. Our records indicate the subject surface impoundment area is not in proximity to a recreational area funded by the Land and Water Conservation Fund Act. The role of our office is limited to administration of recreational facilities funded in part by the L&WCF.

I do note the proposed area is in proximity to Montz Park and would encourage you to seek out an appropriate response from the leadership of Montz and St. Charles Parish in reference to this facility.

Very sincerely,

Cleve Hardman
Director, Outdoor Recreation
La. Office of State Parks

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

August 18, 2005

Operations Division
Surveillance and Enforcement Section

Mr. Richard C. Labranche
Entergy Services, Inc.
P.O. Box 61000, L-ENT-5E
New Orleans, LA 70161-1000

Dear Mr. Labranche:

Reference is made to your request for a U.S. Army Corps of Engineers' (Corps) jurisdictional determination on property located in Sections 9, 10, and 11, Township 12 South, Range 7 East, St. Charles Parish, Louisiana (enclosed map). Specifically, this property is identified as the Oily Waste Pond site within the Little Gypsy Electric Generating Plant on Hwy. 628 in Montz, LA.

Based on review of recent maps, aerial photography, and soils data, we have determined that there are jurisdictional wetlands within 1,000 feet of the subject site. A Department of the Army (DA) permit under Section 404 of the Clean Water Act will be required prior to the deposition or redistribution of dredged or fill material into these wetlands. Additionally the Mississippi River and its associated wetlands are navigable waters and subject to Corps' jurisdiction under Section 10 of the Rivers and Harbors Act. A DA Section 10 permit will be required prior to any work in these waters.

Please be advised that this property is in the Louisiana Coastal Zone. For additional information regarding coastal use permit requirements, contact Mr. William Pittman, Coastal Management Division, Louisiana Department of Natural Resources at (225) 342-7591.

You are advised that you must obtain a permit from a local assuring agency, usually a Levee Board or Parish Council, for any work within 1500 feet of a federal flood control structure such as a levee. You must apply by letter to the appropriate agency including full-size construction plans, cross sections, and details of the proposed work. Concurrently with your application to the assuring agency, you must also forward a copy of your letter and plans to Mr. Jerry Colletti, Operations Manager for Completed Works of the Corps and to the appropriate regional office of the Louisiana Department of Transportation and Development (LA DOTD) for their review and comments concerning the proposed work. The assuring agency will not issue a permit for the work to proceed until they have obtained letters of no objection from both of these reviewing agencies. For further information regarding permit requests affecting federal flood

control levees and structures, please contact Mr. Jerry Colletti, Operations Manager for Completed Works at (504) 862-2060.

You are advised that this approved jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date.

Should there be any questions concerning these matters, please contact Mr. Michael Windham at (504) 862-1235 and reference our Account No. MVN-2005-2980-SK. If you have specific questions regarding the permit process or permit applications, please contact our Eastern Evaluation Section at (504) 862-2766.

Sincerely,

Gary M. Cox

For Ronald J. Ventola
Chief, Regulatory Branch

Enclosures

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Richard C. Labranche	**File No.:** MVN-2005-2980-SK	**Date:** 9/15/2005

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

(over)

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact: John Bruza (504) 862-1288 Chief, Surveillance and Enforcement Section U.S. Army Corps of Engineers P.O. Box 60627 New Orleans, LA 70160	If you only have questions regarding the appeal process you may also contact the Division Engineer through: Martha S. Chieply (601) 634-5820 Administrative Appeals Review Officer U.S. Army Corps of Engineers P.O. Box 80 Vicksburg, MS 39181-0080

RIGHT OF ENTRY: *Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.*

Signature of appellant or agent.	Date:	Telephone number:

JURISDICTIONAL DETERMINATION Revised 8/13/04
U.S. Army Corps of Engineers

DISTRICT OFFICE: New Orleans
FILE NUMBER: MVN-2005-2980

PROJECT LOCATION INFORMATION:

State: Louisiana
Parish: St. Charles
Center coordinates of site (latitude/longitude): 30.0096 / -90.4614
Approximate size of area (parcel) reviewed, including uplands: acres.
Name of nearest waterway: Mississippi River
Name of watershed:

JURISDICTIONAL DETERMINATION

Completed: Desktop determination ☒ Date: 8/15/05
Site visit(s) ☐ Date(s):

Jurisdictional Determination (JD):

☐ Preliminary JD - Based on available information, ☐ *there appear to be* (or) ☐ *there appear to be no* "waters of the United States" and/or "navigable waters of the United States" on the project site. A preliminary JD is not appealable (Reference 33 CFR part 331).

☒ Approved JD – An approved JD is an appealable action (Reference 33 CFR part 331).
Check all that apply:

☒ *There are* "navigable waters of the United States" (as defined by 33 CFR part 329 and associated guidance) within the reviewed area. Approximate size of jurisdictional area: .

☒ *There are* "waters of the United States" (as defined by 33 CFR part 328 and associated guidance) within the reviewed area. Approximate size of jurisdictional area: .

☐ *There are "isolated, non-navigable, intra-state* waters or wetlands" within the reviewed area.
☐ Decision supported by SWANCC/Migratory Bird Rule Information Sheet for Determination of No Jurisdiction.

BASIS OF JURISDICTIONAL DETERMINATION:

A. Waters defined under 33 CFR part 329 as "navigable waters of the United States":
☒ The presence of waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

B. Waters defined under 33 CFR part 328.3(a) as "waters of the United States":
☒ (1) The presence of waters, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
☐ (2) The presence of interstate waters including interstate wetlands[1].
☐ (3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce including any such waters (check all that apply):
☐ (i) which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ (iii) which are or could be used for industrial purposes by industries in interstate commerce.
☐ (4) Impoundments of waters otherwise defined as waters of the US.
☐ (5) The presence of a tributary to a water identified in (1) – (4) above.
☐ (6) The presence of territorial seas.
☒ (7) The presence of wetlands adjacent[2] to other waters of the US, except for those wetlands adjacent to other wetlands.

Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above).

(5,7) Wetlands identified w/in a 1000' are adjacent to the Mississippi River, a Navigable water of the U.S.

Lateral Extent of Jurisdiction: (Reference: 33 CFR parts 328 and 329)

☒ Ordinary High Water Mark indicated by:
- ☐ clear, natural line impressed on the bank
- ☐ the presence of litter and debris
- ☐ changes in the character of soil
- ☐ destruction of terrestrial vegetation
- ☐ shelving
- ☒ other: lateral extent undetermined

☒ High Tide Line indicated by:
- ☐ oil or scum line along shore objects
- ☐ fine shell or debris deposits (foreshore)
- ☐ physical markings/characteristics
- ☐ tidal gages
- ☐ other:

☒ Mean High Water Mark indicated by:
☐ survey to available datum; ☐ physical markings; ☐ vegetation lines/changes in vegetation types.

☒ Wetland boundaries, as shown on the attached wetland delineation map and/or in a delineation report prepared by: boundaries undetermined, wetlands identified w/in 1000'

Basis For Not Asserting Jurisdiction:

☒ The reviewed area consists entirely of uplands.
☒ Unable to confirm the presence of waters in 33 CFR part 328(a)(1, 2, or 4-7).
☒ Headquarters declined to approve jurisdiction on the basis of 33 CFR part 328.3(a)(3).
☒ The Corps has made a case-specific determination that the following waters present on the site are not Waters of the United States:
- ☐ Waste treatment systems, including treatment ponds or lagoons, pursuant to 33 CFR part 328.3.
- ☐ Artificially irrigated areas, which would revert to upland if the irrigation ceased.
- ☐ Artificial lakes and ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
- ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
- ☐ Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States found at 33 CFR 328.3(a).
- ☐ Isolated, intrastate wetland with no nexus to interstate commerce.
- ☐ Prior converted cropland, as determined by the Natural Resources Conservation Service. Explain rationale:
- ☐ Non-tidal drainage or irrigation ditches excavated on dry land. Explain rationale:
- ☐ Other (explain):

DATA REVIEWED FOR JURISDICTIONAL DETERMINATION (mark all that apply):

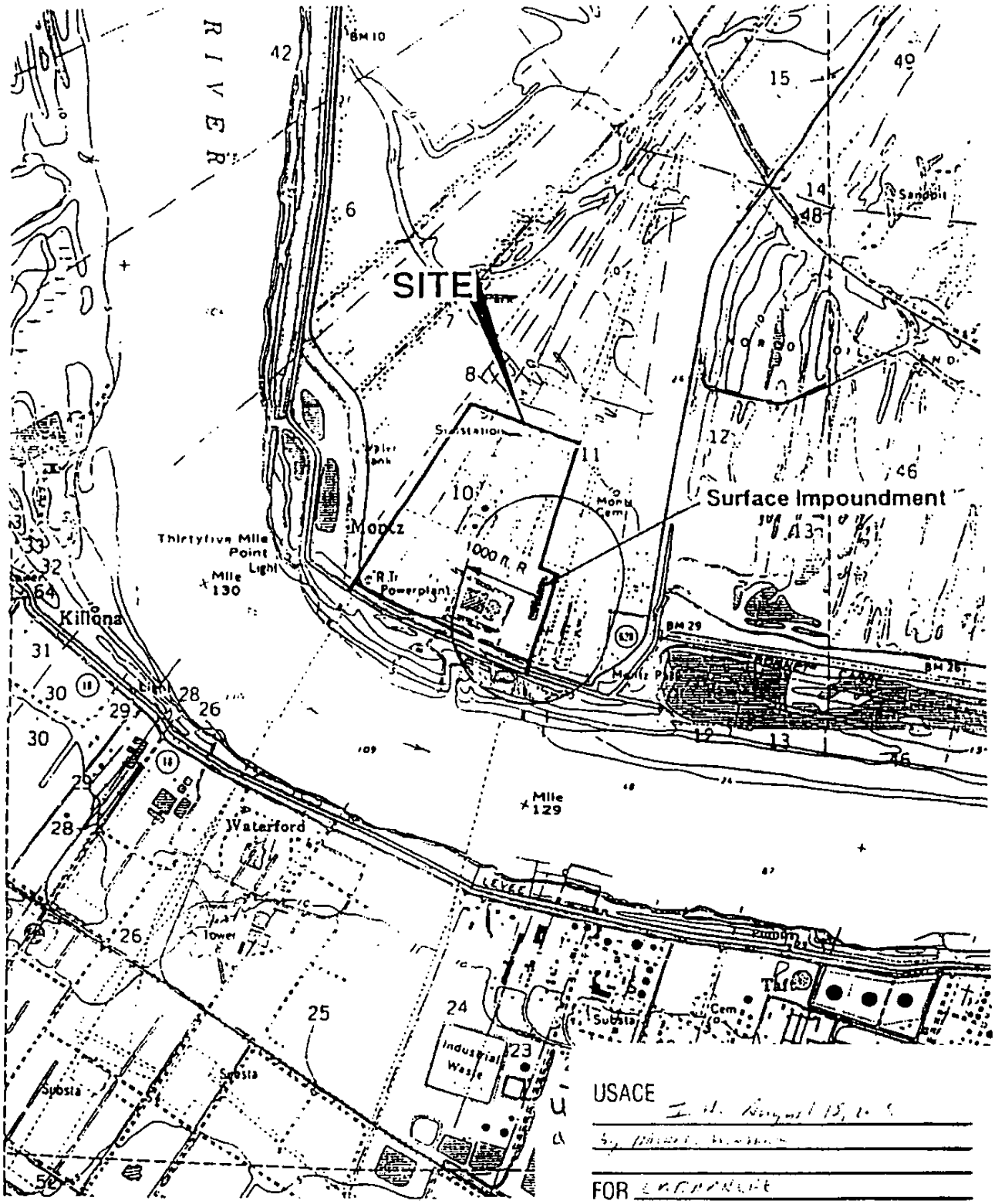
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant.
☒ Data sheets prepared/submitted by or on behalf of the applicant.
- ☐ This office concurs with the delineation report, dated , prepared by (company):
- ☐ This office does not concur with the delineation report, dated , prepared by (company):

☒ Data sheets prepared by the Corps.
☒ Corps' navigable waters' studies:
☒ U.S. Geological Survey Hydrologic Atlas:
☒ U.S. Geological Survey 7.5 Minute Topographic maps:
☒ U.S. Geological Survey 7.5 Minute Historic quadrangles:
☒ U.S. Geological Survey 15 Minute Historic quadrangles:
☒ USDA Natural Resources Conservation Service Soil Survey:
☒ National wetlands inventory maps:
☒ State/Local wetland inventory maps:
☒ FEMA/FIRM maps (Map Name & Date):
☒ 100-year Floodplain Elevation is: (NGVD)
☒ Aerial Photographs (Name & Date): 95', 98' I.R.
☒ Other photographs (Date):
☒ Advanced Identification Wetland maps:
☒ Site visit/determination conducted on:
☒ Applicable/supporting case law:
☒ Other information (please specify):

[1]Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

[2]The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.

APPROVED
JURISDICTIONAL DETERMINATION



USACE

FOR

WETLANDS

USGS 7.5 minute series quadrangle maps of Hahnville & Laplace, La. 1967 revised 1989.

Project No.	17669.100				
Drawing No.	17669-1 AV				
Drawn By	J. PARTIN				
Checked By	ELLIS	DATE	NO.	REVISION	BY

ENTERGY/LP&L
NEW ORLEANS, LOUISIANA
CLIENT

Entergy

Entergy Services, Inc.
639 Loyola Avenue
P.O. Box 61000, L-ENT-5E
New Orleans, LA 70161-1000
Tel 504 576 7253

AUG 1 8 2005

Frank M. Harbison
Louisiana Environmental
Support Manager

July 20, 2005

Certified Mail No. 7003 2260 0003 5745 6260
Return Receipt Requested

Date: 8-8-05
No known archaeological sites or historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.
Pam Breaux: Pam Breaux
State Historic Preservation Officer

Ms. Pam Breaux
State Historic Preservation Officer
Department of Culture, Recreation, and Tourism
Office of Cultural Development
P. O. Box 44247
Baton Rouge, LA 70804

Reference: Historical/Cultural/Archaeological Resource Data
Little Gypsy Plant/Oily Waste Pond
OU-0194/AI#687/PER 19990004
St. Charles Parish

Dear Ms. Breaux:

Entergy Louisiana, Inc. (Entergy) is in the process of renewing the Solid Waste Permit Application for the Oily Waste Pond located at the Little Gypsy Electric Generating Plant in Montz, Louisiana. This application incorporates all previously accepted revisions to the original application submitted in 1994 (No. PA-472).

As required by regulations, Entergy must submit documentation from the appropriate state and federal agencies substantiating the historic sites, recreation areas, archaeological sites, designated wildlife-management areas, wetlands, habitats for endangered species, and any other sensitive ecologic areas within 1,000 feet of the facility. The plant site is located in Sections 9, 10, and 11, Township 12 South, Range 7 East on Louisiana Highway 628, approximately three miles south of the intersection of Highway 628 and U.S. Highway 61. The location of the plant site and the 2.1 acre pond can be seen on the attached figure.

Entergy requests a return letter addressing the absence or presence of historic sites, archaeological sites, and any other sensitive ecologic areas within 1,000 feet of the facility.

Thank you for your time and attention to this matter. If you have any questions or comments, please contact me at (504) 576-5803.

Sincerely,

Richard C. Labranche
Environmental Analyst III

RCL:mhf

Attachment

JUL 25 2005

cc: Ms. Beth Scardina - LDEQ
Ms. Janaye Tate - LDEQ

NORMALS, MEANS, AND EXTREMES

NEW ORLEANS, LA (MSY)

LATITUDE: 29° 59′ 34″ N LONGITUDE: 90° 15′ 03″ W ELEVATION (FT): GRND: 4 BARO: 7 TIME ZONE: CENTRAL (UTC + 6) WBAN: 12916

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	61.8	65.3	72.1	78.0	84.8	89.4	91.1	91.0	87.1	79.7	71.0	64.5	78.0
	MEAN DAILY MAXIMUM	56	61.9	65.2	71.2	78.4	84.9	89.4	90.9	90.6	86.9	79.6	70.8	64.4	77.8
	HIGHEST DAILY MAXIMUM	57	83	85	89	92	96	100	101	102	101	94	87	84	102
	YEAR OF OCCURRENCE		1982	1972	1982	1987	1953	1954	1981	1980	1980	1998	1997	1995	AUG 1980
	MEAN OF EXTREME MAXS.	56	77.5	79.4	82.4	86.6	91.4	94.6	95.8	95.6	93.2	88.6	83.2	79.8	87.3
	NORMAL DAILY MINIMUM	30	43.4	46.1	52.7	58.4	66.4	72.0	74.2	73.9	70.6	60.2	51.8	45.6	59.6
	MEAN DAILY MINIMUM	56	43.5	46.1	51.9	58.8	65.9	71.4	73.5	73.5	70.2	60.1	50.9	45.5	59.3
	LOWEST DAILY MINIMUM	57	14	16	25	32	41	50	60	60	42	35	24	11	11
	YEAR OF OCCURRENCE		1985	1996	1980	1971	1960	1984	1967	1968	1967	1993	1970	1989	DEC 1989
	MEAN OF EXTREME MINS.	56	26.4	30.0	35.7	43.7	54.2	63.8	69.3	68.6	59.9	44.7	34.8	28.6	46.6
	NORMAL DRY BULB	30	52.6	55.7	62.4	68.2	75.6	80.7	82.7	82.5	78.9	70.0	61.4	55.1	68.8
	MEAN DRY BULB	56	52.7	55.6	61.7	68.6	75.5	80.4	82.2	82.0	78.5	69.8	60.9	55.0	68.6
	MEAN WET BULB	19	48.7	52.2	56.9	62.7	70.0	74.6	76.0	76.1	72.7	64.7	57.5	48.7	63.4
	MEAN DEW POINT	19	44.1	47.6	52.5	58.5	66.5	72.1	73.7	73.8	69.8	60.9	53.3	44.7	59.8
	NORMAL NO. DAYS WITH:														
	MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.3	3.9	15.8	21.5	22.3	10.2	1.1	0.0	0.0	75.1
	MAXIMUM ≤ 32°	30	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
	MINIMUM ≤ 32°	30	4.6	2.4	0.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.7	3.5	11.6
	MINIMUM ≤ 0°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H/C	NORMAL HEATING DEG. DAYS	30	403	288	150	44	1	0	0	0	0	30	169	332	1417
	NORMAL COOLING DEG. DAYS	30	12	19	62	136	320	466	538	534	413	182	62	29	2773
RH	NORMAL (PERCENT)	30	75	74	73	73	74	78	79	79	77	75	76	76	76
	HOUR 00 LST	30	81	80	81	83	85	87	88	88	86	84	84	83	84
	HOUR 06 LST	30	84	84	85	87	89	90	92	92	89	88	87	85	88
	HOUR 12 LST	30	66	63	61	59	60	64	66	65	65	60	63	65	63
	HOUR 18 LST	30	71	66	65	64	65	68	71	72	72	71	75	74	70
S	PERCENT POSSIBLE SUNSHINE	22	46	50	56	62	62	63	59	61	61	64	54	48	57
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY≤1/4 MI)	55	5.6	4.1	3.5	1.6	0.9	0.2	0.1	0.2	0.3	1.6	3.3	4.4	25.8
	THUNDERSTORMS	55	2.2	2.9	4.0	4.2	5.7	10.0	14.8	12.5	6.6	2.0	2.0	2.1	69.0
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	48	5.4	5.0	5.0	4.6	4.9	4.9	5.1	4.6	4.3	3.6	4.3	5.1	4.7
	MIDNIGHT-MIDNIGHT (OKTAS)	32	5.2	4.8	4.9	4.4	4.2	4.0	4.6	4.3	4.0	3.3	4.0	4.8	4.4
	MEAN NO. DAYS WITH:														
	CLEAR	48	6.9	7.5	7.8	7.9	8.9	8.3	4.6	7.2	9.6	14.3	10.2	7.7	100.9
	PARTLY CLOUDY	48	7.1	6.4	8.0	10.4	11.2	12.5	14.6	13.8	10.6	7.9	8.2	7.4	118.1
	CLOUDY	48	16.9	14.3	15.2	11.7	10.9	9.2	11.8	10.0	9.8	8.9	11.5	15.9	146.1
PR	MEAN STATION PRESSURE(IN)	30	30.11	30.08	30.00	29.98	29.94	29.96	30.00	29.98	29.96	30.03	30.08	30.11	30.02
	MEAN SEA-LEVEL PRES. (IN)	19	30.16	30.12	30.04	30.01	29.98	30.00	30.04	30.00	29.99	30.06	30.11	30.16	30.06
WINDS	MEAN SPEED (MPH)	41	9.4	9.9	9.8	9.5	8.1	6.9	6.2	6.1	7.5	7.8	8.8	9.2	8.3
	PREVAIL.DIR(TENS OF DEGS)	25	36	36	16	16	18	18	24	05	05	05	06	36	18
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	7	48	43	36	40	33	40	43	40	46	39	38	39	48
	DIR. (TENS OF DEGS)		27	21	25	01	28	17	29	02	01	17	22	24	27
	YEAR OF OCCURRENCE		1998	1998	2001	1997	2001	2003	2002	1997	2002	2002	2002	2000	JAN 1998
	MAXIMUM 5-SECOND:														
	SPEED (MPH)	7	63	51	44	53	44	48	53	48	55	51	46	51	63
	DIR. (TENS OF DEGS)		33	21	31	21	26	17	29	04	01	13	21	24	33
	YEAR OF OCCURRENCE		1998	1998	2003	1997	1999	2002	2002	1997	1998	2002	2002	2001	JAN 1998
PRECIPITATION	NORMAL (IN)	30	5.87	5.47	5.24	5.02	4.62	6.83	6.20	6.15	5.55	3.05	5.09	5.07	64.16
	MAXIMUM MONTHLY (IN)	57	19.28	12.59	19.09	16.12	21.18	17.62	13.15	16.12	18.98	13.20	19.81	10.77	21.18
	YEAR OF OCCURRENCE		1998	1983	1948	1980	1995	2001	1991	1977	1998	1985	1989	1967	MAY 1995
	MINIMUM MONTHLY (IN)	57	0.19	0.15	0.24	0.28	0.07	0.23	1.38	1.68	0.24	0.00	0.21	1.46	0.00
	YEAR OF OCCURRENCE		2003	1989	1955	1976	2000	1979	2000	1980	1953	1978	1949	1958	OCT 1978
	MAXIMUM IN 24 HOURS (IN)	57	6.08	5.60	7.87	8.08	12.40	7.40	4.43	4.96	9.55	4.51	12.66	6.81	12.66
	YEAR OF OCCURRENCE		1978	1961	1948	1988	1995	1988	1996	1992	2002	1985	1989	1990	NOV 1989
	NORMAL NO. DAYS WITH:														
	PRECIPITATION ≥ 0.01	30	10.5	8.4	8.6	7.2	8.0	11.8	13.9	13.2	10.2	5.9	8.6	9.4	115.7
	PRECIPITATION ≥ 1.00	30	1.9	1.8	2.1	1.5	1.6	2.5	1.7	1.7	1.7	1.0	1.8	1.5	20.8
SNOWFALL	NORMAL (IN)	30	0.*	0.*	0.*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.*	0.0
	MAXIMUM MONTHLY (IN)	51	0.4	2.0	T	T	T	0.0	0.0	0.0	0.0	0.0	T	2.7	2.7
	YEAR OF OCCURRENCE		1985	1958	1993	1996	1989						1950	1963	DEC 1963
	MAXIMUM IN 24 HOURS (IN)	50	0.4	2.0	T	T	T	0.0	0.0	0.0	0.0	0.0	T	2.7	2.7
	YEAR OF OCCURRENCE		1985	1958	1993	1996	1989						1950	1963	DEC 1963
	MAXIMUM SNOW DEPTH (IN)	48	2	2	0	0	0	0	0	0	0	0	0	1	2
	YEAR OF OCCURRENCE		1964	1958										1989	FEB 1958
	NORMAL NO. DAYS WITH:														
	SNOWFALL ≥ 1.0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

METEOROLOGICAL DATA FOR 2003

NEW ORLEANS, LA (MSY)

LATITUDE: 29° 59′ 34″ N | LONGITUDE: 90° 15′ 03″ W | ELEVATION (FT): GRND: 4 BARO: 7 | TIME ZONE: CENTRAL (UTC + 6) | WBAN: 12916

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	58.3	64.4	70.8	79.4	87.2	88.0	90.1	91.0	87.6	80.9	75.9	63.8	78.1
	HIGHEST DAILY MAXIMUM	75	77	79	86	91	93	94	95	93	87	86	78	95
	DATE OF OCCURRENCE	29	15	28+	25+	30+	23+	22+	10	03	22+	12+	03	AUG 10
	MEAN DAILY MINIMUM	39.9	46.4	54.3	59.8	72.1	74.3	75.1	76.9	73.5	63.8	56.6	43.5	61.3
	LOWEST DAILY MINIMUM	25	35	38	44	62	70	72	72	63	55	37	35	25
	DATE OF OCCURRENCE	24	18	31	10	29	02	18+	12	30	29+	25	20	JAN 24
	AVERAGE DRY BULB	49.1	55.4	62.6	69.6	79.7	81.2	82.6	84.0	80.6	72.4	66.3	53.7	69.8
	MEAN WET BULB	44.2	52.2	58.9	63.2	72.7	76.3	76.4	77.8	73.0	66.2	60.9	49.1	64.2
	MEAN DEW POINT	37.8	49.1	56.0	59.0	69.4	74.3	74.3	75.6	69.3	62.2	56.1	43.7	60.6
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°	0	0	0	0	4	13	18	25	8	0	0	0	68
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	3	0	0	0	0	0	0	0	0	0	0	0	3
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	487	265	97	39	0	0	0	0	0	3	89	345	1325
	COOLING DEGREE DAYS	2	6	29	184	463	493	551	594	473	237	135	2	3169
RH	MEAN (PERCENT)	67	81	81	72	73	83	81	79	71	73	72	70	75
	HOUR 00 LST	75	87	87	83	85	90	89	86	79	82	81	76	83
	HOUR 06 LST	78	90	93	88	86	91	91	90	82	87	82	78	86
	HOUR 12 LST	58	73	73	56	61	76	70	67	62	60	58	60	64
	HOUR 18 LST	60	75	73	62	67	77	76	74	66	67	67	66	69
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)	0	3	6	2	0	0	0	0	0	3	0	2	16
	THUNDERSTORMS	0	3	2	3	3	17	16	14	5	1	2	2	68
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	MIDNIGHT-MIDNIGHT: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	NUMBER OF DAYS WITH:													
	CLEAR													
	PARTLY CLOUDY													
	CLOUDY													
PR	MEAN STATION PRESS. (IN.)	30.22	30.03	29.92	29.98	29.92	29.89	30.03	29.98	29.97	29.99	30.10	30.15	30.01
	MEAN SEA-LEVEL PRESS. (IN.)	30.25	30.06	29.95	30.01	29.95	29.91	30.05	30.01	30.00	30.02	30.13	30.18	30.04
WINDS	RESULTANT SPEED (MPH)	3.1	1.1	2.1	0.4	1.9	2.5	1.2	1.0	3.6	2.6	2.4	2.0	1.1
	RES. DIR. (TENS OF DEGS.)	34	07	03	27	11	15	19	14	05	02	04	01	05
	MEAN SPEED (MPH)	9.5	9.2	7.6	8.9	10.0	6.1	5.6	6.1	7.3	7.1	8.4	8.5	7.9
	PREVAIL.DIR.(TENS OF DEGS.)	36	04	01	17	18	17	22	17	03	03	04	32	17
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)	29	33	28	33	28	40	30	30	28	25	37	32	40
	DIR. (TENS OF DEGS.)	34	25	01	28	36	17	31	16	01	01	29	28	17
	DATE OF OCCURRENCE	16	22	29+	07	13	30+	11	30	28	14	18	09	JUN 30+
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)	35	39	44	41	35	47	36	38	33	30	45	39	47
	DIR. (TENS OF DEGS.)	34	27	31	28	36	28	31	17	02	01	31	27	28
	DATE OF OCCURRENCE	16	22	13	07	26+	02	11	30	28	14	23+	09	JUN 02
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	0.19	4.56	4.46	6.19	3.04	17.37	6.41	6.19	5.68	4.12	6.13	1.94	66.28
	GREATEST 24-HOUR (IN.)	0.10	2.22	2.09	4.10	1.56	3.72	1.43	1.54	2.61	3.73	5.16	0.89	5.16
	DATE OF OCCURRENCE	30	20-21	26	07-08	19-20	02-03	04-05	26	10	09-10	27-28	29	NOV 27-28
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	3	11	12	6	5	21	16	16	11	6	5	5	117
	PRECIPITATION ≥ 0.10	1	7	5	4	4	16	12	10	6	3	4	3	75
	PRECIPITATION ≥ 1.00	0	1	2	3	2	6	1	1	1	1	1	0	19
SNOWFALL	SNOW,ICE PELLETS,HAIL:													
	TOTAL (IN.)													
	GREATEST 24-HOUR (IN.)													
	DATE OF OCCURRENCE													
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:													
	SNOWFALL ≥ 1.0													

METEOROLOGICAL DATA FOR 2002

NEW ORLEANS, LA (MSY)

LATITUDE: 29° 59′ 34″ N | LONGITUDE: 90° 15′ 03″ W | ELEVATION (FT): GRND: 4 BARO: 7 | TIME ZONE: CENTRAL (UTC + 6) | WBAN: 12916

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	64.0	61.3	71.8	81.3	85.7	88.7	91.3	90.4	87.2	80.0	68.7	63.6	77.8
	HIGHEST DAILY MAXIMUM	82	78	84	90	92	93	95	95	93	89	84	77	95
	DATE OF OCCURRENCE	31	19	17+	29	02	14	20+	07	20+	06	10	04	AUG 07
	MEAN DAILY MINIMUM	45.4	42.4	52.4	63.7	67.5	72.9	75.4	75.1	74.5	68.0	51.0	44.7	61.1
	LOWEST DAILY MINIMUM	26	29	29	51	56	68	73	72	67	54	37	34	26
	DATE OF OCCURRENCE	04	27	05	07	23+	23	25+	10+	27	18+	29	07	JAN 04
	AVERAGE DRY BULB	54.7	51.9	62.1	72.5	76.6	80.8	83.4	82.8	80.9	74.0	59.9	54.2	69.5
	MEAN WET BULB	51.6	46.7	57.4	66.8	69.0	74.1	76.6	75.9	75.3	69.9	55.8	50.7	64.2
	MEAN DEW POINT	47.8	40.0	52.8	63.2	64.5	71.1	74.1	73.3	73.2	67.8	51.9	46.7	60.5
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°	0	0	0	1	11	12	26	21	12	0	0	0	83
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	3	2	2	0	0	0	0	0	0	0	0	0	7
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	356	365	184	13	0	0	0	0	0	1	186	336	1441
	COOLING DEGREE DAYS	45	4	100	248	368	482	577	559	483	289	40	7	3202
RH	MEAN (PERCENT)	78	66	74	76	70	75	77	76	81	83	76	77	76
	HOUR 00 LST	86	75	81	85	82	84	86	84	88	89	81	85	84
	HOUR 06 LST	86	78	86	89	84	87	89	89	90	92	87	88	87
	HOUR 12 LST	67	55	63	62	54	61	63	65	70	73	66	63	64
	HOUR 18 LST	74	56	68	68	60	70	71	69	76	80	75	73	70
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)	5	0	1	1	0	0	0	0	0	2	0	0	9
	THUNDERSTORMS	1	1	4	3	3	14	20	16	6	8	2	4	82
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	MIDNIGHT-MIDNIGHT: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	NUMBER OF DAYS WITH:													
	CLEAR													
	PARTLY CLOUDY													
	CLOUDY													
PR	MEAN STATION PRESS. (IN.)	30.11	30.18	30.08	30.05	30.01	29.96	30.03	29.98	29.87	29.96	30.10	30.09	30.03
	MEAN SEA-LEVEL PRESS. (IN.)	30.14	30.21	30.11	30.08	30.03	29.99	30.05	30.01	29.90	29.99	30.12	30.12	30.06
WINDS	RESULTANT SPEED (MPH)	1.5	4.0	1.8	2.5	2.1	1.3	0.9	2.4	1.9	2.3	2.2	0.3	1.1
	RES. DIR. (TENS OF DEGS.)	12	02	14	19	07	09	22	03	05	06	02	10	06
	MEAN SPEED (MPH)	8.9	9.0	10.4	8.7	9.1	6.7	4.7	6.2	8.2	7.6	8.5	9.0	8.1
	PREVAIL.DIR.(TENS OF DEGS.)	17	01	16	15	15	13	18	13	05	05	35	16	16
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)	30	30	30	36	28	28	43	26	46	39	38	33	46
	DIR. (TENS OF DEGS.)	32	32	31	17	02	24	29	19	01	17	22	11	01
	DATE OF OCCURRENCE	31	01	26+	08	19+	26	13	11+	26	03	05	12	SEP 26
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)	39	39	40	43	36	48	53	31	54	51	46	45	54
	DIR. (TENS OF DEGS.)	32	32	31	33	02	17	29	15	01	13	21	11	01
	DATE OF OCCURRENCE	31	01	09	08	18	04	13	02	26	03	05	12	SEP 26
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	3.29	2.76	3.58	2.14	3.04	4.83	4.54	4.09	14.23	10.09	5.10	4.82	62.51
	GREATEST 24-HOUR (IN.)	1.24	1.14	1.60	2.13	1.43	2.00	1.99	1.64	9.55	2.93	1.67	1.75	9.55
	DATE OF OCCURRENCE	05	20	01	08-09	25	25-26	13-14	12	25-26	25-26	05	31	SEP 25-26
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	12	6	7	3	5	12	14	12	13	12	12	8	116
	PRECIPITATION ≥ 0.10	7	4	5	2	5	8	7	6	11	9	8	8	80
	PRECIPITATION ≥ 1.00	1	1	1	1	1	1	1	2	4	5	3	1	22
SNOWFALL	SNOW,ICE PELLETS,HAIL:													
	TOTAL (IN.)													
	GREATEST 24-HOUR (IN.)													
	DATE OF OCCURRENCE													
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:													
	SNOWFALL ≥ 1.0													

METEOROLOGICAL DATA FOR 2001

NEW ORLEANS, LA (MSY)

LATITUDE: 29° 59' 34" N | LONGITUDE: 90° 15' 03" W | ELEVATION (FT): GRND: 4 BARO: 7 | TIME ZONE: CENTRAL (UTC + 6) | WBAN: 12916

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	59.8	69.1	67.7	80.7	85.6	87.6	90.6	89.5	85.7	77.5	75.2	66.4	78.0
	HIGHEST DAILY MAXIMUM	76	82	79	87	90	92	94	93	91	88	82	79	94
	DATE OF OCCURRENCE	18	16	02	15+	30+	21	24+	25	03+	24	03	16+	JUL 24+
	MEAN DAILY MINIMUM	40.5	51.4	51.1	63.7	66.6	73.0	75.2	75.4	71.2	59.1	54.8	48.8	60.9
	LOWEST DAILY MINIMUM	25	32	41	47	59	67	70	71	55	43	42	28	25
	DATE OF OCCURRENCE	03+	04	06	19	23	25	15	23	27	29	30	27	JAN 03+
	AVERAGE DRY BULB	50.2	60.3	59.4	72.2	76.1	80.3	82.9	82.5	78.5	68.3	65.0	57.6	69.4
	MEAN WET BULB	46.0	56.8	54.3	66.5	69.6	74.4	76.7	76.8	72.0	62.3	60.0	53.8	64.1
	MEAN DEW POINT	41.2	53.4	49.5	62.9	66.0	71.8	74.6	74.7	68.7	57.5	56.0	49.6	60.5
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°	0	0	0	0	2	11	22	14	5	0	0	0	54
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	7	1	0	0	0	0	0	0	0	0	0	2	10
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	453	181	184	16	0	0	0	0	0	44	60	249	1187
	COOLING DEGREE DAYS	0	56	19	239	353	469	564	550	410	153	69	29	2911
RH	MEAN (PERCENT)	74	79	72	75	73	78	79	81	75	71	76	76	76
	HOUR 00 LST	80	85	77	86	85	86	87	89	82	82	86	81	84
	HOUR 06 LST	85	88	84	89	91	89	90	92	87	81	89	84	87
	HOUR 12 LST	65	69	64	60	57	66	66	73	64	56	60	67	64
	HOUR 18 LST	68	72	62	66	62	72	72	74	69	66	70	71	69
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)	5	9	3	0	1	2	0	1	0	3	4	5	33
	THUNDERSTORMS	0	2	5	1	3	13	13	14	9	2	4	2	68
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	MIDNIGHT-MIDNIGHT: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	NUMBER OF DAYS WITH:													
	CLEAR													
	PARTLY CLOUDY													
	CLOUDY													
PR	MEAN STATION PRESS. (IN.)	30.17	30.16	29.97	30.10	30.00	29.98	29.98	30.01	29.97	30.10	30.10	30.09	30.05
	MEAN SEA-LEVEL PRESS. (IN.)	30.20	30.18	30.00	30.12	30.03	30.01	30.01	30.04	29.99	30.13	30.13	30.12	30.08
WINDS	RESULTANT SPEED (MPH)	2.4	3.6	2.9	3.3	2.5	1.2	0.5	0.8	3.8	4.5	2.7	2.6	1.7
	RES. DIR. (TENS OF DEGS.)	04	10	01	13	20	06	20	13	05	07	08	04	07
	MEAN SPEED (MPH)	8.2	8.6	9.4	9.8	8.0	7.6	5.9	5.8	7.1	8.6	6.8	7.9	7.8
	PREVAIL.DIR.(TENS OF DEGS.)	03	16	01	16	19	18	25	18	03	05	04	01	16
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)	35	33	36	29	33	36	37	26	24	30	36	26	37
	DIR. (TENS OF DEGS.)	27	23	25	02	28	28	02	21	02	01	26	22	02
	DATE OF OCCURRENCE	19	16	03	15	31	21	11	07	24+	16+	29	13	JUL 11
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)	48	44	44	35	43	48	41	32	41	37	44	51	51
	DIR. (TENS OF DEGS.)	29	22	10	03	28	25	02	23	25	02	26	24	24
	DATE OF OCCURRENCE	19	16	14+	15	31	21	11	07	02	16	29	13	DEC 13
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	3.05	1.59	8.07	1.08	6.85	17.62	6.97	7.41	6.30	5.13	2.54	2.90	69.51
	GREATEST 24-HOUR (IN.)	1.49	0.50	3.46	1.07	5.02	6.05	3.09	2.67	1.72	2.36	1.07	0.93	6.05
	DATE OF OCCURRENCE	15-16	25	02-03	24	31	05-06	25-26	07-08	03-04	13	22-23	22-23	JUN 05-06
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	6	9	11	2	4	15	15	13	12	6	6	9	108
	PRECIPITATION ≥ 0.10	6	4	8	1	3	11	11	13	8	4	4	5	78
	PRECIPITATION ≥ 1.00	1	0	2	1	2	7	3	2	2	2	0	0	22
SNOWFALL	SNOW,ICE PELLETS,HAIL:													
	TOTAL (IN.)	T												
	GREATEST 24-HOUR (IN.)													
	DATE OF OCCURRENCE													
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:													
	SNOWFALL ≥ 1.0	0												

METEOROLOGICAL DATA FOR 2000

NEW ORLEANS, LA (MSY)

LATITUDE: 29° 59′ 34″ N | LONGITUDE: 90° 15′ 03″ W | ELEVATION (FT): GRND: 17 BARO: 17 | TIME ZONE: CENTRAL (UTC + 6) | WBAN: 12916

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	65.4	70.7	75.8	79.0	88.9	89.8	93.6	93.5	87.3	80.0	68.3	58.6	79.2
	HIGHEST DAILY MAXIMUM	80	81	83	86	94	94	99	101	100	89	85	79	101
	DATE OF OCCURRENCE	03	18+	29+	20+	29+	24+	16+	30	02	06+	01	16	AUG 30
	MEAN DAILY MINIMUM	47.3	50.4	56.2	58.8	71.3	73.5	75.6	75.2	71.3	59.6	51.4	40.5	60.9
	LOWEST DAILY MINIMUM	32	29	41	45	62	64	70	71	54	47	33	28	28
	DATE OF OCCURRENCE	26	06	20	10+	16	08	05	11	27	11	22	20	DEC 20
	AVERAGE DRY BULB	56.4	60.6	66.0	68.9	80.1	81.7	84.6	84.4	79.3	69.8	59.9	49.6	70.1
	MEAN WET BULB		55.9	61.8	62.6	71.9	74.6	76.1	76.5	72.9	64.6	56.0	44.9	
	MEAN DEW POINT		51.5	58.6	57.5	67.8	71.7	72.5	73.4	69.7	60.7	52.2	39.2	
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°	0	0	0	0	16	18	26	27	11	0	0	0	98
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	1	1	0	0	0	0	0	0	0	0	0	4	6
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	295	181	63	33	0	0	0	0	4	34	227	469	1306
	COOLING DEGREE DAYS	35	58	103	159	477	506	616	610	439	192	79	0	3274
RH	MEAN (PERCENT)	72	75	78	70	69	76	71	73	76	75	77	70	74
	HOUR 00 LST	78	86	87	82	83	87	83	86	84	86	84	76	84
	HOUR 06 LST	81	90	92	84	85	89	87	90	87	90	87	78	87
	HOUR 12 LST	61	59	65	53	52	62	54	59	64	59	65	62	60
	HOUR 18 LST	68	63	68	61	61	70	60	64	72	64	74	65	66
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)	4	7	0	2	0	0	0	1	1	4	3	2	24
	THUNDERSTORMS	3	2	3	2	0	13	10	12	11	2	4	1	63
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	MIDNIGHT-MIDNIGHT: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	NUMBER OF DAYS WITH:													
	CLEAR													
	PARTLY CLOUDY													
	CLOUDY													
PR	MEAN STATION PRESS. (IN.)		30.18	30.01	30.01	29.97	30.02	29.97	30.01	29.92	30.13	30.05	30.20	
	MEAN SEA-LEVEL PRESS. (IN.)		30.20	30.03	30.04	30.00	30.05	30.00	30.03	29.94	30.16	30.08	30.23	
WINDS	RESULTANT SPEED (MPH)		2.3	2.4	0.5	2.4	2.5	2.5	0.2	3.1	3.7	1.7	4.4	
	RES. DIR. (TENS OF DEGS.)		14	09	23	17	21	26	22	07	04	06	02	
	MEAN SPEED (MPH)	10.3	8.2	8.2	9.1	9.8	7.2	6.9	5.9	7.9	7.1	8.5	9.7	8.2
	PREVAIL.DIR.(TENS OF DEGS.)	36	17	13	18	19	13	25	28	05	04	13	01	18
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)	28	35	36	31	23	36	32	36	32	32	33	39	39
	DIR. (TENS OF DEGS.)	27	27	33	36	14	30	04	30	18	03	21	24	24
	DATE OF OCCURRENCE	10+	13	27	08	31+	26	22	31	08	08+	24	16	DEC 16
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)	43	43	44	37	29	44	38	46	38	38	39	51	51
	DIR. (TENS OF DEGS.)	29	26	33	35	13	30	04	31	19	02	20	23	23
	DATE OF OCCURRENCE	23	13	27	08	31	26	22	31	08+	08+	06	16	DEC 16
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	2.25	1.81	2.41	1.13	0.07	5.46	1.38	2.35	6.50	1.10	11.72	2.70	38.88
	GREATEST 24-HOUR (IN.)	0.82	1.46	1.25	0.61	0.05	1.70	0.58	1.46	3.04	0.92	4.01	0.96	4.01
	DATE OF OCCURRENCE	22-23	13	18-19	03	13	25-26	30-31	06-07	08	05-06	18-19	13-14	NOV 18-19
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	9	4	7	6	2	12	5	9	14	2	12	10	92
	PRECIPITATION ≥ 0.10	6	2	4	2	0	10	4	5	11	2	10	7	63
	PRECIPITATION ≥ 1.00	0	1	1	0	0	2	0	1	1	0	3	0	9
SNOWFALL	SNOW, ICE PELLETS, HAIL:													
	TOTAL (IN.)													
	GREATEST 24-HOUR (IN.)													
	DATE OF OCCURRENCE													
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:													
	SNOWFALL ≥ 1.0													

METEOROLOGICAL DATA FOR 1999

NEW ORLEANS, LA (MSY)

LATITUDE: 29° 59' 34" N | LONGITUDE: 90° 15' 03" W | ELEVATION (FT): GRND: 17 BARO: 17 | TIME ZONE: CENTRAL (UTC + 6) | WBAN: 12916

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	67.9	70.6	71.2	82.1	85.8	89.0	89.6	93.6	86.5	79.3	72.9	64.8	79.4
	HIGHEST DAILY MAXIMUM	80	82	81	90	91	94	95	97	93	88	82	79	97
	DATE OF OCCURRENCE	20	10	06	29+	26	05	28	26+	06	13+	10	12+	AUG 26+
	MEAN DAILY MINIMUM	47.4	51.6	52.0	64.1	67.5	73.8	74.8	77.4	69.8	62.1	51.1	45.6	61.4
	LOWEST DAILY MINIMUM	28	36	41	43	58	70	72	72	55	43	40	32	28
	DATE OF OCCURRENCE	05+	22	16	18	02	19	14+	09	24	26	27+	26	JAN 05+
	AVERAGE DRY BULB	57.7	61.1	61.6	73.1	76.7	81.4	82.2	85.5	78.2	70.7	62.0	55.2	70.5
	MEAN WET BULB	53.5	55.4	56.5	66.7	69.4	75.0	76.7	78.4	71.0	65.2	56.4	50.8	64.6
	MEAN DEW POINT	49.3	50.1	51.6	62.5	65.4	72.3	74.5	76.0	67.1	61.2	51.2	46.2	60.6
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°	0	0	0	2	2	16	17	29	7	0	0	0	73
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	4	0	0	0	0	0	0	0	0	0	0	1	5
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	263	150	118	21	0	0	0	0	0	23	112	318	1005
	COOLING DEGREE DAYS	41	48	20	273	369	497	543	643	403	209	29	23	3098
RH	MEAN (PERCENT)	76	71	71	73	71	77	80	77	72	75	72	74	74
	HOUR 00 LST	83	82	80	83	82	86	88	87	81	85	82	82	83
	HOUR 06 LST	86	83	83	88	86	88	90	91	85	88	89	84	87
	HOUR 12 LST	63	58	60	56	55	64	67	63	62	61	54	61	60
	HOUR 18 LST	70	62	64	64	64	70	72	70	66	68	66	70	67
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)	3	2	0	1	1	2	0	1	1	2	5	2	20
	THUNDERSTORMS	3	1	5	0	6	13	14	12	7	3	0	1	65
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	MIDNIGHT-MIDNIGHT: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	NUMBER OF DAYS WITH:													
	CLEAR													
	PARTLY CLOUDY													
	CLOUDY													
PR	MEAN STATION PRESS. (IN.)	30.09	30.10	30.01	29.97	29.94	29.96	30.02	29.90	29.91	30.03	30.16	30.14	30.02
	MEAN SEA-LEVEL PRESS. (IN.)	30.13	30.13	30.05	30.01	29.98	30.00	30.06	29.94	29.95	30.07	30.18	30.16	30.06
WINDS	RESULTANT SPEED (MPH)	2.3	0.5	1.7	1.8	0.7	1.8	0.7	0.8	4.2	4.3	3.4	1.6	0.9
	RES. DIR. (TENS OF DEGS.)	16	23	08	20	19	16	27	17	04	05	03	04	07
	MEAN SPEED (MPH)	9.1	8.7	9.6	9.9	7.6	6.5	5.7	6.3	7.7	7.4	6.3	8.8	7.8
	PREVAIL.DIR.(TENS OF DEGS.)	17	17	13	16	17	18	25	24	04	03	03	01	17
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)	36	29	34	28	32	33	29	32	29	28	28	32	36
	DIR. (TENS OF DEGS.)	18	34	34	17	27	18	17	14	33	02	34	02	18
	DATE OF OCCURRENCE	22	12	02	03	11	10	26	09	29	24	02	20	JAN 22
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)	41	39	40	32	44	44	41	40	34	33	33	38	44
	DIR. (TENS OF DEGS.)	19	34	34	18	26	18	17	13	33	02	33	02	18
	DATE OF OCCURRENCE	22	12	02	03	11	10	26	09	29	24	02	20	JUN 10
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	3.20	0.92	4.60	0.30	3.37	12.20	4.05	5.21	2.87	5.46	0.28	3.85	46.31
	GREATEST 24-HOUR (IN.)	1.54	0.59	2.26	0.25	2.34	5.32	0.91	2.61	0.85	2.74	0.19	1.88	5.32
	DATE OF OCCURRENCE	09	27-28	29-30	14	10-11	25-26	03	09-10	12	08-09	24-25	20-21	JUN 25-26
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	7	7	7	2	9	15	13	12	11	9	4	7	103
	PRECIPITATION ≥ 0.10	4	2	4	1	5	10	7	8	6	6	1	3	57
	PRECIPITATION ≥ 1.00	1	0	2	0	2	5	0	2	0	2	0	2	16
SNOWFALL	SNOW, ICE PELLETS, HAIL:													
	TOTAL (IN.)													
	GREATEST 24-HOUR (IN.)													
	DATE OF OCCURRENCE													
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:													
	SNOWFALL ≥ 1.0													

METEOROLOGICAL DATA FOR 1998

NEW ORLEANS, LA (MSY)

LATITUDE: 29° 59′ 34″ N | LONGITUDE: 90° 15′ 03″ W | ELEVATION (FT): GRND: 4 BARO: 20 | TIME ZONE: CENTRAL (UTC+ 6) | WBAN: 12916

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	64.3	64.6	68.4	76.1	87.9	91.9	93.5	92.6	86.6	81.7	73.2	67.1	79.0
	HIGHEST DAILY MAXIMUM	74	76	81	82	95	96	99	99	92	94	83	82	99
	DATE OF OCCURRENCE	04+	10	29	27+	31	20+	06	28	23+	01	01	07	AUG 28
	MEAN DAILY MINIMUM	47.8	47.2	51.2	58.8	69.6	75.4	77.0	76.5	75.5	64.9	57.6	51.1	62.7
	LOWEST DAILY MINIMUM	36	35	34	48	56	67	72	73	72	55	45	38	34
	DATE OF OCCURRENCE	28	07	12	23+	01	08	26	15+	03	27	07	18+	MAR 12
	AVERAGE DRY BULB	56.1	55.9	59.8	67.5	78.8	83.7	85.3	84.6	81.1	73.3	65.4	59.1	70.9
	MEAN WET BULB	53.5	51.1	54.8	62.3	72.3	77.0	77.9	77.9	76.2	67.5	61.3	55.7	65.6
	MEAN DEW POINT	50.7	46.2	49.7	57.9	69.1	74.4	75.4	75.5	74.3	64.1	57.9	52.8	62.3
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°	0	0	0	0	13	24	26	26	8	3	0	0	100
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	273	251	210	25	0	0	0	0	0	2	48	243	1052
	COOLING DEGREE DAYS	4	1	59	108	435	568	635	613	489	267	68	70	3317
RH	MEAN (PERCENT)	83	72	72	74	75	76	76	78	82	75	79	82	77
	HOUR 06 LST	91	85	82	90	92	89	90	91	91	88	88	90	89
	HOUR 12 LST	73	58	63	62	57	61	63	64	74	62	68	73	65
	HOUR 18 LST	78	65	64	64	63	67	69	71	77	67	75	77	70
	HOUR 24 LST	90	79	78	83	89	89	87	88	88	85	85	88	86
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)	7	0	1	1	1	1	1	3	3	2	6	8	34
	THUNDERSTORMS	8	3	5	2	1	7	14	13	6	2	3	1	65
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	MIDNIGHT-MIDNIGHT: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	NUMBER OF DAYS WITH:													
	CLEAR													
	PARTLY CLOUDY													
	CLOUDY													
PR	MEAN STATION PRESS. (IN.)	29.99	29.86	30.01	29.93	29.89	29.95	29.98	29.96	29.82	30.06	30.05	30.13	29.97
	MEAN SEA-LEVEL PRESS. (IN.)	30.03	29.90	30.05	29.97	29.93	29.99	30.02	30.00	29.86	30.10	30.09	30.16	30.01
WINDS	RESULTANT SPEED (MPH)	2.0	1.0	1.5	2.3	1.1	2.7	1.5	0.7	1.5	4.2	1.9	2.6	1.0
	RES. DIR. (TENS OF DEGS.)	09	36	15	12	15	19	23	13	01	07	08	04	10
	MEAN SPEED (MPH)	8.2	9.8	10.3	9.6	7.5	9.2	6.5	5.5	10.2	7.3	7.3	8.4	8.3
	PREVAIL.DIR.(TENS OF DEGS.)	09	01	16	16	17	19	23	09	07	05	17	01	16
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)	48	43	30	32	23	32	39	37	46	29	29	29	48
	DIR. (TENS OF DEGS.)	27	21	32	02	18	33	24	25	02	05	19	17	27
	DATE OF OCCURRENCE	07	10	08	28	09+	05	14	15	27	22	10	28+	JAN 07
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)	63	51	36	37	28	39	47	45	55	36	35	38	63
	DIR. (TENS OF DEGS.)	33	21	32	19	26	34	24	22	01	05	19	22	33
	DATE OF OCCURRENCE	26	10	08	16	01	05	14	15	27	22	10	28	JAN 26
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	19.28	4.28	5.97	4.39	0.43	3.38	6.56	8.30	18.98	1.82	3.40	2.25	79.04
	GREATEST 24-HOUR (IN.)	4.74	1.51	2.40	3.62	0.43	1.45	2.76	2.38	6.03	1.25	1.61	0.69	6.03
	DATE OF OCCURRENCE	04-05	22	06-07	28	29	05-06	27-28	20-21	10-11	06-07	14-15	28	SEP 10-11
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	12	8	8	7	1	10	11	12	16	5	7	7	104
	PRECIPITATION ≥ 0.10	10	7	7	2	1	6	7	9	14	4	4	6	77
	PRECIPITATION ≥ 1.00	8	1	4	1	0	0	3	4	5	1	2	0	29
SNOWFALL	SNOW,ICE PELLETS,HAIL:													
	TOTAL (IN.)													
	GREATEST 24-HOUR (IN.)													
	DATE OF OCCURRENCE													
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:													
	SNOWFALL ≥ 1.0													

METEOROLOGICAL DATA FOR 1997

NEW ORLEANS, LA (MSY)

LATITUDE: 29° 59′ 34″ N | LONGITUDE: 90° 15′ 03″ W | ELEVATION (FT): GRND: 4 BARO: 20 | TIME ZONE: CENTRAL (UTC+ 6) | WBAN: 12916

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	61.6	64.0	74.2	73.0	82.2	86.4	91.2	91.2	89.8	80.0	67.2	61.9	76.9
	HIGHEST DAILY MAXIMUM	79	80	82	83	89	92	95	95	95	92	87	80	95
	DATE OF OCCURRENCE	04	20	28	22+	27+	16+	26+	31+	22+	01	01	09	SEP 22+
	MEAN DAILY MINIMUM	45.9	50.1	58.5	57.8	66.7	72.8	75.5	75.9	72.3	62.5	50.0	43.7	61.0
	LOWEST DAILY MINIMUM	27	36	48	48	57	64	71	71	66	45	40	31	27
	DATE OF OCCURRENCE	17	16+	06	15	06+	02	09+	27	27	28	17	28	JAN 17
	AVERAGE DRY BULB	53.8	57.1	66.4	65.4	74.5	79.6	83.4	83.6	81.1	71.3	58.6	52.8	69.0
	MEAN WET BULB	49.4	53.4	61.8	59.0	68.3	73.5	76.5	75.8	73.7	64.3	54.1	49.0	63.2
	MEAN DEW POINT	44.4	50.0	58.1	53.7	64.9	70.8	74.0	72.6	70.2	59.6	49.6	44.4	59.4
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°	0	0	0	0	0	8	24	24	17	4	0	0	77
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	4	0	0	0	0	0	0	0	0	0	0	1	5
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	373	248	58	44	0	0	0	0	0	38	202	383	1346
	COOLING DEGREE DAYS	34	31	107	67	301	445	576	583	489	238	19	9	2899
RH	MEAN (PERCENT)	73	79	76	68	75	77	77	72	73	70	74	74	74
	HOUR 00 LST	79	82	83	76	84	86	86	81	84	78	81	80	82
	HOUR 06 LST	81	86	85	76	86	87	90	84	89	84	87	84	85
	HOUR 12 LST	65	73	66	60	63	66	63	60	58	56	61	62	63
	HOUR 18 LST	70	74	69	61	69	71	70	65	65	64	71	69	68
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)	6	2	4	3	0	2	0	1	0	1	3	2	24
	THUNDERSTORMS	5	4	3	6	9	13	16	10	1	1	4	0	72
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	MIDNIGHT-MIDNIGHT: (OKTAS)													
	CEILOMETER (≤ 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	NUMBER OF DAYS WITH:													
	CLEAR													
	PARTLY CLOUDY													
	CLOUDY													
PR	MEAN STATION PRESS. (IN.)	30.11	30.12	30.03	29.93	29.97	29.89	29.97	29.99	29.92	30.00	30.01	29.99	29.99
	MEAN SEA-LEVEL PRESS. (IN.)	30.15	30.15	30.07	29.97	30.01	29.93	30.01	30.03	29.96	30.04	30.05	30.03	30.03
WINDS	RESULTANT SPEED (MPH)	2.4	4.3	1.7	2.3	2.5	1.1	1.3	1.2	0.5	2.7	2.7	2.5	1.2
	RES. DIR. (TENS OF DEGS.)	03	05	12	07	15	22	25	01	03	05	03	35	05
	MEAN SPEED (MPH)	10.5	10.4	9.0	10.0	7.4	6.4	6.1	6.3	6.6	9.2	8.4	9.2	8.3
	PREVAIL.DIR.(TENS OF DEGS.)	04	01	17	08	19	18	30	05	03	01	01	01	01
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)	34	31	33	40	32	28	36	40	28	30	29	29.	40
	DIR. (TENS OF DEGS.)	18	25	34	01	23	33	02	02	19	01	21	28	02
	DATE OF OCCURRENCE	24	21	20	26	24	17	20	20	24	14	21	29+	AUG 20
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)	38	39	41	53	39	33	43	48	36	37	37	34	53
	DIR. (TENS OF DEGS.)	18	19	33	21	24	33	01	04	19	01	20	29	21
	DATE OF OCCURRENCE	24	21	20	11	24	17	20	20	24	14	21	29	APR 11
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	6.32	6.88	2.57	4.91	5.03	6.97	3.94	2.25	0.81	1.36	8.09	2.55	51.68
	GREATEST 24-HOUR (IN.)	2.77	2.27	0.94	1.65	1.55	2.39	1.19	0.78	0.53	1.03	3.68	1.24	3.68
	DATE OF OCCURRENCE	07	21	13	11-12	21	17-18	30	10-11	24-25	13-14	28-29	23-24	NOV 28-29
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	10	14	11	7	15	17	14	10	4	12	12	10	136
	PRECIPITATION ≥ 0.10	7	8	5	5	8	11	9	5	4	2	7	6	77
	PRECIPITATION ≥ 1.00	2	2	0	3	1	2	1	0	0	0	3	0	14
SNOWFALL	SNOW,ICE PELLETS,HAIL:													
	TOTAL (IN.)													
	GREATEST 24-HOUR (IN.)													
	DATE OF OCCURRENCE													
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:													
	SNOWFALL ≥ 1.0													

METEOROLOGICAL DATA FOR 1996

NEW ORLEANS, LA (MSY)

LATITUDE: 29° 59′ 34″ N | LONGITUDE: 90° 15′ 03″ W | ELEVATION (FT): GRND: 4 BARO: 20 | TIME ZONE: CENTRAL (UTC+ 6) | WBAN: 12916

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	64.0	65.8	68.8	76.4	87.2	89.0	90.3	88.5	86.5	78.5	71.4	66.7	77.8
	HIGHEST DAILY MAXIMUM	76	82	83	87	93	94	95	94	92	86	85	80	95
	DATE OF OCCURRENCE	30	26	25	27	28	26	23+	9	17	17	1	12	JUL 23+
	MEAN DAILY MINIMUM	41.8	46.0	47.9	57.8	68.9	72.1	75.2	73.7	71.5	62.2	55.1	47.8	60.0
	LOWEST DAILY MINIMUM	26	16	29	45	50	64	71	69	62	46	40	25	16
	DATE OF OCCURRENCE	19	5	9	3	1	9	26	13+	29	23	27	20	FEB 5
	AVERAGE DRY BULB	52.9	55.9	58.4	67.1	78.1	80.6	82.8	81.1	79.0	70.4	63.3	57.3	68.9
	MEAN WET BULB	48.5	51.5	52.7	61.4	71.7	74.2	76.9	75.7	73.1	65.2	58.7		
	MEAN DEW POINT	43.4	46.5	46.6	57.1	68.5	71.7	74.6	73.6	70.3	61.6	55.0		
	NUMBER OF DAYS WITH:													
	MAXIMUM ≥ 90°	0	0	0	0	8	11	21	14	6	0	0	0	60
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM ≤ 32°	8	6	2	0	0	0	0	0	0	0	0	2	18
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	380	307	248	54	1	0	0	0	0	17	116	253	1376
	COOLING DEGREE DAYS	13	50	47	124	412	473	558	507	427	189	70	21	2891
RH	MEAN (PERCENT)					75	78	79	81	77	76	77	75	
	HOUR 00 LST	79	82	77	85	91	92	90	92	91	89	85	85	86
	HOUR 06 LST	85	86	84	86	58	62	69	69	65	63	66	66	72
	HOUR 12 LST	61	60	55	61	66	70	72	75	71	70	74	74	67
	HOUR 18 LST	66	66	59	65	88	89	88	89	86	84	82	84	79
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY ≤ 1/4 MI)	3	5	3	0	2	3	2	2	1	3	1	7	32
	THUNDERSTORMS	4	3	3	7	2	12	17	16	4	1	3	3	75
CLOUDINESS	AVG. SKY COVER (OKTAS)													
	SUNRISE - SUNSET	4.3	5.3	4.6	4.4									
	MIDNIGHT - MIDNIGHT	4.0	4.7	4.4	4.2									
	NUMBER OF DAYS WITH:													
	CLEAR	12	6	9	10									
	PARTLY CLOUDY	7	9	8	9									
	CLOUDY	12	14	14	11									
PR	MEAN STATION PRESS. (IN.)	30.07	30.08	30.04	30.00	29.99	29.96	29.99	30.01	29.90	30.01	30.11		
	MEAN SEA-LEVEL PRESS. (IN.)	30.10	30.10			30.03	30.00	30.03	30.05	29.94	30.04	30.15		
WINDS	RESULTANT SPEED (MPH)	0.7	0.6	0.6	2.8	4.8	2.2	0.6	0.9	1.2	1.3	0.8		
	RES. DIR. (TENS OF DEGS.)	16	23	02	14	17	19	25	30	03	12	02		
	MEAN SPEED (MPH)	9.5	8.6	8.8	10.6	7.5	5.7	6.0	5.3	6.6	9.2	9.3	8.1	7.9
	PREVAIL.DIR.(TENS OF DEGS.)					17	19	18	06	04	05	09	17	
	MAXIMUM 2-MINUTE WIND:													
	SPEED (MPH)	22	22	24	30	34	49	31	36	31	28	29	28	49
	DIR. (TENS OF DEGS.)	20	19	31	28	03	25	01	13	22	03	19	20	25
	DATE OF OCCURRENCE	26	19	18	14	11	23	03	24	16	06	30+	16	JUN 23
	MAXIMUM 5-SECOND WIND:													
	SPEED (MPH)	36	32	36	38	38	63	40	47	43	35	36	34	63
	DIR. (TENS OF DEGS.)	S	S	NW	NW	02	26	20	14	27	06	19	20	26
	DATE OF OCCURRENCE	26	19	18	14	11	23	31	24	16	05	30	16	JUN 23
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	4.66	1.56	2.97	3.87	1.37	8.60	10.32	8.76	3.96	2.59	3.10	5.55	57.31
	GREATEST 24-HOUR (IN.)	1.92	0.89	1.49	2.52	1.09	2.07	4.43	2.73	1.61	1.08	1.67	1.97	4.43
	DATE OF OCCURRENCE	31-01	1- 2	26-27	14-15	29-30	27	7-8	28-29	27-28	18	7	27	JUL 7-8
	NUMBER OF DAYS WITH:													
	PRECIPITATION ≥ 0.01	8	6	8	10	3	15	15	22	10	7	10	11	125
	PRECIPITATION ≥ 0.10	6	4	5	6	2	12	12	11	5	3	4	6	76
	PRECIPITATION ≥ 1.00	2	0	1	1	1	3	2	2	2	1	1	2	18
SNOWFALL	SNOW,ICE PELLETS,HAIL:													
	TOTAL (IN.)	0.0	0.0	0.0	T									
	GREATEST 24-HOUR (IN.)	0.0	0.0	0.0	T									
	DATE OF OCCURRENCE				14									
	MAXIMUM SNOW DEPTH (IN.)	0	0	0	0									
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:													
	SNOWFALL ≥ 1.0	0	0	0	0									

METEOROLOGICAL DATA FOR 1995

NEW ORLEANS, LOUISIANA

LATITUDE: 29° 59' N LONGITUDE: 90° 15' W ELEVATION: FT. GRND 4 BARO 20 TIME ZONE: CENTRAL WBAN: 12916

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F													
Averages													
-Daily Maximum	62.6	66.9	71.9	79.0	86.8	89.5	92.9	94.4	90.3	80.5	70.1	64.3	79.1
-Daily Minimum	43.4	45.6	54.0	58.5	68.4	69.0	74.9	74.9	68.7	62.1	49.5	46.0	59.6
-Monthly	53.0	56.3	63.0	68.8	77.6	79.3	83.9	84.7	79.5	71.3	59.8	55.2	69.4
-Monthly Dewpt.	44.4	47.4	55.7	60.4	69.4	69.2	74.8	75.0	68.7	59.6	50.6	46.3	60.1
Extremes													
-Highest	76	80	84	87	92	96	99	100	98	88	86	84	100
-Date	28	27	23	30	15	27	27	20	2	27	1	5	AUG 20
-Lowest	31	29	37	40	57	62	70	71	61	42	36	26	26
-Date	31	9	10	2	21	15	7	31	23	22	13	11	DEC 11
DEGREE DAYS BASE 65 °F													
Heating	375	257	123	33	0	0	0	0	0	16	186	358	1348
Cooling	10	20	67	155	399	434	594	615	444	216	39	59	3052
% OF POSSIBLE SUNSHINE	42	41	38	53	50	66	51	66	60				
AVG. SKY COVER (tenths)													
Sunrise - Sunset	6.5	6.6	7.5	5.9	6.3	3.9	6.1	4.7	3.9	5.5	4.9	6.6	5.7
Midnight - Midnight	6.0	6.2	7.0	5.6	5.6	3.5	5.2	4.4	3.5	5.4	4.7	5.9	5.3
NUMBER OF DAYS:													
Sunrise to Sunset													
-Clear	10	8	3	5	5	17	6	12	13	11	13	9	112
-Partly Cloudy	4	4	8	14	14	7	16	13	13	7	6	5	111
-Cloudy	17	16	20	11	12	6	9	6	4	13	11	17	142
Precipitation													
.01 inches or more	11	7	11	8	10	7	10	11	4	6	8	8	101
Snow,Ice Pellets,Hail													
1.0 inches or more	0	0	0	0	0	0	0	0	0	0	0	0	0
Thunderstorms	3	4	7	4	11	7	13	7	4	2	5	3	70
Heavy Fog, visibility													
1/4 mile or less	2	6	2	0	1	0	0	0	0	0	1	3	15
Temperature F °													
-Maximum													
90° and above	0	0	0	0	7	18	26	29	17	0	0	0	97
32° and below	0	0	0	0	0	0	0	0	0	0	0	0	0
-Minimum													
32° and below	2	1	0	0	0	0	0	0	0	0	0	4	7
0 °and below	0	0	0	0	0	0	0	0	0	0	0	0	0
AVG. STATION PRESS. (mb)	1018.3	1019.3	1016.6	1013.5	1012.9	1013.7	1014.2	1011.9	1013.9	1014.4	1019.3	1019.6	1015.6
RELATIVE HUMIDITY (%)													
Hour 00	82	81	88	88	89	88	88	91	88	83	81	80	86
Hour 06 (Local Time)	84	85	90	90	92	90	91	93	89	84	88	86	89
Hour 12	61	65	68	60	64	57	63	61	55	56	60	65	61
Hour 18	68	67	70	66	71	61	67	68	63	66	70	72	67
PRECIPITATION (inches):													
Water Equivalent													
-Total	3.66	4.94	7.89	3.81	21.18	2.84	6.44	3.26	0.69	1.31	4.24	5.07	65.33
-Greatest (24 hrs)	1.93	1.71	2.73	2.69	12.40	1.32	2.39	1.85	0.29	0.78	1.60	2.34	12.40
-Date	PM- 1	28	28-29	10-11	8- 9	25	14	9	12-13	3- 4	2- 3	17-18	MAY 8- 9
Snow,Ice pellets,Hail													
-Total	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T
-Greatest (24 hrs)	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T
-Date		12										22	DEC 22
WIND:													
Resultant													
-Direction (!!)	328	348	072	119	156	074	176	052	050	044	054	041	073
-Speed (mph)	0.8	0.7	2.8	3.1	3.8	0.8	1.3	1.0	3.0	4.6	2.6	1.9	1.5
Average Speed (mph)	7.9	7.9	8.3	7.7	7.5	5.2	6.2	5.2	6.2	8.5	8.3	9.1	7.3
Fastest Obs. 2 Min.													
-Direction (!!)	27	04	12	01	06	34	07	06	18	32	30	25	30
-Speed (mph)	23	20	22	23	21	32	22	26	20	23	35	24	35
-Date	6	12	13	11	8	25	29	20	16	4	11	18	NOV 11
Peak Gust													
-Direction (!!)	SW	NW	NW	SE	NE	N	E	SE	S	NW	W	S	N
-Speed (mph)	40	37	35	38	33	52	32	37	25	35	44	36	52
-Date	6	4	7	11	8	25	29	9	16	4	11	18	JUN 25

(!!) See Reference Notes on Page 6B

METEOROLOGICAL DATA FOR 1994

NEW ORLEANS, LOUISIANA

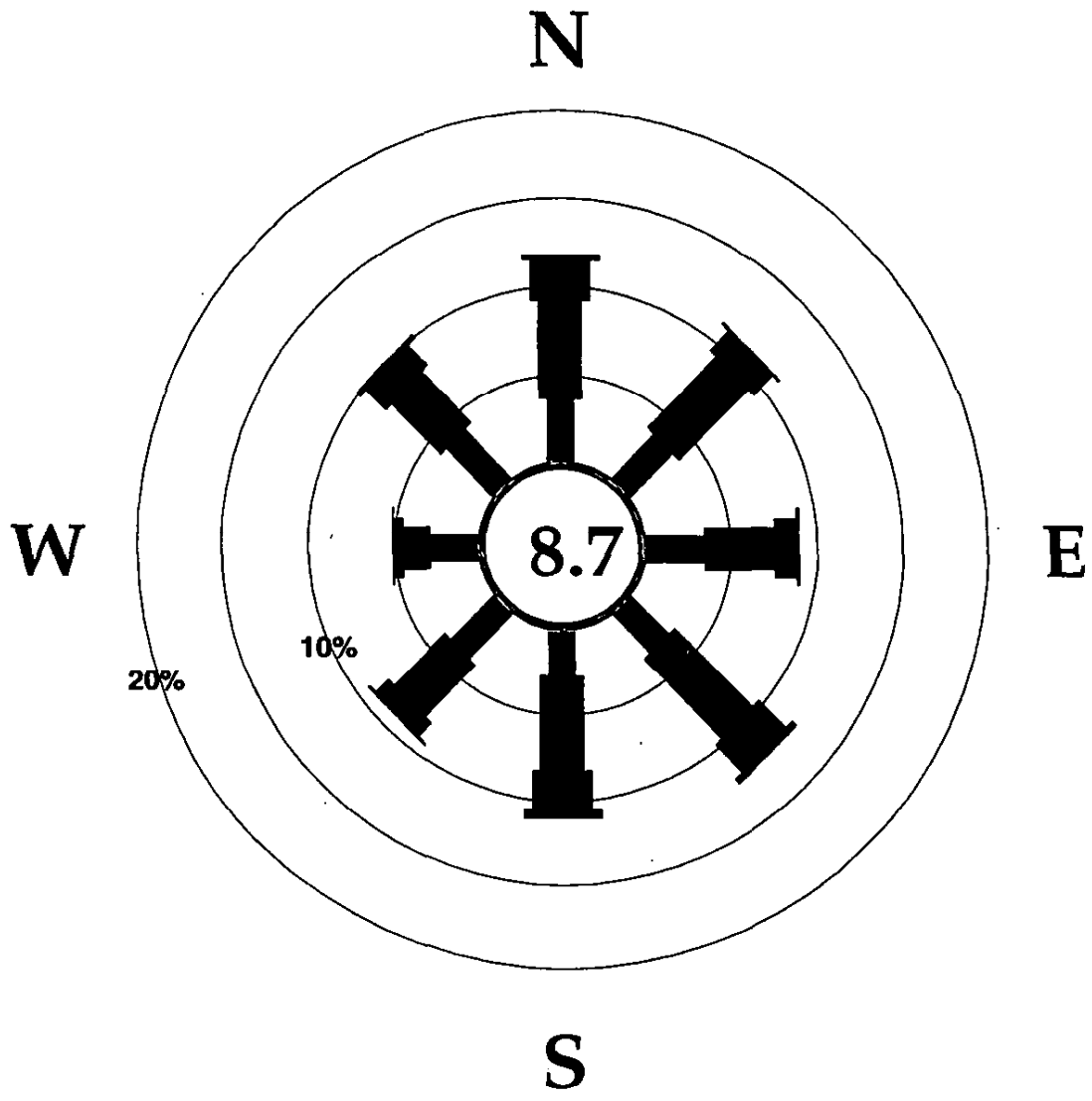
LATITUDE: 29° 59' N LONGITUDE: 90° 15' W ELEVATION: FT. GRND 4 BARO .20 TIME ZONE: CENTRAL WBAN: 12916

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F													
Averages													
-Daily Maximum	59.2	67.4	72.6	80.2	85.0	89.9	89.5	90.6	87.9	78.7	74.4	65.7	78.4
-Daily Minimum	40.7	46.3	49.0	58.9	65.1	72.9	72.0	71.9	67.6	62.9	56.2	47.3	59.2
-Monthly	50.0	56.9	60.8	69.6	75.1	81.4	80.8	81.3	77.8	70.8	65.3	56.5	68.9
-Monthly Dewpt.	42.2	49.3	53.5	61.7	66.0	73.7	72.8	73.1	68.8	64.4	57.0	49.6	61.0
Extremes													
-Highest	78	83	84	88	90	95	94	95	93	87	86	82	95
-Date	26	10	24	28	13	16	16	15	8	20	5	7	AUG 15
-Lowest	27	26	35	38	53	67	65	69	54	47	43	31	26
-Date	5	2	12	2	6	1	30	11	26	28	2	12	FEB 2
DEGREE DAYS BASE 65 °F													
Heating	464	263	177	49	0	0	0	0	0	16	72	268	1309
Cooling	4	40	54	191	320	501	495	513	390	204	94	12	2818
% OF POSSIBLE SUNSHINE	45	40	47	44	49	47	39	51	66	39	45	44	47
AVG. SKY COVER (tenths)													
Sunrise - Sunset	6.8	7.4	6.9	7.1	6.3	7.3	7.6	6.0	4.7	7.2	6.1	7.0	6.7
Midnight - Midnight	6.7	7.3	6.3	6.5	5.9	6.4	7.2	5.4	4.5	6.3	5.9	6.4	6.2
NUMBER OF DAYS:													
Sunrise to Sunset													
-Clear	8	5	7	3	7	1	3	6	13	4	6	4	67
-Partly Cloudy	5	4	7	10	10	14	11	15	10	10	12	10	118
-Cloudy	18	19	17	17	14	15	17	10	7	17	12	17	180
Precipitation													
.01 inches or more	9	7	4	8	12	13	17	8	7	10	6	8	109
Snow,Ice Pellets,Hail													
1.0 inches or more	0	0	0	0	0	0	0	0	0	0	0	0	0
Thunderstorms	2	1	4	4	8	14	21	9	4	2	1	1	71
Heavy Fog, visibility													
1/4 mile or less	2	2	2	0	1	0	0	0	0	0	1	2	10
Temperature F °													
-Maximum													
90° and above	0	0	0	0	1	19	16	24	9	0	0	0	69
32° and below	0	0	0	0	0	0	0	0	0	0	0	0	0
-Minimum													
32° and below	4	3	0	0	0	0	0	0	0	0	0	1	8
0 °and below	0	0	0	0	0	0	0	0	0	0	0	0	0
AVG. STATION PRESS. (mb)	1021.7	1020.0	1016.4	1016.9	1014.6	1014.2	1016.3	1015.9	1014.9	1013.9	1018.3	1019.6	1016.9
RELATIVE HUMIDITY (%)													
Hour 00	82	88	86	90	87	91	91	94	90	90	84	87	88
Hour 06 (Local Time)	84	88	92	92	91	95	94	96	94	93	84	88	91
Hour 12	66	65	63	62	61	67	68	63	59	70	61	66	64
Hour 18	73	70	68	70	66	73	75	70	71	81	76	79	73
PRECIPITATION (inches):													
Water Equivalent													
-Total	3.25	0.54	4.82	2.83	3.67	9.35	8.95	4.59	5.61	2.30	1.39	4.61	51.91
-Greatest (24 hrs)	0.97	0.18	2.67	1.36	1.04	1.93	1.64	1.65	3.18	0.62	0.96	1.89	3.18
-Date	27	15	1-2	15-16	30-31	5-6	22-23	21	15	8-9	29	31	SEP 15
Snow,Ice pellets,Hail													
-Total	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
-Greatest (24 hrs)	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
-Date		1											FEB 1
WIND:													
Resultant													
-Direction (!!)	053	100	256	137	083	195	214	088	052	064	064	039	082
-Speed (mph)	3.7	2.0	1.0	4.4	1.0	1.9	1.2	0.8	2.0	3.6	3.2	2.8	1.4
Average Speed (mph)	10.3	9.1	9.1	8.9	7.0	5.9	4.2	4.1	5.8	7.7	7.7	6.9	7.2
Fastest Obs. 1 Min.													
-Direction (!!)	20	20	20	15	25	02	06	29	18	05	32	32	32
-Speed (mph)	25	25	25	22	18	24	18	21	22	25	23	25	25
-Date	27	10	27	10	31	17	1	21	16	1	28	10	DEC 10
Peak Gust													
-Direction (!!)	S	S	S	SE	N	N	NE	N	E	NE	NW	SW	S
-Speed (mph)	38	45	36	30	28	35	31	35	31	36	31	38	45
-Date	27	10	27	10	9	17	18	15	15	1	28	16	FEB 10

(!!) See Reference Notes on Page 6B

NEW ORLEANS WSCMO AP
Annual Summary Wind Rose
1961-1980

Anemometer Ht.: 20.0 ft

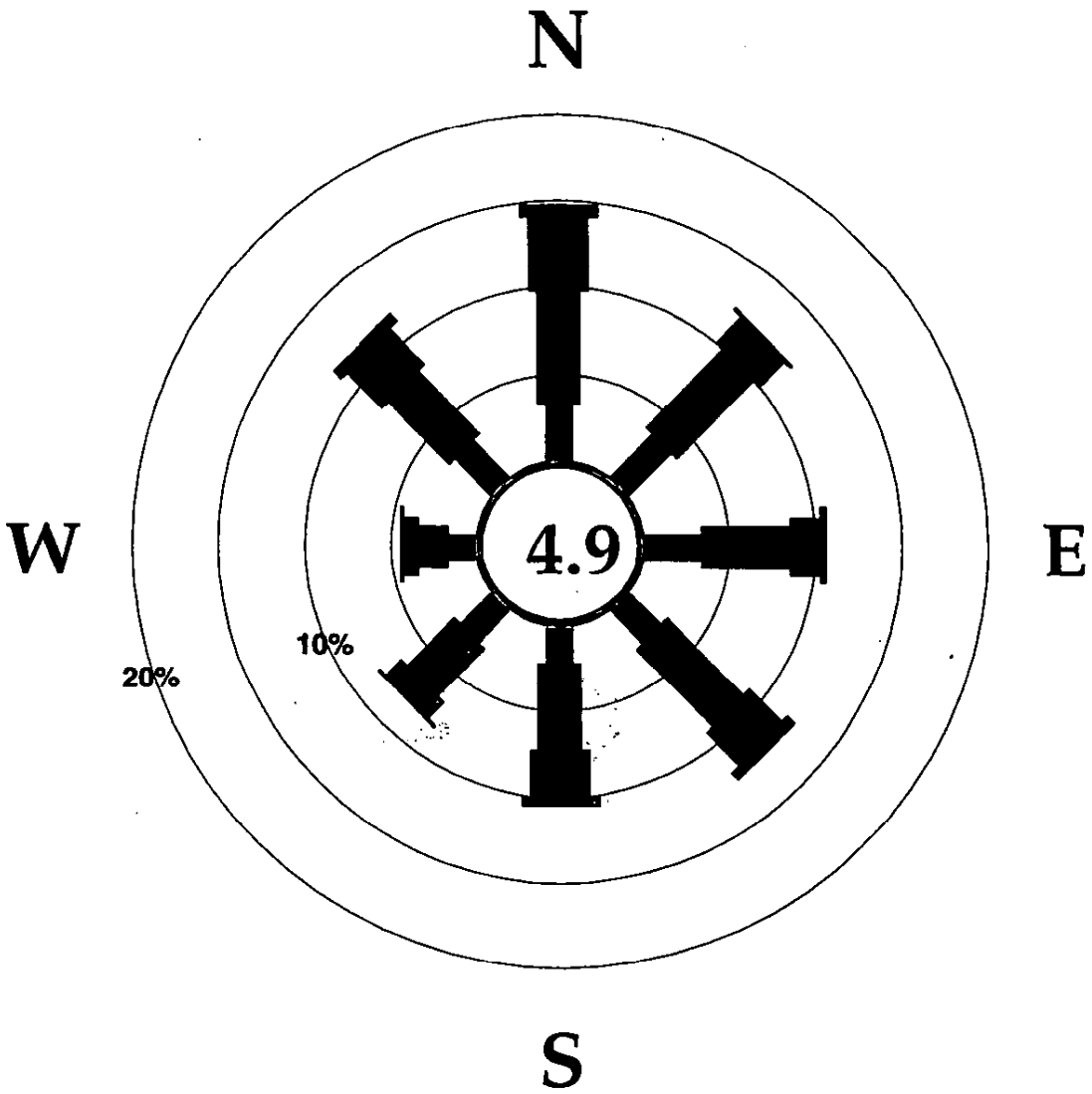


Windspeed Class Designations

1-5 knots 6-10 knots 11-15 knots > 15 knots

NEW ORLEANS WSCMO AP
Winter Wind Rose
1961-1980

Anemometer Ht.: 20.0 ft

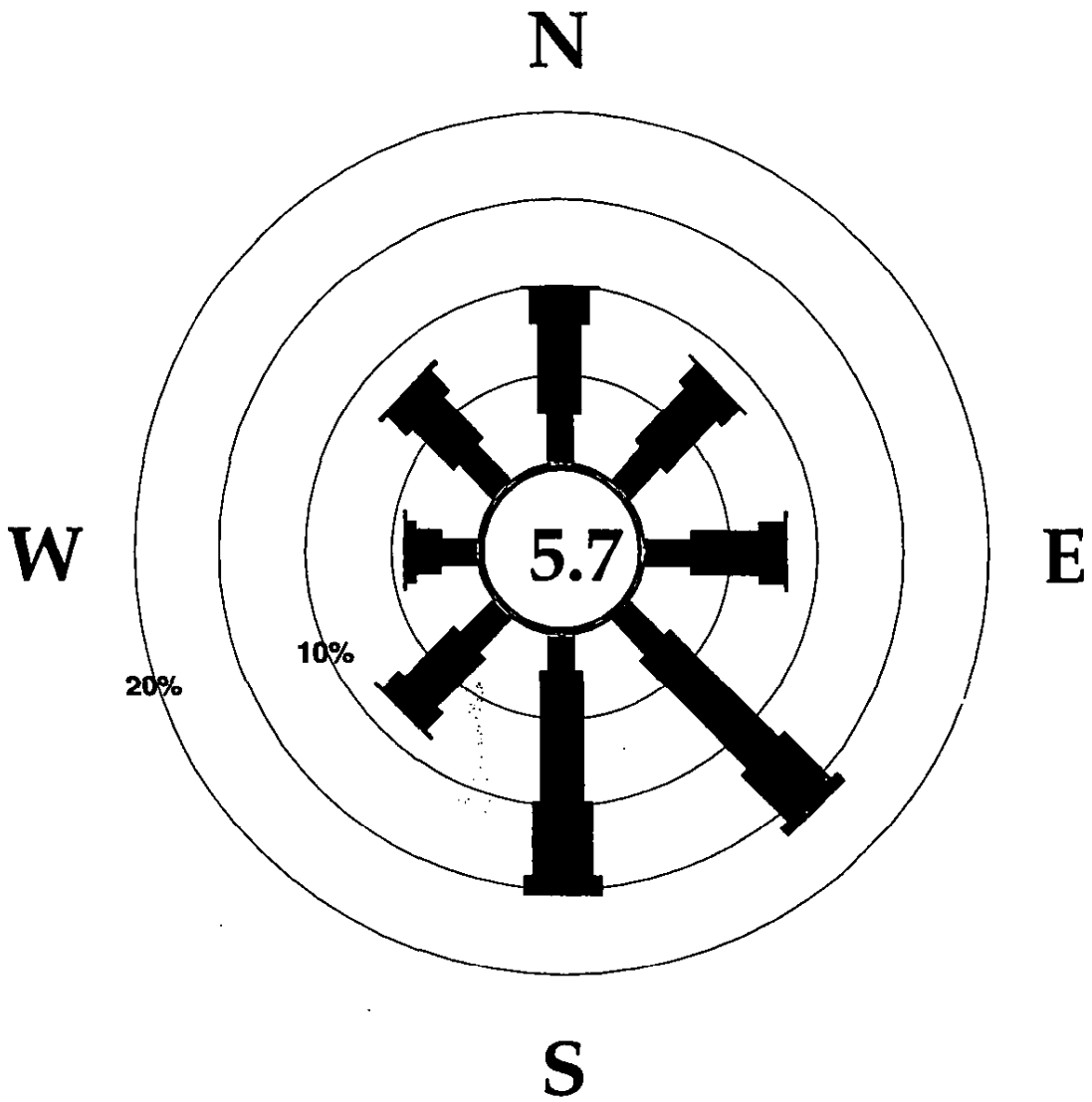


Windspeed Class Designations

1-5 knots 6-10 knots 11-15 knots > 15 knots

NEW ORLEANS WSCMO AP
Spring Wind Rose
1961-1980

Anemometer Ht.: 20.0 ft

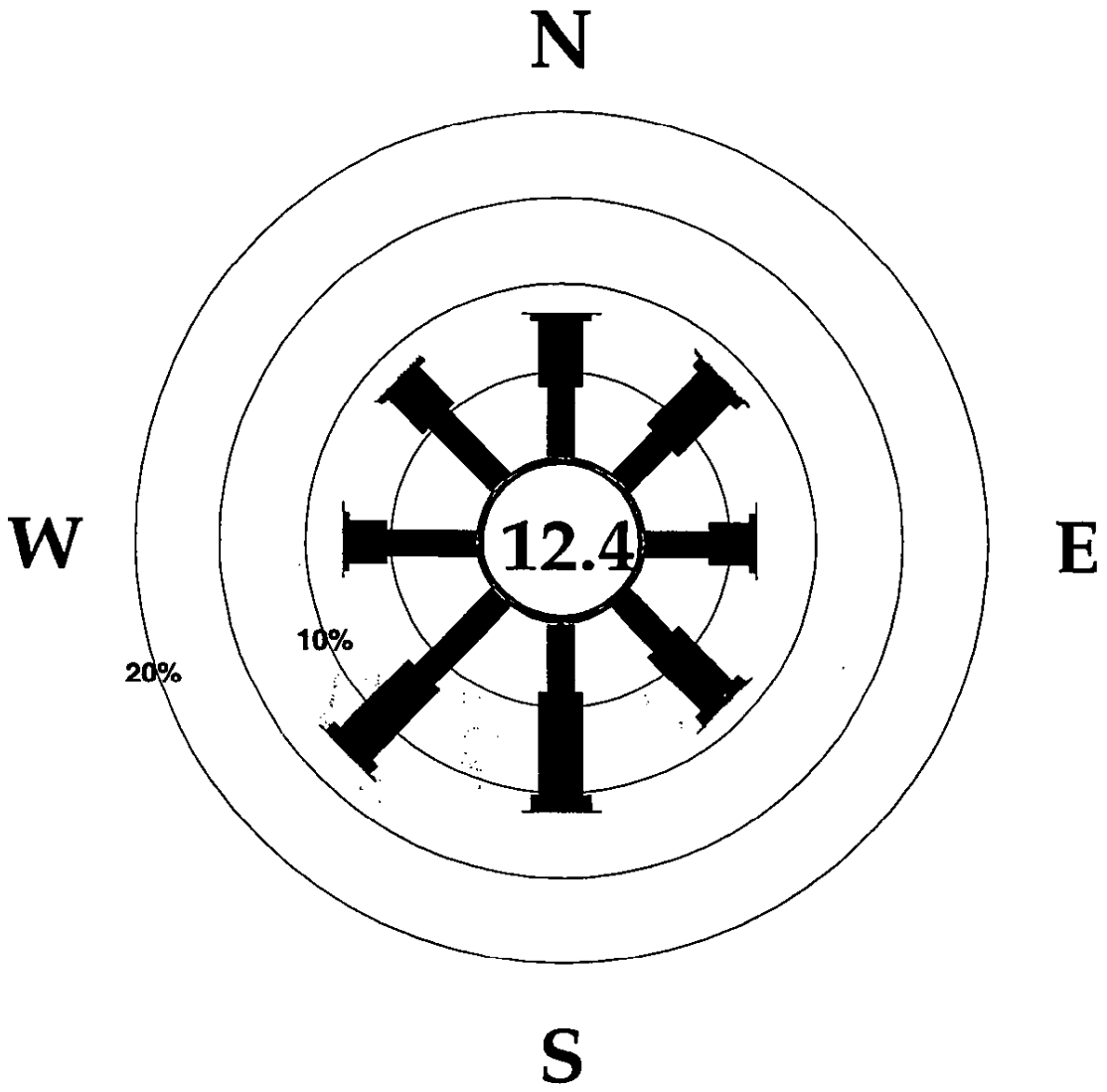


Windspeed Class Designations

1-5 knots 6-10 knots 11-15 knots > 15 knots

NEW ORLEANS WSCMO AP
Summer Wind Rose
1961-1980

Anemometer Ht.: 20.0 ft



Windspeed Class Designations

1-5 knots 6-10 knots 11-15 knots > 15 knots

Monthly Time Series

Station: RESERVE **State:** LA **ID:** 167767
Latitude: 30.06 degrees **Longitude:** -90.58 degrees **Elevation:** 15 feet
Station period of record: 03/01/1901 - 01/31/2005

CLIMOD Product: Monthly Time Series **Creation Time:** 01/31/2005 11:00 CST
Element: Precipitation **Units:** inch **Analysis:** Sum
Max allowable missing days: 3
Lowest Acceptable Quality of Data: Raw data

Year(s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1994	4.53	1.02	3.61	7.74	5.51	9.05	7.65	2.76	4.75	3.73	2.62	3.42	56.39
1995	5.15	4.02	9.32	4.26	18.43	4.94	9.09	4.65	2.63	1.94	6.02	3.40	73.85
1996	4.49	0.99b	3.66	4.78	1.43	8.96	3.55	6.19	6.46	4.11	3.85	5.37	53.84
1997	6.56a	5.86b	3.97a	7.75b	7.90c	-999d	-999f	-999j	0.25a	2.52	6.07	2.55	43.43c
1998	17.97	5.15	8.09	5.07	0.20	3.14	4.41	4.47	20.08a	1.85	3.64a	1.51a	75.58
1999	4.95a	1.09	4.13	0.23	5.18	11.31	6.39	2.36	3.44	1.23a	1.00a	6.43	47.74
2000	3.79	0.85	4.17	2.52c	-999g	4.58	1.34	5.11	6.28a	2.70	13.90	2.47	47.71a
2001	3.13	2.57	10.77	0.43	0.29	25.07	9.10	9.53	2.05	6.83	2.81	2.68	75.26
2002	4.27	2.58	6.72	3.97	1.19	5.13	11.81	3.31	10.40	13.67a	6.99	5.53a	75.57
2003	0.54	6.16	3.35	4.85	1.45	9.57	13.56	1.80	3.58	4.75	8.93	1.98	60.52
2004	3.09	9.00	1.90	9.14	10.54	10.74	8.67	8.11	1.46	8.27	4.65	2.76	78.33
Max value	17.97	9.00	10.77	9.14	18.43	25.07	13.56	9.53	20.08	13.67	13.90	6.43	78.33
Min value	0.54	0.85	1.90	0.23	0.20	3.14	1.34	1.80	0.25	1.23	1.00	1.51	47.74
Mean	5.32	3.57	5.43	4.61	5.21	9.25	7.56	4.83	5.58	4.69	5.50	3.46	66.34
Median	4.49	2.58	4.13	4.78	3.32	9.01	8.16	4.56	3.58	3.73	4.65	2.76	73.85
# years	11	11	11	11	10	10	10	10	11	11	11	11	9

Flags:
a = 1, b = 2, c = 3, ..., or z = 26 or more missing days in a month or missing months in a year.
A = Accumulation over more than one day, S = Subsequent

Notes:
Long-term means based on columns. Thus, the sum (or average) of the monthly values may not equal the annual value.

Monthly Time Series

Station: RESERVE **State:** LA **ID:** 167767
Latitude: 30.06 degrees **Longitude:** -90.58 degrees **Elevation:** 15 feet
Station period of record: 03/01/1901 - 01/31/2005

CLIMOD Product: Monthly Time Series **Creation Time:** 01/31/2005 11:41 CST
Element: Average Temperature **Units:** degF **Analysis:** Mean
Max allowable missing days: 5
Lowest Acceptable Quality of Data: Raw data

Year(s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1994	47.9	54.9	59.1	66.7	72.7	79.2	79.0	79.7	76.5	69.3	63.5	54.7	66.9
1995	51.5	54.0	62.0	66.8	76.8	78.2	82.2	83.0	78.2	68.7	57.8	52.5	67.6
1996	51.1	53.8	55.0	66.1	76.0	79.2	82.6	80.5	77.8	68.3	60.5	56.2	67.3
1997	52.7	55.8	65.2	63.9	-999j	-999l	83.0	82.7	79.2	68.8	57.0	51.2a	66.0b
1998	54.7	54.9	59.2	65.8	76.8	83.2	85.0	83.7	79.9	72.1	64.4	56.5	69.7
1999	55.2a	57.1	59.1	71.9	71.8	79.3	81.8	84.9	76.4	66.9b	60.1a	52.2b	68.1
2000	53.3a	57.2a	65.8	65.8c	-999h	79.8a	83.7	82.5	77.8a	-999z	-999p	49.2	68.4c
2001	49.4a	59.4	59.0	70.0a	75.1	80.1	82.5	82.5	78.2	67.1	66.3	58.7	69.0
2002	54.4	52.9	61.0	70.7	75.4	80.2	83.1	82.2	79.9	72.9	59.4	53.0	68.8
2003	48.2	52.7	60.1	65.7	76.0	79.6	79.7	80.4	74.9	66.4	60.3	47.7	66.0
2004	50.4	52.2	65.4	67.4	74.6	80.8	82.2	81.3	80.3	76.5	65.7	52.3	69.1
Max value	55.2	59.4	65.8	71.9	76.8	83.2	85.0	84.9	80.3	76.5	66.3	58.7	69.7
Min value	47.9	52.2	55.0	63.9	71.8	78.2	79.0	79.7	74.9	66.4	57.0	47.7	66.0
Mean	51.7	55.0	61.0	67.3	75.0	79.9	82.3	82.1	78.1	69.7	61.5	53.1	68.0
Std Dev	2.58	2.24	3.36	2.48	1.74	1.33	1.68	1.53	1.69	3.18	3.26	3.24	1.20
# years	11	11	11	11	9	10	11	11	11	10	10	11	9

Flags:
a = 1, b = 2, c = 3, ..., or z = 26 or more missing days in a month or missing months in a year.
A = Accumulation over more than one day, S = Subsequent

Notes:
Long-term means based on columns. Thus, the sum (or average) of the monthly values may not equal the annual value.

EarthTech

A Tyco International Ltd. Company

Emergency Response Plan

Appendix B

ENTERGY Little Gypsy Plant Emergency Response Action Plan (ERAP)

This document is a part of the comprehensive Integrated Response Plan (IRP) for the ENTERGY Little Gypsy Plant. This IRP component is intended for direct use by facility personnel responsible for spill emergency response actions, and contains summary information from the full IRP. The complete IRP document should be consulted for additional details regarding the following subjects:

- Facility Information
- Organization and Responsibilities
- Emergency Response
- Fire Response
- Severe Weather Response
- Spill Response
- Evacuation
- Notification and Reporting
- Materials Storage Information
- Spill Prevention Program
- Spill/Release Risk and Hazard Assessment
- Maintenance, Inspection, and Testing
- Training and Drills

EMERGENCY RESPONSE ACTION PLAN (ERAP)

This section of the IRP presents the primary information from this overall document that would be necessary to reference and/or use in the event of an actual environmental or emergency incident at this facility. The information presented in this section is, for the most part, a duplication of materials that are presented elsewhere in this report. Reference numbers for text section and table numbers in this section are the same as they appear in the body of the document. Therefore, you can go to the appropriate section of this document for more information.

EPA Required Contents (Appendix F to 40 CFR 112, Section 1.1)	ERAP Page No.
Qualified Individual Information	ERAP Booklet, ERAP-viii, xiv
Emergency Notification Phone List	ERAP Booklet, ERAP-vi
Spill Response Notification Form	Table 6-1, page ERAP-x
Response Equipment List and Location	Table 5-3, page ERAP-xiii
Response Equipment Testing and Deployment	OSRO conducts annual testing and deployment of a representative sample of their spill response equipment. See Appendix E for documentation.
Facility Response Team	Page ERAP-xiv
Evacuation Plan	ERAP Booklet, Plot Plan
Immediate Actions	ERAP Booklet, ERAP iii, iv
Facility Diagram	ERAP Booklet, Plot Plan

Figure 5-1
Little Gypsy Plant
Integrated Response Plan (IRP)
Initial Detection Flow Diagram

(Actions to be taken by anyone detecting a spill)

Determine if there are personnel injuries:

- Account for personnel
- Determine injuries and give First Aid, if capable
- Warn nearby personnel of spill/release
- Enforce safety and security measures for spill site
- Evacuate spill area, if necessary

Observe and identify spill details:

- Where
- When
- Spill details
- Spill amount
- Spill area conditions
- Spill direction and movement
- Control actions being taken/ ongoing

Stop product flow at source, <u>only</u> if safe to do so:

- Secure pumps
- Close valves

Shut off ignition sources, <u>only</u> if safe to do:

- Motors
- Electric Circuits
- Open Flames

Try to contain spill, <u>only</u> if safe to do so:

- Cover drains or holes in direction of spill
- Get sorbents and deploy ahead of spill

Contact supervisor or Control Room, report all injuries and spill details:

- Call 911 if emergency requires paramedics or fire department
- Report <u>all</u> spill and spill scene details to COS or QI

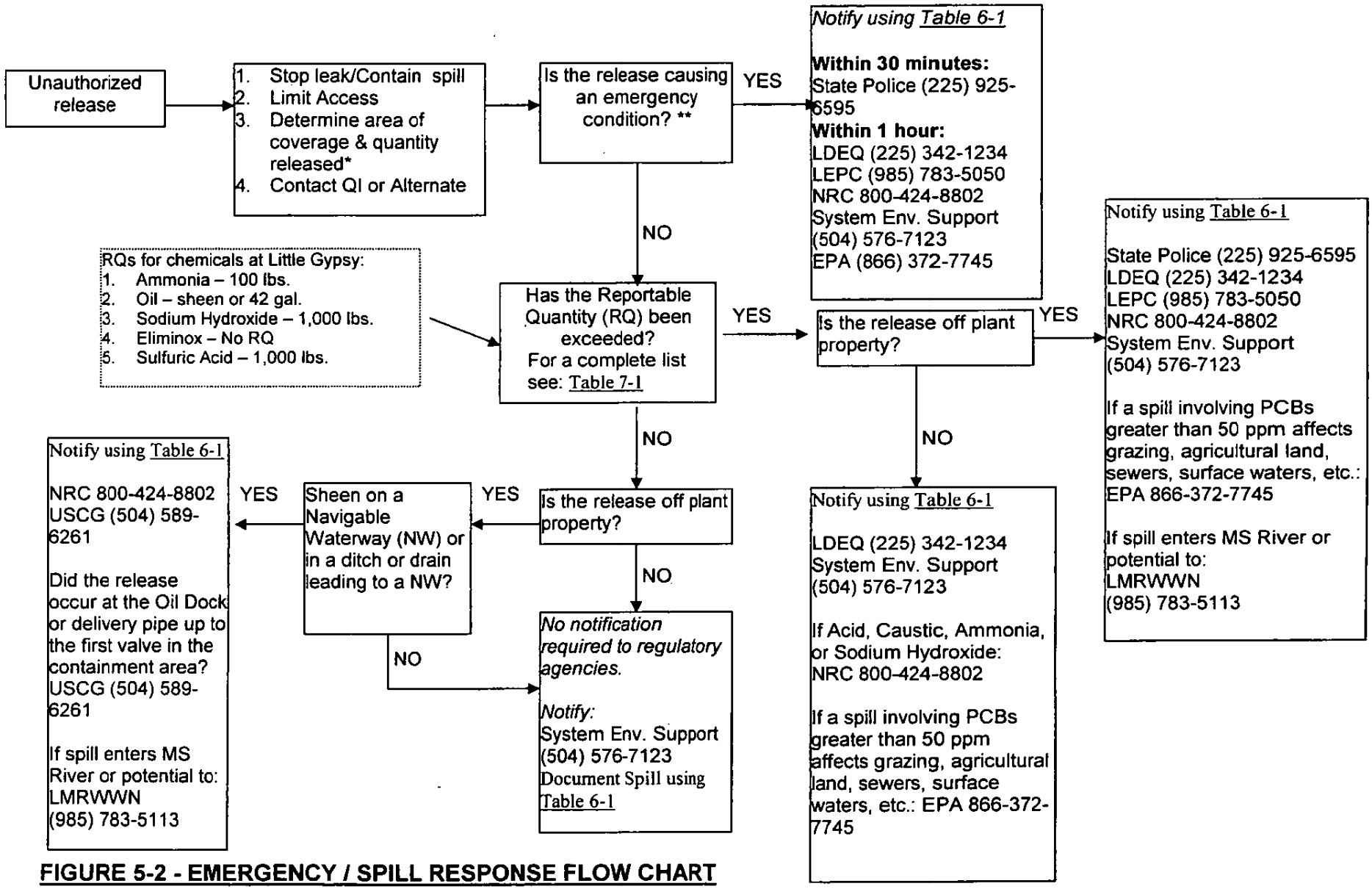


FIGURE 5-2 - EMERGENCY / SPILL RESPONSE FLOW CHART

*Refer To the Initial Detection Chart

** An emergency condition is any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property.

*** Notification to the LDEQ needs to be within 24 hours. If possible, LDEQ notification should be made during office hours (LDEQ phone calls roll over to the State Police after hours.)

ENTERGY Little Gypsy Plant
IRP Spill/Release Information Log

Date:	Filled out by:	
Time:	Detection Alert by:	Time of detection:
Injuries? Yes ___ No ___ Type: _____ Number: _____		
Chemical Spilled:		Amount:
Source of Spill:		
Reason for Spill:		
Weather Conditions:		
Direction and rate initial spill movement:	Spill sketch or description:	
Progress of spill (fill in below during spill incident, as appropriate):		
Time:		
Location/Extent of Spill		
Initial Response Actions (describe):		
Additional actions necessary? Yes ___ No ___ Why?		
Possible Responses:	Additional Equipment Needs:	
	Equipment Staging Area:	
Spill Contractor Notification?: Yes _____ No _____ Person Contacted: Company: Time:		
Fire Department at scene:	HAZMAT at scene:	
Other Agencies at scene (list agency/personnel names, and time of arrival below):		
Time:		
Agency personnel		

EMERGENCY NOTIFICATION PHONE LIST

Call Sequence	Person to Call and Agency	Telephone
1st	Control Room-24 hours Shift Supervisor, Little Gypsy Plant	By in-plant communication (985) 653-3828
2nd	Joe Messina	(985) 653-3853 (800) 844-8084 (ID 1521378) Home (985) 764-4007
	Jeff Heidingsfelder	(985) 653-3801 Cell # (504) 430-9352 Home (504) 739-1358
	David Martinez	(985) 653-3850 (800) 844-8084 (ID 1704117) Home (225) 766-4640
3rd	Oil Mop, Inc.	(800) 645-6671
	Industrial Cleanup, Inc. (ICI)	(504) 436-0883
	United States Environmental Services L.L.C.	(504) 279-9930
4th	St. Charles Parish Emergency Preparedness Committee	(985) 783-5050
5th	Norco Fire Department	(985) 764-9621
6th	LaPlace Fire Department	911
7th	LaPlace Medical Center	(985) 653-8447
8th	State Police "Hazmat Unit"	(225) 925-6595 or (877) 925-6595
9th	LDEQ-Louisiana Department of Environmental Quality	(225) 342-1234
10th	National Response Center	(800) 424-8802
11th	EPA Emergency Response (only if NRC cannot be reached)	(866)-372-7745
12th	U.S. Coast Guard Port of New Orleans	(504) 589-6261 (24 hours)
13th	Jeff Heidingsfelder	(985) 653-3801 Cell # (504) 430-9352 Home (504) 739-1358
14th	Frank Harbison ENTERGY Environmental Support	Office - (504) 576-7253 Pager-800-264-2535 ID 3221
14th Alternate	Robert Bourg ENTERGY Environmental Analyst	Office – (504) 576-7123 Pager – 800-264-2535 (ID 3231) Cell- (504) 491-3219
	Mike Miller ENTERGY Environmental Analyst	Office-281-297-3312 Home-281-362-8575

GOVERNMENT AGENCY PHONE LIST

Federal Agency	Telephone
* National Response Center (NRC), Washington, D.C.	(800) 424-8802
U.S. Environmental Protection Agency (EPA)	(866)-372-7745
U.S. Coast Guard Marine Safety Detachment, New Orleans, Louisiana to assist in expediting any response efforts (formal federal notification requirements are satisfied by calling the NRC).	(504) 589-6261
State and Local Agencies	
Louisiana Department of Environmental Quality (LDEQ)	(225) 342-1234
Louisiana Oil Spill Coordinators Office	(225) 219-5800
* Department of Public Safety, State Police Hazardous Materials Unit	(225) 925-6595 (877) 925-6595
* St. Charles Parish Local Emergency Planning Committee (for any spills that go beyond the facility boundary or for spills above the reportable quantity)	(985) 783-5050 (24hrs)
Lower Mississippi Waterworks Warning Network	(985) 783-5113
Mississippi River Maritime Association	(225) 761-7223
FBI	(504) 816-3000
ATF	(800) 283-4867
U.S. Customs	(504) 670-2405 and (225) 389-0261
Bomb Dismantlement Agency	911
Crescent River Port Pilots Association	(504) 392-8001
New Orleans Sewage and Water Board	(504) 942-3833
Louisiana Department of Wildlife and Fisheries	(800) 442-2511
St. Charles Parish Fire Department	(225) 925-6595
LaPlace Fire Department	911
Medical	
Ambulance - St. Charles	911
Hospital – LaPlace	(985) 672-7000
Other	
Radio	(504) 593-6397
Weather	(504) 828-4000
Television	(504) 581-2600

* Notification must be made within an hour for any spills that exceeds the Reportable Quantity and the facility boundary.

LITTLE GYPSY PLANT
EMERGENCY RESPONSE PROCEDURES FOR RESPONSE CONTRACTORS

Response Contractors:

Oil Mop Inc.
Industrial Cleanup, Inc. (ICI)
United States Environmental Services L.L.C.

Little Gypsy Qualified Individuals (QI):

Joe Messina (QI)
(985) 653-3853
(800) 844-8084 (ID 1521378)

Jeff Heidingsfelder (Alternate QI)
(985) 653-3801
Cell # (504) 430-9352

David Martinez (Alternate QI)
(985) 653-3850
(800) 800-844-8084 (ID 1704117)

Spill Response Equipment:

Each contractor should arrive on site with the appropriate equipment to respond to a release as directed by the QI. If the release is after normal operating hours, limited materials will be available in a warehouse on the plant site (3 minutes from the marine terminal facility). Therefore, the contractor should be prepared to have containment and absorbent booms, pads, overpack drums, drum liners, and any other equipment necessary to respond should none be available at Little Gypsy.

Disposal Requirements:

Little Gypsy intends to recover, reuse, decontaminate, or dispose of materials after a discharge has taken place. All manifests and shipping papers must be completed with the correct information concerning the type and quantity of waste materials, the name and location of the waste treatment facility or landfill, and the name and contact information of the transporter. The QI must ensure that the proper manifesting process is followed for each waste stream and the paperwork is completed and filed as required. Little Gypsy has a contract with Woodside Landfill in Walker, Louisiana to receive industrial waste. International Petroleum Corporation is available for processing recovered oil. A disposal form (**Table 5-4**) is included in this plan.

Materials that may be handled in the event of a discharge include:

Recovered Product - No. 2 Fuel Oil

- This oil will be shipped to a recycler/reprocessor. The oil will be processed to remove water and/or dirt which may have been collected during the recovery procedure.
- Soil contaminated with the above type of oil will be removed by scraping, shoveling, etc. to a subsurface level at which no evidence of oil is present. This soil shall be shipped to an approved industrial landfill.
- Contaminated equipment and materials, including drums, tank parts, valves, and shovels shall be cleaned with an approved aqueous degreaser and flushed clean with water.
- PPE, where possible, will be cleaned with an approved aqueous degreaser. Spent aqueous degreasers (surfactants) will be shipped to an oil reprocessor. Protective equipment, which cannot be cleaned, will be discarded in the appropriate industrial waste dumpster for removal to an approved landfill.
- Decontamination solutions, such as spent aqueous degreasers (surfactants), will be shipped to the oil reprocessor.
- Sorbents will be evaluated and if necessary, manifested and shipped to an appropriate industrial landfill.
- Recovered oily material can be easily stored on site in a dedicated area. Off-site storage will be arranged with the response contractor. Dumpsters will be the most likely choice for storage of oily wastes.
- Oil-contaminated debris, booms, adsorbent pads, asphalt, and cement that contain no water and smaller solids (i.e., sand) that result from response activities or cleaning trucks should be placed in lined 55-gallon drums or dumpsters for off-site disposal.

TABLE 6-1
Spill Response Notification Form
(In Accordance with Louisiana Administrative Code and OPA '90)

Plant Name: Little Gypsy Plant
17420 River Road
LaPlace, LA 70068

Latitude: 30° 01' 40" Longitude: 90° 27' 40"

Owner: Entergy Corp.
P.O. Box 61000
New Orleans, LA 70161

Operator: Entergy New Orleans, Inc.
P.O. Box 61000
New Orleans, LA 70161

Verbal Notification:

Date of Notification:

Name of Person Reporting Release:

Position: Phone: Fax:

Agencies Notified: (name, time, incident #, etc.)

Written Report Required? Y N

Written Report:

Date Completed:

Name of Person Preparing Report:

Agencies Report Sent To: (include date)

TABLE 6-1
Spill Response Notification Form
(In Accordance with Louisiana Administrative Code and OPA '90)

Go To List

It is not necessary to wait for all information before calling the NRC.
National Response Center 1-800-424-8802

SPILL RESPONSE NOTIFICATION FORM

Reporter's Last Name:_____ First _____ M.I. _____
Phone Number: ( ) -
Company: _____
Organization Type: _____
Position: _____
Address: _____
City: _____ State _____ Zip _____

Suspected responsible party:_____
Organization Type: _____
Phone Number: ( ) -
Address _____
City: _____ State _____ Zip _____

Were Materials Released _____ (Y / N) Confidential _____ (Y / N)

Meeting Federal Obligations to Report _____ (Y / N) Date Called _____

Calling for Responsible Party _____ (Y / N) Time Called _____

Incident Description

Source and/or Cause of Incident _____

_____

_____

Date _____--_____--_____ Time of Incident _____ AM / PM

Nearest City _____ State _____ County _____ Zip _____

Distance from City _____ Units _____ Direction from City _____

Section _____ Township _____ Range _____

Container Type _____ Tank Capacity _____ Units _____

Facility Capacity _____ Units _____

Latitude: _____ Degrees _____ Minutes _____ Seconds

Longitude: _____ Degrees _____ Minutes _____ Seconds

Date of Last Update: _____

SPILL RESPONSE NOTIFICATION FORM (continued)

Material

CHRIS Code	Released Quantity	Units of Measure	Material Released in Water	Quantity	Units/ Measure

TAB 4 Response Action

Actions Taken to Correct, Control or Mitigate Incident

_____

_____

_____

_____

Impact

Number of Injuries _____ Number of Deaths _____

Were there Evacuations _____ (Y / N) Number Evacuated _____

Was there any Damage _____ (Y / N) Damage in Dollars (approximate) _____

Medium Affected _____

Description _____

More Information about Medium _____

_____

Additional Information

Any information about the incident not recorded elsewhere in the report?

_____

_____

_____

Caller Notifications

EPA _____ (Y / N) USCG _____ (Y / N) State _____ (Y / N)

Other _____ (Y / N) Describe _____

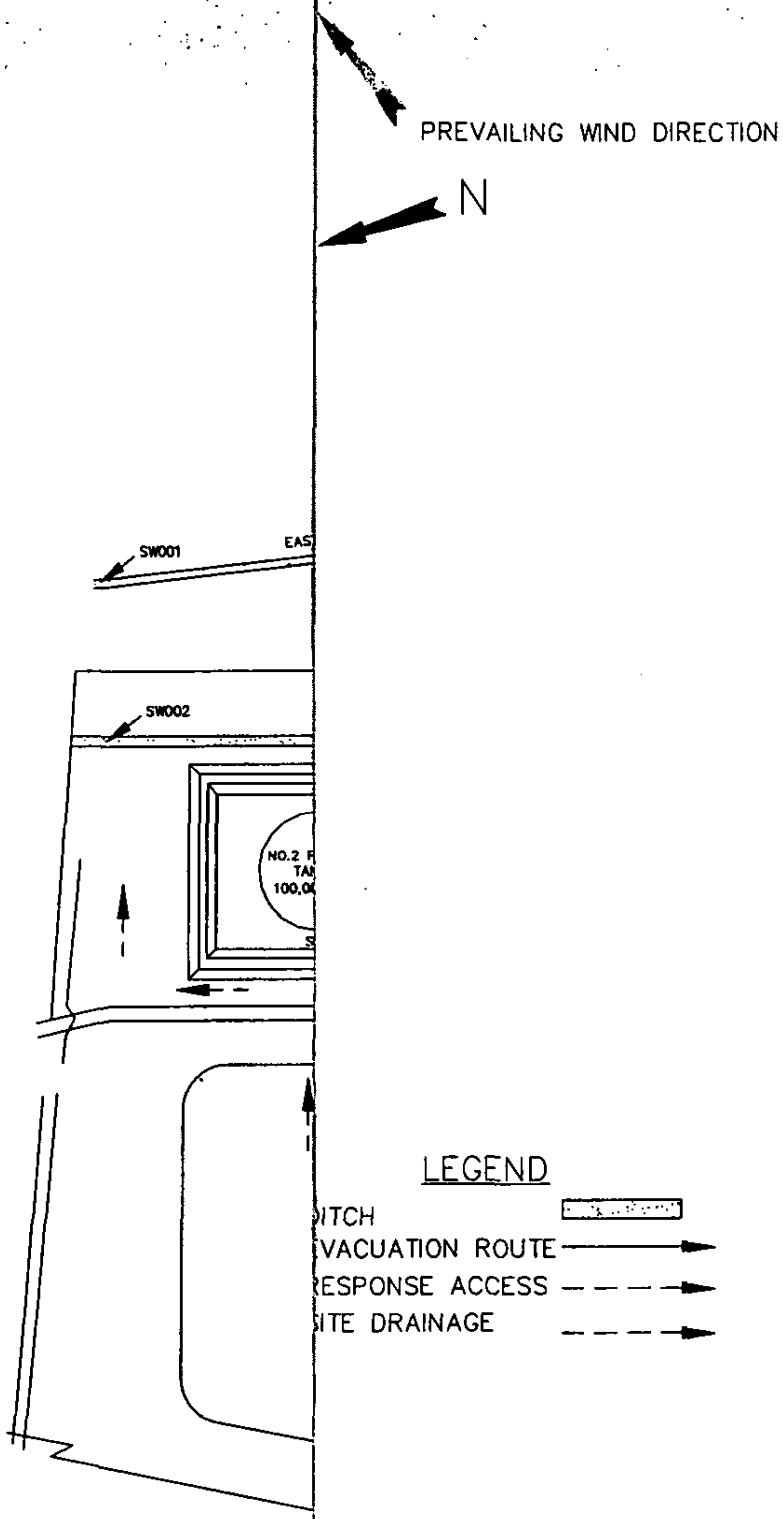
TABLE 5-3
Emergency Response Equipment Located at the Little Gypsy Plant

Equipment	Type/Model	Year	Quantity	Location	Date of Last Inspection/ Testing
Sorbent	Hydrocarbon Pads	1997-1998	150	Storeroom/ Lube oil shed	11/98
Oil booms	10-foot long		6	Warehouse	
	8-foot long		6	Warehouse	
	6-foot long		6	Warehouse	
Fire fighting equipment	30-lb dry chemical extinguisher		2	Oil dock	
	500-gpm pump with two water cannons		1	Oil dock	
Communication equipment	Motorola ht1000 portable radios with repeater station for in-plant communication	----	28	Operations personnel	Daily

FACILITY RESPONSE TEAM

IRP Role	Name/Title	Phone	Home (24 hour)	Pager Extension
Qualified Individual (QI)	Joe Messina, Environmental Specialist – Little Gypsy	(985) 653-3853	(985) 764-4007	(800) 844-8084 (ID 1521378)
Alternate QI's	Jeff Heidingsfelder, Plant Manager – Little Gypsy	(985) 653-3801	(504) 739-1358	Cell # (504) 430-9352
	David Martinez, Production Superintendent - Little Gypsy	(985) 653-3850	(225) 766-4640	(800) 844-8084 (ID 1704117)
Spill Response Contractors	Oil Mop, Inc.	(504) 394-6110	(800) 645-6671	
	Industrial Cleanup, Inc. (ICI)		(504) 436-0883	
	United States Environmental Services L.L.C.		(504) 279-9930	
Plant Safety Contact	Joe Messina	(985) 653-3853		(800) 844-8084 (ID 1521378)
ENTERGY Public Liaison	Dakin DuBroc / Communications Specialist - Fossil	(281) 297-3378		
	Mary Broussard, Communications Specialist	(225) 381-5848		
ENTERGY Environmental Support Central	Myra Glover, Director Environmental Services	(281) 297-3206 8-620-3306		
	Jim Schott, Manager Environmental Services	(281) 297-3416 8-620-3416		
	Rick Johnson, Waste Programs	(281) 297-3316 8-620-3316		
	Joe Hantz, Air Programs	(281) 297-3319 8-620-3319		
	Annette Holzer - Water Programs	(281) 297-3317 8-620-3317		
	Mike Miller, Response Programs	(281) 297-3312 8-620-3312	(281) 362-8575	
	Julie Waldenfels, Secretary	(281) 297-3307 8-620-3307		
ENTERGY Environmental Support (State)	Frank Harbison, Administrator	(504) 576-7253	(504) 491-3219	
	Robert Bourg, Waste Issues	(504) 576-7123	(504) 722-5561 (cell phone)	(800) 264-2535 ID 3231
	Gus VonBodungen, Water Issues	(504) 576-6037		(800) 264-2535 ID 1170
	Richard Labranche, TRI Issues	(504) 464-3109	(225) 695-3793	(800) 264-2535 ID 5471
	Mark Adams, Air Issues	(504) 576-5699		(800) 264-2535 ID 3874
	Marie Frilot, Secretary	(504)-576-6467		

BEST COPY



DRAWN FROM TERRA DRAWING 1.1

REV	DATE	DESCRIPTION
2	5/30/01	UPDATED AS PER DWR 27824
1	9/8/98	REDRAWN IN AUTOCAD DWR 26088

SCALE: N.T.S.

DRAWING NO.	SH	CONT	REV
LGO-MI-94152	1	0	2

Fax Cover Sheet

Entergy Services, Inc
P. O. Box 61000 (Mail Unit L-ENT-5E)
New Orleans, LA 70161

Company Name:	Norco Fire Department
Contact Name:	Chief Robert Loupe
Fax Number:	985-764-9619
Phone Number:	985-764-7473

Sender:	Robert Bourg
Fax Number:	504-576-6936
Phone Number:	504-576-7123
Chief Loupe, This is the certification I spoke to you on the phone about.	
This LDEQ Regulations require this in order to repermit Little Gypsy's	
Pond. Please sign by the X and fax it back to me at 504-576-6936/	
Thanks, Robert Bourg	

Date & Time Of Transmission: 8/25/2003 9:53 AM
Transmission includes this cover plus 1 page(s)
WE DO NOT HAVE A TELECOPY OPERATOR. PLEASE NOTIFY THE PERSON YOU ARE SENDING A FAX TO. THANK YOU!

Entergy

Entergy Services, Inc.
639 Loyola Avenue
P.O. Box 61000, L-ENT-5E
New Orleans, LA 70161-1000
Tel 504 576 6467

LA Environmental Support

August 25, 2003

VIA FACSIMILE

Chief Robert Loupe
Norco Fire Department
Hazardous Materials Unit
P. O. Box 321
Norco, LA 70079

Subject: Emergency Response - Letter of Certification

Reference: Entergy Louisiana, Inc
Little Gypsy Plant
17420 River Road
LaPlace, LA 70068

Dear Chief Loupe:

Entergy's Little Gypsy Plant is in the process of renewing its solid waste permit to operate a surface impoundment located within the plant. Revisions to the Louisiana Solid Waste Regulations now require that applicants obtain certification from the local fire department as to whether or not that department has the ability to meet the response requirements of Section 472 of the Life Safety Code of the National Fire Protection Association (NFPA). The regulations also require the applicant to obtain certification from the local emergency medical services agency as to whether or not that agency has the ability to meet the response requirements of Section 473 of the Life Safety Code of the NFPA, and can respond to a hazardous material incident at the referenced facility.

If you have the ability to respond to the requirements of Section 472 and 473, please indicate so by signing in the space provided below the following statement and fax it back to me:

> This is to certify that the Norco Fire Department, Hazardous Materials Unit has the ability to meet the response requirements of Sections 472 and 473 of the Life Safety Code of the National Fire Protection Association, and can respond to a hazardous material incident at the Entergy - Little Gypsy Plant.

X_____ X_____
Signature of Norco Fire Department Date

If you need additional information, I can be reached at (504) 576-7123, and my FAX number is (504) 576-6936

Your quick response to this request would be greatly appreciated.

Yours truly,

Robert Bourg
Senior Environmental Analyst
Louisiana Environmental Support

Fax Cover Sheet

Entergy Services, Inc
P. O. Box 61000 (Mail Unit L-ENT-5E)
New Orleans, LA 70161

Company Name:	St. Charles Parish Sheriff's Office
Contact Name:	Chief Robert Cordella
Fax Number:	(985) 783-1008
Phone Number:	(985) 783- 6835

Sender:	Robert Bourg
Fax Number:	504-576-6936
Phone Number:	504-576-7123
Chief Cordella, Please sign the attached form and fax it back to me at the	
Fax number provided. Your quick response to this is greatly appreciated.	

Date & Time Of Transmission: 8/25/2003 9:43 AM
Transmission includes this cover plus 1 page(s)
WE DO NOT HAVE A TELECOPY OPERATOR. PLEASE NOTIFY THE PERSON YOU ARE SENDING A FAX TO. THANK YOU!

Entergy

Entergy Services, Inc.
639 Loyola Avenue
P.O. Box 61000, L-ENT-5E
New Orleans, LA 70161-1000
Tel 504 576 6467

LA Environmental Support

August 25, 2003

VIA FACSIMILE

Chief Joseph Cordella
St. Charles Parish Sheriff's Office
P. O. Box 426
Hahnville, LA 70057

Subject: Emergency Response - Letter of Certification

Reference: Entergy Louisiana, Inc.
Little Gypsy Plant
17420 River Road
LaPlace, LA 70068

Dear Captain Zinna:

Entergy's Little Gypsy Plant is in the process of renewing its solid waste permit to operate a surface impoundment located within the plant. Revisions to the Louisiana Solid Waste Regulations now require that applicants obtain certification from the local emergency medical services agency as to whether or not that agency has the ability to meet the response requirements of Section 473 of the Life Safety Code of the National Fire Protection Association, and can respond to a hazardous material incident at the referenced facility.

If you have the ability to respond to the requirements of Section 473, please indicate so by signing in the space provided below the following statement and fax it back to me:

> This is to certify that the St. Charles Parish Sheriff's Office has the ability to meet the response requirements of Section 473 of the Life Safety Code of the National Fire Protection Association, and can respond to a hazardous material incident at the Entergy - Little Gypsy Plant.

X_____ X_____
Signature of St. Charles Parish Sheriff's Office Date

If you need additional information, I can be reached at (504) 576-7123, and my FAX Number is (504) 576-6936.

Your quick response to this request would be greatly appreciated.

Yours truly,

Robert Bourg
Senior Environmental Analyst
Louisiana Environmental Support

Fax Cover Sheet

Entergy Services, Inc
P. O. Box 61000 (Mail Unit L-ENT-5E)
New Orleans, LA 70161

Company Name:	River Parishes Hospital
Contact Name:	Johnny Leveron
Fax Number:	985- 651- 1432
Phone Number:	985- 651-1599

Sender:	Robert Bourg
Fax Number:	504-576-6936
Phone Number:	504-576-7123
Mr. Leveron, This is the certification I spoke to you on the phone about.	
This LDEQ Regulations require this in order to repermit Little Gypsy's	
Pond. Please sign by the X and fax it back to me at 504-576-6936.	
Thanks, Robert Bourg	

Date & Time Of Transmission: 8/25/2003 10:11 AM
Transmission includes this cover plus 1 page(s)
WE DO NOT HAVE A TELECOPY OPERATOR. PLEASE NOTIFY THE PERSON YOU ARE SENDING A FAX TO. THANK YOU!

Entergy

Entergy Services, Inc.
639 Loyola Avenue
P.O. Box 61000, L-ENT-5E
New Orleans, LA 70161-1000
Tel 504 576 6467

LA Environmental Support

August 25, 2003

VIA FACSIMILE

Johnny Leveron
Safety Director
River Parishes Hospital
500 Rue deSante
LaPlace, LA 70068

Subject: Emergency Response - Letter of Certification

Reference: Entergy Louisiana, Inc.
Little Gypsy Plant
17420 River Road
LaPlace, LA 70068

Dear Chief Administrator:

Entergy's Little Gypsy Plant is in the process of renewing its solid waste permit to operate a surface impoundment located within the plant. Revisions to the Louisiana Solid Waste Regulations now require that applicants obtain certification from the local hospital as to whether or not they are able to treat patients who are contaminated with hazardous materials and can respond to a hazardous material incident at the referenced facility.

If you have the ability to treat patients who are contaminated with hazardous materials (sulfuric acid, anhydrous ammonia, sodium hydroxide, diesel oil) and can respond to a hazardous material incident, please indicate so by signing in the space provided below the following statement and **fax it back to me**:

> This is to certify that the River Parishes Hospital has the ability to treat patients who are contaminated with hazardous materials and can respond to a hazardous material incident at the referenced facility.

X_____ X_____
Signature of River Parishes Hospital Date

If you need additional information, I can be reached at (504) 576-6037 and my FAX number is (504) 576-6936.

Your quick response to this request would be greatly appreciated.

Yours truly,

Robert Bourg
Senior Environmental Analyst
Louisiana Environmental Support

EarthTech

A Tyco International Ltd. Company

Hydrogeological Information

Appendix C

TABLE 1

MONITOR WELL AND PIEZOMETER INFORMATION
Oily Waste Pond
Little Gypsy Electric Generating Plant
Montz, Louisiana

Information	PZ-1	PZ-2	PZ-3	PZ-4	PZ-5	TP-1 (P&A)
Latitude	30° 00' 24"	30° 00' 22"	30° 00' 20"	30° 00' 18"	30° 00' 21"	30° 00' 18"
Longitude	90° 27' 44"	90° 27' 44"	90° 27' 47"	90° 27' 48"	90° 27' 49"	90° 27' 45"
Zone Screened	Stratum II	Stratum II	Stratum II	Stratum II	Stratum II	Stratum II
Water Level (2)	8.60	7.00	9.00	9.00	8.00	---
Well construction	2" PVC	2" PVC	2" PVC	2" PVC	2" PVC	2" PVC
Casing slot size	0.010"	0.010"	0.010"	0.010"	0.010"	0.010"
Sampling method	Dedicated Bailer	Dedicated Bailer	Dedicated Bailer	Dedicated Bailer	Dedicated Bailer	Dedicated Bailer
Ground surface elevation (1)	16.20	16.00	16.00	16.40	14.50	15.03
Top of well casing (TOC)(1)	18.75	19.10	18.30	18.95	16.99	16.58
Casing depth (ft bls)	20.0	18.0	20.0	20.0	20.0	16.3
Drilled depth (ft bls)	20.0	18.0	20.0	20.0	20.0	16.3
Screened interval (ft bls)	9.5 – 19.5	7.5 – 17.5	9.5 – 19.5	9.5 – 19.5	9.5 – 19.5	8.6-13.4
Top of screen elevation (1)	6.7	8.5	6.5	6.9	5	6.41
Bottom of screen elevation (1)	-3.3	-1.5	-3.5	-3.1	-5	1.65
Type of grout	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite

Notes:

(1) Elevations are referenced to a plant benchmark. (NGVD)

(2) Water levels recorded on April 16, 1996. Water levels were not recorded for the temporary piezometers.

(3) Wells PZ-1 through PZ-5 form a monitoring system for the closed MCW Ponds, Boiler Blowdown Pond, Low Volume Pond, and West Ditch Enlargement.

(4) Piezometer TP-1 was plugged and abandoned in January 2001.

TABLE 1 (Continued)

MONITOR WELL AND PIEZOMETER INFORMATION
Oily Waste Pond
Little Gypsy Electric Generating Plant
Montz, Louisiana

Information	TP-2 (P&A)	TP-3 (P&A)	TP-4 (P&A)	TP-5(P&A)	TP-5S(P&A)	TP-6 (P&A)
Latitude	30° 00' 17"	30° 00' 19"	30° 00' 14"	30° 00' 21"	30° 00' 21"	30° 00' 18"
Longitude	90° 27' 43"	90° 27' 43"	90° 27' 29"	90° 27' 27"	90° 27' 27"	90° 27' 30"
Zone Screened	Stratum II	Stratum II	Stratum I	Stratum II	Stratum IA	Stratum II
Water Level (2)	---	---	---	---	---	---
Well construction	2" PVC	2" PVC	2" PVC	2" PVC	2" PVC	2" PVC
Casing slot size	0.010"	0.010"	0.010"	0.010"	0.010"	0.010"
Sampling method	Dedicated Bailer	Dedicated Bailer	Dedicated Bailer	Dedicated Bailer	Dedicated Bailer	Dedicated Bailer
Ground surface elevation (1)	15.18	15.66	16.26	14.18	14.13	14.53
Top of well casing (TOC)(1)	16.65	16.59	18.80	17.22	17.46	16.58
Casing depth (ft bls)	16.4	19.6	15.4	22.5	12.2	21.0
Drilled depth (ft bls)	16.4	19.6	15.4	22.5	12.2	21.0
Screened interval (ft bls)	8.6 – 13.4	11.9 – 16.7	7.6 – 12.4	14.8 – 19.6	7.2 – 11.1	13.2 – 18.0
Top of screen elevation (1)	6.59	3.78	8.70	-0.61	6.98	1.30
Bottom of screen elevation (1)	1.80	-0.99	3.86	-5.45	3.02	-3.47
Type of grout	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite

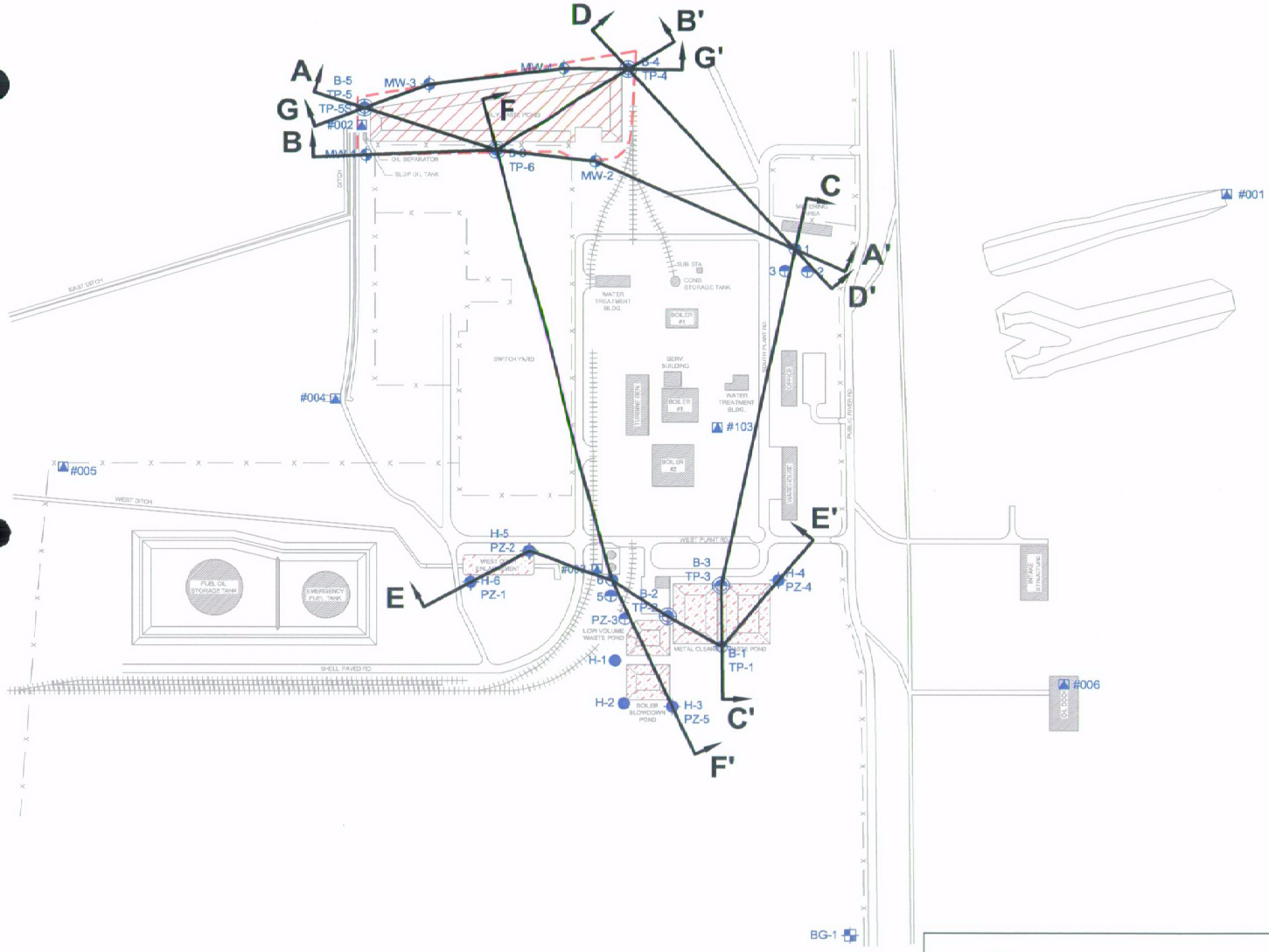
Notes:
(1) Elevations are referenced to a plant benchmark. (NGVD)
(2) Water levels were not recorded for the temporary piezometers.
(3) Piezometers TP-2, TP-3, TP-4 and TP-6 were plugged and abandoned in April 1996.
(4) TP-5 and TP-5S were plugged and abandoned in January 2001.

TABLE 1 (Continued)

MONITOR WELL AND PIEZOMETER INFORMATION
Oily Waste Pond
Little Gypsy Electric Generating Plant
Montz, Louisiana

Information	MW-1	MW-2	MW-3	MW-4
Latitude	30° 00' 17"	30° 00' 17"	30° 00' 20"	30° 00' 22"
Longitude	90° 27' 33"	90° 27' 31"	90° 27' 30"	90° 27' 31"
Zone Screened	Stratum II	Stratum II	Stratum I	Stratum II
Water Level (2)	7.13	9.43	8.00	7.00
Well construction	2" PVC	2" PVC	2" PVC	2" PVC
Casing slot size	0.010"	0.010"	0.010"	0.010"
Sampling method	Dedicated Pump	Dedicated Pump	Dedicated Pump	Dedicated Pump
Ground surface elevation (1)	11.71	12.95	12.99	12.23
Top of well casing (TOC)(1)	14.64	15.88	15.64	15.06
Casing depth (ft bls)	16	22	16	16
Drilled depth (ft bls)	16	22	18	16
Screened interval (ft bls)	11 - 15	17 - 21	11 - 15	11 - 15
Top of screen elevation (1)	0.71	-4.05	1.99	1.23
Bottom of screen elevation (1)	-3.29	-8.05	-2.01	-2.77
Type of grout	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite

Notes:
(1) Elevations are referenced to a plant benchmark. (NGVD)
(2) Water levels recorded on January 8, 2001.



LEGEND:

- FORMER SURFACE IMPOUNDMENT (CLEAN CLOSED)
- SURFACE IMPOUNDMENT TO BE PERMITTED
- RELEVANT POINT OF COMPLIANCE FOR PROPOSED GROUNDWATER MONITORING SYSTEM
- LPDES PERMITTED OUTFALL LOCATION
- HYDRO PUNCH SAMPLE LOCATION
- HYDRO PUNCH SAMPLE LOCATION SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING
- SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- DEEP BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- BACKGROUND BORING
- MONITOR WELL FOR OILY WASTE POND

NOTES:

1. THIS FIGURE USED AS ILLUSTRATION ONLY. ADDITIONAL CONDITIONS MAY EXIST WHICH ARE NOT SHOWN.

0 150' 300' 600'

SCALE: 1" = 300'

SOURCE:
BROWN & ROOT, INC.
ENGINEERS AND CONTRACTORS
PLOT PLAN DRAWING: M-1500-A

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: REVISED SITE MASTER PLAN
OILY WASTE POND

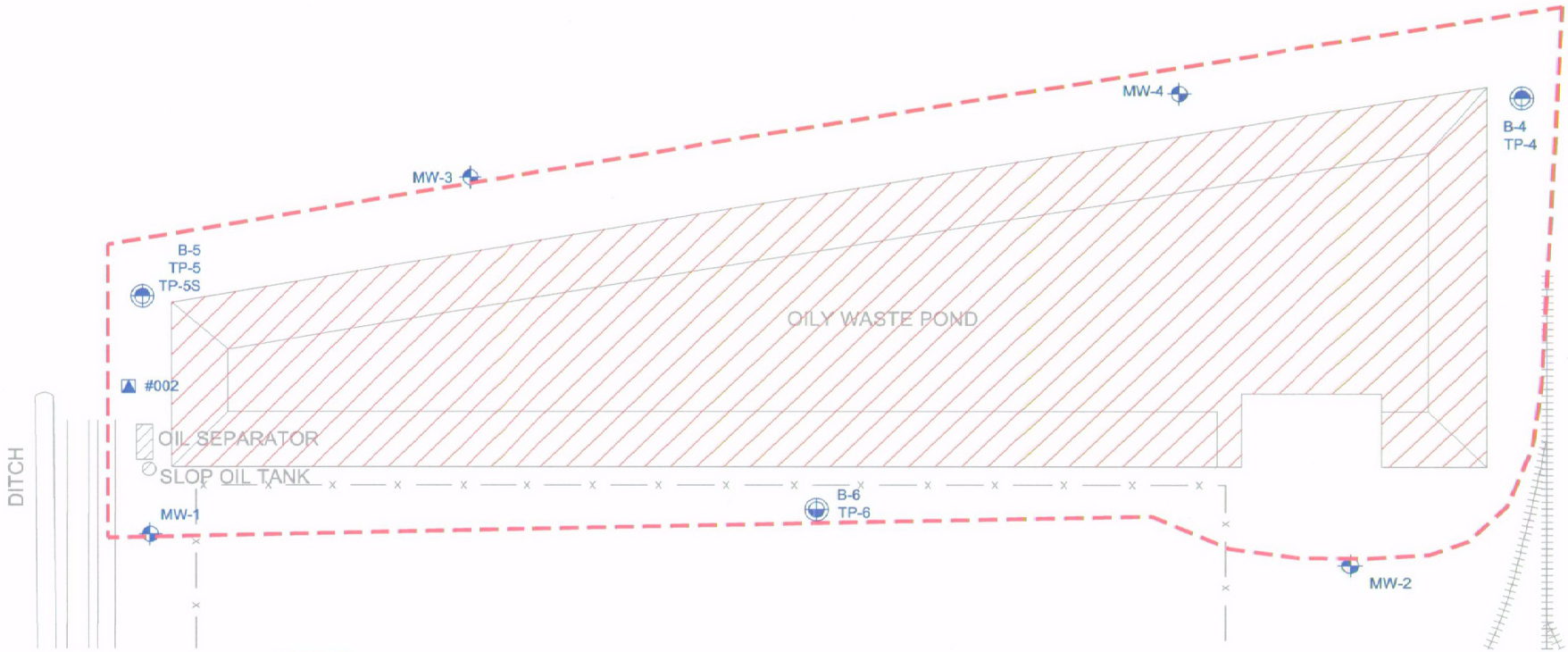
DATE: FEB. 2005

PROJECT NO.: 82463

PROJECT: SOLID WASTE PERMIT APPLICATION
LITTLE GYPSY ELECTRIC GENERATING PLANT
ENTERGY LOUISIANA, INC.

FIGURE: 1

L:\WORK\82463\CADD\DRAWINGS\82463_FIG1.DWG



LEGEND:

- SURFACE IMPOUNDMENT TO BE PERMITTED
- RELEVANT POINT OF COMPLIANCE FOR PROPOSED GROUNDWATER MONITORING SYSTEM
- NPDES PERMITTED OUTFALL LOCATION
- SHALLOW BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- DEEP BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- MONITOR WELL FOR OILY WASTE POND

0 30' 60' 120'

SCALE: 1" = 60'

NOTES:

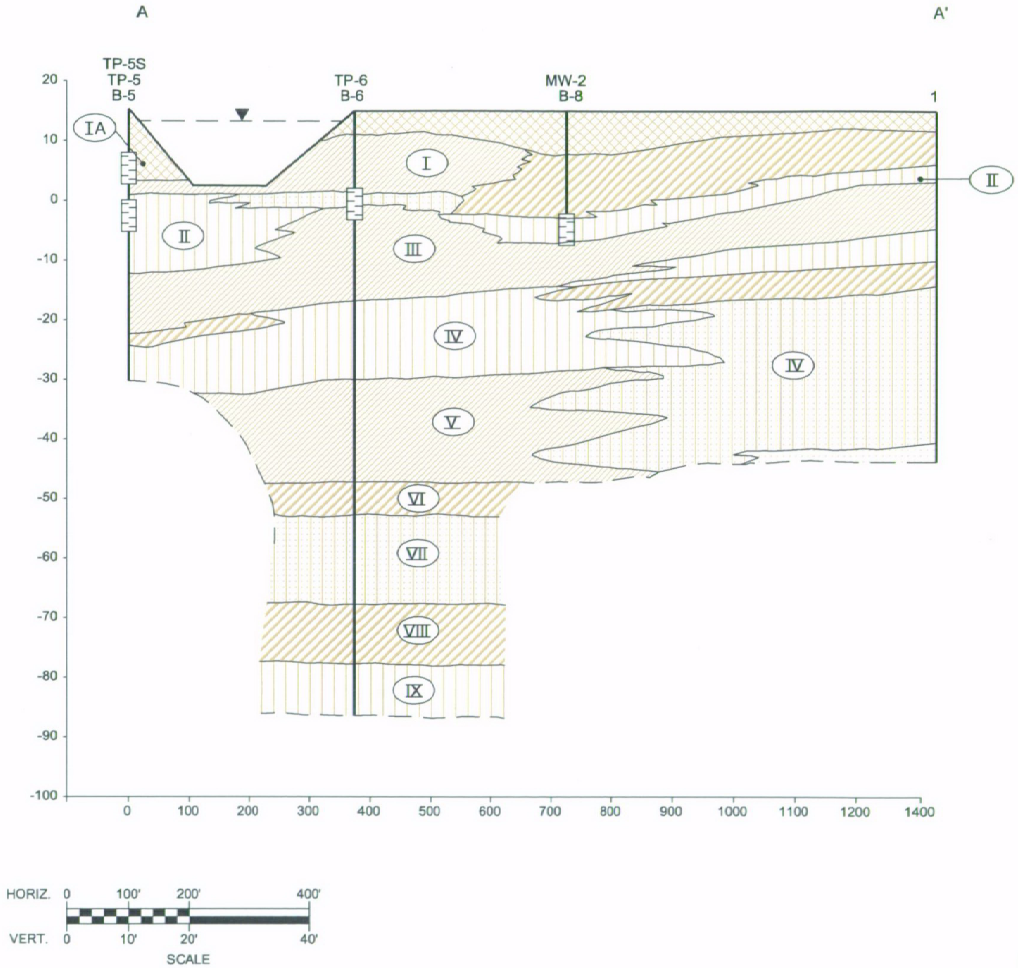
1. THIS FIGURE USED AS ILLUSTRATION ONLY. ADDITIONAL CONDITIONS MAY EXIST WHICH ARE NOT SHOWN.

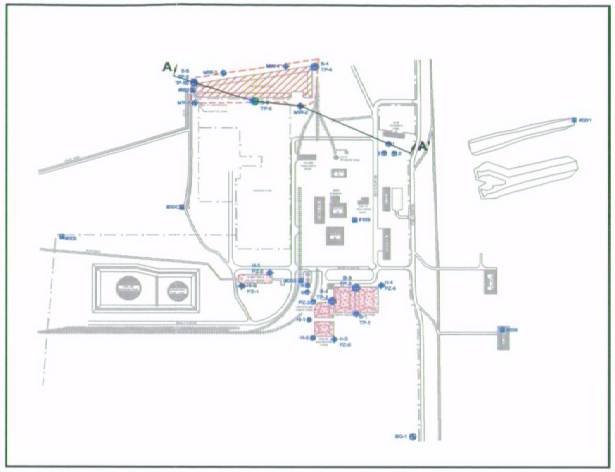
SOURCE:
BROWN & ROOT, INC.
ENGINEERS AND CONTRACTORS
PLOT PLAN DRAWING: M-1500-A

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE:	SITE PLAN OILY WASTE POND	
DATE: FEB. 2005 PROJECT NO.: 82463	PROJECT: SOLID WASTE PERMIT APPLICATION LITTLE GYPSY ELECTRIC GENERATING PLANT ENTERGY LOUISIANA, INC.	FIGURE: 1A

L:\WORK\82463\CADD\DRAWINGS\82463_FIG1A.DWG





SECTION LOCATION PLAN

0 400' 800' 1600'

SCALE: 1" = 800'

LEGEND

- FILL
- CL (SILTY OR SANDY CLAY)
- CH (CLAY)
- SM (SILTY OR CLAYEY SAND)
- ML (SANDY OR CLAYEY SILT)
- SP (SAND)

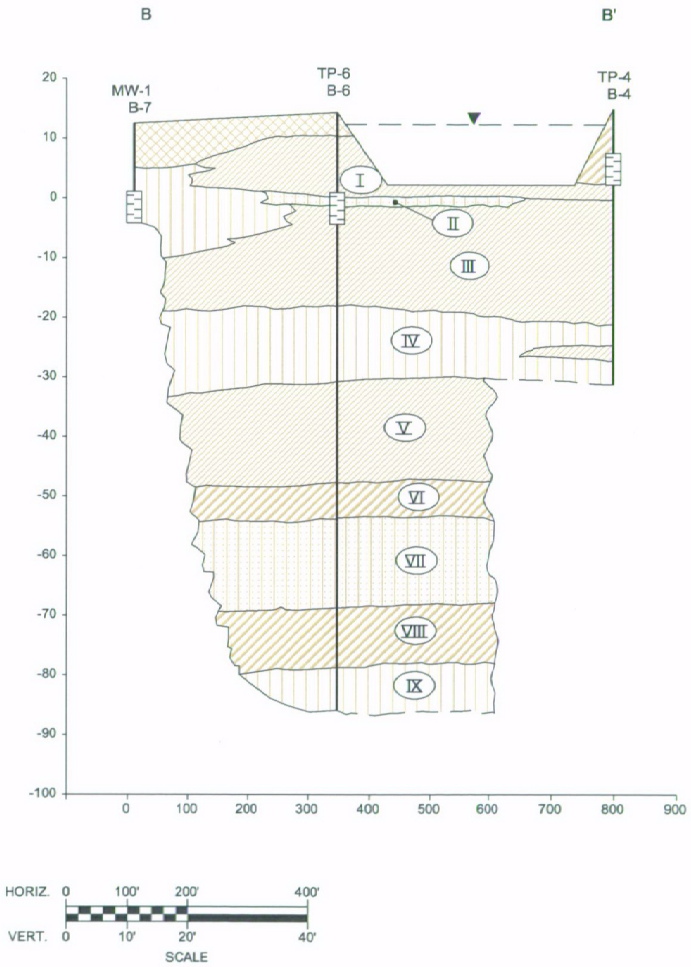
- I — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY AND CLAY (CL-CH)
- IA — LOOSE GRAY CLAYEY SILT (ML) PERMEABLE ZONE A.
- II — LOOSE BROWN CLAYEY SILT AND GRAY SILTY SAND (ML-SM) SATURATED-PERMEABLE ZONE B
- III — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY (CL)
- IV — LOOSE GRAY CLAYEY SILT (ML) GRADING TO GRAY SILTY SAND (SM) WITH CLAY LAYERS, TO THE SOUTH SATURATED, PERMEABLE ZONE C
- V — MEDIUM STIFF GRAY SILTY CLAY (CL) MOIST TO WET
- VI — MEDIUM STIFF GRAY CLAY (CH) MOIST TO WET
- VII — LOOSE GRAY SILTY SAND (SM) SATURATED
- VIII — STIFF GRAY CLAY (CH) MOIST TO WET
- IX — MEDIUM DENSE TO DENSE GRAY SANDY SILT (ML) WET TO SATURATED
- OBSERVED GROUNDWATER LEVEL AS OF AUGUST 1994
- WASTEWATER LEVEL WITH TWO FEET FREEBOARD
- TP-6 PZ-5 — SCREENED INTERVAL OF TEMPORARY PIEZOMETER

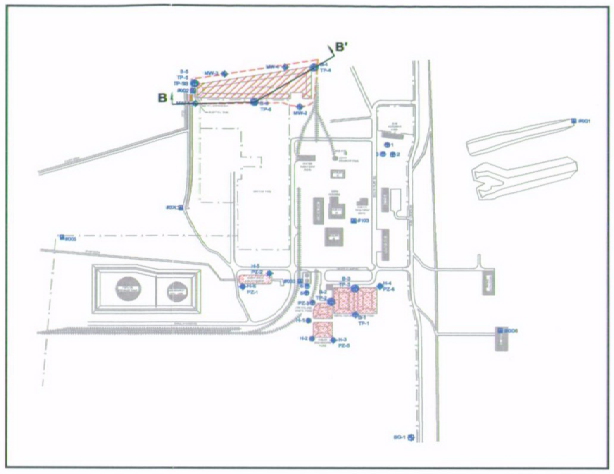
EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: REVISED CROSS SECTION A-A'
OILY WASTE POND

DATE:	PROJECT:	FIGURE:
FEB. 2005	SOLID WASTE PERMIT APPLICATION LITTLE GYPSY ELECTRIC GENERATING PLANT ENTERGY LOUISIANA, INC.	2
PROJECT NO.: 82463		

L:\WORK\82463\CADD\DRAWINGS\82463_FIG2.DWG





SECTION LOCATION PLAN

0 400' 800' 1600'

SCALE: 1" = 800'

LEGEND

- FILL
- CL (SILTY OR SANDY CLAY)
- CH (CLAY)
- SM (SILTY OR CLAYEY SAND)
- ML (SANDY OR CLAYEY SILT)
- SP (SAND)

- I — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY AND CLAY (CL-CH)
- IA — LOOSE GRAY CLAYEY SILT (ML) PERMEABLE ZONE A.
- II — LOOSE BROWN CLAYEY SILT AND GRAY SILTY SAND (ML-SM) SATURATED-PERMEABLE ZONE B
- III — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY (CL)
- IV — LOOSE GRAY CLAYEY SILT (ML) GRADING TO GRAY SILTY SAND (SM) WITH CLAY LAYERS, TO THE SOUTH SATURATED, PERMEABLE ZONE C
- V — MEDIUM STIFF GRAY SILTY CLAY (CL) MOIST TO WET
- VI — MEDIUM STIFF GRAY CLAY (CH) MOIST TO WET
- VII — LOOSE GRAY SILTY SAND (SM) SATURATED
- VIII — STIFF GRAY CLAY (CH) MOIST TO WET
- IX — MEDIUM DENSE TO DENSE GRAY SANDY SILT (ML) WET TO SATURATED
- OBSERVED GROUNDWATER LEVEL AS OF AUGUST 1994
- WASTEWATER LEVEL WITH TWO FEET FREEBOARD
- TP-6 / PZ-5 — SCREENED INTERVAL OF TEMPORARY PIEZOMETER

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: REVISED SECTION B-B'
OILY WASTE POND

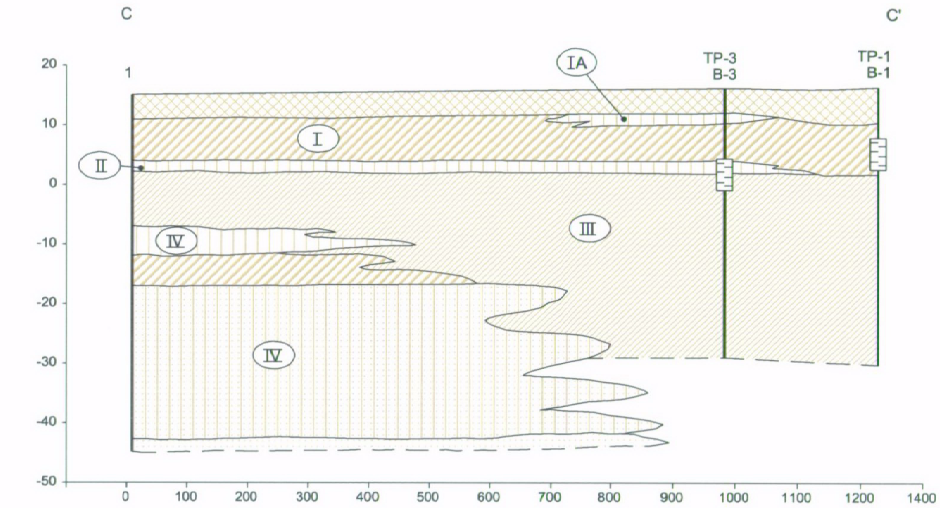
DATE: FEB. 2005

PROJECT NO.: 82463

PROJECT: SOLID WASTE PERMIT APPLICATION
LITTLE GYPSY ELECTRIC GENERATING PLANT
ENTERGY LOUISIANA, INC.

FIGURE: 3

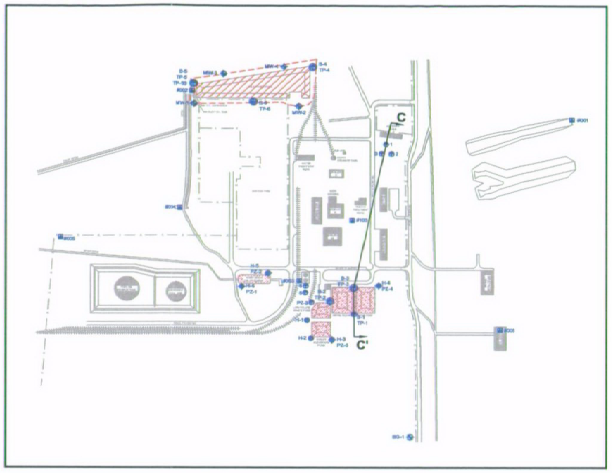
L:\WORK\82463\CADD\DRAWINGS\82463_FIG3.DWG



HORIZ. 0 100' 200' 400'

VERT. 0 10' 20' 40'

SCALE



SECTION LOCATION PLAN

0 400' 800' 1600'

SCALE: 1" = 800'

LEGEND

- FILL
- CL (SILTY OR SANDY CLAY)
- CH (CLAY)
- SM (SILTY OR CLAYEY SAND)
- ML (SANDY OR CLAYEY SILT)
- SP (SAND)

- I — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY AND CLAY (CL-CH)
- IA — LOOSE GRAY CLAYEY SILT (ML) PERMEABLE ZONE A.
- II — LOOSE BROWN CLAYEY SILT AND GRAY SILTY SAND (ML-SM) SATURATED-PERMEABLE ZONE B
- III — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY (CL)
- IV — LOOSE GRAY CLAYEY SILT (ML) GRADING TO GRAY SILTY SAND (SM) WITH CLAY LAYERS, TO THE SOUTH SATURATED, PERMEABLE ZONE C
- V — MEDIUM STIFF GRAY SILTY CLAY (CL) MOIST TO WET
- VI — MEDIUM STIFF GRAY CLAY (CH) MOIST TO WET
- VII — LOOSE GRAY SILTY SAND (SM) SATURATED
- VIII — STIFF GRAY CLAY (CH) MOIST TO WET
- IX — MEDIUM DENSE TO DENSE GRAY SANDY SILT (ML) WET TO SATURATED
- OBSERVED GROUNDWATER LEVEL AS OF AUGUST 1994
- WASTEWATER LEVEL WITH TWO FEET FREEBOARD
- TP-6 / PZ-5 — SCREENED INTERVAL OF TEMPORARY PIEZOMETER

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2008 FAX: 630-574-2007

TITLE: REVISED SECTION C-C'
OILY WASTE POND

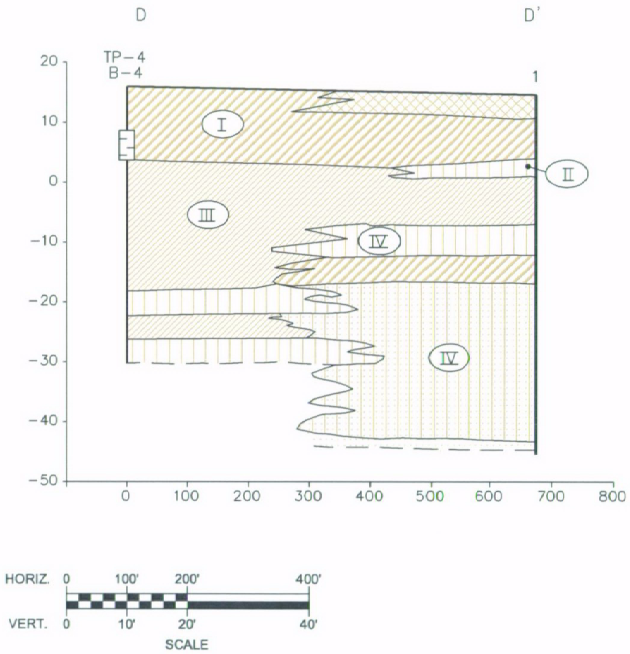
DATE: FEB. 2005

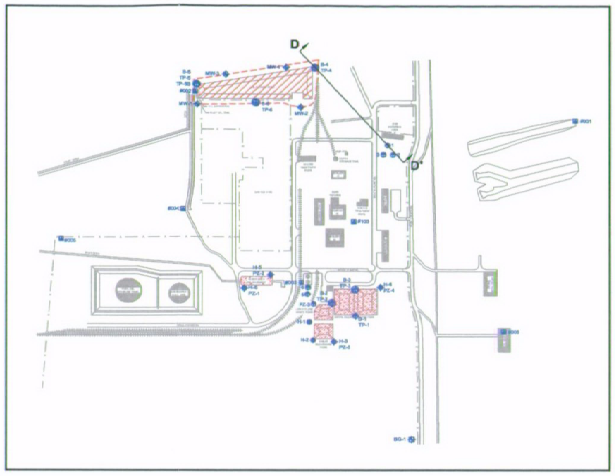
PROJECT NO.: 82463

PROJECT: SOLID WASTE PERMIT APPLICATION
LITTLE GYPSY ELECTRIC GENERATING PLANT
ENTERGY LOUISIANA, INC.

FIGURE: 4

L:\WORK\82463\CADD\DRAWINGS\82463_FIG4.DWG





SECTION LOCATION PLAN

0 400' 800' 1600'

SCALE: 1" = 800'

LEGEND

- FILL
- CL (SILTY OR SANDY CLAY)
- CH (CLAY)
- SM (SILTY OR CLAYEY SAND)
- ML (SANDY OR CLAYEY SILT)
- SP (SAND)

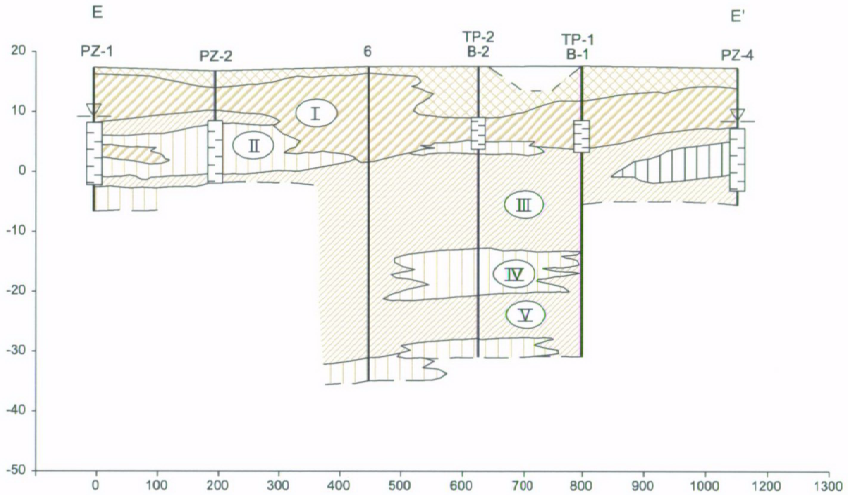
- I — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY AND CLAY (CL-CH)
- IA — LOOSE GRAY CLAYEY SILT (ML) PERMEABLE ZONE A.
- II — LOOSE BROWN CLAYEY SILT AND GRAY SILTY SAND (ML-SM) SATURATED-PERMEABLE ZONE B
- III — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY (CL)
- IV — LOOSE GRAY CLAYEY SILT (ML) GRADING TO GRAY SILTY SAND (SM) WITH CLAY LAYERS, TO THE SOUTH SATURATED, PERMEABLE ZONE C
- V — MEDIUM STIFF GRAY SILTY CLAY (CL) MOIST TO WET
- VI — MEDIUM STIFF GRAY CLAY (CH) MOIST TO WET
- VII — LOOSE GRAY SILTY SAND (SM) SATURATED
- VIII — STIFF GRAY CLAY (CH) MOIST TO WET
- IX — MEDIUM DENSE TO DENSE GRAY SANDY SILT (ML) WET TO SATURATED
- OBSERVED GROUNDWATER LEVEL AS OF AUGUST 1994
- WASTEWATER LEVEL WITH TWO FEET FREEBOARD
- TP-6 / PZ-5 — SCREENED INTERVAL OF TEMPORARY PIEZOMETER

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: REVISED SECTION D-D'
OILY WASTE POND

DATE:	PROJECT:	FIGURE:
FEB. 2005	SOLID WASTE PERMIT APPLICATION LITTLE GYPSY ELECTRIC GENERATING PLANT ENTERGY LOUISIANA, INC.	5
PROJECT NO.: 82463		

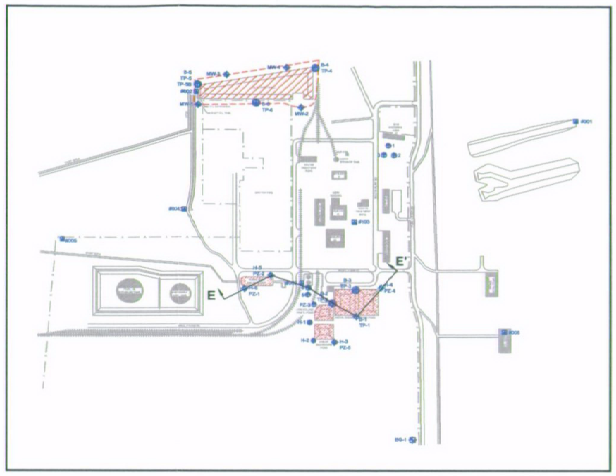
L:\WORK\82463\CADD\DRAWINGS\82463_FIG5.DWG



HORIZ. 0 100' 200' 400'

VERT. 0 10' 20' 40'

SCALE



SECTION LOCATION PLAN

0 400' 800' 1600'

SCALE: 1" = 800'

LEGEND

- FILL
- CL (SILTY OR SANDY CLAY)
- CH (CLAY)
- SM (SILTY OR CLAYEY SAND)
- ML (SANDY OR CLAYEY SILT)
- SP (SAND)

- I — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY AND CLAY (CL-CH)
- IA — LOOSE GRAY CLAYEY SILT (ML) PERMEABLE ZONE A.
- II — LOOSE BROWN CLAYEY SILT AND GRAY SILTY SAND (ML-SM) SATURATED-PERMEABLE ZONE B
- III — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY (CL)
- IV — LOOSE GRAY CLAYEY SILT (ML) GRADING TO GRAY SILTY SAND (SM) WITH CLAY LAYERS, TO THE SOUTH SATURATED, PERMEABLE ZONE C
- V — MEDIUM STIFF GRAY SILTY CLAY (CL) MOIST TO WET
- VI — MEDIUM STIFF GRAY CLAY (CH) MOIST TO WET
- VII — LOOSE GRAY SILTY SAND (SM) SATURATED
- VIII — STIFF GRAY CLAY (CH) MOIST TO WET
- IX — MEDIUM DENSE TO DENSE GRAY SANDY SILT (ML) WET TO SATURATED
- OBSERVED GROUNDWATER LEVEL AS OF AUGUST 1994
- WASTEWATER LEVEL WITH TWO FEET FREEBOARD
- TP-6 / PZ-5 — SCREENED INTERVAL OF TEMPORARY PIEZOMETER

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: REVISED SECTION E-E'
OILY WASTE POND

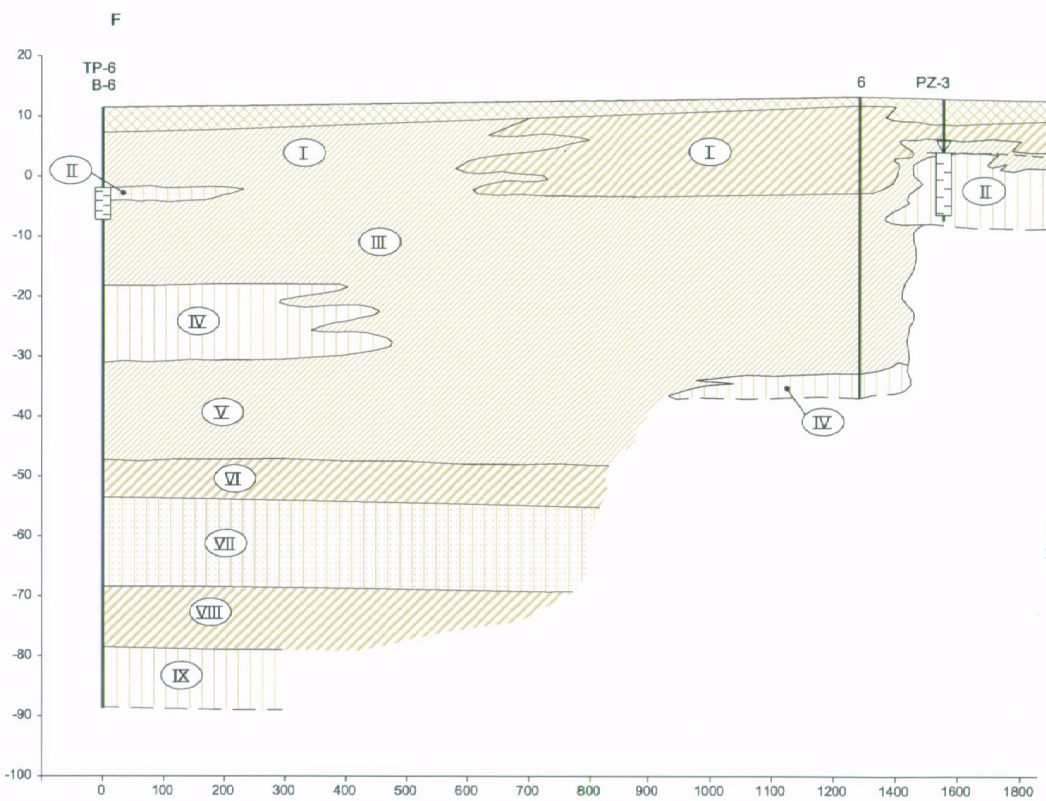
DATE: FEB. 2005

PROJECT NO.: 82463

PROJECT: SOLID WASTE PERMIT APPLICATION
LITTLE GYPSY ELECTRIC GENERATING PLANT
ENTERGY LOUISIANA, INC.

FIGURE: 6

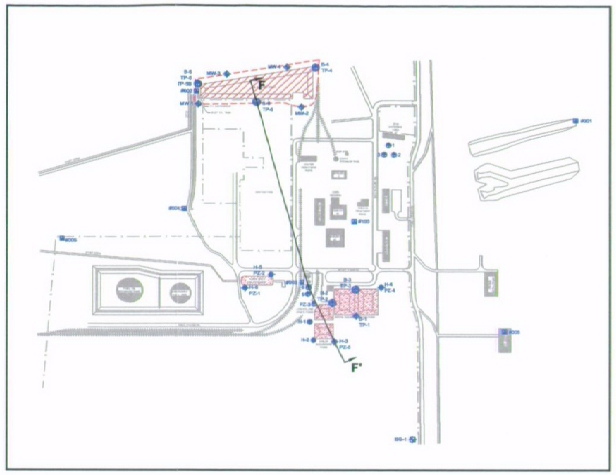
L:\WORK\82463\CADD\DRAWINGS\82463_FIG6.DWG



HORIZ. 0 100' 200' 400'

VERT. 0 10' 20' 40'

SCALE



SECTION LOCATION PLAN

0 400' 800' 1600'

SCALE: 1" = 800'

LEGEND

- FILL
- CL (SILTY OR SANDY CLAY)
- CH (CLAY)
- SM (SILTY OR CLAYEY SAND)
- ML (SANDY OR CLAYEY SILT)
- SP (SAND)

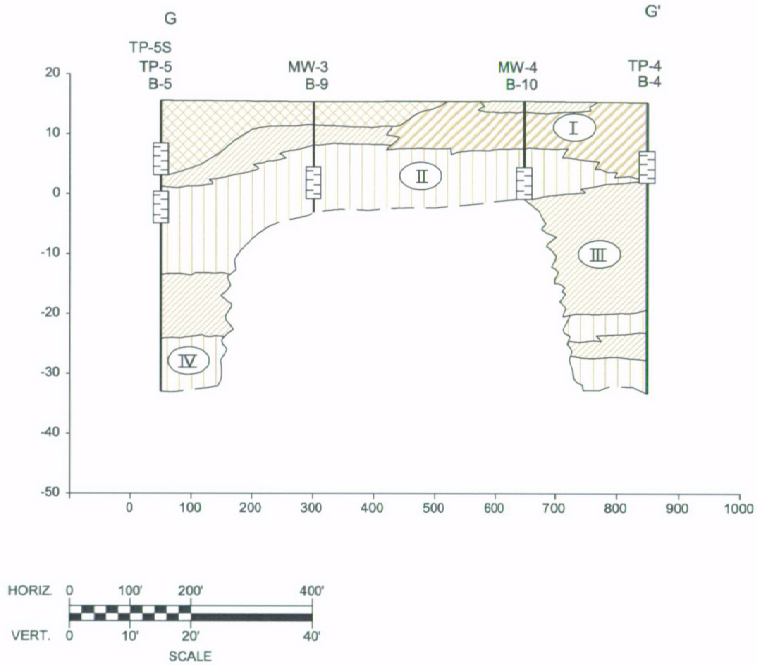
- I — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY AND CLAY (CL-CH)
- IA — LOOSE GRAY CLAYEY SILT (ML) PERMEABLE ZONE A.
- II — LOOSE BROWN CLAYEY SILT AND GRAY SILTY SAND (ML-SM) SATURATED-PERMEABLE ZONE B
- III — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY (CL)
- IV — LOOSE GRAY CLAYEY SILT (ML) GRADING TO GRAY SILTY SAND (SM) WITH CLAY LAYERS, TO THE SOUTH SATURATED, PERMEABLE ZONE C
- V — MEDIUM STIFF GRAY SILTY CLAY (CL) MOIST TO WET
- VI — MEDIUM STIFF GRAY CLAY (CH) MOIST TO WET
- VII — LOOSE GRAY SILTY SAND (SM) SATURATED
- VIII — STIFF GRAY CLAY (CH) MOIST TO WET
- IX — MEDIUM DENSE TO DENSE GRAY SANDY SILT (ML) WET TO SATURATED
- OBSERVED GROUNDWATER LEVEL AS OF AUGUST 1994
- WASTEWATER LEVEL WITH TWO FEET FREEBOARD
- TP-6 PZ-5 — SCREENED INTERVAL OF TEMPORARY PIEZOMETER

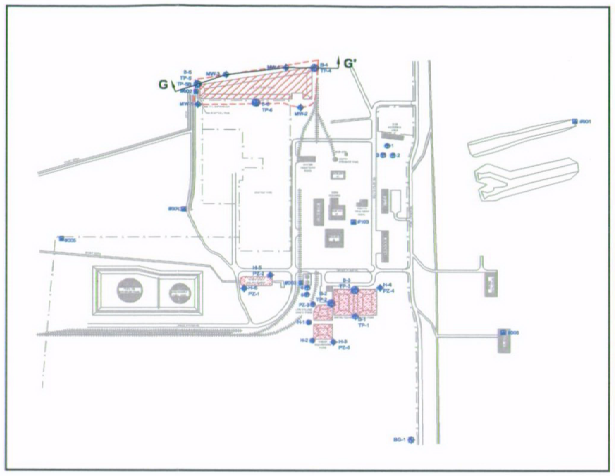
EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: REVISED SECTION F-F'
OILY WASTE POND

DATE:	PROJECT:	FIGURE:
FEB. 2005	SOLID WASTE PERMIT APPLICATION LITTLE GYPSY ELECTRIC GENERATING PLANT ENTERGY LOUISIANA, INC.	7
PROJECT NO.: 82463		

L:\WORK\82463\CADD\DRAWINGS\82463_FIG7.DWG





SECTION LOCATION PLAN

0 400' 800' 1600'

SCALE: 1" = 800'

LEGEND

- FILL
- CL (SILTY OR SANDY CLAY)
- CH (CLAY)
- SM (SILTY OR CLAYEY SAND)
- ML (SANDY OR CLAYEY SILT)
- SP (SAND)

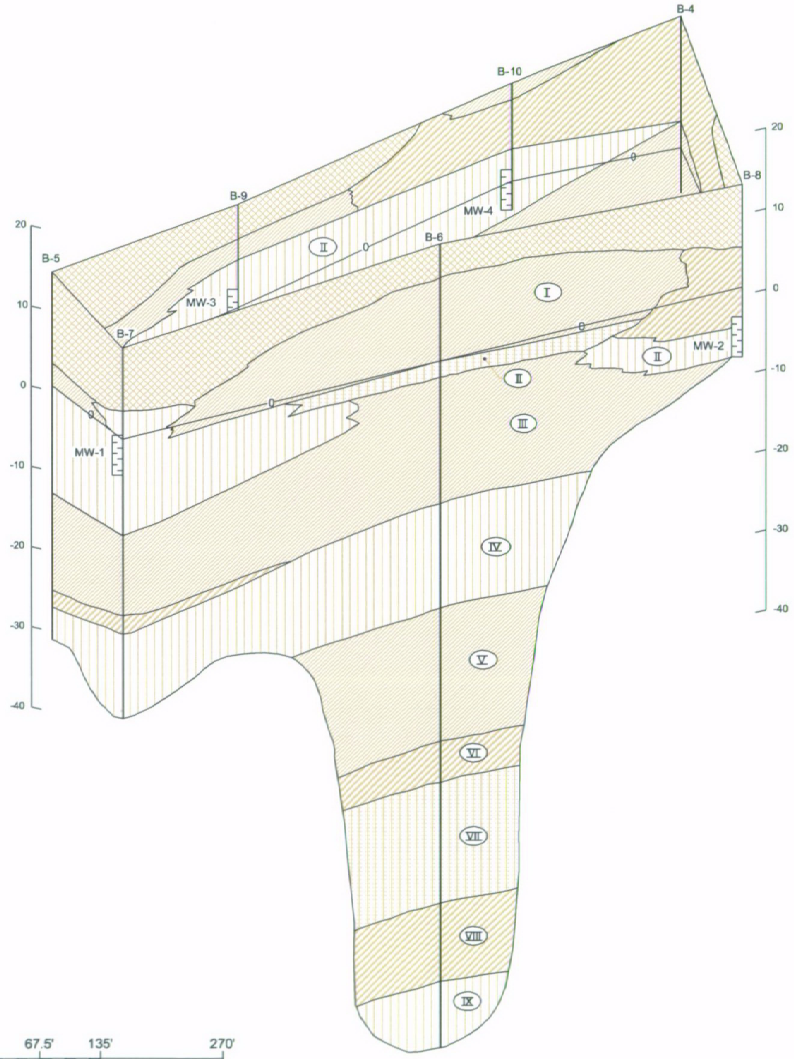
- I — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY AND CLAY (CL-CH)
- IA — LOOSE GRAY CLAYEY SILT (ML) PERMEABLE ZONE A.
- II — LOOSE BROWN CLAYEY SILT AND GRAY SILTY SAND (ML-SM) SATURATED-PERMEABLE ZONE B
- III — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY (CL)
- IV — LOOSE GRAY CLAYEY SILT (ML) GRADING TO GRAY SILTY SAND (SM) WITH CLAY LAYERS, TO THE SOUTH SATURATED, PERMEABLE ZONE C
- V — MEDIUM STIFF GRAY SILTY CLAY (CL) MOIST TO WET
- VI — MEDIUM STIFF GRAY CLAY (CH) MOIST TO WET
- VII — LOOSE GRAY SILTY SAND (SM) SATURATED
- VIII — STIFF GRAY CLAY (CH) MOIST TO WET
- IX — MEDIUM DENSE TO DENSE GRAY SANDY SILT (ML) WET TO SATURATED
- OBSERVED GROUNDWATER LEVEL AS OF AUGUST 1994
- WASTEWATER LEVEL WITH TWO FEET FREEBOARD
- TP-6 / PZ-5 — SCREENED INTERVAL OF TEMPORARY PIEZOMETER

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: REVISED SECTION G-G' OILY WASTE POND

DATE:	PROJECT:	FIGURE:
FEB. 2005	SOLID WASTE PERMIT APPLICATION LITTLE GYPSY ELECTRIC GENERATING PLANT ENTERGY LOUISIANA, INC.	8
PROJECT NO.: 82463		

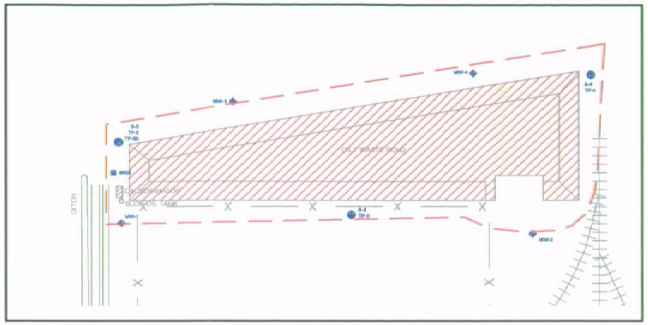
L:\WORK\82463\CADD\DRAWINGS\82463_FIG8.DWG



HORIZ. 0 67.5' 135' 270'

VERT. 0 7.5' 15' 30'

SCALE



SECTION LOCATION PLAN

0 100' 200' 400'

SCALE: 1" = 200'

LEGEND

- FILL
- CL (SILTY OR SANDY CLAY)
- CH (CLAY)
- SM (SILTY OR CLAYEY SAND)
- ML (SANDY OR CLAYEY SILT)
- SP (SAND)

- I — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY AND CLAY (CL-CH)
- IA — LOOSE GRAY CLAYEY SILT (ML) PERMEABLE ZONE A.
- II — LOOSE BROWN CLAYEY SILT AND GRAY SILTY SAND (ML-SM) SATURATED-PERMEABLE ZONE B
- III — SOFT TO MEDIUM STIFF TAN AND GRAY SILTY CLAY (CL)
- IV — LOOSE GRAY CLAYEY SILT (ML) GRADING TO GRAY SILTY SAND (SM) WITH CLAY LAYERS, TO THE SOUTH SATURATED, PERMEABLE ZONE C
- V — MEDIUM STIFF GRAY SILTY CLAY (CL) MOIST TO WET
- VI — MEDIUM STIFF GRAY CLAY (CH) MOIST TO WET
- VII — LOOSE GRAY SILTY SAND (SM) SATURATED
- VIII — STIFF GRAY CLAY (CH) MOIST TO WET
- IX — MEDIUM DENSE TO DENSE GRAY SANDY SILT (ML) WET TO SATURATED
- OBSERVED GROUNDWATER LEVEL AS OF AUGUST 1994
- WASTEWATER LEVEL WITH TWO FEET FREEBOARD
- TP-6 / PZ-5 — SCREENED INTERVAL OF TEMPORARY PIEZOMETER

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: ISOMETRIC PROFILE OILY WASTE POND

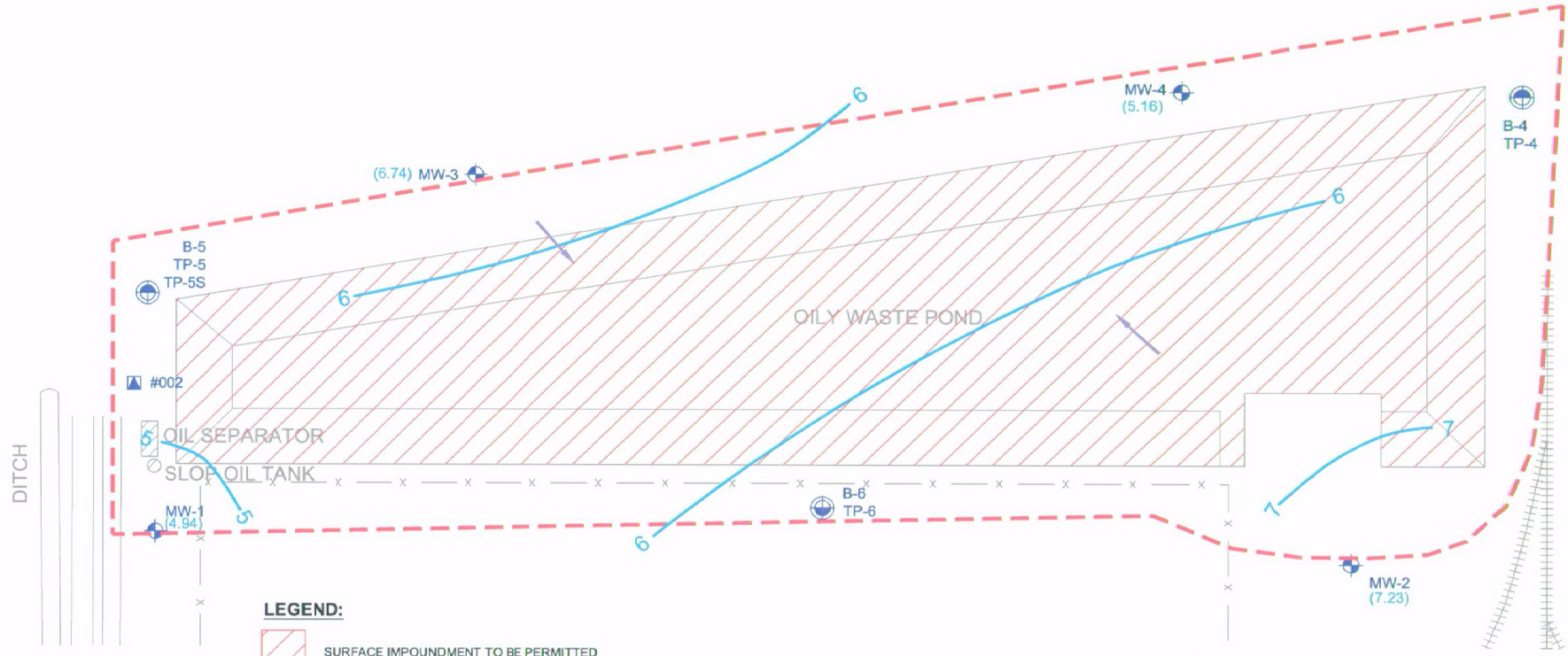
DATE: FEB. 2005

PROJECT NO.: 82463

PROJECT: SOLID WASTE PERMIT APPLICATION LITTLE GYPSY ELECTRIC GENERATING PLANT ENTERGY LOUISIANA, INC.

FIGURE: 9

L:\WORK\82463\CADD\DRAWINGS\82463_FIG9.DWG



LEGEND:

- SURFACE IMPOUNDMENT TO BE PERMITTED
- RELEVANT POINT OF COMPLIANCE FOR PROPOSED GROUNDWATER MONITORING SYSTEM
- NPDES PERMITTED OUTFALL LOCATION
- SHALLOW BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- DEEP BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- MONITOR WELL FOR OILY WASTE POND
- — 7 — POTENTIOMETRIC CONTOUR (FT, NGVD)
- (7.23) POTENTIOMETRIC ELEVATION (FT, NGVD)
- GROUNDWATER FLOW DIRECTION

NOTES:

1. THIS FIGURE USED AS ILLUSTRATION ONLY. ADDITIONAL CONDITIONS MAY EXIST WHICH ARE NOT SHOWN.

SOURCE:
BROWN & ROOT, INC.
ENGINEERS AND CONTRACTORS
PLOT PLAN DRAWING: M-1500-A

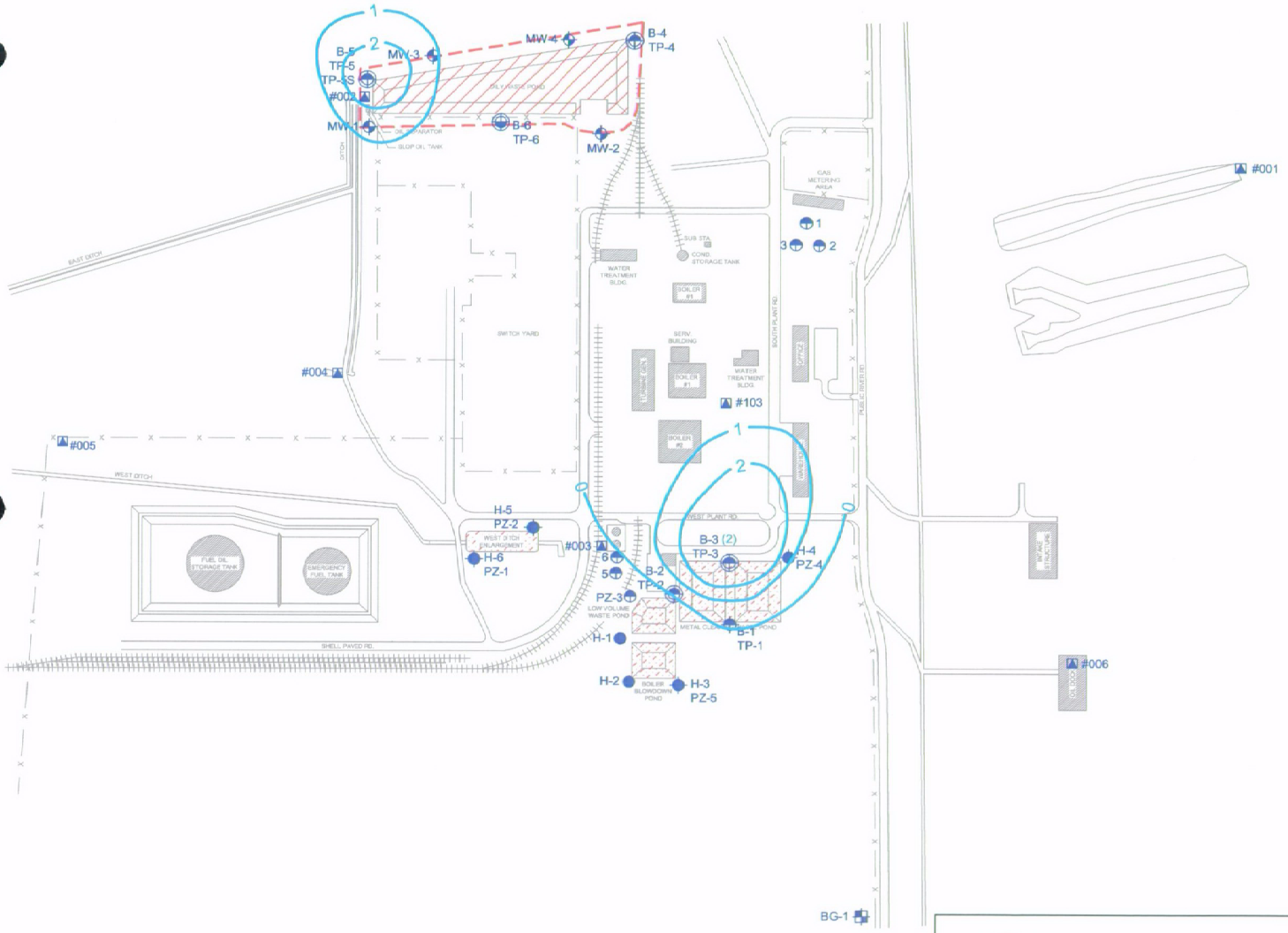
0 30' 60' 120'
SCALE: 1" = 60'

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: POTENTIOMETRIC CONTOUR MAP
OCTOBER 20, 2004
OILY WASTE POND

DATE: FEB. 2005
PROJECT NO.: 82463
PROJECT: SOLID WASTE PERMIT APPLICATION
LITTLE GYPSY ELECTRIC GENERATING PLANT
ENTERGY LOUISIANA, INC.
FIGURE: 10

L:\WORK\82463\CADD\DRAWINGS\82463_FIG10.DWG



LEGEND:

- FORMER SURFACE IMPOUNDMENT (CLEAN CLOSED)
- SURFACE IMPOUNDMENT TO BE PERMITTED
- RELEVANT POINT OF COMPLIANCE FOR PROPOSED GROUNDWATER MONITORING SYSTEM
- LPDES PERMITTED OUTFALL LOCATION
- HYDRO PUNCH SAMPLE LOCATION
- HYDRO PUNCH SAMPLE LOCATION SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING
- SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- DEEP BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- BACKGROUND BORING
- MONITOR WELL FOR OILY WASTE POND

NOTES:

1. THIS FIGURE USED AS ILLUSTRATION ONLY. ADDITIONAL CONDITIONS MAY EXIST WHICH ARE NOT SHOWN.

0 150' 300' 600'

SCALE: 1" = 300'

SOURCE:
BROWN & ROOT, INC.
ENGINEERS AND CONTRACTORS
PLOT PLAN DRAWING: M-1500-A

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2008 FAX: 630-574-2007

TITLE: ISOPACH MAP PERMEABLE ZONE A OILY WASTE POND

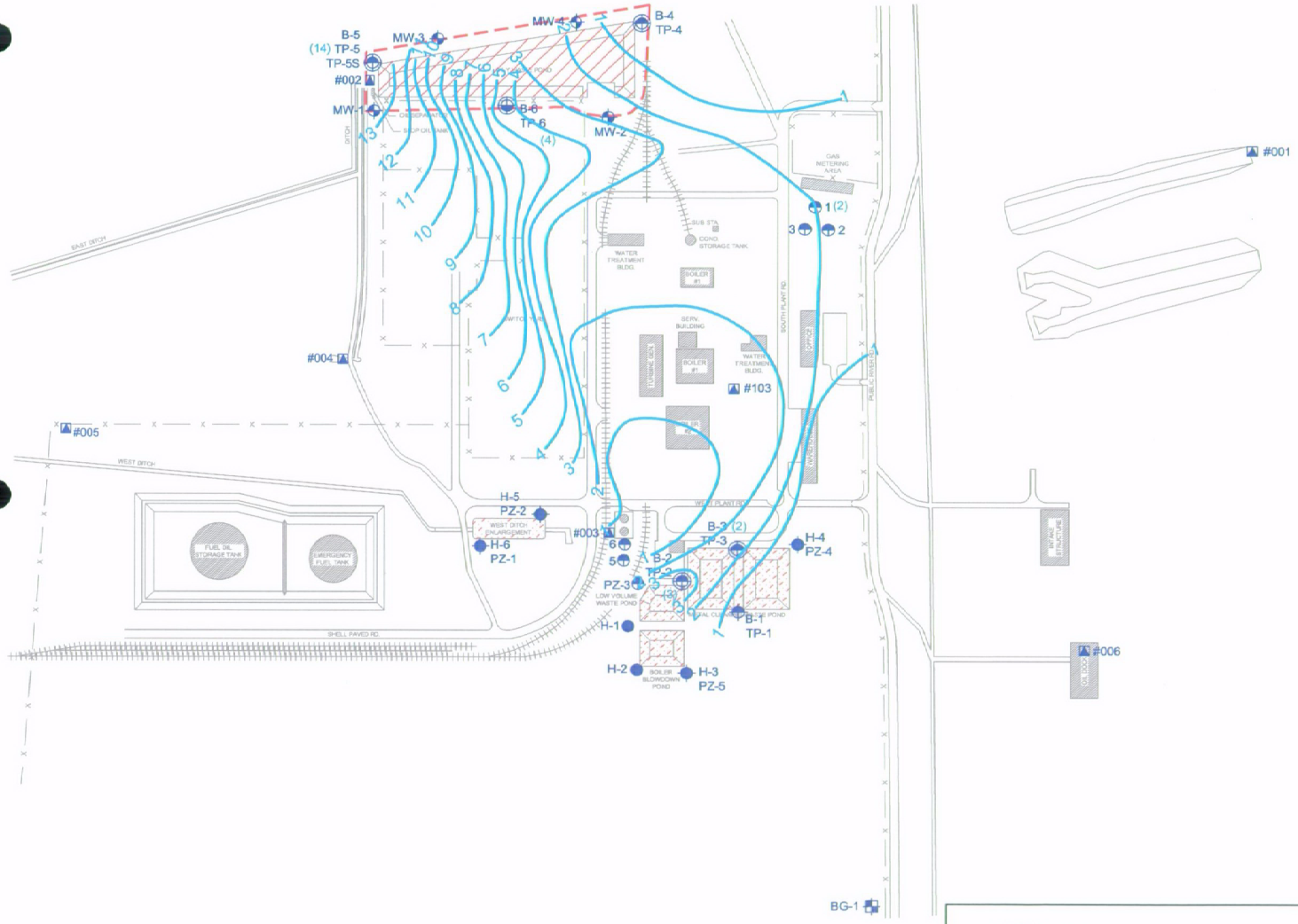
DATE: FEB. 2005

PROJECT NO.: 82463

PROJECT: SOLID WASTE PERMIT APPLICATION LITTLE GYPSY ELECTRIC GENERATING PLANT ENTERGY LOUISIANA, INC.

FIGURE: 11

L:\WORK\82463\CADD\DRAWINGS\82463_FIG11.DWG



LEGEND:

- FORMER SURFACE IMPOUNDMENT (CLEAN CLOSED)
- SURFACE IMPOUNDMENT TO BE PERMITTED
- RELEVANT POINT OF COMPLIANCE FOR PROPOSED GROUNDWATER MONITORING SYSTEM
- LPDES PERMITTED OUTFALL LOCATION
- HYDRO PUNCH SAMPLE LOCATION
- HYDRO PUNCH SAMPLE LOCATION SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING
- SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- DEEP BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- BACKGROUND BORING
- MONITOR WELL FOR OILY WASTE POND

NOTES:

1. THIS FIGURE USED AS ILLUSTRATION ONLY. ADDITIONAL CONDITIONS MAY EXIST WHICH ARE NOT SHOWN.

0 150' 300' 600'

SCALE: 1" = 300'

SOURCE:
BROWN & ROOT, INC.
ENGINEERS AND CONTRACTORS
PLOT PLAN DRAWING: M-1500-A

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: ISOPACH MAP PERMEABLE ZONE B OILY WASTE POND

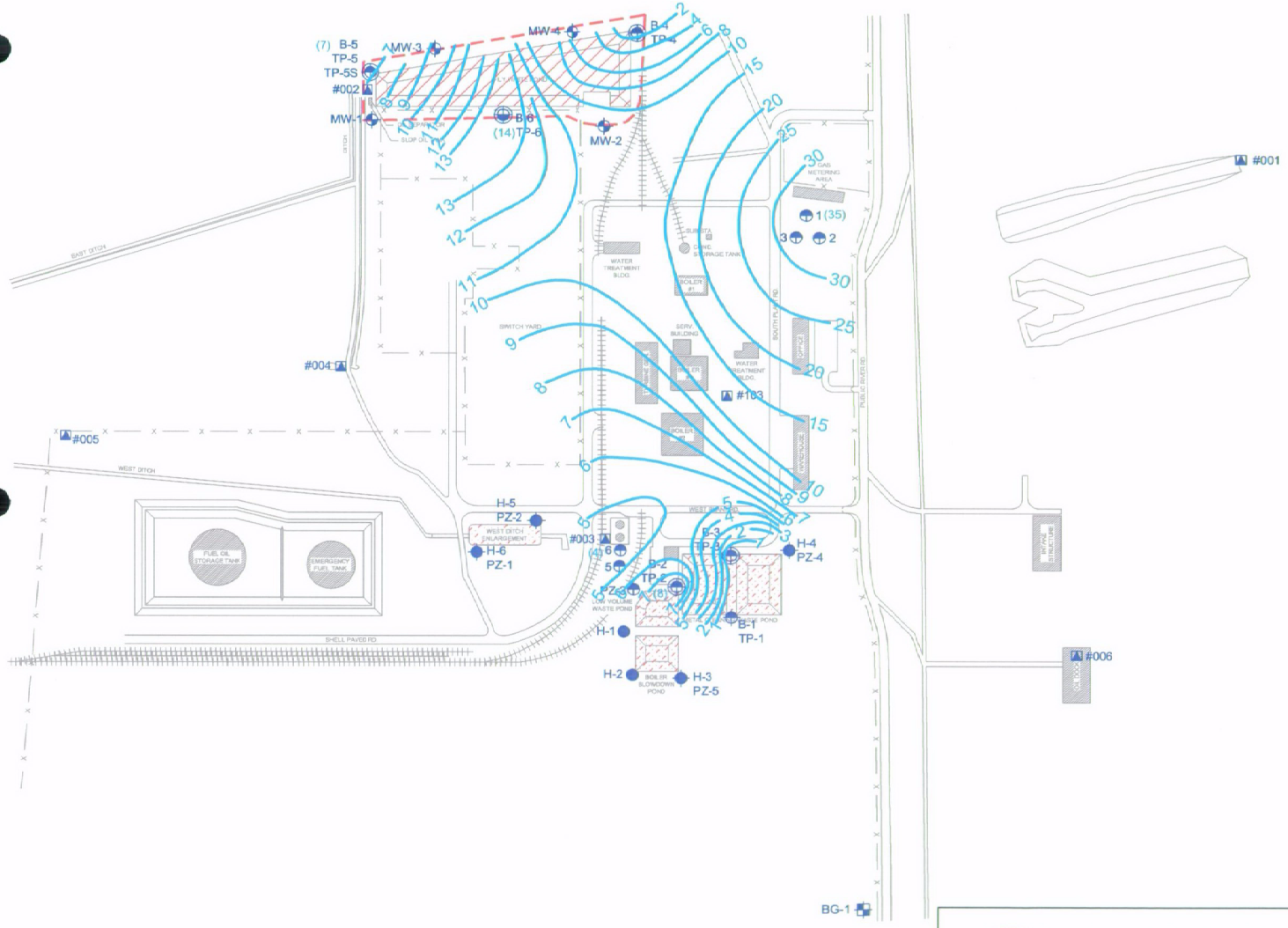
DATE: FEB. 2005

PROJECT NO.: 82463

PROJECT: SOLID WASTE PERMIT APPLICATION LITTLE GYPSY ELECTRIC GENERATING PLANT ENTERGY LOUISIANA, INC.

FIGURE: 12

L:\WORK\82463\CADD\DRAWINGS\82463_FIG12.DWG



LEGEND:

- FORMER SURFACE IMPOUNDMENT (CLEAN CLOSED)
- SURFACE IMPOUNDMENT TO BE PERMITTED
- RELEVANT POINT OF COMPLIANCE FOR PROPOSED GROUNDWATER MONITORING SYSTEM
- LPDES PERMITTED OUTFALL LOCATION
- HYDRO PUNCH SAMPLE LOCATION
- HYDRO PUNCH SAMPLE LOCATION SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING
- SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- DEEP BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- BACKGROUND BORING
- MONITOR WELL FOR OILY WASTE POND

NOTES:

1. THIS FIGURE USED AS ILLUSTRATION ONLY. ADDITIONAL CONDITIONS MAY EXIST WHICH ARE NOT SHOWN.

0 150' 300' 600'

SCALE: 1" = 300'

SOURCE:
BROWN & ROOT, INC.
ENGINEERS AND CONTRACTORS
PLOT PLAN DRAWING: M-1500-A

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: ISOPACH MAP PERMEABLE ZONE C OILY WASTE POND

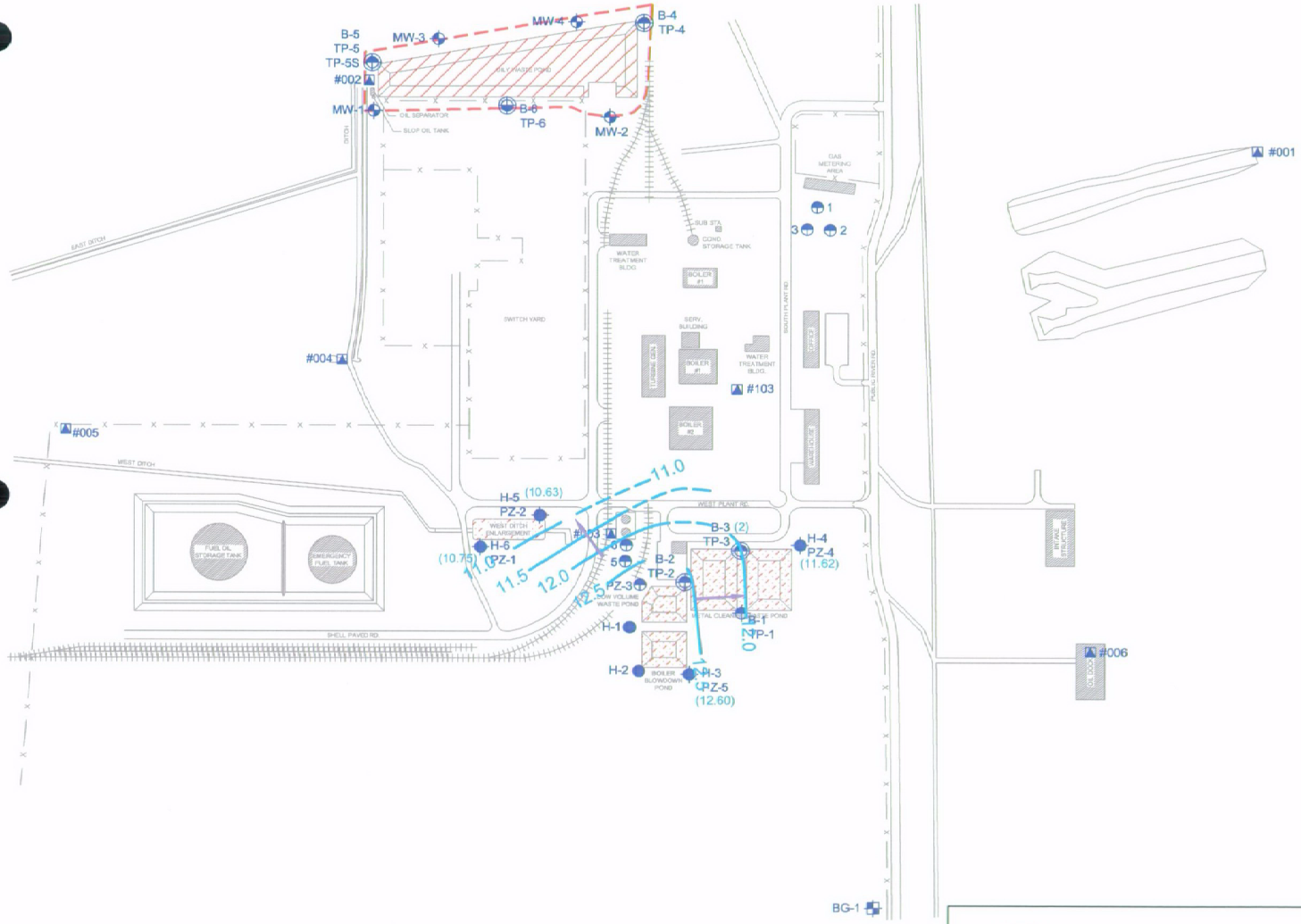
DATE: FEB. 2005

PROJECT NO.: 82463

PROJECT: SOLID WASTE PERMIT APPLICATION LITTLE GYPSY ELECTRIC GENERATING PLANT ENTERGY LOUISIANA, INC.

FIGURE: 13

L:\WORK\82463\CADD\DRAWINGS\82463_FIG13.DWG



LEGEND:

- FORMER SURFACE IMPOUNDMENT (CLEAN CLOSED)
- SURFACE IMPOUNDMENT TO BE PERMITTED
- RELEVANT POINT OF COMPLIANCE FOR PROPOSED GROUNDWATER MONITORING SYSTEM
- LPDES PERMITTED OUTFALL LOCATION
- HYDRO PUNCH SAMPLE LOCATION
- HYDRO PUNCH SAMPLE LOCATION SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING
- SHALLOW BORING WITH TEMPORARY PIEZOMETER
- SHALLOW BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- DEEP BORING WITH TEMPORARY PIEZOMETER PLUGGED AND ABANDONED (4/96)
- BACKGROUND BORING
- MONITOR WELL FOR OILY WASTE POND
- —12— POTENTIOMETRIC CONTOUR (FT, NGVD)
- (12.60) POTENTIOMETRIC ELEVATION (FT, NGVD)
- GROUNDWATER FLOW DIRECTION

NOTES:

1. THIS FIGURE USED AS ILLUSTRATION ONLY. ADDITIONAL CONDITIONS MAY EXIST WHICH ARE NOT SHOWN.

0 150' 300' 600'

SCALE: 1" = 300'

SOURCE:
BROWN & ROOT, INC.
ENGINEERS AND CONTRACTORS
PLOT PLAN DRAWING: M-1500-A

EarthTech
A Tyco International Ltd. Company
3121 BUTTERFIELD ROAD, OAK BROOK, ILLINOIS 60523
PHONE: 630-574-2006 FAX: 630-574-2007

TITLE: POTENTIOMETRIC CONTOUR MAP
APRIL 25, 1996
OILY WASTE POND

DATE: FEB. 2005

PROJECT NO.: 82463

PROJECT: SOLID WASTE PERMIT APPLICATION
LITTLE GYPSY ELECTRIC GENERATING PLANT
ENTERGY LOUISIANA, INC.

FIGURE: 14

L:\WORK\82463\CADD\DRAWINGS\82463_FIG14.DWG

Boring Logs

EUSTIS ENGINEERING

LOG OF BORING AND TEST RESULTS

Louisiana Power & Light Company, New Maintenance Shop, Little Gypsy Power Plant, St. Charles Parish, Louisiana

Ground Elev.: | Datum: | Gr. Water Depth: See Text | Job No: 10695 | Date Drilled: 6/06/89 | Boring: 1 | Refer To "Legends & Notes"

Scale in Feet	PP	SPT	Symbol	Visual Classification	USC	Sample Number	Depth in Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests φ	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
	3.25			Very stiff tan & gray silty clay w/fill	CL	1	2-3	22	104	127	UC	—	3925					
5	0.75			Medium stiff gray & tan clay w/silt pocket	CH	2	5-6	39	83	115	UC	—	545					
10	1.05					3	8-9	44	77	112	UC	—	545					
	0.10			Loose gray clayey silt	ML	4	11-12											
15	0.30			Soft gray silty clay w/wood & roots	CL	5	14-15											
20	0.30					6	18-19	42	78	111	UC	—	340					
25	0.30			Loose gray clayey silt w/clay lenses & roots	ML	7	23-24	37	85	116	QB	—	300					
30	0.55			Medium stiff gray clay w/sand lenses	CH	8	28-29	60	65	104	UC	—	595					
35				Very loose gray silty sand w/clay layers	SM	9	33-34											
						10	37-38											
40		3				11	39-40											
		3				12	41-42											
45		8		Loose gray silty sand w/clay layers	SM	13	44-45											
50		8				14	49-50											

Boring grouted upon completion

EUSTIS ENGINEERING

LOG OF BORING AND TEST RESULTS

Louisiana Power & Light Company, New Maintenance Shop, Little Gypsy Power Plant, St. Charles Parish, Louisiana

Ground Elev.: | Datum: | Gr. Water Depth: See Text | Job No: 10695 | Date Drilled: 6/06/89 | Boring: 1 | Refer To "Legends & Notes"

Scale in Feet	PP	SPT	Symbol	Visual Classification	USC	Sample Number	Depth in Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests φ	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
				Loose gray silty sand w/clay layers	SM													
55		22		Medium dense gray silty sand	SM	15	54-55											
60		32		Dense gray sand	SP	16	59-60											

Boring grouted upon completion

EUSTIS ENGINEERING

LOG OF BORING AND TEST RESULTS

Louisiana Power & Light Company, New Maintenance Shop, Little Gypsy Power Plant, St. Charles Parish, Louisiana

Ground Elev.: | Datum: | Gr. Water Depth: See Text | Job No: 10695 | Date Drilled: 6/06/89 | Boring: 2 | Refer To "Legends & Notes"

Scale In Feet	PP	SPT	Symbol	Visual Classification	USC	Sample Number	Depth in Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests φ	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
				Compact shells w/sand & clay		1	0-1											
		5		Medium stiff dark gray clay w/shells, coal & fill	CH	2	2-3											
	1.20			Medium stiff tan & gray clay w/silt pockets & few small roots	CH	3	3-4	37	83	114	UC	—	835	56	21	35		
5	0.45			Soft tan & gray silty clay w/shells	CL	4	5-6	33	90	119	UC	—	455	39	20	19		
	0.40			Soft gray clay w/wood & organic matter	CH	5	8-9	58										
10	0.55			Medium stiff gray & tan clay w/silt pockets	CH	6	11-12											
15	0.10			Soft gray silty clay w/clayey silt layers & roots	CL	7	14-15											

EUSTIS ENGINEERING

LOG OF BORING AND TEST RESULTS

Louisiana Power & Light Company, New Maintenance Shop, Little Gypsy Power Plant, St. Charles Parish, Louisiana

Ground Elev.: | Datum: | Gr. Water Depth: See Text | Job No: 10695 | Date Drilled: 6/06/89 | Boring: 3 | Refer To "Legends & Notes"

Scale in Feet	PP	SPT	Symbol	Visual Classification	USC	Sample Number	Depth in Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests φ	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
	0.90			Medium stiff gray & tan clay w/silty sand layers, shells & fill	CH	1	2-3	20										
5	0.60			Medium stiff gray & tan silty clay	CL	2	5-6	35	87	118	UC	—	515					
10				Medium stiff gray & tan clay w/silt pockets & wood	CH	3	8-9	60										
	0.55			Soft gray silty clay w/roots	CL	4	11-12	33	90	119	UC	—	405					
15	0.85			& wood		5	14-15											

Boring grouted upon completion

EUSTIS ENGINEERING COMPANY, INC.

LOG OF BORING AND TEST RESULTS

ENTERGY CORPORATION, LOW VOLUME WASTE TANK FOUNDATIONS (SHEET 1 OF 1)

LITTLE GYPSY, LOUISIANA

Ground Elev.: Datum: Gr. Water Depth: See Text Job No.: 12613 Date Drilled: 9/14/93 Boring: 5 Refer To "Legends & Notes"

Scale In Feet	PP	SPT	SPLR	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests Ø	Shear Tests C	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI		Other Tests
					Stiff gray clay w/shells, roots & gravel	CH	1	0-1											
	1.75				Very stiff gray & tan clay w/silt pockets	CH	2	2-3	28	97	124	UC	--	2355					
5	1.00						3	5-6											
	0.30				Very soft gray & tan clay w/silt pockets	CH	4	8-9	39	84	116	UC	--	230					
10	0.50						5	11-12											
15	0.50				Soft gray clay w/silty clay layers	CH	6	14-15	36	88	119	UC	--	365					
20	0.50				w/trace of wood		7	18-19											
25	0.50						8	23-24	37	86	118	UC	--	340					
	0.50				Soft gray silty clay w/clay layers	CL	9	28-29											
30																			
35	0.50						10	33-34	34	89	119	UC	--	360					
	1.25				Stiff gray clay w/clayey silt lenses	CH	11	38-39											
40																			
45	0.50				Soft gray silty clay w/clay & clayey silt layers	CL	12	43-44	33	91	120	UC	--	325					
50	0.50						13	48-49											

EUSTIS ENGINEERING COMPANY, INC.

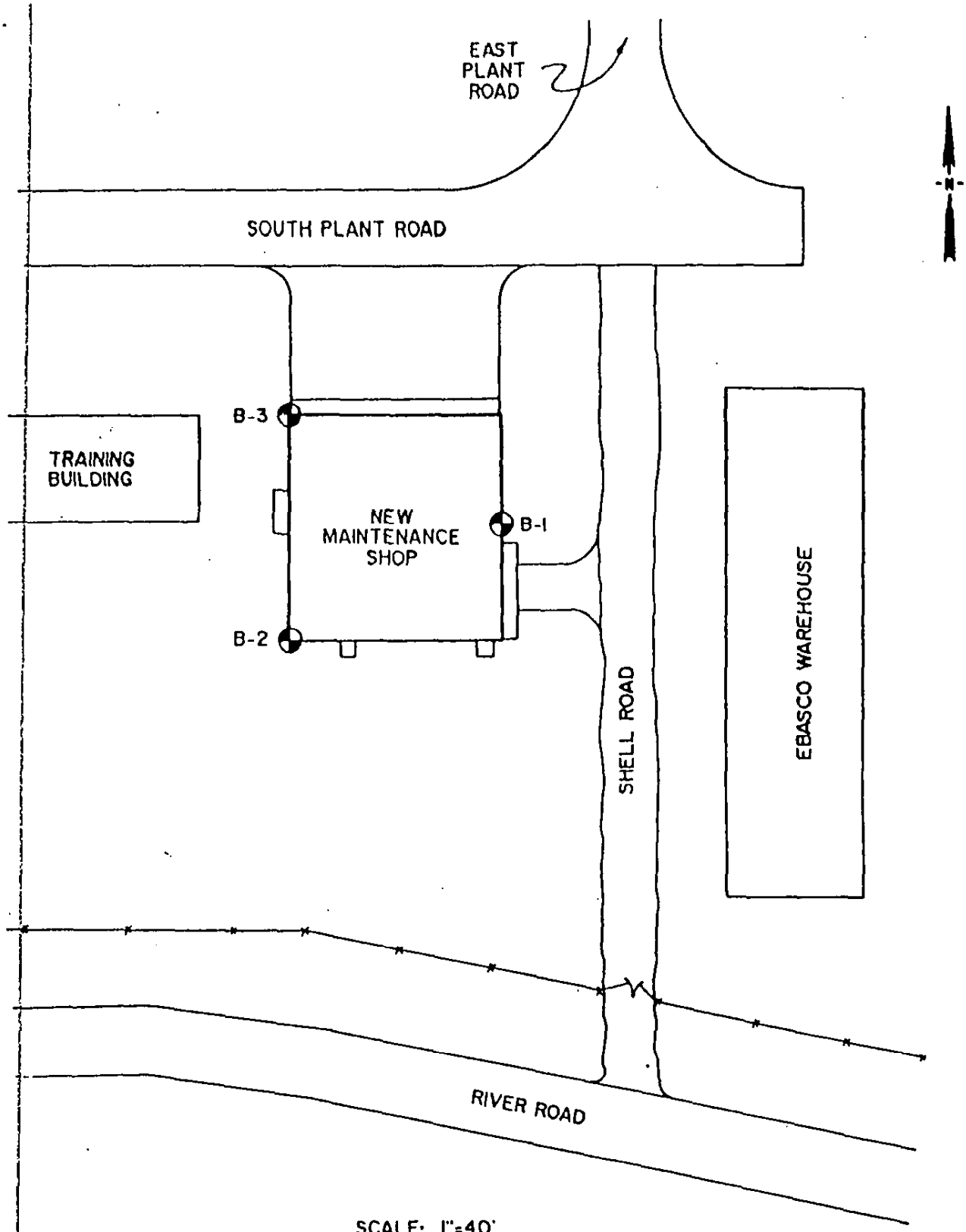
LOG OF BORING AND TEST RESULTS

ENTERGY CORPORATION, LOW VOLUME WASTE TANK FOUNDATIONS

LITTLE GYPSY, LOUISIANA

Ground Elev.: Datum: Gr. Water Depth: See Text Job No.: 12613 Date Drilled: 9/14/93 Boring: 6 Refer To "Legends & Notes"

Scale In Feet	PP	SPT	SPLR	Symbol	Visual Classification	USC	Sample Number	Depth In Feet	Water Content Percent	Density Dry	Density Wet	Shear Tests Type	Shear Tests Ø	Shear Tests C	Allerberg Limits LL	Allerberg Limits PL	Allerberg Limits PI		Other Tests
					Stiff gray clay w/sand layers, shells & roots	CH	1	0-1											
	1.75				Stiff gray clay w/silt pockets	CH	2	2-3											
5	1.10				Medium stiff gray & tan clay w/silt pockets	CH	3	5-6	49	73	108	UC	--	550					
	1.00						4	8-9											
10	1.00						5	11-12	35	88	119	UC	--	720					
15	0.70				Medium stiff gray clay w/silty clay layers	CH	6	14-15											
20	0.50				Soft gray clay w/silty clay layers & trace of wood	CH	7	18-19	36	86	117	UC	--	455	45	20	25		
25	0.50						8	23-24											
30	0.50				Soft gray silty clay w/clay layers	CL	9	28-29	33	88	118	UC	--	450	36	18	18		
35	0.50						10	33-34											
40	0.50						11	38-39	36	86	118	UC	--	400					
45	0.75				Medium stiff gray silty clay w/sandy silt lenses	CL	12	43-44											
50					Loose gray sandy silt w/clay lenses	ML	13	48-49	28	97	124	OB	--	1070					



SCALE: 1"=40'

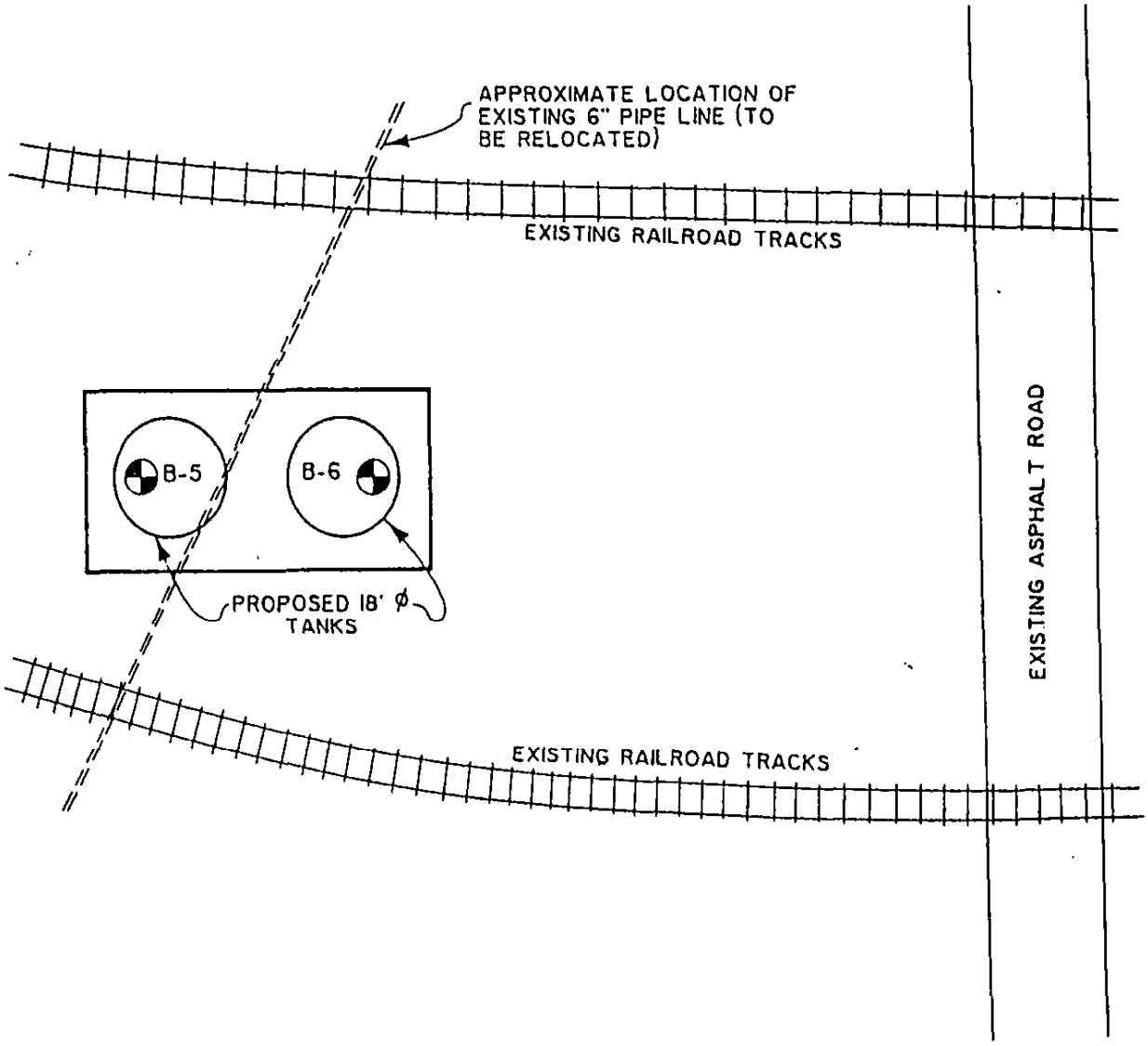
BORINGS DRILLED 6 JUNE 1989

LOCATION OF BORINGS

LOUISIANA POWER & LIGHT COMPAN'
NEW MAINTENANCE SHOP
LITTLE GYPSY POWER PLANT
ST. CHARLES PARISH, LOUISIANA

EUSTIS ENGINEERING

FIGURE



SCALE: 1"=30'

BORINGS DRILLED 14 SEPTEMBER 1993

N

LOCATION OF BORINGS
LITTLE GYPSY PLANT

ENTERGY CORPORATION
LOW VOLUME WASTE NEUTRALIZATION PROJECT

EUSTIS ENGINEERING CO., INC.

FIGURE

LEGEND AND NOTES FOR LOG OF BORING AND TEST RESULTS

PP	Pocket penetrometer resistance in tons per square foot
TV	Torvane shear strength in tons per square foot
SPT	Standard Penetration Test. Number of blows of a 140-lb. hammer dropped 30 inches required to drive 2-in O.D., 1.4-in. I.D. sampler a distance of one foot into the soil, after first seating it 6 inches
SPLR	Type of Sampling — Shelby, SPT, Auger, No Sample
SYMBOL	Clay, Silt, Sand, Humus — Predominant type shown heavy; Modifying type shown light
DENSITY	Unit weight in pounds per cubic foot
USC	Unified Soil Classification

TYPE

UC	Unconfined compression shear
OB	Unconsolidated undrained triaxial compression shear on one specimen confined at the approximate overburden pressure
UU	Unconsolidated undrained triaxial compression shear
CU	Consolidated undrained triaxial compression shear
DS	Direct shear
CON	Consolidation
PD	Particle size distribution
k	Coefficient of permeability in centimeters per second
SP	Swelling pressure in pounds per square foot

ϕ	Angle of internal friction in degrees
c	Cohesion in pounds per square foot

Other laboratory test results reported on separate figure

Ground Water Measurements — Initial — Final

GENERAL NOTES

(1) At the time the borings were made, ground water levels were measured below existing ground surface. These observations are shown on the boring logs. However, ground water levels may vary due to seasonal and other factors. If important to construction, the depth to ground water should be determined by those persons responsible for construction, immediately prior to beginning work.

(2) While the individual logs of borings are considered to be representative of subsurface conditions at their respective locations on the dates shown, it is not warranted that they are representative of subsurface conditions at other locations and times.

SOIL BOREHOLE LOG

SITE NAME AND LOCATION ENTERGY – Little Gypsy – Montz, Louisiana	DRILLING METHOD: Hollow Stem Auger				BORING NO. BG-1
	SAMPLING METHOD: Shelby Tube				SHEET 1 OF 1
					DRILLING START / FINISH
	WATER LEVEL	8.0			TIME 08:45 / TIME 09:15
	TIME	09:00			
	DATE	02/11/94			DATE 02/11/94 / DATE 02/11/94
DATUM ELEVATION	SYMBOL	▽	▼		

DRILL RIG D-50 | SURFACE CONDITIONS: Level, Open Grassy

ANGLE Vertical | BEARING ------

SAMPLE HAMMER WEIGHT LBS

DRILLING CONTR Eustis Engineering Company, Inc.

DRILLER Eric Held

PN 87869.521

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (BGS)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
0.0				Medium brown SILTY CLAY (CL), some very fine sand, shell abundant, damp – shell rare below 1 ½' – soft to medium, gray, occasional iron staining, rootlets damp – siltier with depth.								
5							5					
▽				Very soft brown and gray CLAYEY SILT (CL/ML) – wet at 8'.								
10							10					
				Loose dark gray CLAYEY SILTY SAND (ML/SM) with rootlets, wood fragments, very fine to fine grained sand, occasional small mica flakes.								
15				Boring BG-1 was terminated at 15' below ground surface and grouted to full depth with a 5% bentonite/cement mixture.			15					
20							20					
25.0												

LOGGED BY JEK

CHECKED BY D.Trahan

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10'; Wet Rotary 10 - 46'	BORING NO. B-1	
	SAMPLING METHOD: SS = Split-Spoon; ST = Shelby Tube	SHEET 1 OF 2	
		DRILLING START TIME 10:45 DATE 3-3-94	DRILLING FINISH TIME 15:45 DATE 3-3-94
DATUM	ELEVATION 15.03	WATER LEVEL / TIME / DATE / SYMBOL	
DRILL RIG: Failing 36	N 670 E 2140	SURFACE CONDITIONS: Grassy	
ANGLE: Vertical	BEARING: ------		
SAMPLE HAMMER WEIGHT: 140 LBS			

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
0.0	2.25			Medium stiff brown and gray CLAY (CH) FILL *moist, with gravel, shells, organics, and trace decayed wood*	ST							
	2.25				ST							
5	2.25				ST		5					
	0.50			Soft to medium stiff gray CLAY (CH) moist, with wood fragments	ST							
	1.00				ST			47	98	27	71	(1)
10	0.50				ST		10					
	<0.25				ST							
15	<0.25			Very soft to soft gray and tan SILTY CLAY (CL) wet, with wood fragments and trace SILT seams	ST		15					
	0.50				ST			35	37	20	17	(2) 94.9
	<0.25				ST							
20	0.50				ST		20					
	0.50				ST							
25	0.75				ST		25					
	0.25				ST							
	2/2/3 5 BPF			-- with some CLAYEY SILT seams	SS							
30	--				ST		30		32	20	12	93.0
	--				ST							
35 36.0	2/3/3 6 BPF				SS		35					

Continued Next Page

DRILLING CONTR Eustis Engineering Company, Inc.

DRILLER Eric Held

SL 87869.521

LOGGED BY Sean McLaughlin

CHK'D BY B. Kendrick

Tracking Codes: WMSOIL, 8/9/94

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10' / Wet Rotary 10 - 46'	BORING NO. B-1	
	SAMPLING METHOD: SS = Split-Spoon / ST = Shelby Tube	SHEET 2 OF 2	
		DRILLING START	DRILLING FINISH
	WATER LEVEL	TIME	TIME
	TIME	10:45	15:45
	DATE	DATE	DATE
DATUM / ELEVATION 15.03	SYMBOL ▽ ▼	3-3-94	3-3-94
DRILL RIG: Failing 36	N 670 E 2140	SURFACE CONDITIONS: Grassy	
ANGLE: Vertical	BEARING: ------		
SAMPLE HAMMER WEIGHT: 140 LBS			

DRILLING CONTR: Eustis Engineering Company, Inc.

DRILLER: Eric Held

SL 87869.521

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
36.0	--			Very soft to soft gray and tan SILTY CLAY (CL) wet, with wood fragments and trace SILT seams	ST							
	1/3/3 6 BPF				SS							
40	--				ST		40					
	1/2/3 5 BPF				SS							
45	--				ST		45					
				Boring B-1 was terminated at 46 ft bgs on 3/3/94. The borehole was grouted full depth using a 5% bentonite/cement mixture.								
50				NOTES: (1) Vertical Permeability = 6.1E-8 cm/sec. Horizontal Permeability = 9.0E-8 cm/sec. (2) Vertical Permeability = 2.2E-6 cm/sec. Horizontal Permeability = 3.3E-6 cm/sec.			50					
55							55					
60							60					
65							65					
70							70					
72.0												

LOGGED BY: Sean McLaughlin

CHK'D BY: B. Kendrick

Tracking Codes: WMSOIL, 8/9/94

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10'; Wet Rotary 10 - 46'	BORING NO. B-2	
	SAMPLING METHOD: SS = Split-Spoon; ST = Shelby Tube	SHEET 1 OF 2	
		DRILLING START	DRILLING FINISH
	WATER LEVEL	TIME	TIME
	TIME	14:15	09:45
	DATE	DATE	DATE
DATUM	SYMBOL	3-2-94	3-3-94
ELEVATION 15.18			

DRILL RIG: Failing 36	N 770 E 1990	SURFACE CONDITIONS: Grassy	
ANGLE: Vertical	BEARING: ------		
SAMPLE HAMMER WEIGHT: 140 LBS			

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
0.0	1.50			Medium stiff gray and tan CLAY (CH) FILL moist, with shells and SILT pockets	ST							
	1.50				ST							
5	1.00				ST		5					
	0.75				ST				65	21	44	
	--				ST							
10	<0.25			Dark gray CLAYEY SILT (ML) saturated	ST		10					
	<0.25			Very soft to soft gray SILTY CLAY (CL) wet, with wood fragments and trace SILT seams	ST							
15	<0.25				ST		15					
	<0.25				ST				37	20	17	91.1
	<0.25				ST							
20	<0.25				ST		20					
	<0.25				ST							
25	<0.25				ST		25					
	0.75			-- with some CLAYEY SILT layers	ST				32	20	12	
	<0.25			*Loose dark gray CLAYEY SILT (ML)* wet to saturated	ST							
30	--				ST		30					
	--				ST							
35 36.0	--				ST		35					

DRILLING CONTR Eustis Engineering Company, Inc.

DRILLER Eric Held

SL 87869.521

LOGGED BY Sean McLaughlin

CHK'D BY B. Kendrick

Tracking Codes: WMSOIL, 8/9/94

Continued Next Page

SOIL BOREHOLE LOG

SITE NAME AND LOCATION ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10' Wet Rotary 10 - 46'	BORING NO. B-2	
	SAMPLING METHOD: SS = Split-Spoon ST = Shelby Tube	SHEET 2 OF 2	
		DRILLING START	DRILLING FINISH
	WATER LEVEL	TIME	TIME
	TIME	14:15	09:45
	DATE	DATE	DATE
DATUM ELEVATION 15.18	SYMBOL ▽ ▼	3-2-94	3-3-94
DRILL RIG Failing 36 N 770 E 1990	SURFACE CONDITIONS Grassy		
ANGLE Vertical BEARING ------			
SAMPLE HAMMER WEIGHT 140 LBS			

DRILLING CONTR Eustis Engineering Company, Inc. DRILLER Eric Held

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
36.0	0.75			Soft to medium stiff dark gray SILTY CLAY (CL) wet, with rootlets	ST							
	0.25			-- with CLAYEY SILT layers	ST		40					
40	0.25				ST				33	21	12	92.5
	0.75				ST							
45	--			Loose dark gray CLAYEY SILT (ML) wet to saturated	ST		45					
				Boring B-3 was terminated at 46 feet bgs on 3/3/94. The borehole was grouted full depth using a 5% bentonite/cement mixture.								
50							50					
55							55					
60							60					
65							65					
70							70					
72.0												

SL 87869.521

LOGGED BY Sean McLaughlin

CHK'D BY B. Kendrick

Tracking Codes: WMSOIL, 8/9/94

SOIL BOREHOLE LOG

SITE NAME AND LOCATION	ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD:	Dry Auger 0 - 10' Wet Rotary 10 - 46'
		SAMPLING METHOD:	SS = Split-Spoon ST = Shelby Tube
DATUM		ELEVATION	15.66
DRILL RIG	Failing 36	N 850 E 2140	
ANGLE	Vertical	BEARING	------
SAMPLE HAMMER WEIGHT	140 LBS		

BORING NO.	B-3
SHEET	1 OF 2
DRILLING	START / FINISH
TIME	08:30 / 12:00
DATE	3-2-94 / 3-2-94

WATER LEVEL				
TIME				
DATE				
SYMBOL	▽	▼		

SURFACE CONDITIONS: Grassy

DRILLING CONTR: Eustis Engineering Company, Inc.

DRILLER: Eric Held

SL: 87869.521

LOGGED BY: Sean McLaughlin

CHK'D BY: B. Kendrick

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
0.0	2.25			Stiff dark brown CLAY (CH) FILL moist, with shells	ST							
	1.50			Stiff dark gray SILTY CLAY (CL) moist	ST							
5	--			Loose dark gray CLAYEY SILT (ML) wet	ST		5					
	1.00			Soft to medium stiff dark brown CLAY (CH) wet, with organics and wood fragments	ST							
	1.00				ST							
10	0.25				ST		10					
	<0.25			Very soft to soft gray CLAYEY SILT and SILTY CLAY (ML/CL) wet, with wood fragments and trace SILT seams	ST							
15	<0.25			Very soft to soft gray SILTY CLAY (CL) wet	ST		15		33	20	13	
	<0.25			-- with CLAYEY SILT layers	ST							
	<0.25				ST							
20	<0.25				ST		20					
	<0.25				ST							
25	<0.25				ST		25					
	<0.25				ST							
30	<0.25				ST		30		37	19	18	98.0
	<0.25				ST							
	<0.25				ST							
35 36.0	<0.25				ST		35					

Continued Next Page

SOIL BOREHOLE LOG

SITE NAME AND LOCATION ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10' Wet Rotary 10 - 46'	BORING NO. B-3	
	SAMPLING METHOD: SS = Split-Spoon ST = Shelby Tube	SHEET 2 OF 2	
		DRILLING START	DRILLING FINISH
	WATER LEVEL	TIME	TIME
	TIME	08:30	12:00
	DATE	DATE	DATE
DATUM ELEVATION 15.66	SYMBOL ▽ ▼	3-2-94	3-2-94

DRILL RIG Failing 36 N 850 E 2140 SURFACE CONDITIONS Grassy

ANGLE Vertical BEARING ------

SAMPLE HAMMER WEIGHT 140 LBS

DRILLING CONTR Eustis Engineering Company, Inc. DRILLER Eric Held

SL 87869.521

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
36.0	1.00			Very soft to soft gray SILTY CLAY (CL) wet, with wood fragments and trace SILT seams	ST							
	1.00				ST		40		36	20	16	
40	1.00				ST							
	1.00				ST							
45	1.25				ST		45					
				Boring B-3 was terminated at 46 ft bgs on 3/2/94. The borehole was grouted full depth using a 5% bentonite/cement mixture.								
50							50					
55							55					
60							60					
65							65					
70							70					
72.0												

LOGGED BY Sean McLaughlin

CHK'D BY B. Kendrick

Tracking Codes: WMSOIL 8/9/94

SOIL BOREHOLE LOG

SITE NAME AND LOCATION ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10' Wet Rotary 10 - 46'	BORING NO. B-4	
	SAMPLING METHOD: SS = Split-Spoon ST = Shelby Tube	SHEET 1 OF 2	
		DRILLING START	DRILLING FINISH
	WATER LEVEL	TIME	TIME
	TIME	09:00	11:48
	DATE	DATE	DATE
DATUM ELEVATION 16.26	SYMBOL ▽ ▼	3-4-94	3-4-94

DRILL RIG Failing 36	N 2340 E 1870	SURFACE CONDITIONS	
ANGLE Vertical	BEARING ------		
SAMPLE HAMMER WEIGHT 140 LBS			

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
0.0	1.50			Medium stiff gray and tan CLAY (CH) moist, with ferrous stains and SILT pockets	ST							
	1.50				ST				71	21	50	
5	1.25				ST		5					
	1.75				ST							
	1.50				ST							
10	2.00				ST		10					
	0.50			Very soft to medium stiff gray SILTY CLAY (CL) wet, with CLAY layers, wood fragments, and some SILT seams	ST							
15	0.50				ST		15		41	19	22	
	0.50				ST							
	0.50				ST							
20	0.75				ST		20					
	1.00				ST							
25	1.00				ST		25					
	1.00				ST							
	0.50				ST							
30	1.00				ST		30					
	1.50				ST							
35 36.0	1.50				ST		35					

Continued Next Page

DRILLING CONTR Eustis Engineering Company, Inc.

DRILLER Eric Held

SL 87869.521

LOGGED BY Sean McLaughlin

CHK'D BY B. Kendrick

WMSOIL 8/9/94

Tracking Codes

SOIL BOREHOLE LOG

E NAME AND LOCATION ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10' Wet Rotary 10 - 46'	BORING NO. B-4	
	SAMPLING METHOD: SS = Split-Spoon ST = Shelby Tube	SHEET 2 OF 2	
		DRILLING START	DRILLING FINISH
	WATER LEVEL	TIME	TIME
	TIME	09:00	11:48
	DATE	DATE	DATE
DATUM ELEVATION 16.26	SYMBOL	3-4-94	3-4-94

DRILL RIG Failing 36	N 2340 E 1870	SURFACE CONDITIONS	
ANGLE Vertical	BEARING ------		
SAMPLE HAMMER WEIGHT 140 LBS			

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
36.0	<0.25			Loose gray CLAYEY SILT (ML) wet to saturated, with SAND	ST							
	<0.25				ST							
40	0.75			Medium stiff gray SILTY CLAY (CL) wet	ST		40					
	<0.25			Loose gray SANDY SILT (ML) wet to saturated, with CLAY seams and layers	ST							
45	0.50				ST		45		31	22	9	64.7
				Boring B-4 was terminated at a depth of 46 ft bgs on 3/4/94. The borehole was grouted full depth using a 5% bentonite/cement mixture.								
50							50					
55							55					
60							60					
65							65					
70							70					
72.0												

DRILLING CONTR Eustis Engineering Company, Inc.

DRILLER Eric Held

SL 87869.521

LOGGED BY Sean McLaughlin

CHK'D BY B. Kendrick

Tracking Codes: WMSOIL, 8/9/94

SOIL BOREHOLE LOG

SITE NAME AND LOCATION	ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD:	Dry Auger 0 - 10' Wet Rotary 10 - 46'
		SAMPLING METHOD:	SS = Split-Spoon ST = Shelby Tube
DATUM		ELEVATION	14.18
DRILL RIG	Failing 36	N 2230 E 1130	
ANGLE	Vertical	BEARING	------
SAMPLE HAMMER WEIGHT	140 LBS		

WATER LEVEL				
TIME				
DATE				
SYMBOL	▽	▼		

BORING NO. B-5

SHEET 1 OF 2

DRILLING	START	FINISH
TIME	14:00	
DATE	3-4-94	3-4-94

SURFACE CONDITIONS: Shells

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
0.0				Stiff dark gray SLTY CLAY (CL) FILL moist, with shells	ST							
	1.75			Stiff dark gray CLAY (CH) moist, with shells, rootlets, organics, and SAND seams and streaks	ST							
5	1.50				ST		5					
	--			Loose gray SILTY SAND (ML) FILL moist to wet.	ST							
	--				ST							
10	--				ST		10					
	0.50			Soft to medium stiff gray SILTY CLAY (CL) wet	ST							
15	--			Loose brown CLAYEY SILT (ML) wet to saturated, fine grained, poorly graded, with SAND	ST		15					
	--				ST							
	2/2/3 5 BPF				SS						NP	36.8
20	--				ST		20					
	--				ST							
25	3/2/3 5 BPF				SS		25					
	--				ST							
	0.50			Very soft to medium stiff gray SILTY CLAY (CL) wet, with wood fragments and some SILT seams	ST							
30	<0.25				ST		30					
	0.50				ST				38	17	21	
35 36.0	1.50				ST		35					

DRILLING CONTR Eustis Engineering Company, Inc.

DRILLER Eric Held

SL 87869.521

LOGGED BY Sean McLaughlin

CHK'D BY B. Kendrick

Tracking Codes: WMSOIL, 8/9/94

Continued Next Page

SOIL BOREHOLE LOG

SITE NAME AND LOCATION ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10' / Wet Rotary 10 - 46'	BORING NO. B-5	
	SAMPLING METHOD: SS = Split-Spoon / ST = Shelby Tube	SHEET 2 OF 2	
		DRILLING START	DRILLING FINISH
	WATER LEVEL	TIME	TIME
	TIME	14:00	
	DATE	DATE	DATE
DATUM / ELEVATION 14.18	SYMBOL ▽ ▼	3-4-94	3-4-94
DRILL RIG Failing 36	N 2230 E 1130	SURFACE CONDITIONS Shells	
ANGLE Vertical	BEARING ------		
SAMPLE HAMMER WEIGHT 140 LBS			

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
36.0	1.00			Soft to medium stiff gray SILTY CLAY (CL) wet, with wood fragments and some SILT seams	ST							
	1.50			Medium stiff to stiff olive and gray CLAY (CH) moist, with SILTY SAND seams	ST							
40	--			Stiff gray CLAYEY SILT (ML) wet, with some CLAY layers	ST		40					
	1.50			-- alternating layers of CLAYEY SILT (ML) and CLAY (CH)	ST							
45	--				ST		45		53	18	35	98.9
				Boring B-5 was terminated at 45 ft bgs on 3/4/94. The borehole was grouted full depth using a 5% bentonite/cement mixture.								
50							50					
55							55					
60							60					
65							65					
70							70					
72.0												

DRILLING CONTR Eustis Engineering Company, Inc.

DRILLER Eric Held

SL 87869.521

LOGGED BY Sean McLaughlin

CHK'D BY B. Kendrick

Tracking Codes: WMSOIL, 8/9/94

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10'; Wet Rotary 10 - 46'	BORING NO. B-6	
	SAMPLING METHOD: SS = Split-Spoon; ST = Shelby Tube	SHEET 1 OF 3	
		DRILLING START TIME 11:00 DATE 3-7-94	DRILLING FINISH TIME 11:50 DATE 3-8-94
DATUM	ELEVATION 14.53	WATER LEVEL / TIME / DATE / SYMBOL	
DRILL RIG: Failing 36	N 2150.00 E 1490.00	SURFACE CONDITIONS: Grassy	
ANGLE: Vertical	BEARING: ------		
SAMPLE HAMMER WEIGHT: 140 LBS			

DRILLING CONTR: Eustis Engineering Company, Inc.

DRILLER: Eric Held

SL: 87869.521

LOGGED BY: Sean McLaughlin

CHK'D BY: B. Kendrick

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
0.0	2.50			Stiff to very stiff tan and gray SILTY CLAY (CL) FILL moist, with shells	ST							
	2.50				ST							
5	1.00			Very soft to medium stiff tan and gray SILTY CLAY (CL) moist to wet, with ferrous stains, wood fragments, and trace SILT seams	ST		5					
	0.50				ST							
	0.25				ST							
10	0.50			-- becoming very soft, gray, with some SILT seams and layers	ST		10		42	17	25	
	0.25				ST							
15	<0.25			Loose gray SILTY SAND (SM) saturated	ST		15					
	<0.25				ST							
20	0/1/2 3 BPF			Very soft to medium stiff tan SILTY CLAY (CL) wet	SS		20		34	20	14	98.7
	0.50				ST							
	0.50				ST							
25	0.50				ST		25					
	0.50				ST							
30	0.50				ST		30		36	18	18	
	0.50				ST							
	--			Loose gray CLAYEY SILT (ML) wet to saturated, with wood fragments and CLAY seams and layers	ST							
35 36.0	--				ST		35					

Tracking Codes: WMSOIL, 8/18/94

Continued Next Page

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10'; Wet Rotary 10 - 46'	BORING NO. B-6	
	SAMPLING METHOD: SS = Split-Spoon; ST = Shelby Tube	SHEET 2 OF 3	
		DRILLING	START / FINISH
	WATER LEVEL	TIME	TIME
	TIME	11:00	11:50
	DATE	DATE	DATE
DATUM	ELEVATION 14.53 / SYMBOL	3-7-94	3-8-94

DRILL RIG: Failing 36 N 2150 E 1490 SURFACE CONDITIONS: Grassy

ANGLE: Vertical BEARING: ------

SAMPLE HAMMER WEIGHT: 140 LBS

DRILLING CONTR: Eustis Engineering Company, Inc. DRILLER: Eric Held

SL: 87869.521

LOGGED BY: Sean McLaughlin CHK'D BY: B. Kendrick

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
36.0	--			Loose gray CLAYEY SILT (ML) wet to saturated, with wood fragments and CLAY seams and layers	ST							
	2/3/7 10 BPF			-- becoming medium dense	SS							
40	--				ST		40					
	--				ST							
45	--			Medium stiff gray SILTY CLAY (CL) moist to wet, with wood fragments and some SILT seams	ST		45					
	1.50				ST							
50							50					
	0.75				ST				49	18	31	
55							55					
	0.75				ST							
60							60					
	1.00			Medium stiff gray CLAY (CH) moist to wet, with wood fragments and some SILTY CLAY seams	ST							
65							65					
	--			Loose gray SILTY SAND (SM) wet to saturated, fine grained, poorly graded, with CLAY pockets	ST							
70							70					
72.0												

Tracking Codes: WMSOIL, 8/9/94

Continued Next Page

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: ENTERGY - Little Gypsy - Montz, Louisiana	DRILLING METHOD: Dry Auger 0 - 10'; Wet Rotary 10 - 46'	BORING NO. B-6	
	SAMPLING METHOD: SS = Split-Spoon; ST = Shelby Tube	SHEET 3 OF 3	
		DRILLING START	DRILLING FINISH
	WATER LEVEL	TIME	TIME
	TIME	11:00	11:50
	DATE	DATE	DATE
DATUM / ELEVATION 14.53	SYMBOL	3-7-94	3-8-94
DRILL RIG: Failing 36	N 2150 E 1490	SURFACE CONDITIONS: Grassy	
ANGLE: Vertical	BEARING: ------		
SAMPLE HAMMER WEIGHT: 140 LBS			

DRILLING CONTR: Eustis Engineering Company, Inc.

DRILLER: Eric Held

SL: 87869.521

LOGGED BY: Sean McLaughlin

CHK'D BY: B. Kendrick

DEPTH IN FEET (ELEVATION)	BLOWS/FT OR POCKET PEN. (TSF)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIALS	SAMPLER AND BIT	CASING TYPE	DEPTH IN FEET (ELEVATION)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX	COMPRESSIVE STRENGTH (TSF)
72.0												
	27/31/28 59 BPF			Loose gray SILTY SAND (SM) wet to saturated, fine grained, poorly graded, with CLAY pockets -- becoming dense to very dense	SS		75				NP	12.2
75												
	11/16/20 36 BPF				SS		80					
80												
	1.75			Stiff to medium stiff gray CLAY (CH) moist to wet	ST		85					
85												
	0.50				ST		90					
90												
	15/17/21 38 BPF			Medium dense to dense gray SANDY SILT (ML) wet to saturated	SS		95					
95												
	9/9/10 10 BPF				SS		100					
100				Boring B-6 was terminated at 100 ft bgs on 3/8/94. The borehole was grouted full depth using a 5% bentonite/cement mixture.								
105							105					
108.0												

Tracking Codes: WMSOIL, 8/9/94

SOIL BOREHOLE LOG

SITE NAME AND LOCATION	DRILLING METHOD: Post Hole Digger: 0 - 4'	BORING NO.
Entergy Louisiana, Inc. Little Gypsy Montz, Louisiana	H.S.A.: 4' - 20'	B-PZ-1
	SAMPLING METHOD: ■ Shelby Tube	SHEET 1 OF 1

					DRILLING START	DRILLING FINISH
WATER DEPTH	8.60'	4.92'			TIME	TIME
TIME	08:40	10:00			08:30	08:50
DATE	4-17-96	4-18-96			DATE	DATE
SYMBOL	▽	▼			4-17-96	4-17-96

DATUM N.G.V.D. ELEVATION 16.20

DRILL RIG Mobile B-53 SURFACE CONDITIONS:

ANGLE Vertical BEARING ------

SAMPLE HAMMER WEIGHT 140 LBS

DRILLING CONTR Sidney Albert Sidney DRILLER Gus Rambin

PN 68784.100

DEPTH IN FEET	BLOWS/FT OR POCKET PEN. (TSF)	PID READING (PPM)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIAL
0.0					Shell, clay, sand (Fill)
	-				Very stiff medium brown CLAY (CH), damp, some ferrous staining, trace silt, occasional rootlets
	-				
5 ▼	2.5				
	1.5				– stiff, becoming more silty with depth, ferrous staining more abundant
▽	1.5				Medium brown SILTY CLAY/CLAYEY SILT (CL/ML), wet, trace very fine grained sand, rootlets common, abundant ferrous staining
10					Stiff medium brown SILTY CLAY (CL), damp, rootlets common, abundant ferrous staining
	1.0				Medium brown CLAYEY SILT (ML), wet, some very fine grained sand, ferrous staining common
					Stiff medium brown CLAY/SILTY CLAY (CL/CH), damp, occasional rootlets, ferrous staining common
	0.25				Dark reddish brown CLAYEY SILT (ML), wet, laminated, thinly bedded, some ferrous staining below 13', becomes dark gray, rootlets and ferrous staining common
15	<0.25				– more clayey (ML/CL) from 14.5' to 15.5', massively bedded below 14.5'
	<0.25				
	<0.25				– becoming more clayey, occasional wood fragments
20					Boring B-PZ-1 was terminated at 20 feet bgs.
25.0					

LOGGED BY Tom Keowen

CHK'D BY Sam Reed

Tracking Codes: 68784, GEOLOG, 8/23/96, 11:02

SOIL BOREHOLE LOG

SITE NAME AND LOCATION	DRILLING METHOD: Post Hole Digger: 0 - 4'	BORING NO.
Entergy Louisiana, Inc. Little Gypsy Montz, Louisiana	H.S.A.: 4' - 18'	B-PZ-2
	SAMPLING METHOD: ■ Shelby Tube	SHEET 1 OF 1

					DRILLING START	DRILLING FINISH
WATER DEPTH	7.00'	6.37'			TIME	TIME
TIME	12:40	10:55			12:30	12:50
DATE	4-17-96	4-18-96			DATE	DATE
SYMBOL	▽	▼			4-17-96	4-17-96

DATUM N.G.V.D. ELEVATION 16.00

DRILL RIG Mobile B-53 SURFACE CONDITIONS:

ANGLE Vertical BEARING ------

SAMPLE HAMMER WEIGHT 140 LBS

DRILLING CONTR Sidney Albert Sidney DRILLER Gus Rambin

PN 68784.100

LOGGED BY Tom Keowen CHK'D BY Sam Reed

DEPTH IN FEET	BLOWS/FT OR POCKET PEN. (TSF)	PID READING (PPM)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIAL
0.0	-				Shell, clay, sand (Fill)
	-				Soft medium brown CLAY (CH), damp, some silt, ferrous staining common
5	0.75				
▼ ▽	<0.25				Medium brown SILTY CLAY/CLAYEY SILT (CL/ML), wet, trace very fine grained sand, ferrous staining common, becoming more silty with depth
	<0.25				Medium brown CLAYEY SILT (ML), wet, some very fine grained sand, ferrous staining common
10	<0.25				– occasional rootlet – dark gray below 11', more clayey below 11.5'
	-				– rootlets and wood fragment more common, sand absent
15	-				
	-				– becoming more clayey with depth (ML/CL)
20					Boring B-PZ-2 was terminated at 18 feet bgs.
25.0					

Tracking Codes: 68784, GEOLOG, 5/23/96, 10:52

SOIL BOREHOLE LOG

SITE NAME AND LOCATION	DRILLING METHOD: Post Hole Digger: 0 - 3'	BORING NO.
Entergy Louisiana, Inc. Little Gypsy Montz, Louisiana	H.S.A.: 3' - 20'	B-PZ-3
	SAMPLING METHOD: ■ Shelby Tube ☒ Split Spoon	SHEET 1 OF 1

					DRILLING START	DRILLING FINISH
WATER DEPTH	9.00'	2.54'			TIME	TIME
TIME	14:15	12:25			14:00	14:30
DATE	4-16-96	4-18-96			DATE	DATE
SYMBOL	▽	▼			4-16-96	4-16-96

DATUM N.G.V.D. ELEVATION 16.00

DRILL RIG Mobile B-53 SURFACE CONDITIONS:

ANGLE Vertical BEARING ------

SAMPLE HAMMER WEIGHT 140 LBS

DRILLING CONTR Sidney Albert Sidney

DRILLER Gus Rambin

PN 68784.100

LOGGED BY Tom Keowen

CHK'D BY Sam Reed

DEPTH IN FEET	BLOWS/FT OR POCKET PEN. (TSF)	PID READING (PPM)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIAL
0.0					Shell, clay, sand (FILL), perched water at ~1', compacted
5					Stiff medium gray CLAY (CH), damp, occasional rootlet, some ferrous staining, trace very fine grained sand
					-- becoming more silty with depth (CL), rootlets and ferrous staining more common
10					Dark gray CLAYEY SILT (ML), wet, occasional wood fragment, rootlets common, some very fine grained sand, some ferrous staining
					-- becoming more clayey with depth
					-- less clayey, some very fine grained sand
15					-- wood and leaf fragments, rootlets common
					-- very fine grained sand common, some fine grained sand
					-- ~1' of sand flowed into the augers
20					Boring B-PZ-3 was terminated at 20 feet bgs.
25.0					

Tracking Codes: 68784, GEOLOG, 5/23/96, 10:52

SOIL BOREHOLE LOG

SITE NAME AND LOCATION	DRILLING METHOD: Post Hole Digger: 0 - 4'	BORING NO.
Entergy Louisiana, Inc. Little Gypsy Montz, Louisiana	H.S.A.: 4' - 20'	B-PZ-4
	SAMPLING METHOD: ■ Shelby Tube	SHEET 1 OF 1

					DRILLING START	DRILLING FINISH
WATER DEPTH	9.00'	3.83'			TIME	TIME
TIME	10:55	14:00			10:45	11:00
DATE	4-16-96	4-19-96			DATE	DATE
SYMBOL	▽	▼			4-16-96	4-16-96

DATUM N.G.V.D. ELEVATION 16.40

DRILL RIG Mobile B-53 SURFACE CONDITIONS:

ANGLE Vertical BEARING ------

SAMPLE HAMMER WEIGHT 140 LBS

DEPTH IN FEET	BLOWS/FT OR POCKET PEN. (TSF)	PID READING (PPM)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIAL
0.0					Sand, silt, and clay (FILL)
▼ 5					Medium stiff medium brown and gray CLAY/SILTY CLAY (CL/CH), damp, occasional rootlets, trace very fine grained sand, ferrous staining common
					– becoming stiff, medium gray CLAY (CH), abundant ferrous staining, occasional rootlets
					– becoming silty with depth
▽ 10					Medium gray medium stiff SILTY CLAY/CLAYEY SILT (CL/ML), wet, ferrous staining abundant, wood fragments common, becoming more silty with depth
					Dark gray CLAYEY SILT (ML), wet, trace very fine grained sand, occasional rootlets, occasional ferrous staining – becoming less clayey with depth, occasional wood fragments, ferrous staining absent
15					– becoming more clayey with depth
					Dark gray SILTY CLAY/CLAYEY SILT (CL/ML), wet, silt layer ~4" thick at 17', wood fragments absent, laminated, thinly bedded
					– occasional more silty layer (~1/4" thick), wet along silty layers, damp otherwise, rootlets common
20					Boring B-PZ-4 was terminated at 20 feet bgs.
25.0					

DRILLING CONTR Sidney Albert Sidney

DRILLER Gus Rambin

PN 68784.100

LOGGED BY Tom Keowen

CHK'D BY

Tracking Codes: 68784, GEOLOG, 6/23/96, 10:53

SOIL BOREHOLE LOG

SITE NAME AND LOCATION

Entergy Louisiana, Inc.
Little Gypsy
Montz, Louisiana

DRILLING METHOD: H.S.A.: 0 - 20'

SAMPLING METHOD: ■ Shelby Tube
☒ No Recovery

BORING NO. B-PZ-5

SHEET 1 OF 1

					DRILLING START	DRILLING FINISH
WATER DEPTH	8.00'	1.33'			TIME	TIME
TIME	16:55	15:05			16:45	17:00
DATE	4-16-96	4-19-96			DATE	DATE
SYMBOL	▽	▼			4-16-96	4-16-96

DATUM N.G.V.D. ELEVATION 14.50

DRILL RIG Mobile B-53

SURFACE CONDITIONS:

ANGLE Vertical BEARING ------

SAMPLE HAMMER WEIGHT 140 LBS

DRILLING CONTR Sidney Albert Sidney

DRILLER Gus Rambin

PN 68784.100

DEPTH IN FEET	BLOWS/FT OR POCKET PEN. (TSF)	PID READING (PPM)	SOIL GRAPH	SAMPLER	DESCRIPTION OF MATERIAL
0.0					Silt and clay (FILL)
▼					Stiff medium brown and gray CLAY (CH), damp, occasional rootlets, ferrous staining common
5					-- becoming more silty with depth
▽					Medium brown and gray SILTY CLAY/CLAYEY SILT (CL/ML), wet, some ferrous staining, occasional rootlets and wood fragments, trace very fine grained sand
10					-- becoming more silty with depth
					Dark gray CLAYEY SILT (ML), wet, rootlets common
					No recovery from 12 to 14 feet.
15					-- laminated, thinly bedded, trace very fine grained sand, less clayey
					-- becoming more clayey with depth
					-- massive, less clayey
20					Boring B-PZ-5 was terminated at 20 feet bgs.
25.0					

LOGGED BY Tom Kaowan

CHK'D BY Sam Reed

Tracking Codes: 68784, GEOLOG, 5/23/96, 10:53

E A R T H T E C H

SOIL BOREHOLE LOG

CLIENT: Entergy Louisiana, Inc.
LOCATION: Little Gypsy Electric Generating Plant

B-7

FILE NO.: 43601
DATE INSTALLED: 12/13/00
TIME (FROM/TO): 10:10/10:55
DRILLING CO.: Soil Testing Engineers
RIG TYPE: Failing 1500
HOLE DIAMETER: 8-inch

LOGGED BY: Dru Trahan

Depth (feet)	Sample	Water Level	OVA/HNU READING (ppm)	BLOWS/FT OR POCKET PEN (TSF)	Description of Material
	■			.1.75	Medium gray CLAY (fill) with shells; 1/2-inch silt layer at 9 feet.
	■			1.5	Medium gray CLAY (fill) with shells, rootlets.
5	■			0.25 0	Soft - very soft gray-brown CLAY (fill) with shells; Soft dark gray CLAY with shells in bottom 4 inches.
	■	▼		0	Soft dark gray CLAY (fill) with shells; Soft gray layered SILT with ferrous stains in bottom 2 inches.
10	■	▽		0	Soft gray SILT (ML), layered, very wet.
	■			0	Soft gray SILT (ML), layered, trace organics, very wet top 6 inches.
	■			0	Soft gray SILT (ML), layered, wet. (bag sample)
15	■			0	Soft gray SILT (ML), layered, wet.
					Boring terminated at 16 feet. Set monitoring well MW-1. 6-inch sump plus 6 inches on bottom of 5-foot screen. 15-foot riser. 3.5 bags 20/40 sand to 9 feet bgs, 1 bucket 1/2-inch pellets to 6 feet bgs, grout to surface.
20					
25					
30					
35					
40					

■ Shelby Tube
⊠ Std. Penetration Test (Split Spoon Sample)
◫ Auger Cuttings
⊘ No Recovery
▽ Water First Noted
▼ Static Water Level

E A R T H T E C H

SOIL BOREHOLE LOG

CLIENT: Entergy Louisiana, Inc.
LOCATION: Little Gypsy Electric Generating Plant

B-8

FILE NO.: 43601
DATE INSTALLED: 12/13/00
TIME (FROM/TO): 10:20/11:30
DRILLING CO.: Soil Testing Engineers
RIG TYPE: Failing 1500
HOLE DIAMETER: 8-inch

LOGGED BY: Dru Trahan

Depth (feet)	Sample	Water Level	OVA/HNU READING (ppm)	BLOWS/FT OR POCKET PEN (TSF)	Description of Material
	■			1.75	Medium gray CLAY (fill) with shells.
	■			1.0	Soft-medium gray layered silty CLAY (fill) with shells, ferrous staining, charcoal fragments.
5	■			0.75	Soft gray very silty CLAY (fill) with shells, 1/4-inch silt balls
	■			0.75	Soft gray-brown very silty CLAY (fill) with rootlets, ferrous staining; very soft dark gray CLAY (CH) in bottom 4 inches.
10	■			0 0.75	Very soft dark gray CLAY (CH) with rootlets, organics to medium dark gray CLAY with shells.
	■			0.25 0	Soft to medium dark gray CLAY (CH) with shells.
	■			0.25	Soft to medium dark gray CLAY (CH) with trace of shells.
15	■			0.5	Soft to medium dark gray to gray CLAY (CH) with trace of shells.
	■			0.5	Soft to medium dark gray to gray CLAY (CH) with trace of shells to shells in bottom 8 inches. Soft dark gray SILT in bottom 2 inches, wet.
20	■			0	Very soft dark gray SILT (ML), wet, layered.
	■			0	Very soft dark gray SILT (ML), wet, layered. Clayey SILT in bottom 10 inches, layered.
25					Boring terminated at 22 feet. Set monitoring well MW-2. 6-inch sump plus 6 inches on bottom of 5-foot screen. 20-foot riser. 4.5 1/2 cubic foot bags 20/40 sand to 14 feet bgs, 1 bucket 1/2-inch pellets to 10.5 feet bgs, grout to surface.
30					
35					
40					

■ Shelby Tube
⊠ Std. Penetration Test (Split Spoon Sample)
◫ Auger Cuttings
⊘ No Recovery
▽ Water First Noted
▼ Static Water Level

E A R T H T E C H

SOIL BOREHOLE LOG

CLIENT: Entergy Louisiana, Inc.
LOCATION: Little Gypsy Electric Generating Plant

B-9

FILE NO.: 43601
DATE INSTALLED: 12/13/00
TIME (FROM/TO): 14:40/15:40
DRILLING CO.: Soil Testing Engineers
RIG TYPE: Failing 1500
HOLE DIAMETER: 8-inch

LOGGED BY: Dru Trahan

Depth (feet)	Sample	Water Level	OVA/HNU READING (ppm)	BLOWS/FT OR POCKET PEN (TSF)	Description of Material
	■			1.5	Soft to medium gray CLAY (fill), layering, trace of shells, ferrous staining.
	■			1.5	Soft to medium gray CLAY (as above), 1-inch silt seam at 5 inches.
5	■			0 0.5	Soft gray silty CLAY (CL), ferrous staining, siltier to bottom, 1-inch silt seam at 12 inches.
	■	▼		0	Soft gray silty CLAY (as above), SILT (ML) at 8 inches to bottom, wet.
	■			0	Very soft gray SILT (ML), layered, 1-inch silty clay layer at 2 inches.
10	■	▽		0 0.25	Very soft gray SILT (ML), wet and soft at 6 inches, very clayey SILT at 12 inches, very soft, wet gray SILT at 18 inches.
	■			0	Soft gray SILT (ML), layered, wet. (bag sample)
15	■			0	Soft gray SILT (ML), layered, wet.
	■			0	Soft gray SILT (ML), layered, wet. (bag sample)
20					Boring terminated at 18 feet. Set monitoring well MW-3 at 16 feet. 6-inch sump plus 6 inches on bottom of 5-foot screen. 15-foot riser. 3.5 bags 20/40 sand to 9 feet bgs, 1 bucket 1/2-inch pellets to 6 feet bgs, grout to surface.
25					
30					
35					
40					

■ Shelby Tube
⊠ Std. Penetration Test (Split Spoon Sample)
Auger Cuttings
No Recovery
▽ Water First Noted
▼ Static Water Level

E A R T H T E C H

SOIL BOREHOLE LOG

CLIENT: Entergy Louisiana, Inc.
LOCATION: Little Gypsy Electric Generating Plant

B-10

FILE NO.: 43601
DATE INSTALLED: 12/13/00
TIME (FROM/TO): 8:30/9:45
DRILLING CO.: Soil Testing Engineers
RIG TYPE: Failing 1500
HOLE DIAMETER: 8-inch

LOGGED BY: Dru Trahan

Depth (feet)	Sample	Water Level	OVA/HNU READING (ppm)	BLOWS/FT OR POCKET PEN (TSF)	Description of Material
	■			1.5 2.25	Medium to stiff gray silty CLAY (CL) with ferrous nodules, rootlets.
	■			1.75 1.25	Medium to stiff gray CLAY (CH) with ferrous nodules.
5	■			1.25	Soft to medium gray CLAY (CH) with ferrous staining.
	■			1.0 0	Soft to medium gray CLAY (CH), clayey SILT (ML) in bottom 3 inches.
	■			0	Soft gray clayey SILT (ML) with ferrous staining, layered, few 1-inch silty clay layers.
10	■			0	Soft gray SILT (ML), layered, ferrous staining.
	■			0	Soft gray SILT (ML), layered, wet.
15	■			0	Soft gray SILT (ML), layered, wet.
					Boring terminated at 16 feet. Set monitoring well MW-4. 6-inch sump plus 6 inches on bottom of 5-foot screen. 15-foot riser. 3.5 bags 20/40 sand to 9 feet bgs, 1 bucket 1/2-inch pellets to 6 feet bgs, grout to surface.
20					
25					
30					
35					
40					

■ Shelby Tube

⊠ Std. Penetration Test (Split Spoon Sample)

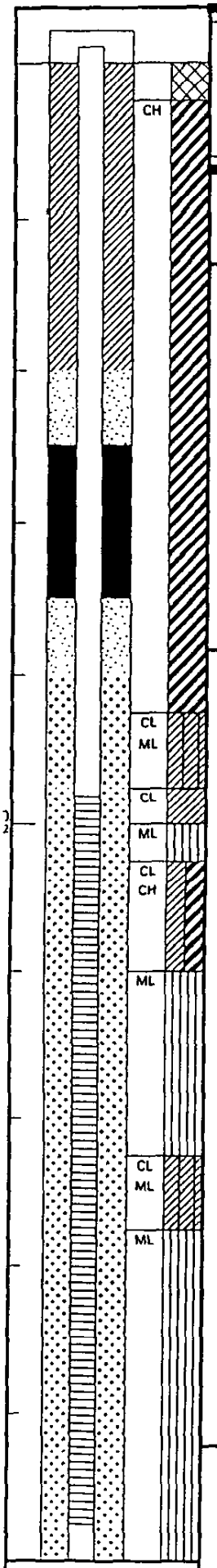
Auger Cuttings

No Recovery

▽ Water First Noted

▼ Static Water Level

Monitor Well Cross Sections, Surveying and Registration



T.D. = 20.0 FT.

WELL NUMBER: PZ-1

BORING NO. X-REF: B-PZ-1

PIEZOMETER CONSTRUCTION SUMMARY

SURVEY COORDS: N 30° 00' 24"
E 90° 27' 44"

SURFACE ELEVATION: 16.20 N.G.V.D.
TOP OF CASING ELEV: 18.75 N.G.V.D.

DRILLING SUMMARY:

TOTAL DEPTH: 20.0'
BOREHOLE DIAMETER: 8.0"
CASING STICK-UP: 2.55'
DRILLER: Sidney Albert Sidney, Gus Rambin

RIG: Mobile B-53
BIT(S): 7.25" Hollow Stem Auger

DRILLING FLUID: N/A

PROTECTIVE CASING: 4" Aluminum/Steel

CONSTRUCTION TIME LOG:

TASK:	START DATE	START TIME	FINISH DATE	FINISH TIME
DRILLING:	04/17/96	08:30	04/17/96	08:50
GEOPHYS.LOGGING:				
CASING:				
FILTER PLACEMENT:	04/17/96	09:00	04/17/96	09:15
BENTONITE SEAL:				
DEVELOPMENT:				
COMPLETION	04/18/96	10:00	04/18/96	12:00

WELL DESIGN & SPECIFICATIONS

BASIS: GEOLOGIC LOG ☒ GEOPHYSICAL LOG ☐

CASING STRING(S): C=CASING S=SCREEN

DEPTH (ft)	STRINGS(S)	ELEVATION (ft N.G.V.D.)
-2.55 / -0.50	C1	18.75 / 16.70
-0.50 / 9.50	C2	16.70 / 6.70
9.50 / 19.50	S1	6.70 / -3.30
/		/
/		/

C1: 2" dia., Sch. 40 PVC, Flush Threaded, Tri-Lock
C2: 2" dia., Sch. 40 PVC, Flush Threaded, Tri-Lock
S1: 2" dia., Sch. 40 PVC, Flush Threaded, 0.010" Slot, Tri-Lock

FILTER PACK: 20.0 - 8.0: 20/40 Silica Sand

FINE SAND: 8.0 - 7.0 Sugar Sand; 5.0 - 4.0 Sugar Sand

GROUT SEAL: 4.0 - Ground Surface: Cement/bentonite slurry

BENTONITE SEAL: 7.0 - 5.0: Bentonite Pellets

PIEZOMETER DEVELOPMENT:

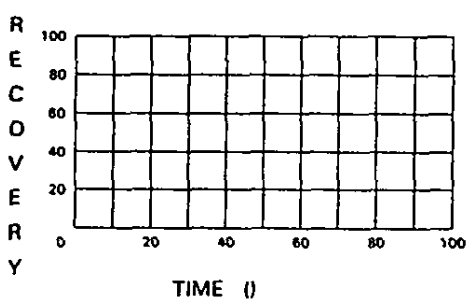
04/18/96 - 12.5 gallons bailed

STABILIZATION TEST DATA:

TIME	pH	SPEC. COND.	TEMP. (°F)
10:25	6.55	2190	20.7
10:28	6.59	2180	20.8
10:34	6.65	2180	21.3
11:18	6.72	2280	21.7
12:08	6.66	2180	21.1

RECOVERY DATA:

Q = GAL. So =

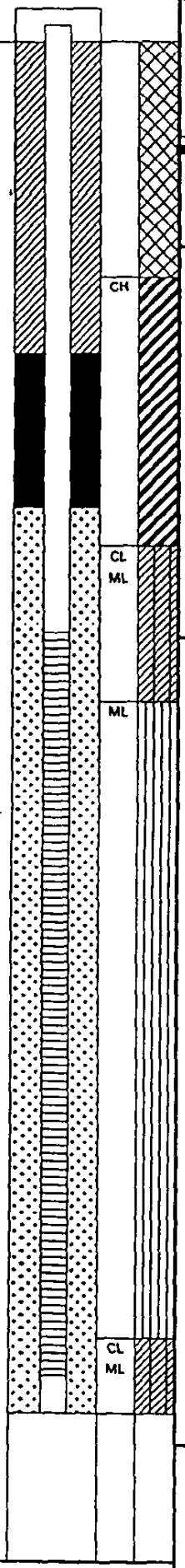


COMMENTS:

SITE NAME: Little Gypsy
LOCATION: Montz, Louisiana

SUPERVISED BY: Tom Keowen
CHK'D BY: Sam Reed

Tracking Code: 68784, WMPIEZ, 5/24/96



T.D. = 18.0 FT.

WELL NUMBER: PZ-2

BORING NO. X-REF: B-PZ-2

PIEZOMETER CONSTRUCTION SUMMARY

SURVEY COORDS: N 30° 00' 22"
E 90° 27' 44"

SURFACE ELEVATION: 16.00 N.G.V.D.
TOP OF CASING ELEV: 19.10 N.G.V.D.

DRILLING SUMMARY:

TOTAL DEPTH: 18.0'
BOREHOLE DIAMETER: 8.0"
CASING STICK-UP: 3.10'
DRILLER: Sidney Albert Sidney, Gus Rambin

RIG: Mobile B-53
BIT(S): 7.25" Hollow Stem Auger

DRILLING FLUID: N/A

PROTECTIVE CASING: 4" Aluminum/Steel

CONSTRUCTION TIME LOG:

TASK:	START DATE	START TIME	FINISH DATE	FINISH TIME
DRILLING:	04/17/96	12:30	04/17/96	12:50
GEOPHYS.LOGGING:				
CASING:				
FILTER PLACEMENT:	04/17/96	13:10	04/17/96	13:25
BENTONITE SEAL:				
DEVELOPMENT:	04/19/96	11:00	04/19/96	13:45

WELL DESIGN & SPECIFICATIONS

BASIS: GEOLOGIC LOG ☒ GEOPHYSICAL LOG ☐

CASING STRING(S): C=CASING S=SCREEN

DEPTH (ft)	STRINGS(S)	ELEVATION (ft N.G.V.D.)
-3.10 / 7.50	C1	19.10 / 8.50
7.50 / 17.50	S1	8.50 / -1.50
/		/
/		/
/		/

C1: 2" dia., Sch. 40 PVC, Flush Threaded, Tri-Lock
S1: 2" dia., Sch. 40 PVC, Flush Threaded, 0.010" Slot, Tri-Lock

FILTER PACK: 18.0 - 6.0: 20/40 Silica Sand

FINE SAND: N/A

GROUT SEAL: 4.0 - Ground Surface: Cement/bentonite slurry

BENTONITE SEAL: 6.0 - 4.0: Bentonite Pellets

PIEZOMETER DEVELOPMENT:

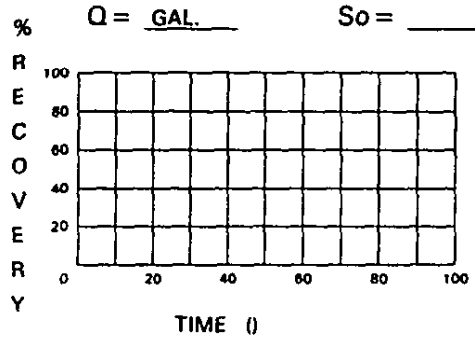
04/18/96 - 8.25 gallons bailed

STABILIZATION TEST DATA:

TIME	pH	SPEC. COND.	TEMP. (°F)
11:00	7.02	749	22.3
11:07	6.65	769	22.6
12:45	6.66	758	21.9
13:45	6.98	750	21.7

RECOVERY DATA:

Q = GAL. So = _____



COMMENTS:

SITE NAME: Little Gypsy
LOCATION: Montz, Louisiana

SUPERVISED BY: Tom Keowen
CHK'D BY: Sam Reed

Tracking Codes: 58784, WMPEZ, 5/21/96

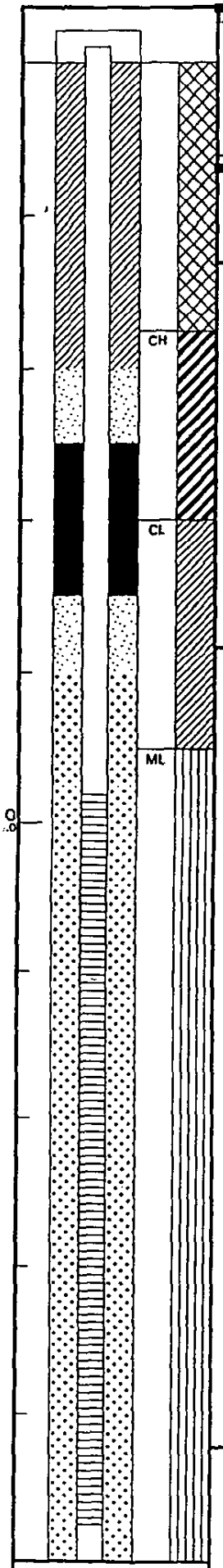
WELL NUMBER: PZ-3

BORING NO. X-REF: B-PZ-3

PIEZOMETER CONSTRUCTION SUMMARY

SURVEY COORDS: N 30° 00' 20"
E 90° 27' 47"

SURFACE ELEVATION: 16.00 N.G.V.D.
TOP OF CASING ELEV: 18.30 N.G.V.D.



DRILLING SUMMARY:

TOTAL DEPTH: 20.0'
BOREHOLE DIAMETER: 8.0"
CASING STICK-UP: 2.30'
DRILLER: Sidney Albert Sidney, Gus Rambin

RIG: Mobile B-53
BIT(S): 7.25" Hollow Stem Auger

DRILLING FLUID: N/A

PROTECTIVE CASING: 4" Aluminum/Steel

CONSTRUCTION TIME LOG:

TASK:	START DATE	START TIME	FINISH DATE	FINISH TIME
DRILLING:	04/16/96	14:00	04/16/96	14:30
GEOPHYS.LOGGING:				
CASING:				
FILTER PLACEMENT:	04/16/96	14:45	04/16/96	15:00
BENTONITE SEAL:				
DEVELOPMENT:	04/18/96	12:28	04/18/96	13:38

WELL DESIGN & SPECIFICATIONS

BASIS: GEOLOGIC LOG ☒ GEOPHYSICAL LOG ☐

CASING STRING(S): C=CASING S=SCREEN

DEPTH (ft)	STRINGS(S)	ELEVATION (ft N.G.V.D.)
-2.30 / -0.50	C1	18.30 / 16.50
-0.50 / 9.50	C2	16.50 / 6.50
9.50 / 19.50	S1	6.50 / -3.50
/		/
/		/

C1: 2" dia., Sch. 40 PVC, Flush Threaded, Tri-Lock
C2: 2" dia., Sch. 40 PVC, Flush Threaded, Tri-Lock
S1: 2" dia., Sch. 40 PVC, Flush Threaded, 0.010" Slot, Tri-Lock

FILTER PACK: 20.0 - 8.0: 20/40 Silica Sand

FINE SAND: 8.0 - 7.0 Sugar Sand; 5.0 - 4.0 Sugar Sand

GROUT SEAL: 4.0 - Ground Surface: Cement/bentonite slurry

BENTONITE SEAL: 7.0 - 5.0: Bentonite Pellets

PIEZOMETER DEVELOPMENT:

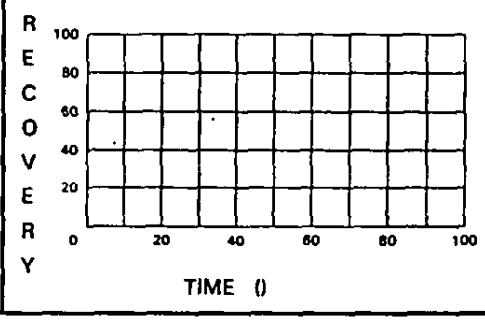
04/18/96 - 13.0 gallons bailed

STABILIZATION TEST DATA:

TIME	pH	SPEC. COND.	TEMP. (°F)
12:28	6.99	874	21.7
12:35	7.07	849	22.0
13:05	6.90	908	21.8
13:38	7.19	988	22.2

RECOVERY DATA:

Q = GAL. So = _____



COMMENTS:

SITE NAME: Little Gypsy
LOCATION: Montz, Louisiana

SUPERVISED BY: Tom Keowen
CHK'D BY: Sam Reed

Tracking Code: 6784, WMPIEZ, 5/21/96

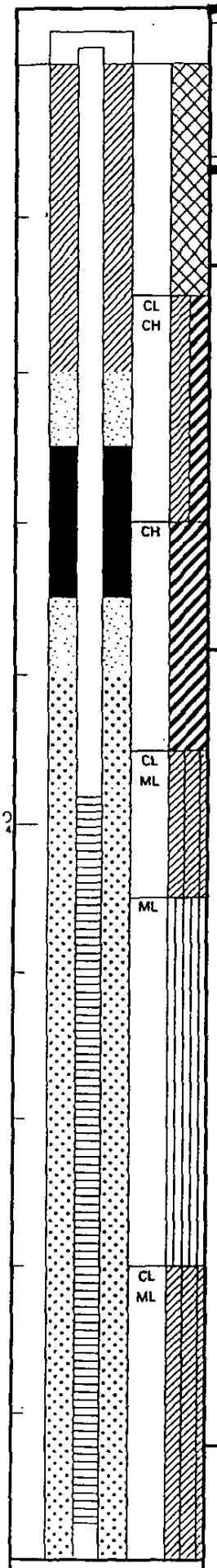
WELL NUMBER: PZ-4

BORING NO. X-REF: B-PZ-4

PIEZOMETER CONSTRUCTION SUMMARY

SURVEY COORDS: N 30° 00' 18"
E 90° 27' 48"

SURFACE ELEVATION: 16.40 N.G.V.D.
TOP OF CASING ELEV: 18.95 N.G.V.D.



T.D. = 20.0 FT.

DRILLING SUMMARY:

TOTAL DEPTH: 20.0'
BOREHOLE DIAMETER: 8.0"
CASING STICK-UP: 2.55'
DRILLER: Sidney Albert Sidney, Gus Rambin

RIG: Mobile B-53
BIT(S): 7.25" Hollow Stem Auger

DRILLING FLUID: N/A

PROTECTIVE CASING: 4" Aluminum/Steel

CONSTRUCTION TIME LOG:

TASK:	START DATE	START TIME	FINISH DATE	FINISH TIME
DRILLING:	04/16/96	10:45	04/16/96	11:00
GEOPHYS,LOGGING:				
CASING:				
FILTER PLACEMENT:	04/16/96	11:15	04/16/96	11:30
BENTONITE SEAL:				
DEVELOPMENT:	04/19/96	14:00	04/19/96	14:38

SITE NAME: Little Gypsy
LOCATION: Montz, Louisiana

WELL DESIGN & SPECIFICATIONS

BASIS: GEOLOGIC LOG ☒ GEOPHYSICAL LOG ☐

CASING STRING(S): C=CASING S=SCREEN

DEPTH (ft)	STRINGS(S)	ELEVATION (ft N.G.V.D.)
-2.55 / -0.50	C1	18.95 / 16.90
-0.50 / 9.50	C2	16.90 / 6.90
9.50 / 19.50	S1	6.90 / -3.10
/		/
/		/

C1: 2" dia., Sch. 40 PVC, Flush Threaded, Tri-Lock
C2: 2" dia., Sch. 40 PVC, Flush Threaded, Tri-Lock
S1: 2" dia., Sch. 40 PVC, Flush Threaded, 0.010" Slot, Tri-Lock

FILTER PACK: 20.0 - 8.0: 20/40 Silica Sand

FINE SAND: 8.0 - 7.0 Sugar Sand; 5.0 - 4.0 Sugar Sand

GROUT SEAL: 4.0 - Ground Surface: Cement/bentonite slurry

BENTONITE SEAL: 7.0 - 5.0: Bentonite Pellets

PIEZOMETER DEVELOPMENT:

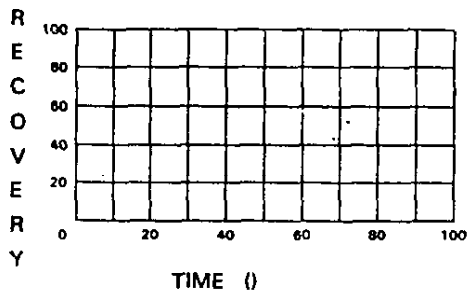
04/19/96 - 7.5 gallons bailed

STABILIZATION TEST DATA:

TIME	pH	SPEC. COND.	TEMP. (°F)
14:14	6.64	910	21.2
14:32	6.49	1009	21.6
14:38	6.43	1071	21.7

RECOVERY DATA:

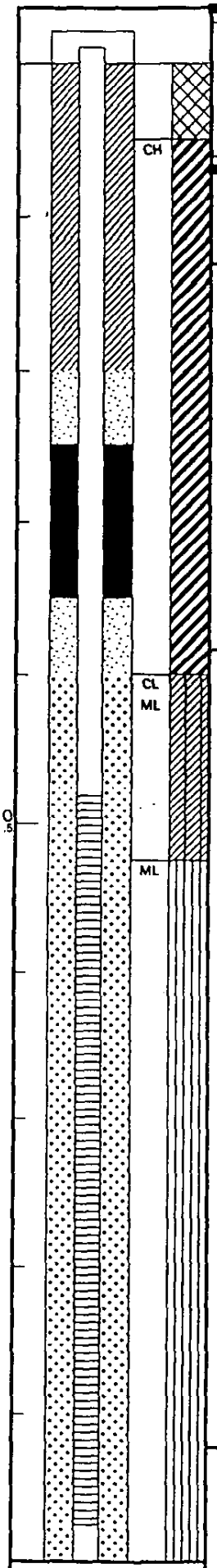
Q = GAL. So =



COMMENTS:

SUPERVISED BY: Tom Kagwen
CHK'D BY: Sam Reed

Tracking Code: 68784, WMPIEZ, 5/24/96



T.D. = 20.0 FT.

WELL NUMBER: PZ-5

BORING NO. X-REF: B-PZ-5

PIEZOMETER CONSTRUCTION SUMMARY

SURVEY COORDS: N 30° 00' 21"
E 90° 27' 49"

SURFACE ELEVATION: 14.50 N.G.V.D.
TOP OF CASING ELEV: 16.99 N.G.V.D.

DRILLING SUMMARY:

TOTAL DEPTH: 20.0'
BOREHOLE DIAMETER: 8.0"
CASING STICK-UP: 2.49'
DRILLER: Sidney Albert Sidney, Gus Rambin

RIG: Mobile B-53
BIT(S): 7.25" Hollow Stem Auger

DRILLING FLUID: N/A

PROTECTIVE CASING: 4" Aluminum/Steel

CONSTRUCTION TIME LOG:

TASK:	START DATE	START TIME	FINISH DATE	FINISH TIME
DRILLING:	04/16/96	16:45	04/16/96	17:00
GEOPHYS.LOGGING:				
CASING:				
FILTER PLACEMENT:	04/16/96	17:10	04/16/96	17:25
BENTONITE SEAL:				
DEVELOPMENT:	04/19/96	15:00	04/19/96	17:24

SITE NAME: Little Gypsy
LOCATION: Montz, Louisiana

WELL DESIGN & SPECIFICATIONS

BASIS: GEOLOGIC LOG ☒ GEOPHYSICAL LOG ☐

CASING STRING(S): C=CASING S=SCREEN

DEPTH (ft)	STRINGS(S)	ELEVATION (ft N.G.V.D.)
-2.49 / -0.50	C1	16.99 / 15.00
-0.50 / 9.50	C2	15.00 / 5.00
9.50 / 19.50	S1	5.00 / -5.00
/		/
/		/

C1: 2" dia., Sch. 40 PVC, Flush Threaded, Tri-Lock
C2: 2" dia., Sch. 40 PVC, Flush Threaded, Tri-Lock
S1: 2" dia., Sch. 40 PVC, Flush Threaded, 0.010" Slot, Tri-Lock

FILTER PACK: 20.0 - 8.0: 20/40 Silica Sand

FINE SAND: 8.0 - 7.0 Sugar Sand; 5.0 - 4.0 Sugar Sand

GROUT SEAL: 4.0 - Ground Surface: Cement/bentonite slurry

BENTONITE SEAL: 7.0 - 5.0: Bentonite Pellets

PIEZOMETER DEVELOPMENT:

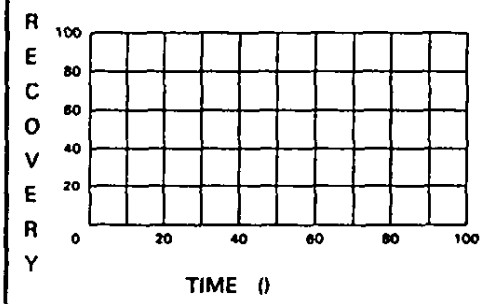
04/19/96 - 13.0 gallons bailed

STABILIZATION TEST DATA:

TIME	pH	SPEC. COND.	TEMP. (°F)
15:12	6.60	702	21.4
15:22	6.63	712	21.4
15:30	6.55	708	21.3
17:24	6.61	714	22.2

RECOVERY DATA:

Q = GAL. So = _____



COMMENTS:

SUPERVISED BY: Tom Keowen
CHK'D BY: Sam Reed

Tracking Co 68784, WMPEZ, 5/21/96

RUST ENVIRONMENT & INFRASTRUCTURE

Field Data Information Log for Piezometer Development

Site Name: Entergy Louisiana, Inc.
Little Gypsy Electric Generating Plant

Well ID#: PZ-1 Project No.: 68784.100

Weather Conditions: Overcast, warm Date (mo/day/yr): 04/18/96

Time: 10:00

Air Temperature: 78°F Field Personnel: T. Keowen

Casing Diameter: 2"

Casing Material: PVC

Total Well Depth (TWD) = 22.91 ft.

Depth to Ground Water (DGW) = 7.47 ft.

Length of Water Column (LWC) = TWD - DGW 15.44 ft.

1 Casing Volume LWC x 0.16 gals/ft. = 2.47 gallons

4 Casing Volumes = 9.88 gal = Standard Evacuation Volume

Method of Well Evacuation: PE Bailer

Method of Sample Collection: PE Bailer

Total Volume of Water Removed: 12.5 gallons

*Depth from top of casing

Well Location: _____ Upgradient __X__ Downgradient

Measuring Point Elevation (MPE): 18.75 ft. NGVD

Height of Riser (above land surface): 2.55 ft.

Groundwater Elevation (MPE-DGW): 11.28 ft. NGVD

Dedicated Bailer or Pump: YES X NO ___

Steel Guard Pipe Around Casing: YES X NO ___

Locking Cap: YES X NO ___

Protective Post/Abutment: YES X NO ___

Well Integrity Satisfactory: YES X NO ___

Well Yield: LOW _X_ MODERATE ____ HIGH ____

Remarks:

Dry at 8 gallons

Field Analyses

REPLICATE	Calibration	Purging							
TIME (military)	10:00	10:23	10:28	10:34	11:18	12:08			
pH (S.U.)	7.00/4.00/9.87	6.55	6.59	6.65	6.72	6.66			
Sp. Cond. (µmhos/cm)	1,413	2,190	2,180	2,180	2,280	2,180			
Water Temp. (°C)	23.1	20.7	20.8	21.3	21.7	21.1			
TURBIDITY (subjective)*	--	3	3	3	3	3			

*(1) Clear (2) Slight (3) Moderate (4) High

COMMENTS/OBSERVATIONS:

Well Casing Volume Information

Well diameter = Gallons/foot

1.25" = 0.077	2" = 0.16	3" = 0.37	4" = 0.665
1.50" = 0.10	2.50" = 0.24	3.50" = 0.50	6" = 1.46

RUST ENVIRONMENT & INFRASTRUCTURE

Field Data Information Log for Piezometer Development

Site Name: Entergy Louisiana, Inc.
Little Gypsy Electric Generating Plant

Well ID#: PZ-2 **Project No.:** 68784.100

Weather Conditions: Overcast, warm **Date (mo/day/yr):** 04/18/96
Time: 10:55

Air Temperature: 80°F **Field Personnel:** T. Keowen

Casing Diameter: 2"
Casing Material: PVC
Total Well Depth (TWD) = 22.22 ft.
Depth to Ground Water (DGW) = 9.47 ft.
Length of Water Column (LWC) = TWD - DGW 12.75 ft.
1 Casing Volume LWC x 0.16 gals/ft. = 2.04 gallons
4 Casing Volumes = 8.16 gal = Standard Evacuation Volume
Method of Well Evacuation: PE Bailer
Method of Sample Collection: PE Bailer
Total Volume of Water Removed: 8.25 gallons

*Depth from top of casing

Well Location: _____ **Upgradient** __X__ **Downgradient**

Measuring Point Elevation (MPE): 19:10 ft. NGVD
Height of Riser (above land surface): 3.10 ft.
Groundwater Elevation (MPE-DGW): 9.63 ft. NGVD

Dedicated Bailer or Pump: YES X NO ___
Steel Guard Pipe Around Casing: YES X NO ___
Locking Cap: YES X NO ___
Protective Post/Abutment: YES X NO ___
Well Integrity Satisfactory: YES X NO ___
Well Yield: LOW ___ MODERATE X HIGH ___
Remarks:
Dry at 4 gallons; 6.5 gallons

Field Analyses

REPLICATE	Calibration	Purging							
TIME (military)	10:00	11:00	11:07	12:45	13:45				
pH (S.U.)	7.00/4.00/9.87	7.02	6.65	6.66	6.98				
Sp. Cond. (µmhos/cm)	1,413	749	769	758	750				
Water Temp. (°C)	23.1	22.3	22.6	21.9	21.7				
TURBIDITY (subjective)*	--	2	2	1	1				

*(1) Clear (2) Slight (3) Moderate (4) High

COMMENTS/OBSERVATIONS:

Well Casing Volume Information

Well diameter = Gallons/foot

1.25" = 0.077	2" = 0.16	3" = 0.37	4" = 0.665
1.50" = 0.10	2.50" = 0.24	3.50" = 0.50	6" = 1.46

R:\DATA\ADMIN\OBS\ENTERGY\68784\PZ2_419.XLS

RUST ENVIRONMENT & INFRASTRUCTURE

Field Data Information Log for Piezometer Development

Site Name: Entergy Louisiana, Inc.
Little Gypsy Electric Generating Plant

Well ID#: PZ-3

Weather Conditions:	Overcast, warm	Project No.:	68784.100
		Date (mo/day/yr):	04/18/96
		Time:	12:25
Air Temperature:	82°F	Field Personnel:	T. Keowen
Casing Diameter:	2"		
Casing Material:	PVC		

Total Well Depth (TWD) = 22.02 ft.
Depth to Ground Water (DGW) = 4.84 ft.
Length of Water Column (LWC) = TWD - DGW 17.18 ft.
1 Casing Volume LWC x 0.16 gals/ft. = 2.75 gallons
4 Casing Volumes = 11.00 gal = Standard Evacuation Volume
Method of Well Evacuation: PE Bailer
Method of Sample Collection: PE Bailer
Total Volume of Water Removed: 13.0 gallons

*Depth from top of casing

Well Location: __X__Upgradient _____Downgradient

Measuring Point Elevation (MPE): 18.30 ft. NGVD
Height of Riser (above land surface): 2.30 ft.
Groundwater Elevation (MPE-DGW): 13.46 ft. NGVD

Dedicated Bailer or Pump: YES X NO __
Steel Guard Pipe Around Casing: YES X NO __
Locking Cap: YES X NO __
Protective Post/Abutment: YES X NO __
Well Integrity Satisfactory: YES X NO __
Well Yield: LOW X MODERATE ___ HIGH ___
Remarks:
Dry at 5.5 gallons; 10.5 gallons

Field Analyses

REPLICATE	Calibration	Purging							
TIME (military)	10:00	12:28	12:35	13:05	13:38				
pH (S.U.)	7.00/4.00/9.87	6.99	7.07	6.90	7.19				
Sp. Cond. (µmhos/cm)	1,413	874	849	908	988				
Water Temp. (°C)	23.1	21.7	22.0	21.8	22.2				
TURBIDITY (subjective)*	--	4	4	4	4				

*(1) Clear (2) Slight (3) Moderate (4) High

COMMENTS/OBSERVATIONS:

Well Casing Volume Information

Well diameter = Gallons/foot

1.25" = 0.077	2" = 0.16	3" = 0.37	4" = 0.665
1.50" = 0.10	2.50" = 0.24	3.50" = 0.50	6" = 1.46

R:\DATA\ADMIN\JOBS\ENTERGY\68784\PZ3_418.XLS

RUST ENVIRONMENT & INFRASTRUCTURE

Field Data Information Log for Piezometer Development

Site Name: Entergy Louisiana, Inc.
Little Gypsy Electric Generating Plant

Well ID#: PZ-4 **Project No.:** 68784.100

Weather Conditions: Overcast, warm **Date (mo/day/yr):** 04/19/96

Time: 14:00

Air Temperature: 80°F **Field Personnel:** T. Keowen

Casing Diameter: 2"

Casing Material: PVC

Total Well Depth (TWD) = 22.88 ft.

Depth to Ground Water (DGW) = 6.38 ft.

Length of Water Column (LWC) = TWD - DGW 16.50 ft.

1 Casing Volume LWC x 0.16 gals/ft. = 2.64 gallons

4 Casing Volumes = 10.56 gal = Standard Evacuation Volume

Method of Well Evacuation: PE Bailer

Method of Sample Collection: PE Bailer

Total Volume of Water Removed: 7.50 gallons

*Depth from top of casing

Well Location: _____ Upgradient __X__ Downgradient

Measuring Point Elevation (MPE): 18.95 ft. NGVD

Height of Riser (above land surface): 2.55 ft.

Groundwater Elevation (MPE-DGW): 12.57 ft. NGVD

Dedicated Bailer or Pump: YES X NO ___

Steel Guard Pipe Around Casing: YES X NO ___

Locking Cap: YES X NO ___

Protective Post/Abutment: YES X NO ___

Well Integrity Satisfactory: YES X NO ___

Well Yield: LOW X MODERATE ___ HIGH ___

Remarks:
Dry at 7.5 gallons

Field Analyses

REPLICATE	Calibration	Purging							
TIME (military)		14:14	14:32	14:38					
pH (S.U.)		6.64	6.49	6.43					
Sp. Cond. (µmhos/cm)		910	1,009	1,071					
Water Temp. (°C)		21.2	21.6	21.7					
TURBIDITY (subjective)*		2	2	2					

*(1) Clear (2) Slight (3) Moderate (4) High

COMMENTS/OBSERVATIONS:

Well Casing Volume Information

Well diameter = Gallons/foot

1.25" = 0.077	2" = 0.16	3" = 0.37	4" = 0.665
1.50" = 0.10	2.50" = 0.24	3.50" = 0.50	6" = 1.46

R:\DATA\ADMIN\JOBS\ENTERGY\68784\PZ4_419L.XLS

RUST ENVIRONMENT & INFRASTRUCTURE

Field Data Information Log for Piezometer Development

Site Name: Entergy Louisiana, Inc.
Little Gypsy Electric Generating Plant

Well ID#: PZ-5 Project No.: 68784.100

Weather Conditions: Overcast, warm Date (mo/day/yr): 4/19/96

Time: 15:05

Air Temperature: 82 F Field Personnel: T. Keowen

Casing Diameter: 2"

Casing Material: PVC

Total Well Depth (TWD) = 22.67 ft.

Depth to Ground Water (DGW) = 3.82 ft.

Length of Water Column (LWC) = TWD - DGW 18.85 ft.

1 Casing Volume LWC x 0.16 gals/ft. = 3.02 gallons

4 Casing Volumes = 12.08 gal = Standard Evacuation Volume

Method of Well Evacuation: PE Bailer

Method of Sample Collection: PE Bailer

Total Volume of Water Removed: 13.0 gallons

*Depth from top of casing

Well Location: X Upgradient ____ Downgradient

Measuring Point Elevation (MPE): 16.99 ft. NGVD

Height of Riser (above land surface): 2.49 ft.

Groundwater Elevation (MPE-DGW): 13.17 ft. NGVD

Dedicated Bailer or Pump: YES X NO ___

Steel Guard Pipe Around Casing: YES X NO ___

Locking Cap: YES X NO ___

Protective Post/Abutment: YES X NO ___

Well Integrity Satisfactory: YES X NO ___

Well Yield: LOW ___ MODERATE X HIGH ___

Remarks:

Field Analyses

REPLICATE	Calibration	Purging							
TIME (military)		15:12	15:22	14:30	17:24				
pH (S.U.)		6.60	6.63	6.55	6.61				
Sp. Cond. (µmhos/cm)		702	712	708	714				
Water Temp. (°C)		21.4	21.4	21.3	22.2				
TURBIDITY (subjective)*		3	3	3	2				

*(1) Clear (2) Slight (3) Moderate (4) High

COMMENTS/OBSERVATIONS:

Well Casing Volume Information

Well diameter = Gallons/foot

1.25" = 0.077	2" = 0.16	3" = 0.37	4" = 0.665
1.50" = 0.10	2.50" = 0.24	3.50" = 0.50	6" = 1.46

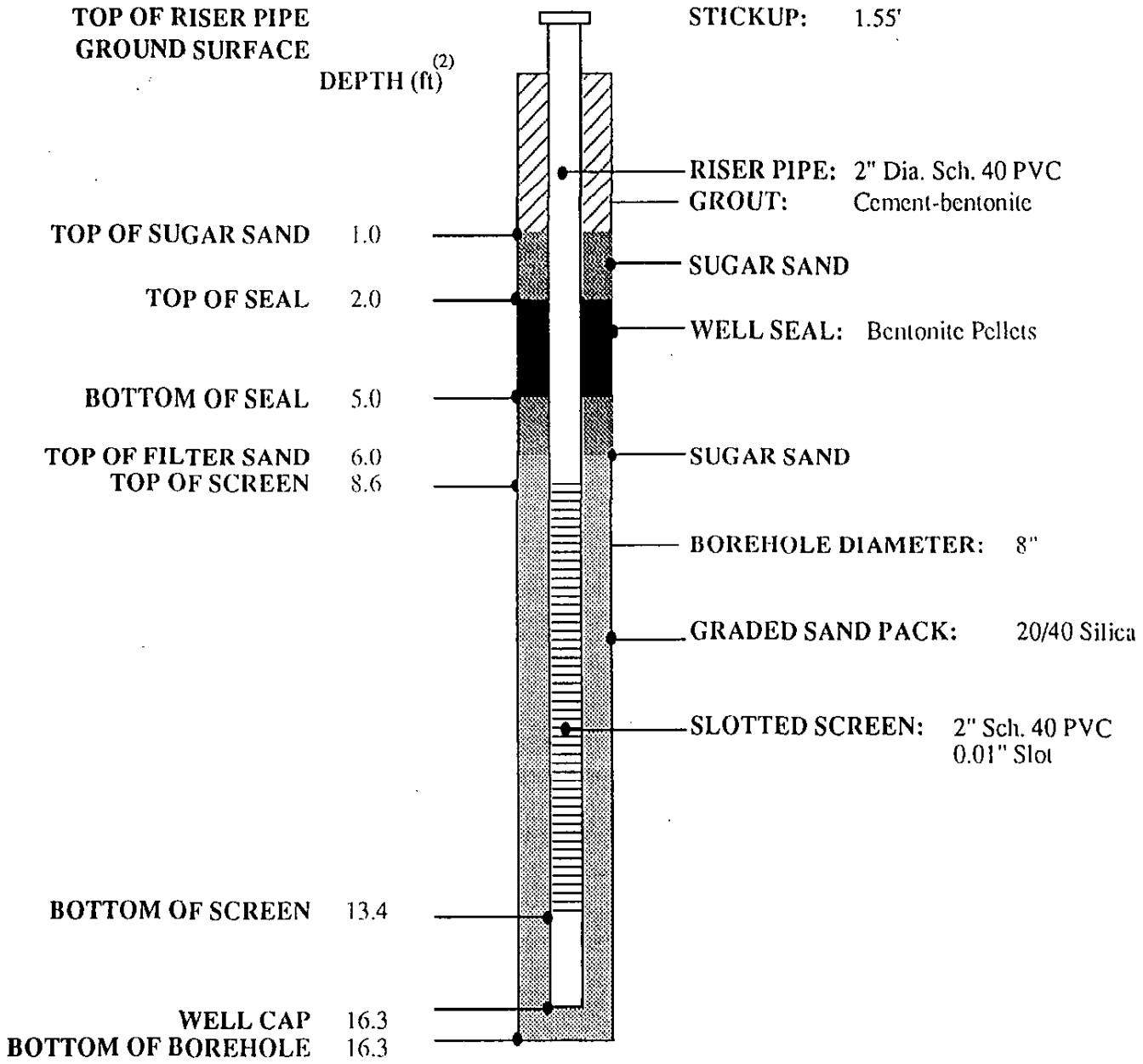
RUST ENVIRONMENT & INFRASTRUCTURE

PIEZOMETER CROSS SECTION

CLIENT: ENTERGY LP&L
LOCATION: Little Gypsy

TP-1

File No.:	87869.521
Top of Riser Elevation: (1)	16.58
Ground Surface Elevation: (1)	15.03
Screened Interval: (1)	6.41-1.65 Ft.
Date Installed:	07/07/94



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to a plant benchmark.
(2) Depths are referenced to feet below ground surface.

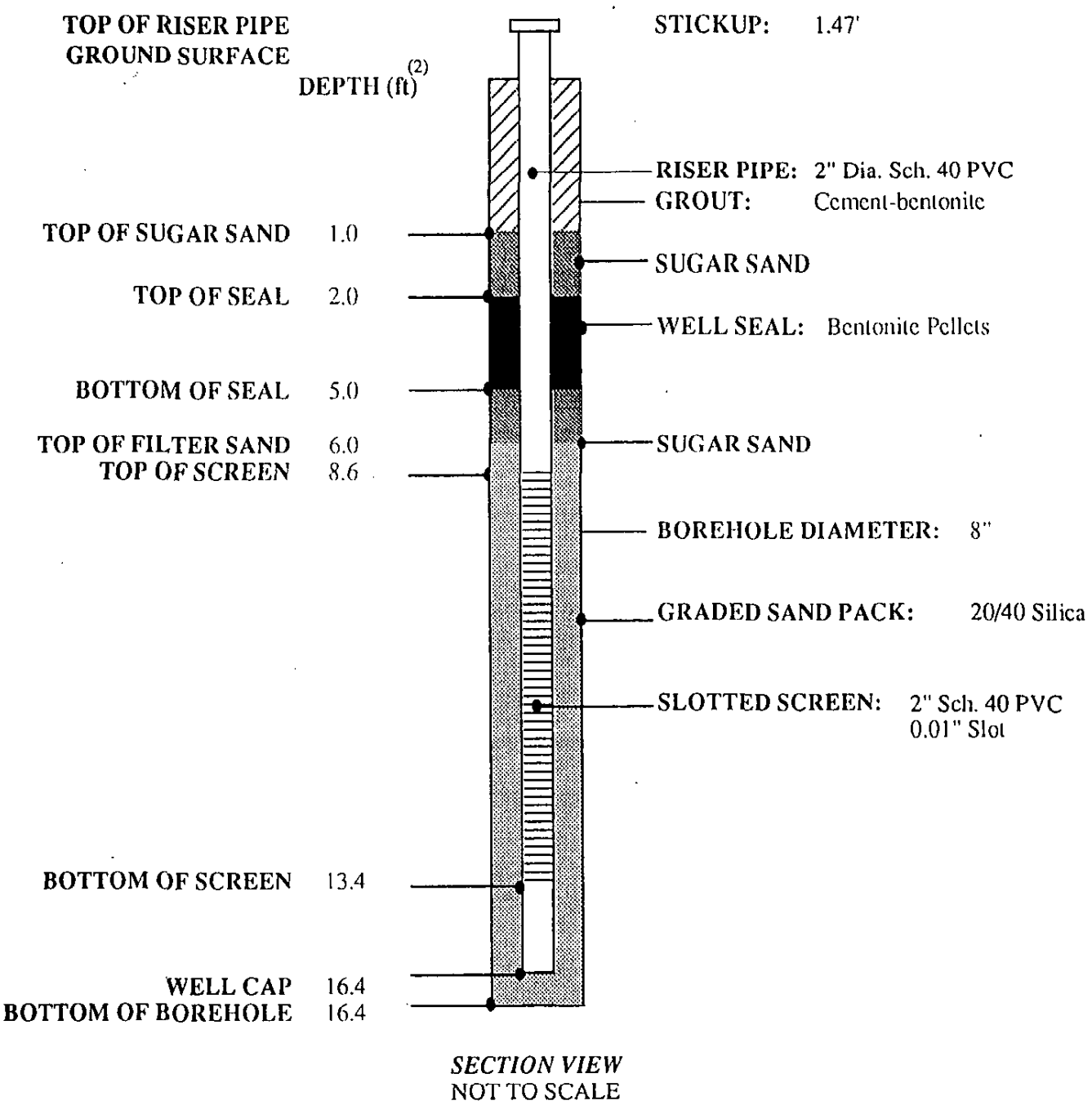
RUST ENVIRONMENT & INFRASTRUCTURE

PIEZOMETER CROSS SECTION

CLIENT: ENTERGY LP&L
LOCATION: Little Gypsy

TP-2

File No.:	87869.521
Top of Riser Elevation: (1)	16.65
Ground Surface Elevation: (1)	15.18
Screened Interval: (1)	6.59-1.80 Ft.
Date Installed:	07/07/94



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to a plant benchmark.
(2) Depths are referenced to feet below ground surface.

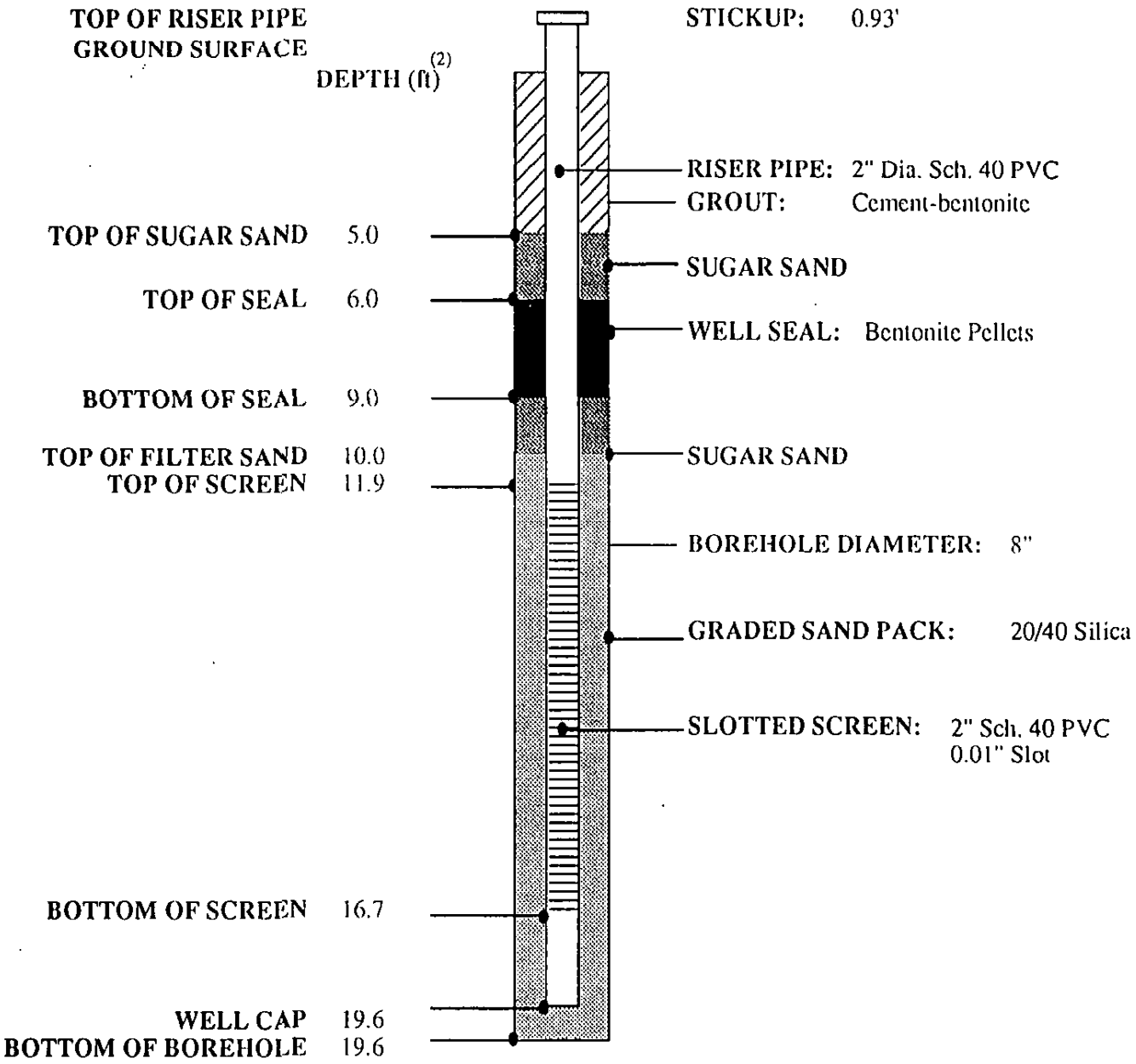
RUST ENVIRONMENT & INFRASTRUCTURE

PIEZOMETER CROSS SECTION

CLIENT: ENTERGY LP&L
LOCATION: Little Gypsy

TP-3

File No.:	87869.521
Top of Riser Elevation: (1)	16.59
Ground Surface Elevation: (1)	15.66
Screened Interval: (1)	3.78 to -0.99 Ft
Date Installed:	08/08/94



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to a plant benchmark.
(2) Depths are referenced to feet below ground surface.

RUST ENVIRONMENT & INFRASTRUCTURE

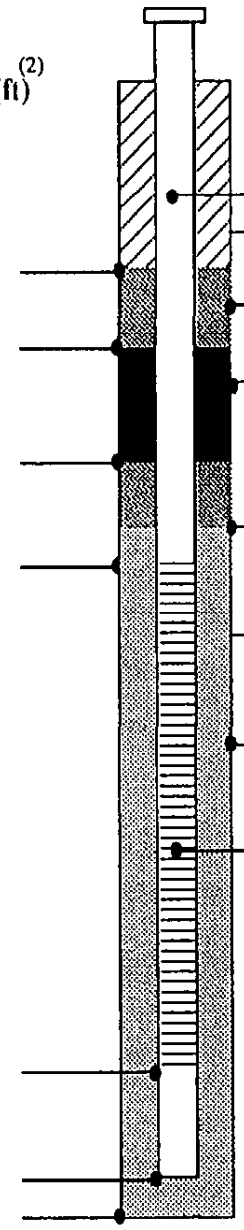
PIEZOMETER CROSS SECTION

CLIENT: ENTERGY LP&L
LOCATION: Little Gypsy

TP-4

File No.: 87869.521
Top of Riser Elevation: (1) 18.80
Ground Surface Elevation: (1) 16.26
Screened Interval: (1) 8.70-3.86 Ft.
Date Installed: 07/07/94

TOP OF RISER PIPE — **STICKUP:** 2.54'
GROUND SURFACE
DEPTH (ft) (2)



RISER PIPE: 2" Dia. Sch. 40 PVC
GROUT: Cement-bentonite

TOP OF SUGAR SAND 0.5
SUGAR SAND

TOP OF SEAL 1.0
WELL SEAL: Bentonite Pellets

BOTTOM OF SEAL 4.0

TOP OF FILTER SAND 5.0
SUGAR SAND

TOP OF SCREEN 7.6

BOREHOLE DIAMETER: 8"

GRADED SAND PACK: 20/40 Silica

SLOTTED SCREEN: 2" Sch. 40 PVC
0.01" Slot

BOTTOM OF SCREEN 12.4

WELL CAP 15.4
BOTTOM OF BOREHOLE 15.4

SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to a plant benchmark.
(2) Depths are referenced to feet below ground surface.

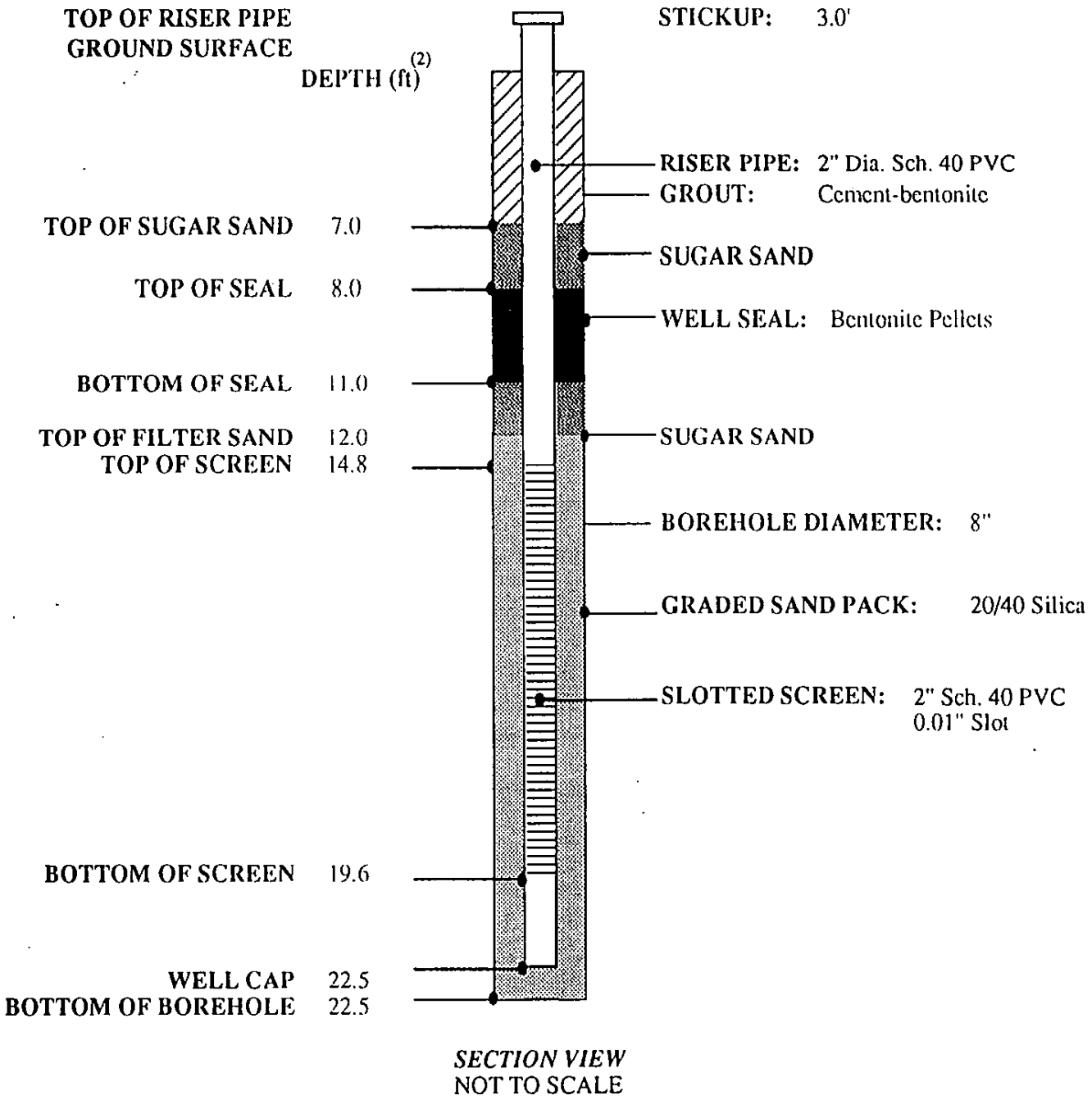
RUST ENVIRONMENT & INFRASTRUCTURE

PIEZOMETER CROSS SECTION

CLIENT: ENTERGY LP&L
LOCATION: Little Gypsy

TP-5

File No.: 87869.521
Top of Riser Elevation: (1) 17.22
Ground Surface Elevation: (1) 14.18
Screened Interval: (1) -0.61 to -5.45
Date Installed: 07/06/94



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to a plant benchmark.
(2) Depths are referenced to feet below ground surface.

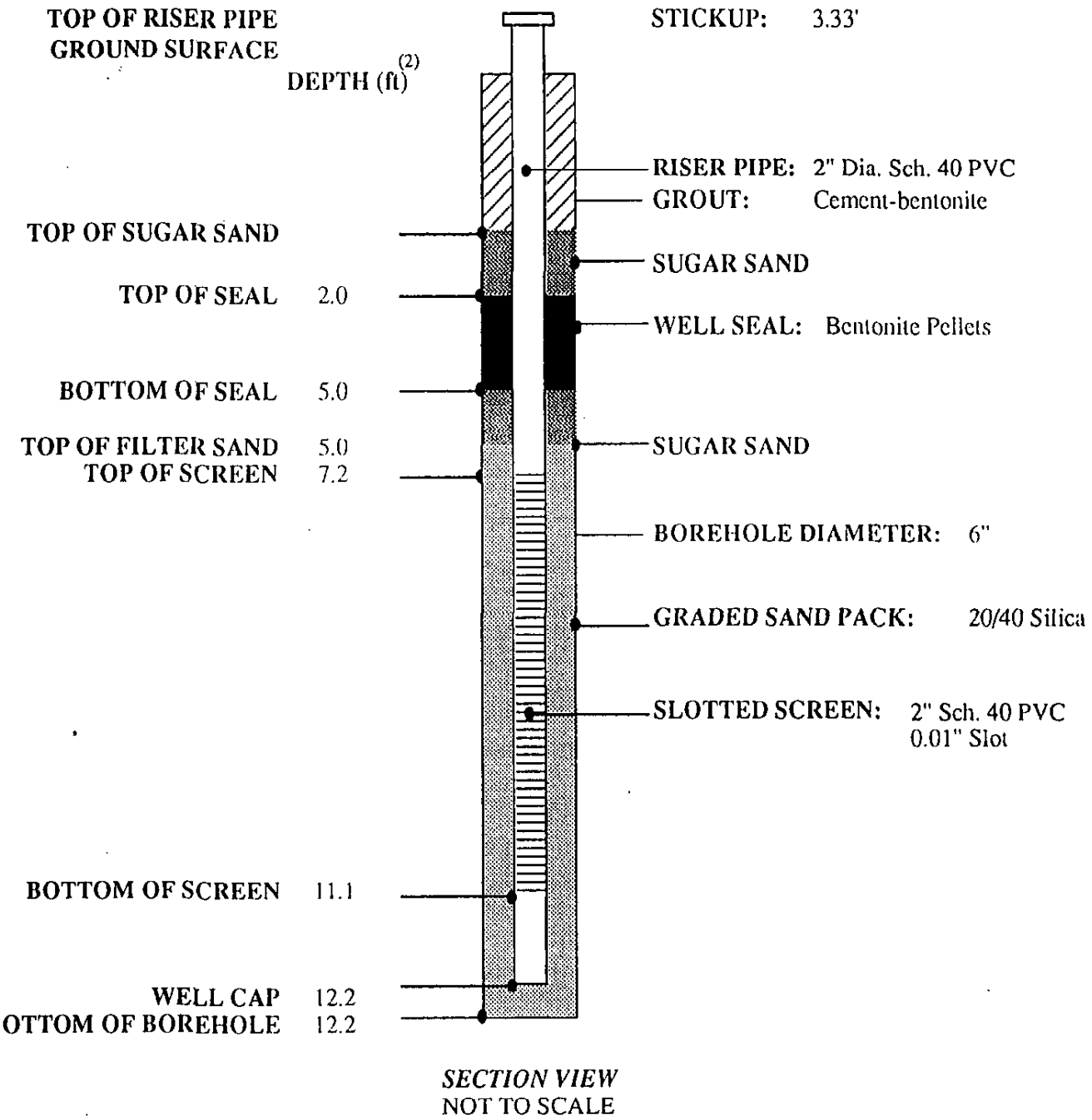
RUST ENVIRONMENT & INFRASTRUCTURE

PIEZOMETER CROSS SECTION

CLIENT: ENTERGY LP&L
LOCATION: Little Gypsy

TP-5S

File No.:	87869.521
Top of Riser Elevation: (1)	17.46
Ground Surface Elevation: (1)	14.13
Screened Interval: (1)	6.98-3.02 Ft.
Date Installed:	08/03/94



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to a plant benchmark.
(2) Depths are referenced to feet below ground surface.

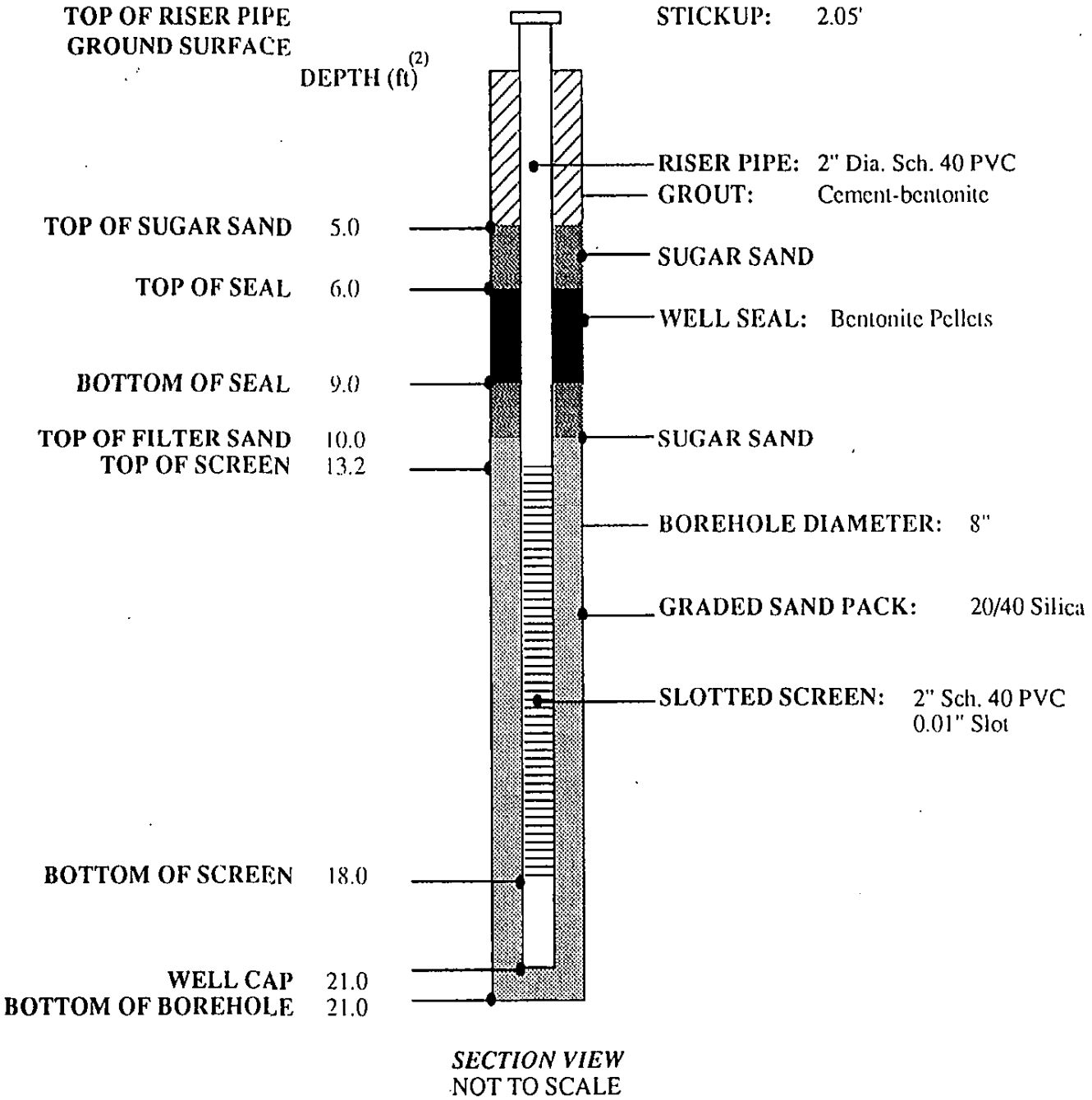
RUST ENVIRONMENT & INFRASTRUCTURE

PIEZOMETER CROSS SECTION

CLIENT: ENTERGY LP&L
LOCATION: Little Gypsy

TP-6

File No.:	87869.521
Top of Riser Elevation:[1]	16.58
Ground Surface Elevation:[1]	14.53
Screened Interval:[1]	1.30 to -3.47 Ft
Date Installed:	07/06/94



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to a plant benchmark.
(2) Depths are referenced to feet below ground surface.

LOUISIANA POWER AND LIGHT COMPANY
ENVIRONMENTAL DRILLING SERVICES
LITTLE GYPSY
PROJECT NO. 87869.512

SUMMARY OF LABORATORY TEST RESULTS

BORING 4

DEPTH IN FEET	VISUAL CLASSIFICATION	UNIFIED SOIL CLASSIFICATION	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE
			LL	PL	PI	
2–4	Medium stiff gray & tan clay w/silt pockets & concretions	CH	71	21	50	--
14–16	Soft gray silty clay w/clay layers & wood	CL	41	19	22	--
44–46	Loose gray sandy silt w/thin clay layers & lenses	ML	31	22	9	64.7

EUSTIS ENGINEERING COMPANY, INC.

LOUISIANA POWER AND LIGHT COMPANY
ENVIRONMENTAL DRILLING SERVICES
LITTLE GYPSY
PROJECT NO. 87869.512

SUMMARY OF LABORATORY TEST RESULTS

BORING 5

DEPTH IN FEET	VISUAL CLASSIFICATION	UNIFIED SOIL CLASSIFICATION	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE
			LL	PL	PI	
18–20	Brown silty sand w/few clay pockets	SM	Non–Plastic			36.8
32–33	Medium stiff gray silty clay	CL	38	17	21	--
44–46	Soft gray clay w/silty sand layers	CH	53	18	35	98.9

EUSTIS ENGINEERING COMPANY, INC.

LOUISIANA POWER AND LIGHT COMPANY
ENVIRONMENTAL DRILLING SERVICES
LITTLE GYPSY
PROJECT NO. 87869.512

SUMMARY OF LABORATORY TEST RESULTS

BORING 6

DEPTH IN FEET	VISUAL CLASSIFICATION	UNIFIED SOIL CLASSIFICATION	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE
			LL	PL	PI	
10–12	Soft gray & tan silty clay w/clay layers	CL	42	17	25	--
18–20	Soft gray silty clay w/clayey silt layers	CL	34	20	14	98.7
28–30	Soft gray silty clay w/clayey silt layers	CL	36	18	18	--
53–55	Medium stiff gray silty clay	CL	49	18	31	--
73–75	Loose gray fine sand w/clay pockets & some silt	SP–SM	Non–Plastic			12.2

EUSTIS ENGINEERING COMPANY, INC.

LOUISIANA POWER AND LIGHT COMPANY
ENVIRONMENTAL DRILLING SERVICES
LITTLE GYPSY
PROJECT NO. 87869.512

SUMMARY OF LABORATORY TEST RESULTS

BORING NUMBER	DEPTH IN FEET	CLASSIFICATION	INITIAL MOISTURE CONTENT	DENSITY PCF		ATTERBERG LIMITS			COEFFICIENT OF PERMEABILITY CM/SEC AT 20°C	INITIAL VOID RATIO	INITIAL PERCENT SATURATION
				DRY	WET	LL	PL	PI			
1	8–10	Medium stiff gray clay w/decayed wood	46.5	76.3	111.8	98	27	71	6.1×10^{-8} (V)	1.224	100
1	8–10	Medium stiff gray clay w/decayed wood	56.7	66.3	103.9	--			9.0×10^{-8} (H)	1.561	99
1	16–18	Soft gray silty clay w/sandy silt layers	35.3	89.5	121.1	37	20	17	2.2×10^{-6} (V)	0.883	100
1	16–18	Soft gray silty clay w/sandy silt layers	34.6	86.7	116.7	--			3.3×10^{-6} (H)	0.992	100

NOTE: Flexible wall permeability tests were performed on undisturbed soil samples in a vertical (V) and horizontal (H) direction, ASTM D 5085 90.

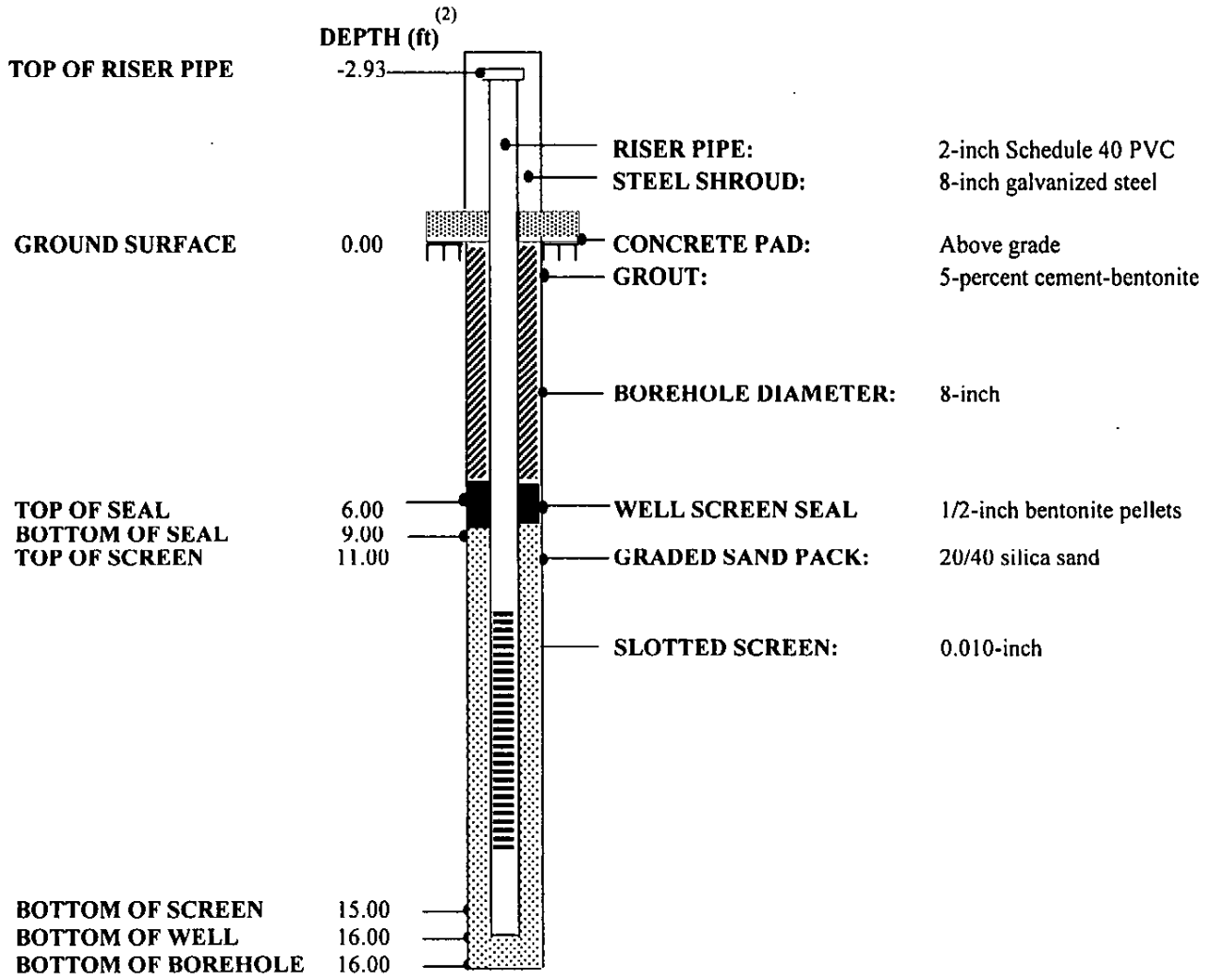
E A R T H T E C H

MONITOR WELL CROSS SECTION

Client: Entergy Louisiana, Inc.
Location: Little Gypsy Electric Generating Plant

MW-1

File No.:		43601
Top of Riser Elevation:	(1)	14.64
Ground Surface Elevation:	(1)	11.71
Screened Interval:	(1)	0.71 to -3.29
Date Installed:		1/24/2001



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to the North American Vertical Datum (NAVD).
(2) Depths are referenced to feet below ground surface.

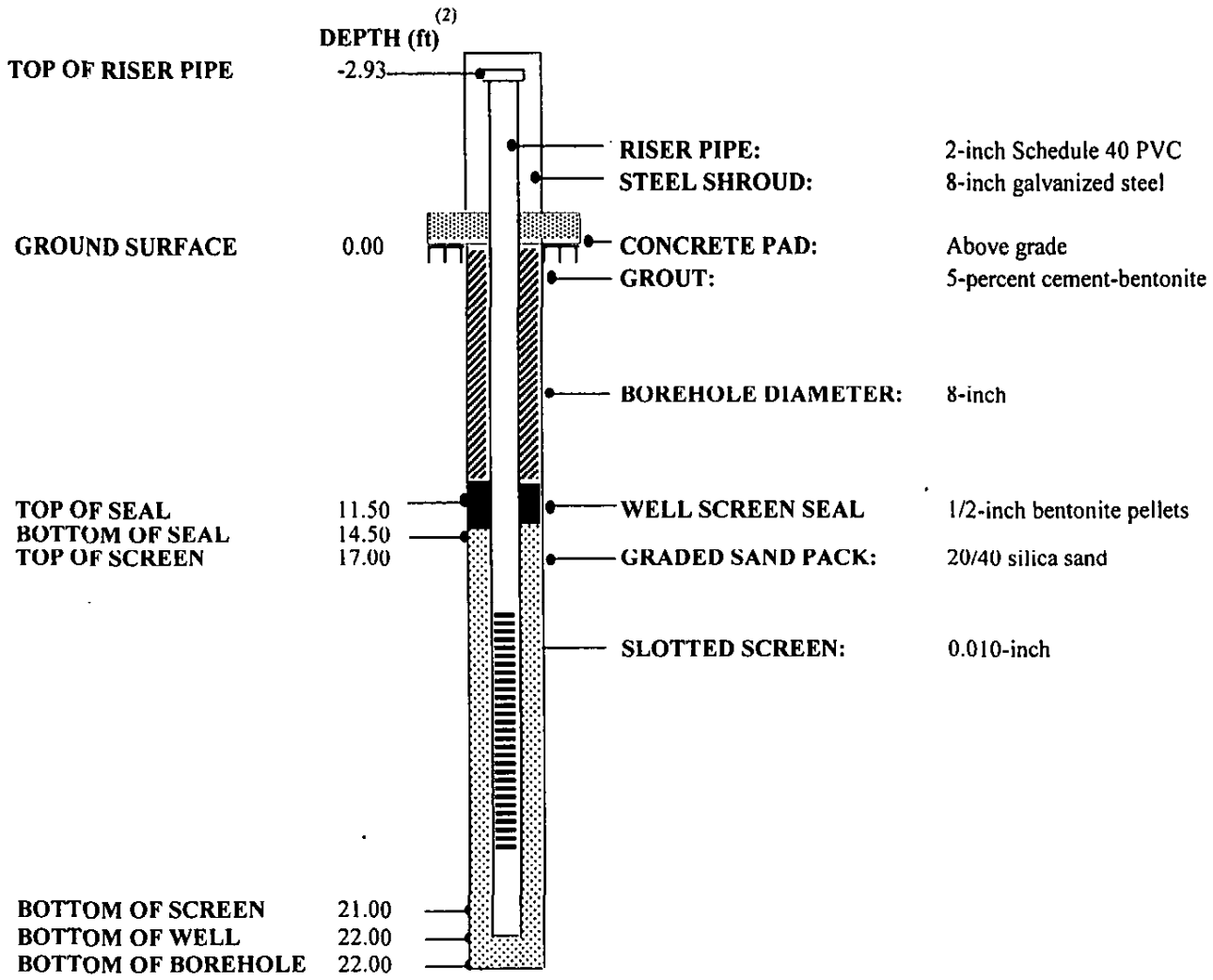
E A R T H T E C H

MONITOR WELL CROSS SECTION

Client: Entergy Louisiana, Inc.
Location: Little Gypsy Electric Generating Plant

MW-2

File No.:	43601
Top of Riser Elevation: (1)	15.88
Ground Surface Elevation: (1)	12.95
Screened Interval: (1)	4.05 to -8.05
Date Installed:	1/24/2001



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to the North American Vertical Datum (NAVD).
(2) Depths are referenced to feet below ground surface.

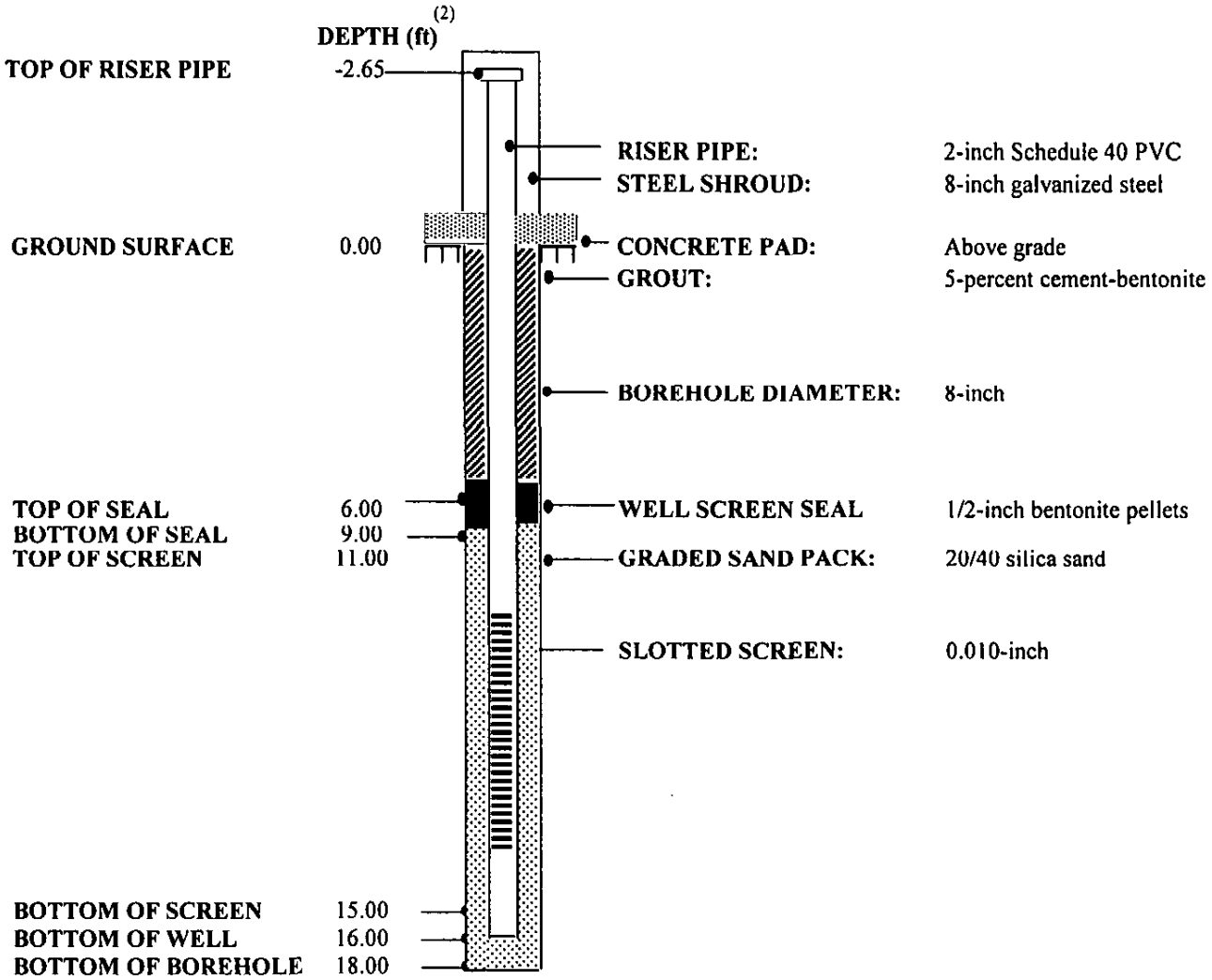
E A R T H T E C H

MONITOR WELL CROSS SECTION

Client: Entergy Louisiana, Inc.
Location: Little Gypsy Electric Generating Plant

MW-3

File No.:	43601
Top of Riser Elevation: (1)	15.64
Ground Surface Elevation: (1)	12.99
Screened Interval: (1)	1.99 to -2.01
Date Installed:	1/24/2001



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to the North American Vertical Datum (NAVD).
(2) Depths are referenced to feet below ground surface.

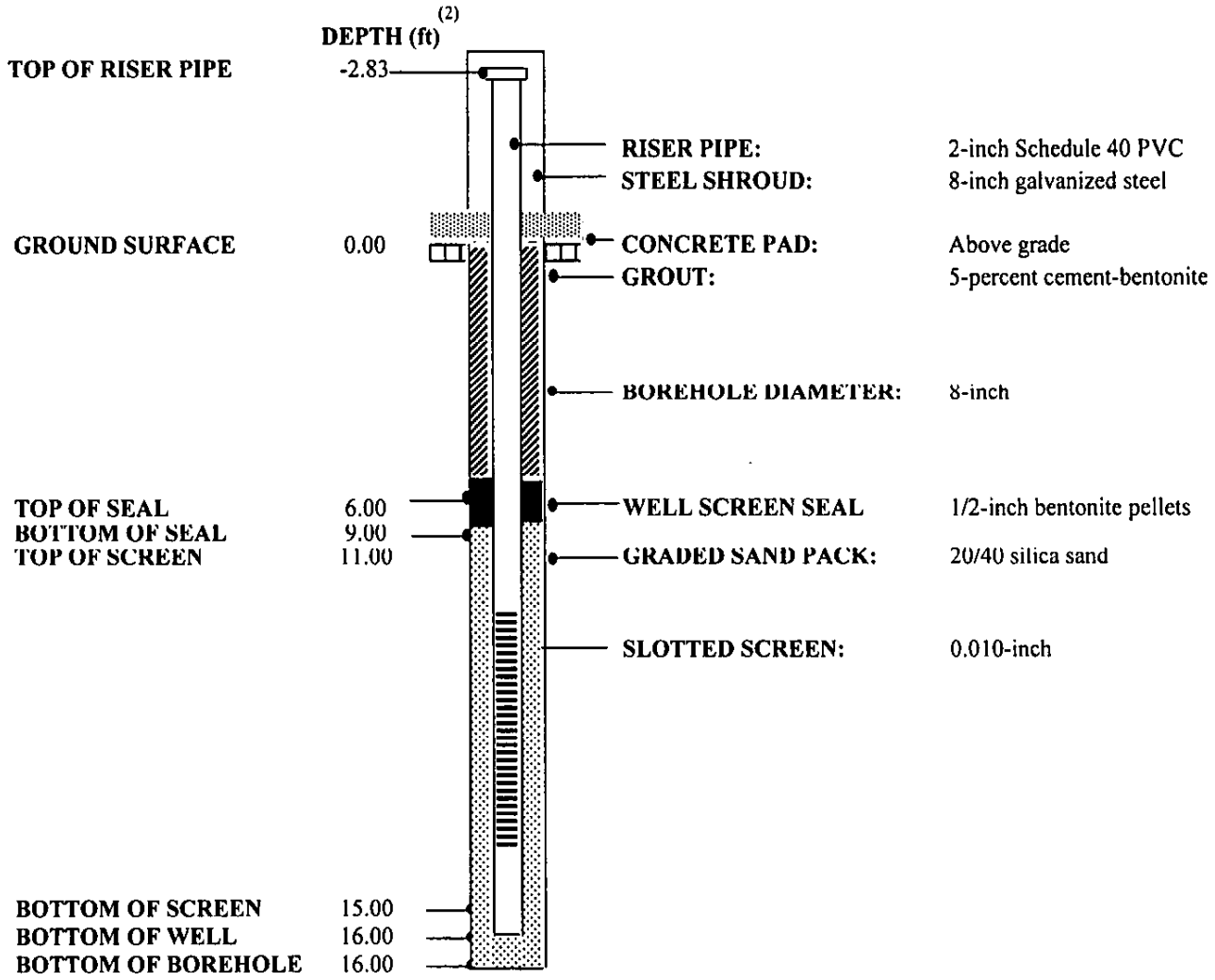
E A R T H T E C H

MONITOR WELL CROSS SECTION

Client: Entergy Louisiana, Inc.
Location: Little Gypsy Electric Generating Plant

MW-4

File No.:	43601
Top of Riser Elevation: (1)	15.06
Ground Surface Elevation: (1)	12.23
Screened Interval: (1)	1.23 to -2.77
Date Installed:	1/24/2001



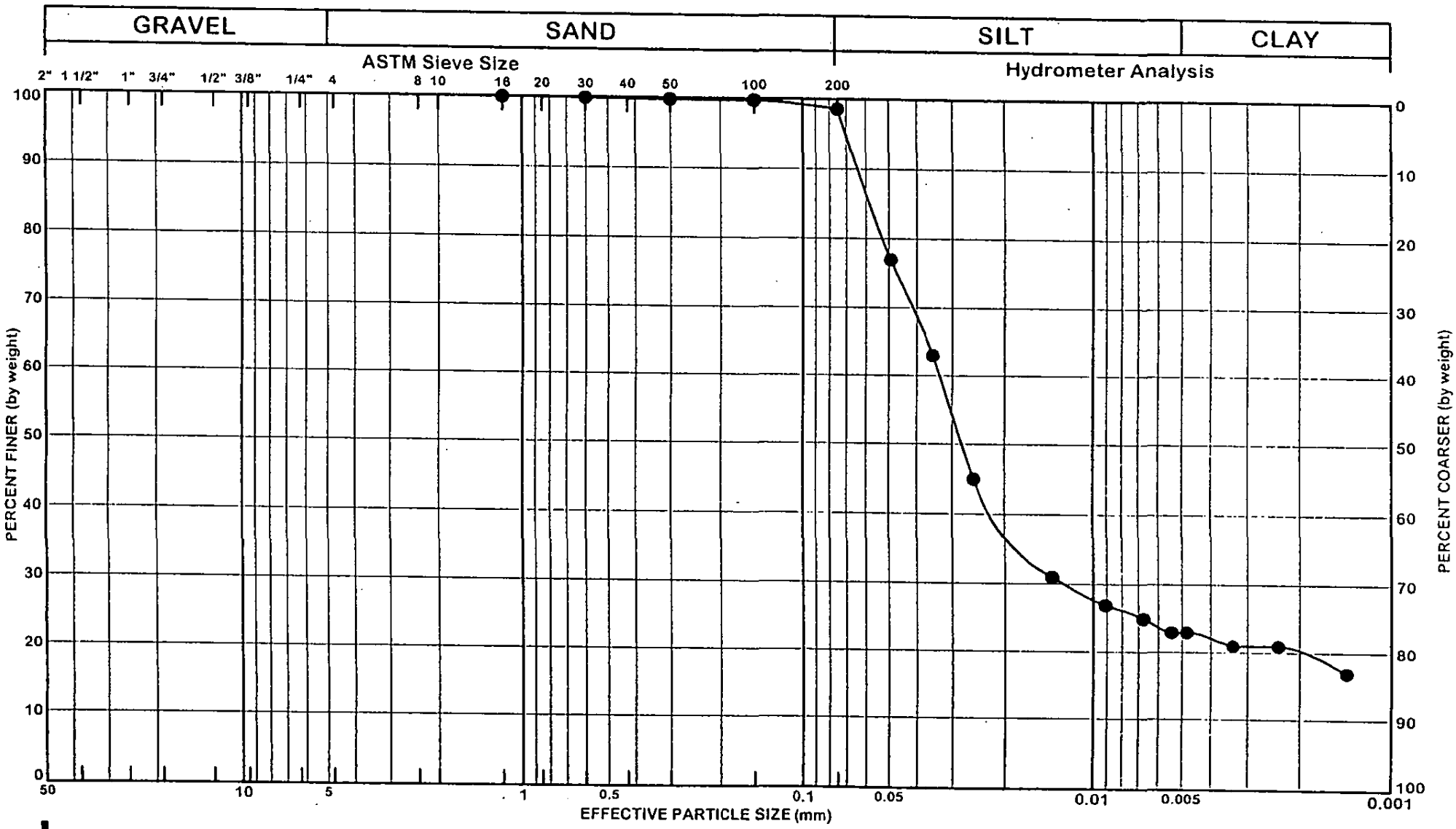
SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to the North American Vertical Datum (NAVD).
(2) Depths are referenced to feet below ground surface.

MONITOR WELL INSTALLATION
LABORATORY INSTALLATION

Sample ID	Depth (feet)	Moisture Content (%)	Atterberg Limits LL	PL	PI	Organic Content (%)	Particle Size Analysis (%)
MW-3	12-14	37.4	44	23	21	3.2	*
MW-3	16-18	32.4	non plastic			2.45	*
MW-1	12-14	31.9	non plastic			1.75	*

Boring No.	Depth (ft.)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
● MW-1	12.0 - 14.0	0.0	1.4	75.6	23.0



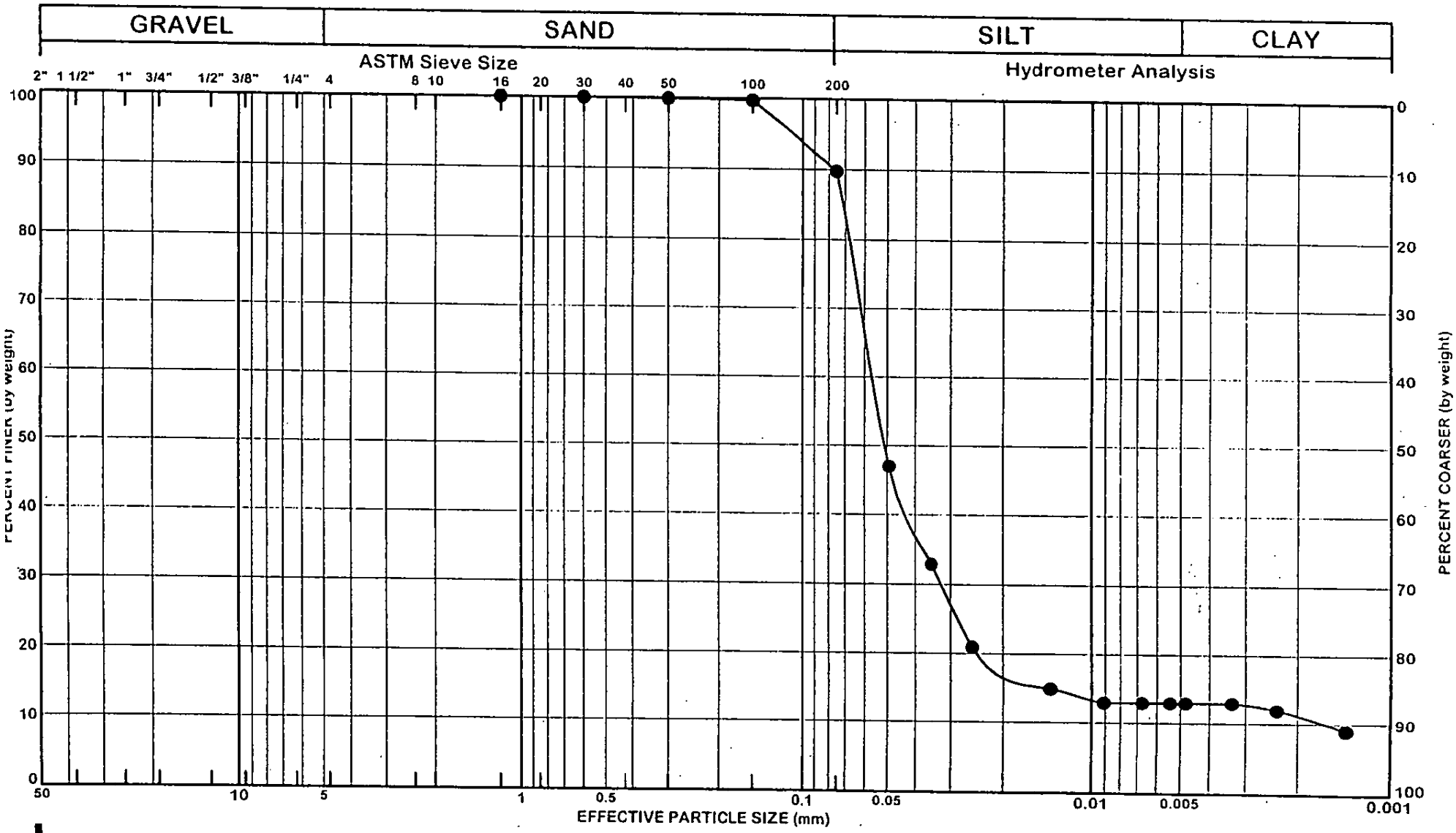
STE
Soil Testing Engineers, Inc.

Well Installation
Little Gypsy

GRAIN SIZE ANALYSIS

File No.: 00-1234
Date: 12/15/2000

Boring No.	Depth (ft.)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
MW-3	12.0 - 14.0	0.0	10.2	76.7	13.0



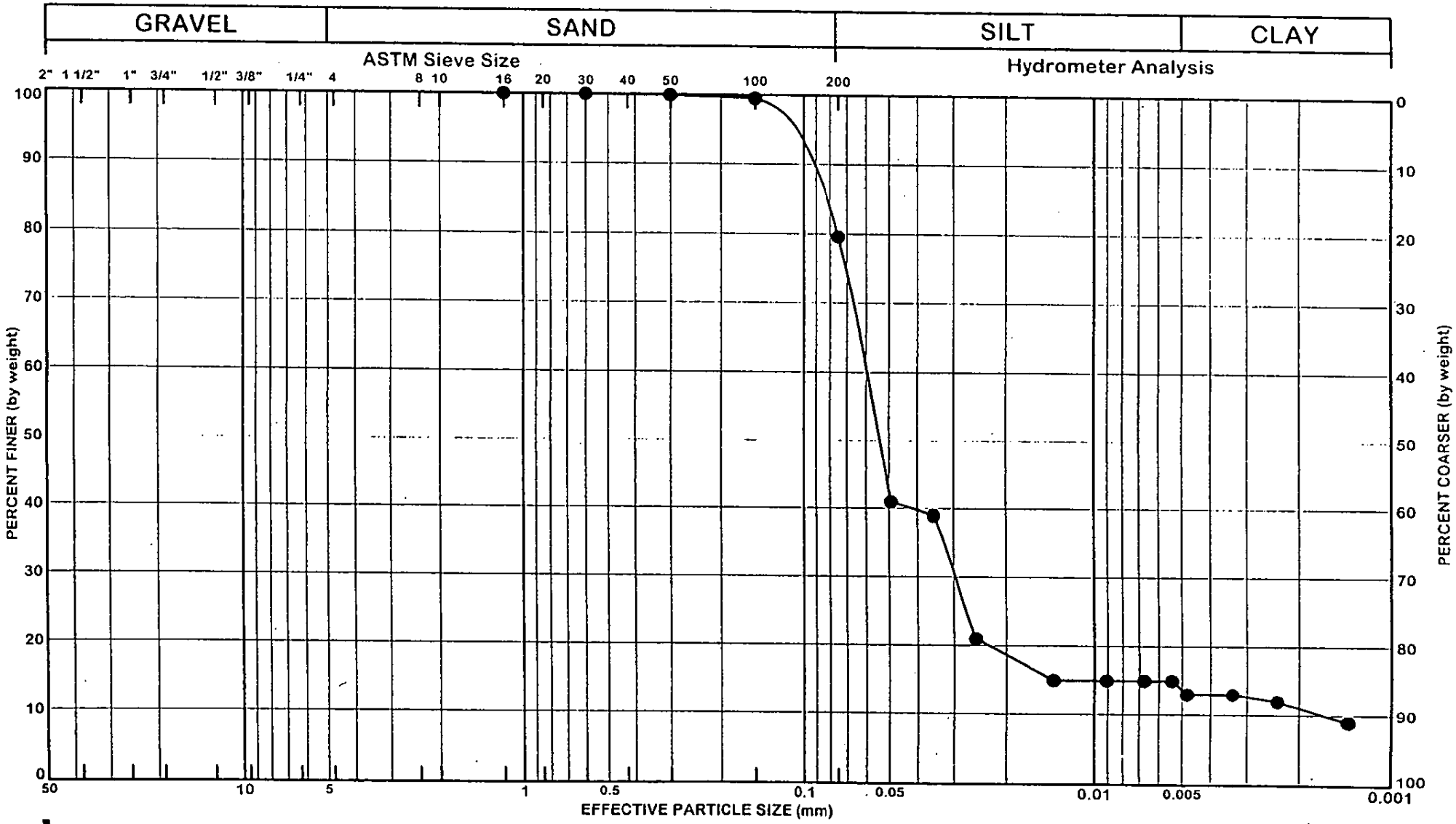
STE
Soil Testing Engineers, Inc.

Well Installation
Little Gypsy

GRAIN SIZE ANALYSIS

File No.: 00-1234
Date: 12/15/2000

Boring No.	Depth (ft.)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
● MW-3	16.0 - 18.0	0.0	20.4	66.0	13.6



STE
Soil Testing Engineers, Inc.

Well Installation
Little Gypsy

GRAIN SIZE ANALYSIS

File No.: 00-1234
Date: 12/15/2000

Daily Field Report

EARTH TECH

A tyco INTERNATIONAL LTD. COMPANY

Owner: ENTERGY

Report No.: 46301.01

Page _____ of _____

Project: LITTLE GYPSY

Date: JANUARY 8, 2001

Project: No.: _____

Weather: A.M. PC COOL P.M. PC COOL

Temp.(°F): High 60 Low 45 Rain NO

Contractor(s) _____

Contractor Super(s) _____

Number and Function of Contractors' Personnel, Hours Worked (Identify Subcontractors Separately)

Contractor	No. of People

Major Constr. Equip. Description	Size/Capacity	No.	No. in Use

Visitors _____ Representing _____

Daily Notations: ENTERGY - LITTLE GYPSY DEVELOP WELLS

MW-1 4 PURGES

MW-2 3 PURGES

MW-3 1 PURGE - DRY - MUDDY

MW-4 1 PURGE - DRY - MUDDY

ATTEMPTED TO FLUSH WELLS

RECORDED PUMP DEPTHS

Signature: [signature]

EARTH TECH

A TYCO INTERNATIONAL LTD. COMPANY

DEVELOP WELL

WELL PURGING AND SAMPLE COLLECTION

CLIENT: ENTERGY PAGE: 1
LOCATION: LAPLACE, LA PROJECT NO:
SAMPLING PERSONNEL: GABER SAMPLE DATE: 1/8/01

GENERAL WELL DATA

Monitor Well ID: MW-1
Date Installed:
Well Construction:
Original Well Depth (ft bls):
Purging Method: BAIL
Pump Type:

WELL INSPECTION

Well locked?
Evidence of tampering with well of lock?
Well casing in good repair?
Concrete pad & metal guard post in good condition?
Well ID marked on well & clearly visible?
PVC cap in place?
Well casing free of debris and insects?

WATER LEVEL/WELL PURGING DATA

Sounded Depth of Well (feet) (A)	18.50
Depth to Water/Hydrocarbon (ft bmp)(B)	7.51
Water Column in Well (feet) (A-B=C)	10.99
Relative Water Elevations	1.76
Amount to be Purged (gallons)	5.28
Did Well Run Dry?	NO

SET PUMP @ 17.5 FT

SAMPLING PARAMETERS

Start Time	1045	1100	1115	1130
Finish Time	1050	1105	1120	1135
Color	BR	BR	BR	
Odor	—			
Appearance	DARK	CLOUDY	CLOUDY	CLOUDY
Temperature °C	17.5	17.8	17.7	
Specific Conductance (umhos/cm)	68.9 S/m	73.6 S/m	89.8 S/m	94.3 S/m
pH	4.69	4.82	4.15	4.29
Dissolved Oxygen (mg/L)	.74	1.02	1.01	1.01
Oxidation Reduction Potential (mv)		184	269	112
Turbidity	27.1	20.2		20.0

20 SETTLING

NOTES:

bls - feet below land surface
bmp - feet below measuring point

GENERAL WELL CASING VOLUMES

Casing Diam.	Gal/ft.	Casing Diam.	Gal/ft.	Casing Diam.	Gal/ft.	Casing Diam.	Gal/ft.
1"	1.04	2"	0.16	3"	0.37	4"	0.65
1 1/4"	0.077	2 ½"	0.24	3 ½"	0.50	6"	1.46
1 ½"	0.10						

EARTH TECH

A TYCO INTERNATIONAL LTD. COMPANY

DEVELOP WELL

WELL PURGING AND SAMPLE COLLECTION

CLIENT: ENTERGY PAGE: 2
LOCATION: LA PLACE LA PROJECT NO:
SAMPLING PERSONNEL: GARY SAMPLE DATE: 1/8/01

GENERAL WELL DATA

Monitor Well ID: MW-2
Date Installed:
Well Construction:
Original Well Depth (ft bls):
Purging Method: BAIL
Pump Type:

WELL INSPECTION

Well locked?
Evidence of tampering with well of lock?
Well casing in good repair?
Concrete pad & metal guard post in good condition?
Well ID marked on well & clearly visible?
PVC cap in place?
Well casing free of debris and insects?

NOT COMPLETE

WATER LEVEL/WELL PURGING DATA

Sounded Depth of Well (feet) (A)	25.50
Depth to Water/Hydrocarbon (ft bmp)(B)	6.45
Water Column in Well (feet) (A-B=C)	19.05
Relative Water Elevations	3.05
Amount to be Purged (gallons)	12.15
Did Well Run Dry?	NO

SET PUMP @ 24.50

SAMPLING PARAMETERS

Start Time	1220	1235	1250	
Finish Time	1230	1245	1300	
Color	CLEAR	CLOUDY	MURKY	
Odor				
Appearance				
Temperature °C	18.8	19.8	19.2	
Specific Conductance (umhos/cm)	84.0 S/M	94.1	96.0	
pH	4.51	5.69	5.77	
Dissolved Oxygen (mg/L)	1.08	1.44	1.32	
Oxidation Reduction Potential (mv)	137	151	160	
Turbidity	21.5	22.3	23.6	

NOTES:

bls - feet below land surface
bmp - feet below measuring point

GENERAL WELL CASING VOLUMES

Casing Diam.	Gal/ft.	Casing Diam.	Gal/ft.	Casing Diam.	Gal/ft.	Casing Diam.	Gal/ft.
1"	1.04	2"	0.16	3"	0.37	4"	0.65
1 1/4"	0.077	2 ½"	0.24	3 ½"	0.50	6"	1.46
1 ½"	0.10						

EARTH TECH

A TYCO INTERNATIONAL LTD. COMPANY

WELL PURGING AND SAMPLE COLLECTION

CLIENT: Entergy PAGE: 1
LOCATION: LAPLACE LA PROJECT NO:
SAMPLING PERSONNEL: GABOR SAMPLE DATE: 1/8/01

GENERAL WELL DATA

Monitor Well ID: MW-3
Date Installed:
Well Construction:
Original Well Depth (ft bls):
Purging Method:
Pump Type:

WELL INSPECTION

Well locked?
Evidence of tampering with well of lock?
Well casing in good repair?
Concrete pad & metal guard post in good condition?
Well ID marked on well & clearly visible?
PVC cap in place?
Well casing free of debris and insects?

WATER LEVEL/WELL PURGING DATA

Sounded Depth of Well (feet) (A)	17.50
Depth to Water/Hydrocarbon (ft bmp)(B)	7.64
Water Column in Well (feet) (A-B=C)	9.86
Relative Water Elevations	1.58
Amount to be Purged (gallons)	4.74
Did Well Run Dry?	YES

SET PUMP APPROX @ 15.50
MUDDY

SAMPLING PARAMETERS

Start Time	1410			
Finish Time	1420			
Color				
Odor				
Appearance	MUDDY			
Temperature °C	18.9			
Specific Conductance (umhos/cm)	110.3 S/m			
pH	5.57			
Dissolved Oxygen (mg/L)	1.37			
Oxidation Reduction Potential (mv)	208			
Turbidity	37.2			

NOTES:

ft bls - feet below land surface
ft bmp - feet below measuring point

GENERAL WELL CASING VOLUMES

Casing Diam. Gal/ft.	Casing Diam. Gal/ft.	Casing Diam. Gal/ft.	Casing Diam. Gal/ft.
1" = 1.04	2" = 0.16	3" = 0.37	4" = 0.65
1 1/4" = 0.077	2 ½" = 0.24	3 ½" = 0.50	6" = 1.46
1 ½" = 0.10			

EARTH TECH

A tyco INTERNATIONAL LTD. COMPANY

WELL PURGING AND SAMPLE COLLECTION

CLIENT: Entergy PAGE: 2
LOCATION: LA PLACE, LA PROJECT NO:
SAMPLING PERSONNEL: GABE SAMPLE DATE: 1/8/01

GENERAL WELL DATA

Monitor Well ID: MW-4
Date Installed:
Well Construction:
Original Well Depth (ft bls):
Purging Method:
Pump Type:

WELL INSPECTION

Well locked?
Evidence of tampering with well of lock?
Well casing in good repair?
Concrete pad & metal guard post in good condition?
Well ID marked on well & clearly visible?
PVC cap in place?
Well casing free of debris and insects?

NOT COMPLETE

WATER LEVEL/WELL PURGING DATA

Sounded Depth of Well (feet) (A)	16.00
Depth to Water/Hydrocarbon (ft bmp)(B)	8.06
Water Column in Well (feet) (A-B=C)	7.94
Relative Water Elevations	1.27
Amount to be Purged (gallons)	3.81
Did Well Run Dry?	YES

SET PUMP @ 14.50
MUDDY

SAMPLING PARAMETERS

Start Time	1430			
Finish Time	1435			
Color	MUDDY			
Odor	—			
Appearance	—			
Temperature °C	18.6			
Specific Conductance (umhos/cm)	102.7 m/m			
pH	6.01			
Dissolved Oxygen (mg/L)	1.99			
Oxidation Reduction Potential (mv)	169			
Turbidity	39.1			

NOTES:

ft bls - feet below land surface
ft bmp - feet below measuring point

GENERAL WELL CASING VOLUMES

Casing Diam. Gal/ft.	Casing Diam. Gal/ft.	Casing Diam. Gal/ft.	Casing Diam. Gal/ft.
1" = 1.04	2" = 0.16	3" = 0.37	4" = 0.65
1 1/4" = 0.077	2 ½" = 0.24	3 ½" = 0.50	6" = 1.46
1 ½" = 0.10			

BFM
CORPORATION, L.L.C.
Professional Land Surveyors

RALPH P. FONTCUBERTA JR., P.L.S.
President

WILLIAM J. MULLER, P.L.S.
Senior Vice President

CHERYL R. BAROCCO
Vice President

STANLEY K. TURNER, P.L.S.
Associate

FEB 01 REC'D

January 29, 2001

Mr. Drukell B. (Dru) Trahan, R.P.G.
Earth Tech
1213 Industriplex Boulevard
Baton Rouge, LA 70809

Re: Little Gypsy Electric Generating Plant Monitoring Wells

Monitor Well #1

Latitude.....30°00'16.767"N
Longitude.....90°27'32.768"W
N.....548,241.684
E.....3,557,539.720
ELEV 14.64' NAVD (Top of Pipe)
ELEV 12.26' NAVD (Concrete)
ELEV 11.71' NAVD (Ground)

Monitor Well #2

Latitude.....30°00'16.884"N
Longitude.....90°27'30.844"W
N.....548,254.793
E.....3,557,708.827
ELEV 15.88' NAVD (Top of Pipe)
ELEV 13.42' NAVD (Concrete)
ELEV 12.95' NAVD (Ground)

534 Williams Boulevard • Kenner., La. 70062
(504) 468-8800 • FAX (504) 467-0065 • E-Mail: bfmcorp@bfmcorporation.com • 1-800-349-8800

Monitor Well #3

Latitude.....30°00'19.621"N
Longitude.....90°27'29.835"W
N.....548,531.901
E.....3,557,795.4035
ELEV 15.64' NAVD (Top of Pipe)
ELEV 13.28' NAVD (Concrete)
ELEV 12.99' NAVD (Ground)

Monitor Well #4

Latitude.....30°00'22.003"N
Longitude.....90°27'30.515"W
N.....548,772.136
E.....3,557,733.802
ELEV 15.06' NAVD (Top of Pipe)
ELEV 12.56' NAVD (Concrete)
ELEV 12.23' NAVD (Ground)

All Coordinates shown are Louisiana State Plane, South Zone, NAD 83.

I, the undersigned, hereby certify to Earth Tech that the above information is true and correct to the best of my knowledge.

Stanley Turner

Stanley K. Turner
Registered Professional Land Surveyor
LA License No. 4753

STATE OF LOUISIANA
STANLEY K. TURNER
REG. No. 4753
REGISTERED
PROFESSIONAL
LAND SURVEYOR

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL REGISTRATION SHORT FORM (DOTD - GW - 1S)

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

1. USE OF WELL (CHECK APPROPRIATE BOX)

☐ DOMESTIC ☐ RIG SUPPLY ☒ MONITORING ☐ PIEZOMETER ☐ RECOVERY

☐ HEAT PUMP HOLE ☐ HEAT PUMP SUPPLY ☐ ABANDONED PILOT HOLE ☐ OTHER _____

2. WELL OWNER Entergy Louisiana, Inc. PHONE (504) 653-3853

3. WELL OWNER'S ADDRESS Entergy Little Gypsy 1742 River Rd. Laplace, La 70068

4. OWNER'S WELL NUMBER OR NAME (if any) MW-1

5. DATE COMPLETED 1/24/01 DEPTH OF HOLE 16 FT. DEPTH OF WELL 16 FT.

6. STATIC WATER LEVEL 8.25 FT. BELOW GROUND SURFACE MEASURED ON 12/13/00

7. CASING 2 IN. ☐ METAL ☒ PLASTIC ☐ OTHER LENGTH 11 FT.

8. SCREEN 2 IN. ☐ METAL ☒ PLASTIC ☐ OTHER SLOT SIZE .010 LENGTH 5 FT.

9. CEMENTED FROM 6 FT. BELOW GROUND SURFACE, USING ☒ PUMP DOWN METHOD ☐ GRAVITY METHOD

10. LOCATION OF WELL: PARISH St. Charles WELL IS NEAR, LaPlace, La (Town or city)

APPROXIMATELY .5 MILES FROM Hwy 628 north on River Road (Crossroads, railroad, any landmark, etc.)

(Please draw sketch on back of Original)

11. REMARKS:

12. DRILLER'S LOG (Description and color of cuttings, such as shale, sand, etc. in feet)

FROM	TO		FROM	TO	
0	4	Brown silty clay			
4	8	Gray & Tan clay			
8	16	Gray silt			

13. FOR HEAT PUMP ONLY: AVG. DEPTH _____ FT. NUMBER OF HOLES _____

14. ABANDONMENT INFORMATION: DOES THE WELL REPLACE AN EXISTING WELL ? YES ☐ NO ☒

15. NAME OF PERSON WHO DRILLED THE WELL: D. Thibadoux

Soil Testing Engineers, Inc.
Name of Water Well Contractor

LICENSE NUMBER WWC - 212

Authorized Signature 1/31/01 Date

MAIL ORIGINAL TO:
LOUISIANA DEPARTMENT OF
TRANSPORTATION AND DEVELOPEMENT
ATTN.: CHIEF - WATER RESOURCES SECTION
P. O. BOX 94245
BATON ROUGE LA. 70804-9245
(504) 379-1434

FOR OFFICE USE ONLY

PARISH ___ WELL NO. 6 1 0 2 Z

IDENTIFICATION NUMBER ___ 0 ___

REVISED COORDINATES ___ ___

Geologic Unit ___ Use of well ___

SECTION ___ TOWNSHIP ___ RANGE ___

ELEV. ___ QUAD NO. ___

INPUT BY: _____ DATE: _____

INSPECTED BY: _____ DATE: _____

REMARKS: _____

LATITUDE 3 0 0 0 1 7 LONGITUDE 9 0 2 7 3 3

SECTION 0 1 1 TOWNSHIP 1 2 S RANGE 0 7 E

ELEV. 0 0 1 2 QUAD NO. 1 8 9 C

SITE ADDRESS: 1742 River Road
Laplace, La 70068

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL REGISTRATION SHORT FORM (DOTD - GW - 1S)

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

1. USE OF WELL (CHECK APPROPRIATE BOX)

☐ DOMESTIC ☐ RIG SUPPLY ☒ MONITORING ☐ PIEZOMETER ☐ RECOVERY

☐ HEAT PUMP HOLE ☐ HEAT PUMP SUPPLY ☐ ABANDONED PILOT HOLE ☐ OTHER _____

2. WELL OWNER Entergy Louisiana, Inc. PHONE (504) 653-3853

3. WELL OWNER'S ADDRESS Entergy Little Gypsy 1742 River Rd. Laplace, La 70068

4. OWNER'S WELL NUMBER OR NAME (if any) MW-2

5. DATE COMPLETED 1/24/01 DEPTH OF HOLE 22 FT. DEPTH OF WELL 22 FT.

6. STATIC WATER LEVEL 17 FT. BELOW GROUND SURFACE MEASURED ON 12/13/00

7. CASING 2 IN. ☐ METAL ☒ PLASTIC ☐ OTHER LENGTH 17 FT.

8. SCREEN 2 IN. ☐ METAL ☒ PLASTIC ☐ OTHER SLOT SIZE .010 LENGTH 5 FT.

9. CEMENTED FROM 12 FT. BELOW GROUND SURFACE, USING ☒ PUMP DOWN METHOD ☐ GRAVITY METHOD

10. LOCATION OF WELL: PARISH St. Charles WELL IS NEAR, LaPlace, La (Town or city)

APPROXIMATELY .5 MILES FROM Hwy 628 north on River Road (Crossroads, railroad, any landmark, etc.)

(Please draw sketch on back of Original)

11. REMARKS:

12. DRILLER'S LOG (Description and color of cuttings, such as shale, sand, etc. in feet)

FROM	TO		FROM	TO	
0	12	Brown silty clay			
12	18	Gray clay			
18	22	Gray silt			

13. FOR HEAT PUMP ONLY: AVG. DEPTH _____ FT. NUMBER OF HOLES _____

14. ABANDONMENT INFORMATION: DOES THE WELL REPLACE AN EXISTING WELL ? YES ☐ NO ☒

15. NAME OF PERSON WHO DRILLED THE WELL: D. Thibadoux

Soil Testing Engineers, Inc.
Name of Water Well Contractor

LICENSE NUMBER WWC - 212

Authorized Signature 1/31/01 Date

MAIL ORIGINAL TO:
LOUISIANA DEPARTMENT OF
TRANSPORTATION AND DEVELOPEMENT
ATTN.: CHIEF - WATER RESOURCES SECTION
P. O. BOX 94245
BATON ROUGE LA. 70804-9245
(504) 379-1434

FOR OFFICE USE ONLY

PARISH WELL NO. 6 1 0 3 Z

IDENTIFICATION NUMBER 0

REVISED COORDINATES

Geologic Unit Use of well

SECTION TOWNSHIP RANGE

ELEV. QUAD NO.

INPUT BY: DATE:

INSPECTED BY: DATE:

REMARKS:

LATITUDE 3 0 0 0 1 7 LONGITUDE 9 0 2 7 3 1

SECTION 0 1 1 TOWNSHIP 1 2 S RANGE 0 7 E

ELEV. 0 0 1 3 QUAD NO. 1 8 9 C

SITE ADDRESS: 1742 River Road
Laplace, La 70068

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL REGISTRATION SHORT FORM (DOTD - GW - 1S)

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

1. USE OF WELL (CHECK APPROPRIATE BOX)

☐ DOMESTIC ☐ RIG SUPPLY ☒ MONITORING ☐ PIEZOMETER ☐ RECOVERY

☐ HEAT PUMP HOLE ☐ HEAT PUMP SUPPLY ☐ ABANDONED PILOT HOLE ☐ OTHER _____

2. WELL OWNER Entergy Louisiana, Inc. PHONE (504) 653-3853

3. WELL OWNER'S ADDRESS Entergy Little Gypsy 1742 River Rd. Laplace, La 70068

4. OWNER'S WELL NUMBER OR NAME (if any) MW-3

5. DATE COMPLETED 1/24/01 DEPTH OF HOLE 16 FT. DEPTH OF WELL 18 FT.

6. STATIC WATER LEVEL 8.5 FT. BELOW GROUND SURFACE MEASURED ON 12/12/00

7. CASING 2 IN. ☐ METAL ☒ PLASTIC ☐ OTHER LENGTH 11 FT.

8. SCREEN 2 IN. ☐ METAL ☒ PLASTIC ☐ OTHER SLOT SIZE .010 LENGTH 5 FT.

9. CEMENTED FROM 6 FT. BELOW GROUND SURFACE, USING ☒ PUMP DOWN METHOD ☐ GRAVITY METHOD

10. LOCATION OF WELL: PARISH St. Charles WELL IS NEAR, LaPlace, La (Town or city)

APPROXIMATELY .5 MILES FROM Hwy 628 north on River Road (Crossroads, railroad, any landmark, etc.)

(Please draw sketch on back of Original)

11. REMARKS:

12. DRILLER'S LOG (Description and color of cuttings, such as shale, sand, etc. in feet)

FROM	TO		FROM	TO	
0	5	Brown clay			
5	8	Tan silty clay			
8	18	Gray silt			

13. FOR HEAT PUMP ONLY: AVG. DEPTH _____ FT. NUMBER OF HOLES _____

14. ABANDONMENT INFORMATION: DOES THE WELL REPLACE AN EXISTING WELL ? YES ☐ NO ☒

15. NAME OF PERSON WHO DRILLED THE WELL: D. Thibadoux

Soil Testing Engineers, Inc.
Name of Water Well Contractor

LICENSE NUMBER WWC - 212

Authorized Signature 1/31/01 Date

MAIL ORIGINAL TO:
LOUISIANA DEPARTMENT OF
TRANSPORTATION AND DEVELOPEMENT
ATTN.: CHIEF - WATER RESOURCES SECTION
P. O. BOX 94245
BATON ROUGE LA 70804-9245
(504) 379-1434

FOR OFFICE USE ONLY

PARISH ___ WELL NO. — 6 1 0 4 Z

IDENTIFICATION NUMBER ___ 0 ___ ___

REVISED COORDINATES ___ ___ ___

Geologic Unit ___ Use of well ___

SECTION ___ TOWNSHIP ___ RANGE ___

ELEV. ___ QUAD NO. ___

INPUT BY: _____ DATE: _____

INSPECTED BY: _____ DATE: _____

REMARKS: _____

LATITUDE 3 0 0 0 2 0 LONGITUDE 9 0 2 7 3 0

SECTION 0 1 1 TOWNSHIP 1 2 S RANGE 0 7 E

ELEV. 0 0 1 2 QUAD NO. 1 8 9 C

SITE ADDRESS: 1742 River Road
Laplace, La 70068

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL REGISTRATION SHORT FORM (DOTD - GW - 1S)

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

1. USE OF WELL (CHECK APPROPRIATE BOX)

☐ DOMESTIC ☐ RIG SUPPLY ☒ MONITORING ☐ PIEZOMETER ☐ RECOVERY

☐ HEAT PUMP HOLE ☐ HEAT PUMP SUPPLY ☐ ABANDONED PILOT HOLE ☐ OTHER _____

2. WELL OWNER Entergy Louisiana, Inc. PHONE (504) 653-3853

3. WELL OWNER'S ADDRESS Entergy Little Gypsy 1742 River Rd. Laplace, La 70068

4. OWNER'S WELL NUMBER OR NAME (if any) MW-4

5. DATE COMPLETED 1/24/01 DEPTH OF HOLE 16 FT. DEPTH OF WELL 16 FT.

6. STATIC WATER LEVEL 12 FT. BELOW GROUND SURFACE MEASURED ON 12/13/00

7. CASING 2 IN. ☐ METAL ☒ PLASTIC ☐ OTHER LENGTH 11 FT.

8. SCREEN 2 IN. ☐ METAL ☒ PLASTIC ☐ OTHER SLOT SIZE .010 LENGTH 5 FT.

9. CEMENTED FROM 6 FT. BELOW GROUND SURFACE, USING ☒ PUMP DOWN METHOD ☐ GRAVITY METHOD

10. LOCATION OF WELL: PARISH St. Charles WELL IS NEAR, LaPlace, La (Town or city)

APPROXIMATELY .5 MILES FROM Hwy 628 north on River Road (Crossroads, railroad, any landmark, etc.)

(Please draw sketch on back of Original)

11. REMARKS:

12. DRILLER'S LOG (Description and color of cuttings, such as shale, sand, etc. in feet)

FROM	TO		FROM	TO	
0	4	Brown silty clay			
4	8	Tan clay			
8	16	Gray silt			

13. FOR HEAT PUMP ONLY: AVG. DEPTH _____ FT. NUMBER OF HOLES _____

14. ABANDONMENT INFORMATION: DOES THE WELL REPLACE AN EXISTING WELL ? YES ☐ NO ☒

15. NAME OF PERSON WHO DRILLED THE WELL: D. Thibadoux

Soil Testing Engineers, Inc.
Name of Water Well Contractor

LICENSE NUMBER WWC - 212

Authorized Signature 1/31/01 Date

MAIL ORIGINAL TO:
LOUISIANA DEPARTMENT OF
TRANSPORTATION AND DEVELOPEMENT
ATTN.: CHIEF -WATER RESOURCES SECTION
P. O. BOX 94245
BATON ROUGE LA. 70804-9245
(504) 379-1434

FOR OFFICE USE ONLY

PARISH ___ WELL NO. — 6 1 0 5 Z

IDENTIFICATION NUMBER ___ 0 ___ ___

REVISED COORDINATES ___ ___ ___

Geologic Unit ___ Use of well ___

SECTION ___ TOWNSHIP ___ RANGE ___

ELEV. ___ QUAD NO. ___

INPUT BY: _____ DATE: _____

INSPECTED BY: _____ DATE: _____

REMARKS: _____

LATITUDE 3 0 0 0 2 2 LONGITUDE 9 0 2 7 3 0

SECTION 0 1 1 TOWNSHIP 1 2 S RANGE 0 7 E

ELEV. 0 0 1 2 QUAD NO. 1 8 9 C

SITE ADDRESS: 1742 River Road
Laplace, La 70068

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

Department of Transportation and Development
Att: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(504) 379-1434

1. WELL OWNER: (if different from owner when drilled, note in item 5) Entergy Louisiana, Inc.
ADDRESS: 1742 River Rd. Laplace, La 70068
OWNERS WELL NUMBER (if any) MW-6

2. LOCATION OF WELL: Parish: St. Charles ,Well is Near, Laplace
Approximately .5 miles from Hwy 628 north on River Road
(Crossroads, Town, City, Railroad, Any Landmark, etc.)
(Please draw sketch on back of Original)

3. WELL INFO: Casing material PVC , Diameter of casing 2 in., Depth of Well 21 ft., Date drilled Mar-95 by (give name of water well contractor who installed well or hole): Rust Envr.

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.)
The well casing and screen were remove. The boring was reamed and then backfilled with cement/bentonite grout. The grout was placed by tremie method from the bottom to ground surface.

5. Remarks Approximately 4 bags of portland cement and the appropriate bentonite and water were used.

I certify that this work was done and completed in accordance with Rules and Regulations of the State on December 14 ,20 00 by (name and no. of contractor) Soil Testing Engineers, Inc. WWC- 212
Authorized Signature: Date: 4/24/01

OFFICE USE ONLY

State	Parish	Local Well No.	Identification Number		Section	Township	Range	Quad. No.
22		-5840Z	300022	0 902730	011	12S	07E	189C

PLEASE PRINT IN INK OR TYPE WHEN COMPLETING THIS FORM

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
WATER RESOURCES SECTION
WATER WELL PLUGGING AND ABANDONMENT FORM (DOTD-GW-2)

MAIL ORIGINAL TO
Department of Transportation and Development
Att: Chief - Water Resources Section
P.O. Box 94245
Baton Rouge, LA 70804-9245
(504) 379-1434

WELL OWNER: (if different from owner when drilled, note in item 5) Entergy Louisiana, Inc.
ADDRESS: 1742 River Rd. Laplace, La 70068
OWNERS WELL NUMBER (if any) MW-5

LOCATION OF WELL: Parish: St. Charles ,Well is Near, Laplace
Approximately .5 miles from Hwy 628 north on River Road
(Crossroads, Town, City, Railroad, Any Landmark, etc.)
(Please draw sketch on back of Original)

WELL INFO: Casing material PVC , Diameter of casing 2 in., Depth of Well 22.5 ft., Date drilled Mar-95 by (give name of water well contractor who installed well or hole): Rust Envr.

4. Describe in detail how well or hole was plugged: (materials used, amount of casing and/or screen removed, or left in hole, etc.)
The well casing and screen were remove. The boring was reamed and then backfilled with cement/bentonite grout. The grout was placed by tremie method from the bottom to ground surface.

5. Remarks Approximately 4 bags of portland cement and the appropriate bentonite and water were used.

I certify that this work was done and completed in accordance with Rules and Regulations of the State on December 14 ,20 00 by (name and no. of contractor) Soil Testing Engineers, Inc. WWC- 212
Authorized Signature: Date: 4/24/01

OFFICE USE ONLY

State	Parish	Local Well No.	Identification Number		Section	Township	Range	Quad. No.
22		-5840Z	300022	0 902730	011	12S	07E	189C

EarthTech

A Tyco International Ltd. Company

Groundwater Sampling and Analysis Plan

Appendix D

GROUNDWATER SAMPLING AND ANALYSIS PLAN

OILY WASTE POND
LITTLE GYPSY ELECTRIC GENERATING PLANT
MONTZ, LOUISIANA

Prepared By:
Earth Tech, Inc.
Baton Rouge, Louisiana

Revised February 2005

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 DETECTION MONITORING PARAMETERS 1
- 2.1 Sampling and Analysis Frequency 2

3.0 GROUNDWATER SAMPLING PROCEDURES 2
- 3.1 Purging and Sampling Equipment 2
- 3.2 Monitor Well Sampling Techniques 2
  - 3.2.1 Water Level and Purge Volume Determination 3
  - 3.2.2 Groundwater Purging Techniques 3
  - 3.2.3 Groundwater Sampling Techniques 4
- 3.3 Field Measurements 5
- 3.4 Monitoring Well Maintenance 5

4.0 DECONTAMINATION PROCEDURES 5
- 4.1 Decontamination Procedures 5
- 4.2 Cleaning Procedures for Miscellaneous Equipment 6

5.0 SAMPLE PRESERVATION AND SHIPMENT 6
- 5.1 Sample Preservation and Shipment Procedures 6

6.0 SAMPLE CUSTODY 6
- 6.1 Field Custody Procedures 7

7.0 EQUIPMENT CALIBRATION PROCEDURES 7
- 7.1 pH Meter 7
- 7.2 Specific Conductance Meter 7
- 7.3 Thermometers 8

8.0 ANALYTICAL PROCEDURES 8

9.0 GROUNDWATER DATA EVALUATION 8

10.0 QUALITY ASSURANCE/QUALITY CONTROL, CORRECTIVE ACTIONS, AND SYSTEM AUDITS 8
- 10.1 Equipment Blanks 8
- 10.2 Trip Blanks 9

11.0 RECORD KEEPING, DATA ACCUMULATION , AND REPORTING 9
- 11.1 Field Report Forms 9
- 11.2 Laboratory Operations 10
- 11.3 Reporting Requirements 10

FIGURES

1 Site Plan

TABLES

1 Monitor Well Network
2 Calibration Frequency for Field Equipment
3 Wastewater Constituent Summary
4 Detection Monitoring Parameters
5 Field Quality Control Check Frequency

ATTACHMENTS

A Monitor Well Construction Diagram
B Water Level Data Form
C Groundwater Sampling Form
D Chain of Custody Form
E Statistical Methodology

1.0 INTRODUCTION

This plan specifies protocols for sampling and analysis of groundwater to monitor the impact of the Oily Waste Pond at the Entergy Louisiana, Inc. (Entergy) Little Gypsy Electric Generating Plant, as required in LAC 33:VII.521.F.5.c and e, as well as LAC 33:VII.709.E.2, 3, and 4. Presented herein are the standard operating procedures that will be employed during groundwater sampling activities to ensure that; (1) representative groundwater samples are properly collected at each sampling location, and (2) the results from groundwater sampling events are representative of groundwater quality.

The proposed groundwater monitoring network for the Oily Waste Pond will consists of four (4) monitor wells, designated as MW-1 through MW-4 , screened in the upper permeable zone, defined as a brown clayey silt to gray sandy silt stratum located approximately 10 to 15 feet below ground surface. The location of the proposed monitor well network is shown on Figure 1. Details on construction, zone monitored, and the gradient position for the proposed wells are given in Table 1 and Attachment A.

The following sections of this plan cover the requirements and procedures for sampling frequency, sampling technique, and selection of parameters and laboratory analytical methods for sampling of the groundwater. Additionally, this plan covers proper decontamination procedures, sample preservation and shipment, sample custody, equipment calibration procedures, quality assurance/quality control, record keeping, data accumulation, and reporting requirements.

2.0 DETECTION MONITORING PARAMETERS

As required by LAC 33:VII.709.E.3.g, the parameters selected by Entergy during detection monitoring are both inorganic and organic and are also indicative or reaction products of the wastewater treated in the Oily Waste Pond. The detection monitoring parameters are:

- polynuclear aromatic hydrocarbons (PAHs);
- pH;
- specific conductance;
- total organic carbon (TOC);
- oil and grease;
- acetone;
- chromium;
- copper; and
- zinc.

These parameters were selected to provide a reliable indication of the presence of anomalous constituents in the groundwater underlying the impoundment. The parameters pH, specific conductance, and TOC, are widely accepted general groundwater quality indicators. PAHs are intrinsic to the wastewater which enters the impoundment.

2.1 Sampling and Analysis Frequency

Sampling and analysis of Entergy's monitoring wells during detection monitoring will be conducted quarterly for the first year and every six months for the life of the impoundment thereafter, as required by LAC 33:VII.709.E.3.c and d. The initial sampling event during detection monitoring will occur after receipt of Louisiana Department of Environmental Quality Solid Waste Division (DEQ-SWD) approval of the proposed monitor well locations and the Groundwater Sampling and Analysis Plan. The initial sampling will included a minimum of four independent samples collected from each monitoring well for analysis of the approved parameters.

3.0 GROUNDWATER SAMPLING PROCEDURES

This section presents the standard operating procedures that will be employed during groundwater sampling events for the Oily Waste Pond to ensure that representative groundwater samples are collected. Groundwater samples will be collected first from the upgradient sampling location (MW-1 and MW-2) and then collected from the downgradient sampling locations (MW-3 and MW-4). Unless field conditions justify other sampling regiments, samples will be collected in the following order:

a. acetone;
b. polynuclear aromatic hydrocarbons (PAHs);
c. oil and grease;
d. total organic carbon;
e. metals;
f. pH; and
g. specific conductance.

3.1 Purging and Sampling Equipment

The sampling materials utilized during sampling will not react with the sample (i.e., will not absorb, adsorb or leach sample constituents) which would bias representative sample collection, and can be easily decontaminated and transported. Typical sampling equipment utilized for groundwater sampling will be constructed of the following materials: Teflon, Polypropylene/Polyethylene (high density plastic), and Polyvinyl chloride (PVC). Site monitor wells will be purged of stagnant water prior to sampling with dedicated purging equipment (e.g., pumps, bailers, etc.) and then sampled with dedicated sampling devices (e.g., disposable bailers, bladder pumps, etc.).

3.2 Monitor Well Sampling Techniques

The following subsections describe the sampling techniques which will be utilized for sampling groundwater from site monitor wells.

3.2.1 Water Level and Purge Volume Determination

Prior to sampling, an adequate amount of stagnant groundwater in the well must be removed in order to sample representative formation water. This will be accomplished by the following steps:

1) Water Column Determination- Prior to well evacuation, the water level in each monitor well is measured and recorded. The measured distance will be recorded on both the water level measurement form and the monitor well sampling record form (See Attachments B and C). At this same time, the depth of the well will be checked and recorded. This number will be used for calculating purge volumes and to check the depth of the well as recorded on the monitor well installation record.

2) Purge Volume Determination- The length of the water column is then converted to volume of water that is present in the well (2-inch diameter well casing):

   $V = 0.17 \times h$

   where:
   V = volume in gallons
   h = height of the water column in feet

3.2.2 Groundwater Purging Techniques

To ensure a representative groundwater sample from a monitor well, it is essential that the well be purged prior to sampling. After the necessary field measurements are made and the volume of water to be purged is determined, the purging process can begin. The following steps will be taken when purging site monitor wells:

1) Select the appropriate purging technique (pump or bailer) and prepare the equipment for the purging operation.
2) Record the time that actual purging begins on the monitor well sampling record and proceed with the well purging operation.
3) The total amount of water will be recorded at the completion of the well purging operation. This amount will be determined by collecting the water in a graduated container. (Note: The purged water will be contained and held until the sampling results are determined to be non-detect, at which time the water will be poured directly on the ground).

4) Purging is considered complete if either of these criteria are satisfied:
   a. Three well volumes or
   b. At least one fully dry purge.
5) All wells will be sampled within 24 hours of purging.
6) All well purging information will be recorded on the monitor well sampling record (Attachment C).

3.2.3 Groundwater Sampling Techniques

Dedicated sampling equipment (used solely for one location for the life of that equipment) will be utilized since it significantly reduces the chance of cross-contamination. Dedicated bailers, if stored in the well, will be suspended above the water column and completely decontaminated between sampling events. The sampling equipment will be decontaminated prior to on-site arrival unless the equipment is stored on-site. In the latter case, the dedicated bailer will be fully decontaminated prior to on-site use. All sample bottles will be supplied by the contract laboratory and are pre-washed according to the EPA Handbook for Analytical Quality Control in Water and Wastewater Laboratories, 1979.

Procedures for sampling are the same as those for purging with the exception that, in sampling, the water removed from the well is placed in sample bottles rather than being discarded. If bailers are utilized, bailers will be rinsed with DI water prior to sampling to minimize the chance of equipment contamination. The following procedures describe general sampling techniques while using bailers:

1) Field personnel will wear protective gloves during purging and sampling activities. Actual sampling times and all field sampling information will be recorded on the monitor well sampling record.
2) Attach a new length of monofilament or braided nylon line to the bailer. The bailer or the line will not be allowed to touch the ground during sampling.
3) Lower the bailer slowly and gently into contact with the water so that agitation of the water column is minimized. All collection activities will be done carefully so as to not stir up any sediments.
4) Attempt to sample from the same depth in the well each time, preferably within or just above the screened zone of the well.
5) The appropriate sample bottles in appropriate order will then be filled so that a minimum of turbulence is created to avoid aeration. All sample bottles are pre-washed according to the EPA Handbook for Analytical Quality Control in Water and Wastewater Laboratories, 1979.
6) The completed sample container labels will be placed on the samples.

Other dedicated equipment may also be used in lieu of bailers. In any event, field personnel will wear protective gloves. Actual sampling times and all field sampling information will be recorded on the monitor well sampling record.

3.3 Field Measurements

Field measurements of temperature, specific conductivity, and pH are taken and recorded on the Groundwater Sampling Data Form. Prior to usage, all instruments used to collect field measurements will be properly calibrated.

3.4 Monitoring Well Maintenance

During sampling events, monitoring wells will be inspected for signs of tampering, damage, corrosion, faulty locking devices, etc. Any areas of concern will be noted in the field log book.

4.0 DECONTAMINATION PROCEDURES

The decontamination procedures outlined in this section will be used to clean sampling and other field equipment prior to and during field use. Disposable equipment used for sampling will be used only one time and will subsequently be discarded. Equipment that is used in the field and/or used more than one time during a sampling event will be decontaminated by the procedures presented below.

4.1 Decontamination Procedures

The decontamination procedures presented below will be used for all ground water sample collection activities. All handling of sampling equipment will be conducted with disposable latex gloves. A new pair of gloves will be donned before each groundwater measurement, collection of each groundwater sample, before and after decontamination activities, and/or when the gloves become soiled so as not to introduce the possibility of contamination. Between individual samples, all disposable items will be properly discarded and all reusable equipment will be decontaminated utilizing the following procedure:

1) initial rinse with potable water;
2) wash with laboratory-grade detergent (i.e., Alconox); and
3) second rinse with potable water.

This approach will be utilized for all in-field decontamination procedures. The following additional measures will be taken to minimize the possibility of cross-contamination:

1) Sample containers will be kept in limited-access areas until needed.
2) Latex (disposable) gloves will be worn during <u>all</u> sampling activities and changed <u>between</u> sampling events (each monitor well).

4.2 Cleaning Procedures for Miscellaneous Equipment

The decontamination procedures presented below will be used for all miscellaneous equipment (i.e. - well sounders, water level indicators, and field instruments and meters) used for all sample collection activities. Between individual samples, all equipment will be decontaminated utilizing the following procedure:

1) initial rinse with potable water;
2) wash with laboratory-grade detergent (i.e., Alconox);
3) final rinse with deionized water; and
4) allow to air dry as long as possible before using in the next sample.

5.0 SAMPLE PRESERVATION AND SHIPMENT

Many chemical parameters are unstable in water media and may change drastically before analysis if the sample is not preserved immediately at the time of sampling. Entergy preservation protocols specify immediate preservation. Sample preservation is intended to (1) retard biological action, (2) retard hydrolysis, and (3) reduce the absorption effects.

5.1 Sample Preservation and Shipment Procedures

The procedures for sample preservation and shipment are outlined below:

1) Sample bottles will be labeled with the proper labels, which will show sample number, date, sample source, preservation added, if any, and analysis to be performed.
2) Enter all pertinent information on the field data sheets and the chain-of-custody/analysis request form and immediately put the samples into an insulated container with wet ice.
3) Put the address of the Entergy facility and the name and telephone number of the Entergy contact person in the insulated container.
4) Tape the container with strapping tape for shipping. Ship the samples on the same day or transport the samples to the laboratory directly.
5) Samples must be accompanied by a chain-of-custody/analysis request form. When transferring the possession of samples, the individuals relinquishing and receiving will sign, date and note the time on the record.

6.0 SAMPLE CUSTODY

The possession of samples will be traceable from the time they are obtained until they are delivered to the laboratory. A general practice of minimum transfers of sample bottles and good record keeping should provide adequate chain-of-custody (COC) control. A copy of a typical COC record is included as Attachment D.

Sample labels, seals, and COC records from specified laboratories will be used. Sample labels,

applied to the containers at the laboratory before shipment to Entergy, will document specific sample preservation methods and analytes for each container.

6.1 Field Custody Procedures

The person collecting the samples is responsible for the custody and care of collected samples until the containers have been transferred to the custody of the laboratory. The sampling personnel's responsibilities include checking sample containers received from the laboratory, sample collection, sample preservation, sample shipping (or delivery) to the laboratory, and all documentation of these procedures.

The following information must be supplied in the indicated spaces in detail to complete the COC record:

1) the project name and address;
2) the field ID number, date and time of sample collection, grab or composite sample designation, preservation method, type of sample, and the sampling location description must be included on each line;
3) the total number of sample containers for each type of analysis;
4) the responsible sampler and all other transferees must document the transfer of the samples listed on the COC Record. Both the person relinquishing the samples and the person receiving them must sign, date and note time on the form.

All sample sets will be accompanied by the COC Record and packed in coolers. Samples will be packaged with materials to avoid breakage during shipment and delivered to the designated laboratory for analyses.

7.0 EQUIPMENT CALIBRATION PROCEDURES

Equipment calibration procedures are performed in the field prior to use as described in Table 2.

7.1 pH Meter

Each day in the field the pH meter will be calibrated before any pH measurements are made. After every four hours of field use, the meter will be checked against the pH-7 buffer and it will be recalibrated if the reading is off by more than 0.1 pH units. All calibrations and pH checks with buffers will be recorded in the field notebook. The pH meters automatically adjust for temperature.

7.2 Specific Conductance Meter

The specific conductance meter is calibrated in the factory, however, reference conductance standards will be used to check the calibration of the meter before each use. The meter automatically adjusts for temperature.

7.3 Thermometers

A digital thermometer will be used to measure the sample temperature in the field and to check the accuracy of thermometers on field instruments such as the pH meter and specific conductance meter. Each time a sample-temperature measurement is made, the digital thermometer reading will be recorded as the sample temperature.

8.0 ANALYTICAL PROCEDURES

Groundwater samples collected will be analyzed based upon the constituents intrinsic to the wastewater treated in the Oily Waste Pond. A description of the likely wastewater constituents based upon available data collected is presented in Table 3. Groundwater samples will be analyzed consistent with methods from the U.S. EPA Test Methods for Evaluating Solid Waste, Third Edition (SW-846) or Standard Methods for the Examination of Water and Wastewater, 17th Edition. Any deviation from the sampling and testing protocols presented herein will be first discussed with and approved by Entergy. The test method, method detection limit, and practical quantitation limit for each parameter monitored are provided in Table 4.

9.0 GROUNDWATER DATA EVALUATION

Entergy will employ a statistical method for the evaluation of analytical results of groundwater monitoring well samples. The statistical method utilized will conform to the performance standards specified by LAC 33:VII.709.E.2.e.iii.(a)-(f). The goal of the groundwater statistical evaluation is to establish consistent statistical procedures that ensure that monitoring results are representative of groundwater quality at the background and downgradient well locations. The statistical methods which will be utilized are described in Attachment E.

10.0 QUALITY ASSURANCE/QUALITY CONTROL, CORRECTIVE ACTIONS, AND SYSTEM AUDITS

Quality assurance will be confirmed by utilizing the contract laboratory's QA/QC program. Field quality assurance will be maintained by introducing blank samples to evaluate the level of contamination and variability of results as contributed by potential artifacts and interferences arising at any point in the measurement process. A description of the field quality control checks is presented below and the frequency of each type is given in Table 5. Quality control checks will meet or exceed the following minimum criteria and all blanks will be preserved, documented, and transported in the same manner as the samples.

10.1 Equipment Blanks

The equipment blank is designed to address cross-contamination in the field between sample sources due to improper field decontamination procedures. This blank also addresses field preservation procedures, site environmental interference, integrity of the source blank water used for decontamination, and other concerns that may singularly be addressed by the equipment blank. The equipment blank will be composed in the field by collecting, in the appropriate container for the

parameter group, a blank water rinse (deionized water) from the equipment (bailer, pump tubing, spoon, auger, corer, etc.) after the proper execution of the last step of the decontamination protocol.

10.2 Trip Blanks

The trip blank is designed to address interferences derived from improper sample container cleaning preparation, contaminated source blank water, sample cross contamination during storage/transport, and extraneous environmental conditions affecting the sampling event to and from the site, including delivery to the analyzing laboratory. Trip blanks are prepared by the laboratory providing the containers using analyte-free water when sample containers are prepared and they are transported to the field and handled in the same manner as the sample except that they are not opened.

11.0 RECORD KEEPING, DATA ACCUMULATION , AND REPORTING

All data from the sampling event will be recorded and documented in project files and on the field sample forms. Copies of the field forms which will be utilized by sampling personnel are included in Appendices B and C. After completion of each sampling event, all field data, and reports will be maintained by Entergy.

11.1 Field Report Forms

All data recorded on field report forms will be printed legibly using ink, and will contain accurate and inclusive documentation of project activities and daily activities. At a minimum, the following will be recorded:

- Date and Time at the site
- Meteorological conditions and ambient field conditions
- Names of sampling personnel
- Sample Identification Number/Field ID numbers
- Location of sampling/measurement locations
- Description of sampling/measurement locations
- Description of samples collected and preservatives used, if any
- Field observations

Duplicate samples for laboratory analysis will be identified on the sample container(s) label(s) and COC with a false location description. In addition, the following must be documented:

1) depth of water measurement; and
2) date and time sample was collected.

11.2 Laboratory Operations

Entergy will use the contract laboratory COC record form. Laboratory custody activities will include sample receipt, log in, sample security and accessibility, and sample distribution and tracking as described in Section 7.0 of this plan. Sample COC forms delivered to the chemical laboratory will be part of the data received as part of the project files. Entergy will maintain all information and data received from contract laboratories in the appropriate project file.

11.3 Reporting Requirements

Within 90 days after each detection monitoring sampling event, Entergy will submit to DEQ- SWD three bound copies (8 1/2 by 11 inches) of a report that includes:

- Analytical results of groundwater samples;
- Documentation of the chain-of-custody of sampling and analyses;
- A scaled potentiometric surface map showing monitoring well locations, groundwater elevations with respect to mean sea level or equivalent for the stratum monitored; and
- A statement of whether a statistically significant difference in concentration over background concentrations is detected.

Additionally, Entergy will maintain on-site copies of each report for the life of the facility as required in LAC 33:VII.711.C.1.b.

FIGURES

TABLES

TABLE 1
MONITOR WELL INFORMATION
Oily Waste Pond
Little Gypsy Electric Generating Plant
Montz, Louisiana

Information	MW-1	MW-2	MW-3	MW-4
Latitude	30° 00' 17"	30° 00' 17"	30° 00' 20"	30° 00' 22"
Longitude	90° 27' 33"	90° 27' 31"	90° 27' 30"	90° 27' 30"
Zone Screened	Stratum II	Stratum II	Stratum II	Stratum II
Water Level (2)	5.44	6.48	5.64	5.06
Well construction	2" PVC	2" PVC	2" PVC	2" PVC
Casing slot size	0.010"	0.010"	0.010"	0.010"
Sampling method	Dedicated Pump	Dedicated Pump	Dedicated Pump	Dedicated Pump
Ground surface elevation (1)	11.71	12.95	12.99	12.23
Top of well casing (TOC)(1)	14.64	15.88	15.64	15.06
Casing depth (ft bls)	16	22	16	16
Drilled depth (ft bls)	16	22	18	16
Screened interval (ft bls)	11 - 15	17 - 21	11 - 15	11 - 15
Top of screen elevation (1)	0.71	-4.05	1.99	1.23
Bottom of screen elevation (1)	-3.29	-8.05	-2.01	-2.77
Type of grout	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite	Cement/ Bentonite

Notes:
(1) Elevations are referenced to a plant benchmark. (NGVD)
(2) Water levels recorded on April 22, 2004.

TABLE 2
Calibration Frequency for Field Equipment
Oily Waste Pond
Little Gypsy Electric Generating Plant
Montz, Louisiana

Equipment Type	Calibration Type	Number of Standards	Acceptance/Rejection Criteria	Frequency
pH Meter	Daily	2	>± 0.1 units	Before use/daily
	Continuing	1	>± 0.1 units	Every 4 hours
Conductivity Meter	Daily	2	>± 5% of true value	Before use/daily
	Continuing	1	>± 5% of true value	Every 4 hours
Temperature Meter	Continuing	NA	Record deviation	First sample daily
	Annual	1	Record deviation and adjust	Yearly

TABLE 3
Wastewater Constituent Summary
Oily Waste Pond
Little Gypsy Electric Generating Plant
Montz, Louisiana

Pond	Status	Wastewater	Possible Constituents
Oily Waste	Permit	Oily Waste	Oil & grease

TABLE 4
Detection Monitoring Parameter Specifications
Oily Waste Pond
Little Gypsy Electric Generating Plant
Montz, Louisiana

PARAMETER	CONTAINER[1]	PRESERVATION METHOD	MAXIMUM HOLDING TIME	ANALYTICAL METHOD[2,3]	METHOD DETECTION LIMIT	PRACTICAL QUANTITATION LIMIT
Polynuclear Aromatic Hydrocarbons (PAHs)	G	None	14 days	8270	10 µg/L	100 µg/L
PH	P, G	Cool to 4°C	Immed.	9040	.01 s.u.	0.1 s.u.
Specific Conductance	P, G	Cool to 4°C	28 days	9050	.01 µmhos/cm	0.1 µmhos/cm
Total Organic Carbon (TOC)	P, G	Cool to 4°C H_2SO_4 to pH <2	28 days	9060A	1 mg/L	10 mg/L
Oil and Grease	G	Cool to 4°C HCl	28 days	8015	.70	7.0
Acetone	G, PTFE-lined cap	Cool to 4°C 0.008% $Na_2S_2O_3$	7 days until extraction, 40 days after extraction	8260	100 µg/L	1000 µg/L
Chromium, Copper and Zinc	P, G	Cool to 4°C HNO_3 to pH <2	6 months	6010	.007, .006, .002 mg/L	.07, .06, .02 mg/L

[1] P=Polyethylene; G=Glass.
[2] Test Methods for Evaluating Solid Waste, Third Edition, SW-846.
[3] Standard Methods for the Examination of Water and Wastewater, 17th Edition.

TABLE 5
Field Quality Control Check Frequency
Oily Waste Pond
Little Gypsy Electric Generating Plant
Montz, Louisiana

# of Samples per Sampling Event	In-house decontamination (Equipment Blank)	Trip Blank (VOCs)	In-field decontamination (Equipment Blank)
10+	minimum of one then 5% (1)	one per cooler	minimum of one then 5% (1)
5-10	one (2)	NR	one (2)
<5	one (2)	NR	one (2)

Notes:

NR - Not Required

(1) - Percent of the samples in each analyte group for each matrix per sampling event.

(2) - For 10 or less samples, in-house decontaminated equipment blanks or field decontaminated equipment blanks are required for each analyte group in all matrices (field decontaminated blanks are specifically required if equipment is decontaminated in the field).

Field duplicate samples are collected simultaneously from the same source, under identical conditions, into separate containers. One of the samples will be designated with an accurate I.D., and the duplicate will be given a false I.D. Records will be maintained in the field log books.

The 10+ sampling event will occur only during the initial sampling, since quadruplicate samples will be collected from each of the four monitor wells. The remainder of the sampling events will consists of the collection of four samples from each monitor well for each of the approved parameters.

ATTACHMENT A

MONITOR WELL CONSTRUCTION DIAGRAM

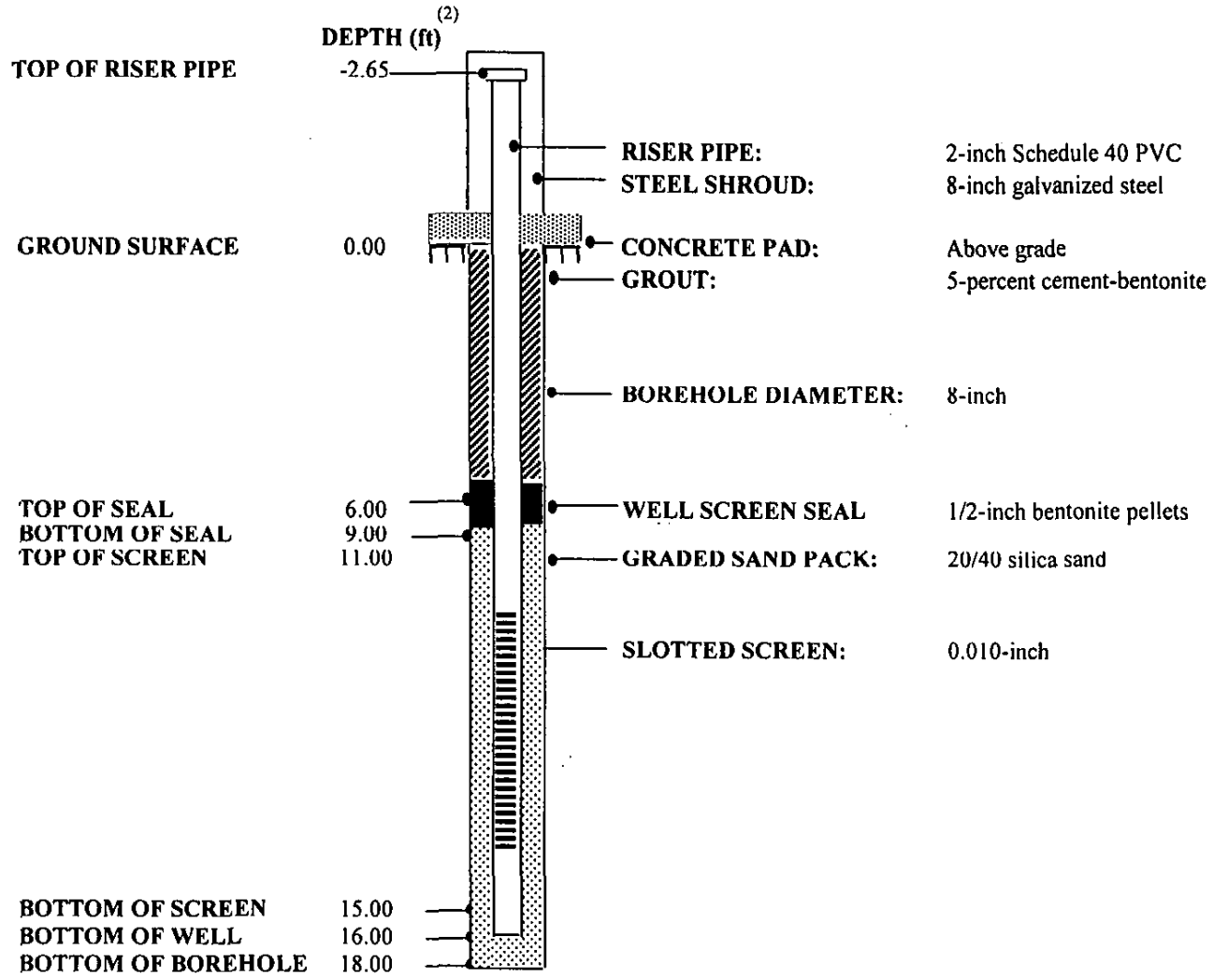
E A R T H T E C H

MONITOR WELL CROSS SECTION

Client: Entergy Louisiana, Inc.
Location: Little Gypsy Electric Generating Plant

MW-3

File No.:	43601
Top of Riser Elevation: (1)	15.64
Ground Surface Elevation: (1)	12.99
Screened Interval: (1)	1.99 to -2.01
Date Installed:	1/24/2001



SECTION VIEW
NOT TO SCALE

REMARKS:
(1) Elevations are referenced to the North American Vertical Datum (NAVD).
(2) Depths are referenced to feet below ground surface.

ATTACHMENT B

WATER LEVEL DATA FORM

WATER LEVEL DATA

CLIENT:
LOCATION:

PAGE:
RUST FILE:
MEASUREMENT DATE:
RECORDED BY:

Piezometer No.	(A) Casing Rim Elevation (feet)(1)	(B) Depth to Water (feet)(1)	(A) - (B) Water Surface Elevation (feet)	Comments

Notes:
1. Water level measurements recorded to 0.01 foot accuracy.

ATTACHMENT C

GROUNDWATER SAMPLING FORM

MONITOR WELL SAMPLING RECORD

CLIENT:
LOCATION:

PAGE
RUST FILE:
SAMPLE DATE:

GENERAL WELL DATA

Monitor Well ID				
Date Installed				
Well Construction				
Well Diameter				
Original Well Depth (ft bls)				

WATER LEVEL DATA

Description of Measuring Point (MP)	*Top of Casing*	*Top of Casing*	*Top of Casing*	*Top of Casing*
Height of MP Above/Below Land Surface (feet)				
MP Elevation (feet)(1)				
Sounded Depth of Well (feet)(A)				
Depth to Water/Hydrocarbon (ft bmp)(B)				
Water Column in Well (feet) (A - B = C)				
Gallons per Foot (see Note)(D)				
Gallons in Well (C x D = E)				

EVACUATION DATA

Method				
Three Well Volumes (gallons) (E x 3)				
Actual Volume Removed				

SAMPLING PARAMETERS

Sample ID				
Time				
Color				
Odor				
Appearance				
Temperature °C				

Specific Conductance (µmhos/cm)				
Standard				
Field Calibration to Standard				

pH (su)											
Standard	4	7	10	4	7	10	4	7	10	4	7	10
Field Calibration to Standard												

SAMPLING PERSONNEL:

NOTES:
ft bls - feet below land surface
ft bmp - feet below measuring point
(1) - Feet referenced to site benchmark
µmhos/cm - micromhos per centimeter
su - standard units

General Well Casing Volumes

Casing Diam.	*Gal/ft.*	*Casing Diam.*	*Gal/ft.*	*Casing Diam.*	*Gal/ft.*	*Casing Diam.*	*Gal/ft.*
1 1/4"	= 0.077	2"	= 0.16	3"	= 0.37	4"	= 0.65
1 1/2"	= 0.10	2 1/2"	= 0.24	3 1/2"	= 0.50	6"	= 1.46

Revised 2/17/92

ATTACHMENT D

CHAIN OF CUSTODY FORM

CHAIN-OF-CUSTODY RECORD

Page of

Project Number	Facility	Address	Analytical Laboratory

Samplers: 1. _____
(Signatures) 2. _____
3. _____

ANALYTICAL LABORATORY TESTING/TEST METHOD

1. _____ 5. _____
2. _____ 6. _____
3. _____ 7. _____
4. _____ 8. _____

Sample I.D.	Date	Time	Comp.	Grab	Matrix	1	2	3	4	5	6	7	8	Number of Containers	Remarks

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time	Received By:

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time	Received By:

Remarks:

Analyses To Be Completed:

Shipping Container I.D.:
Delivery Method:

_____ 24 HOUR
_____ 48 HOUR
_____ 3 TO 5 DAYS
_____ NORMAL

ATTACHMENT E

STATISTICAL METHODOLOGY

STATISTICAL METHODOLOGY

A groundwater monitoring program has been implemented at the facility and includes consistent sampling and analysis procedures that ensure monitoring results are representative of groundwater quality at the background and downgradient well locations. The groundwater sampling and analysis plan meets all the requirements of LAC 33:VII.709.E.2.

Statistical methods consist of a control chart approach, which has been accepted by the Louisiana Department of Environmental Quality (LDEQ). Laboratory analytical results for each constituent at each well are entered into a spread sheet and compared to historical data for that well. A graph for each constituent of concern is generated for both the upgradient and downgradient wells. These graphs compare historical values for each well to other wells with the same designation of upgradient or downgradient. Maximum and minimum values of each constituent are produced along with an average for that constituent. A percentage increase or decrease for each constituent at each well is produced comparing the previous sampling event data. All this data is presented in a semi-annual report to the LDEQ with the addition of a Potentiometric Elevation Map for the current sampling event.

EarthTech
A Tyco International Ltd. Company

Analytical Data for Composite Sludge Samples

Appendix E

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

SAMPLE ANALYSES

for

RUST INFRASTRUCTURE
8919 WORLD MINISTRIES AVE
SUITE 201
BATON ROUGE, LA 70810

ATTENTION: MIKE CALDWELL

February 8, 1994

hal

400682

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE, LA 70810
February 8, 1994

Sample receipt at WEST-PAINE LABORATORIES INC is documented for your designated sample(s). Chain-of-custody documentation, if provided, is included in this report. Sample analysis was in accordance with Environmental Protection Agency protocol.

A. Addition to Test Methods for Evaluating Solid Waste, SW-846, November 1986

Parameter	Method
Paint Filter Test	9095

B. Test Methods for Evaluating Solid Wastes, SW-846, 3rd Ed.

Parameter	Method
Reactivity Cyanide	7.3.3.2
Reactivity Sulfide	7.3.4.2
pH/Extract	9045

C. Test Methods for Evaluating Solid Waste, SW-846, November, 1986, 3rd Ed.

Parameter	Method
Flashpoint	1010

D. Test Methods for Evaluating Solid Waste, SW-846, November, 1986, 3rd Ed.

Parameter	Method
PCB'S	8080
Acid Extractable Compounds	TCLP 1311/8270
Base-Neutral Compounds	TCLP 1311/8270

hal

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE, LA 70810
February 7, 1994

Sample receipt at WEST-PAINE LABORATORIES INC is documented for your designated sample(s). Chain-of-custody documentation, if provided, is included in this report. Sample analysis was in accordance with Environmental Protection Agency protocol.

D. Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Ed.

Parameter	Method
Arsenic	TCLP 1311/6010
Barium	TCLP 1311/7080
Cadmium	TCLP 1311/7130
Chromium	TCLP 1311/7190
Lead	TCLP 1311/7420
Mercury	TCLP 1311/7470
Selenium	TCLP 1311/6010
Silver	TCLP 1311/7760
Volatile Compounds	ZHE 1311/8260
Volatile Organic Fraction	8240

This report shall not be reproduced except in full, without the written permission of Inchcape Testing Services/West-Paine Laboratories. The results found herein relate only to the sample(s) tested. Documented results are shown on the following page(s).

Charles P. Byrne
General Manager

ppe

400682

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE, LA 70810
February 8, 1994

Sample Source: OILY WASTE PROJECT #87869.511
Date Collected: 94/01/31 Time Collected: 18:19
Date Received: 94/02/01 Time Received: 16:25

Parameter (Unit)	Result	Percent Recovery	Quality Assurance Actual/Found	Date/Time Analyst
pH/Extract (Units)	7.4	N/A	5.00/5.02	94/02/02 12:55 JDT
Flashpoint (°F)	> 212	N/A	81/81	94/02/08 11:00 JDT
Paint Filter Test (ml/100ml)	4	N/A	N/A	94/02/04 13:40 MJB
Reactivity Cyanide (mg/kg CN)	< 0.1	N/A	0.050/0.052	94/02/02 18:00 DJM
Reactivity Sulfide (mg/kg S)	16.9	N/A	0.5/0.48	94/02/04 17:00 CHI

hal

400682

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE, LA 70810
SAMPLE #: 9402010139

PRIORITY POLLUTANTS
PCB'S

All results in milligrams per kilogram

SAMPLE SOURCE: OILY WASTE PROJECT #87869.511
Sample Date: 94/01/31 Sample Time: 18:19

Parameter	Result	Detection Limit
Aroclor-1242	< 0.04	0.04
Aroclor-1254	< 0.04	0.04
Aroclor-1221	< 0.04	0.04
Aroclor-1232	< 0.04	0.04
Aroclor-1248	< 0.04	0.04
Aroclor-1260	< 0.04	0.04
Aroclor-1016	< 0.04	0.04
Aroclor-1262	< 0.04	0.04
Aroclor-1268	< 0.04	0.04

Date of Analysis: 94/02/05 Analyst: JEA

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE LA 70810

Sample Source: PROJECT #87869.511 OILY WASTE

Sample No.: 9402010139

Analytical Method No.: TCLP 1311/8270

Federal Register, Vol. 55, No. 126, Friday, June 29, 1990

Parameter	Regulatory Limit in TCLP Extract (mg/L)	Quantitation Limit (mg/L)	Results (mg/L)	Quality Assurance Spike Recovery (%)
Acid(Phenol) Compounds:				
o-Cresol	200.0	0.05	< 0.05	NA
m & p-Cresol	200.0	0.05	< 0.05	NA
Cresol	200.0	0.05	< 0.05	NA
Pentachlorophenol	100.0	0.05	< 0.05	NA
2,4,5-Trichlorophenol	400.0	0.05	< 0.05	NA
2,4,6-Trichlorophenol	2.0	0.05	< 0.05	NA

Date/Analyst: 94/02/07 LGB

QUALITY CONTROL DATA Surrogate Recovery (%)

2,4,6-Tribromophenol	74
2-Fluorophenol	63
Phenol-d6	36

hal

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE LA 70810

Sample Source: PROJECT #87869.511 OILY WASTE

Sample No.: 9402010139

Analytical Method No.: TCLP 1311/8270

Federal Register, Vol. 55, No. 126, Friday, June 29, 1990

Parameter	Regulatory Limit in TCLP Extract (mg/L)	Quantitation Limit (mg/L)	Results (mg/L)	Quality Assurance Spike Recovery (%)
Base-Neutral Compounds:				
1,4-Dichlorobenzene	7.5	0.05	< 0.05	NA
2,4-Dinitrotoluene	0.13	0.05	< 0.05	NA
Hexachlorobenzene	0.13	0.05	< 0.05	NA
Hexachloro-1,3-butadiene	0.5	0.05	< 0.05	NA
Hexachloroethane	3.0	0.05	< 0.05	NA
Nitrobenzene	2.0	0.05	< 0.05	NA
Pyridine	5.0	0.05	< 0.05	NA

Date/Analyst: 94/02/07 LGB

QUALITY CONTROL DATA Surrogate Recovery (%)

2-Fluorobiphenyl	103
Nitrobenzene-d5	84
Terphenyl-d14	102

hal

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE LA 70810

The Toxicity Characteristic Leaching Procedure (TCLP) was employed as specified in the Federal Register, Vol. 55, No. 126, Friday, June 29, 1990. The results below for sample extract in mg/L represent the concentration in the final leachate. For purposes of comparison, the regulatory limit in mg/L of each component is also listed.

Sample Source: PROJECT #87869.511 OILY WASTE

Sample No.: 9402010139

Parameter	Results	Regulatory Limit In Extract	Spike Recovery	Quality Assurance Actual Found	Date/Analyst
Arsenic (mg/L As)	< 0.2	5.0	N/A	10.0 /10.0	94/02/07 RAK
Barium (mg/L Ba)	0.65	100	N/A	10.0 /9.9	94/02/07 RAK
Cadmium (mg/L Cd)	< 0.01	1.0	N/A	10.0 /10.0	94/02/07 RAK
Chromium (mg/L Cr)	< 0.05	5.0	N/A	10.0 /9.9	94/02/07 RAK
Lead (mg/L Pb)	< 0.1	5.0	N/A	10.0 /10.0	94/02/07 RAK
Mercury (mg/L Hg)	< 0.0002	0.2	N/A	0.005 /0.005	94/02/07 HBR
Silver (mg/L Ag)	< 0.01	5.0	N/A	1.00 /1.01	94/02/04 RAK
Selenium (mg/L Se)	< 0.2	1.0	N/A	10.0 /10.1	94/02/07 RAK

hal

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE LA 70810

Sample Source: PROJECT #87869.511 OILY WASTE

Sample No.: 9402010139

Analytical Method No.: ZHE 1311/8260

Federal Register, Vol. 55, No. 126, Friday, June 29, 1990

Parameter	Regulatory Limit in TCLP Extract (mg/L)	Quantitation Limit (mg/L)	Results (mg/L)	Quality Assurance Spike Recovery (%)
Volatile Compounds:				
Benzene	0.5	0.05	< 0.05	N/A
Carbon tetrachloride	0.5	0.05	< 0.05	N/A
Chlorobenzene	100.0	0.05	< 0.05	N/A
Chloroform	6.0	0.05	< 0.05	N/A
1,2-Dichloroethane	0.5	0.05	< 0.05	N/A
1,1-Dichloroethylene	0.7	0.05	< 0.05	N/A
Methyl ethyl ketone	200.0	0.25	< 0.25	N/A
Tetrachloroethylene	0.7	0.05	< 0.05	N/A
Trichloroethylene	0.5	0.05	< 0.05	N/A
Vinyl chloride	0.2	0.05	< 0.05	N/A

Date/Analyst: 94/02/02 TSB

QUALITY CONTROL DATA Surrogate Recovery (%)

1,2-Dichloroethane-d4	106
4-Bromofluorobenzene	96
Toluene-d8	103

hal

400682

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE, LA 70810
SAMPLE #: 9402010140

PRIORITY POLLUTANTS
Volatile Organic Fraction All results in micrograms per liter

SAMPLE SOURCE: TRIP BLANK

Parameter	Result	Detection Limit
Benzene	< 5.0	5.0
Bromoform	< 5.0	5.0
Carbon tetrachloride	< 5.0	5.0
Chlorobenzene	< 5.0	5.0
Chlorodibromomethane	< 5.0	5.0
Chloroethane	< 5.0	5.0
2-Chloroethylvinyl ether	< 5.0	5.0
Chloroform	< 5.0	5.0
1,2-Dichlorobenzene	< 5.0	5.0
1,4-Dichlorobenzene	< 5.0	5.0
1,3-Dichlorobenzene	< 5.0	5.0
Dichlorobromomethane	< 5.0	5.0
1,1-Dichloroethane	< 5.0	5.0
1,2-Dichloroethane	< 5.0	5.0
1,1-Dichloroethene	< 5.0	5.0
trans-1,2-Dichloroethene	< 5.0	5.0
1,2-Dichloropropane	< 5.0	5.0
1,3-Dichloropropylene	< 5.0	5.0
trans-1,3-Dichloropropene	< 5.0	5.0
Ethylbenzene	< 5.0	5.0
Methyl bromide	< 5.0	5.0
Methyl chloride	< 5.0	5.0
Methylene chloride	< 5.0	5.0
1,1,2,2-Tetrachloroethane	< 5.0	5.0
Tetrachloroethene	< 5.0	5.0
Toluene	< 5.0	5.0
1,1,1-Trichloroethane	< 5.0	5.0
1,1,2-Trichloroethane	< 5.0	5.0
Trichloroethene	< 5.0	5.0
Trichlorofluoromethane	< 5.0	5.0
Vinyl chloride	< 5.0	5.0
Total Xylene	< 5.0	5.0

Date of Analysis: 94/02/02 Analyst: TSB

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

RUST INFRASTRUCTURE
BATON ROUGE, LA 70810
SAMPLE #: 9402010140

QUALITY ASSURANCE/QUALITY CONTROL
PERCENT RECOVERY

Volatile Organic Fraction

Parameter	TRIP BLANK
1,2-Dichloroethane-d4	110
Toluene-d8	102
4-Bromofluorobenzene	99

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Sample No: 9402010137 Level:(low/med): Low

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	MS CONCENTRATION (µg/L)	MS % REC#	ADVISORY LIMITS REC.
Phenol	500.00	15.00	220.00	41	12- 89
2-chlorophenol	500.00	0.00	410.00	81	27-123
1,4-Dichlorobenzene	500.00	0.00	460.00	92	36- 97
N-Nitroso-di-n-prop.	500.00	0.00	440.00	89	41-116
1,2,4-Trichlorobenzene	500.00	0.00	480.00	97	39- 98
4-Chloro-3-methylphenol	500.00	0.00	410.00	82	23- 97
Acenaphthene	500.00	0.00	500.00	100	46-118
4-Nitrophenol	500.00	0.00	210.00	41	10- 80
2,4-Dinitrotoluene	500.00	0.00	530.00	110*	24- 96
Pentachlorophenol	500.00	0.00	470.00	95	9-103
Pyrene	500.00	0.00	480.00	97	26-127

COMPOUND	SPIKE ADDED (µg/L)	MSD CONCENTRATION (µg/L)	MSD %. REC#	% RPD#	ADVISORY LIMITS RPD	REC
Phenol	500.00	190.00	35	15	42	12- 89
2-Chlorophenol	500.00	390.00	77	5	40	27-123
1,4-Dichlorobenzene	500.00	400.00	79	15	28	36- 97
N-Nitroso-di-n-prop.(1)	500.00	430.00	87	2	38	41-116
1,2,4-Trichlorobenzene	500.00	470.00	93	4	28	39- 98
4,Chloro-3-methylpehnol	500.00	390.00	77	6	42	23- 97
Acenaphthene	500.00	460.00	93	7	31	46-118
4-Nitrophenol	500.00	220.00	44	7	50	10- 80
2,4-Dinitrotoluene	500.00	470.00	94	15	38	24- 96
Pentachlorophenol	500.00	440.00	88	7	50	9-103
Pyrene	500.00	450.00	90	7	31	26-127

(1) N-Nitroso-di-n-propylamine
\# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 1 out of 22 outside limits

COMMENTS: SVWLO-497 020494/5971/LGB

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

NARRATIVE

(ANALYSIS)

Spike Allocation: SVWLO-497
Date: 02/04/94

The Matrix Spike(MS) and Matrix Spike Duplicate(MSD) had one compound that had a recovery level slightly higher than the advisory limits; however, it was within analytical bounds.

Signature

Date

INCHCAPE TESTING SERVICES
West-Paine Laboratories, Inc.
7979 GSRI Ave. • Baton Rouge, LA 70820
504-769-4900 Fax: 504-767-5717

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Sample No: 9401200008 Level (low/med): low

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	MS CONCENTRATION (µg/L)	MS % REC#	ADVISORY LIMITS REC.
1,1-Dichloroethene	50	< 5.0	50.1	100	61-145
Trichloroethene	50	< 5.0	50.0	100	71-120
Benzene	50	< 5.0	46.4	93	75-130
Toluene	50	< 5.0	43.4	87	76-125
Chlorobenzene	50	< 5.0	48.7	97	76-127

COMPOUND	SPIKE ADDED (µg/L)	MSD CONCENTRATION (µg/L)	MSD % REC#	% RPD#	ADVISORY LIMITS RPD	ADVISORY LIMITS REC.
1,1-Dichloroethene	50	44.5	89	12.4	14	61-145
Trichloroethene	50	48.5	97	3.1	14	71-120
Benzene	50	45.1	90	3.3	13	75-130
Toluene	50	42.2	84	3.6	13	76-125
Chlorobenzene	50	50.0	100	3.1	11	76-127

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: V2WLO-072

[redacted]cape Testing Services
West-Paine Laboratories, Inc.
(504) 769-4900 • FAX (504) 767-5717

RUST E[redacted]I | 2299 | 940623[redacted]1-894
Client Name | Client # | Group # | Due Date

CHAIN OF CUSTODY RECORD

Submitted by

Client: Rust Infrastructure
Address: 8919 World Ministries Ave
Baton Rouge, LA 70810
Contact: Mike Caldwell
Phone: 769-0052

Bill to

Client: same
Address:
Contact:
Phone:

P. O. Number:
Project Name/Number: Little Gypsy / 87869. (511) OILY WASTE (512) METAL WASTE BOILER BLOW
Sampled By: Henry Cambre & Sean McLaughlin

Analytical Requests: TCLP pest/herb, PCB's, Reactivity, Corrosivity, Ignitability, paint filter test, Volatiles (8240)

ORIGINAL
LABM
GE[redacted]M
EXTRACTIONS
METALS
GC/MS SEMI-V
GC/MS VOA
GC/SEMI-VOL

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	Preservatives	No. Containers	TCLP pest/herb	PCB's	Reactivity	Corrosivity	Ignitability	paint filter test	Volatiles (8240)				Remarks: 21
SL	1/31/94	1052	✓		LOW VOL (METAL WASTE)	ICE	2	✓	✓	✓	✓	✓	✓					-137
SL	1/31/94	1318	✓		Boiler Blowdown	↓	2	✓	✓	✓	✓	✓	✓					-138
SL	1/31/94	1819	✓		Oily Waste	↓	2	✓	✓	✓	✓	✓	✓					-139
W	—	—	—		TRIP BLANK	↓	2							✓				-140

Lab use only:
Custody Seal used ☐ yes ☑ no
in tact ☐ yes ☐ no
Temperature °C 0

Turn Around Time: ☐ 24-48 hrs. (min. 100%) ☐ 3 days (75%) ☐ 1 week (50%) ☐ Standard Other _____

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature]	1/31/94	20:30
[signature]	[signature]	2/1/94	315
[signature]	[signature]	2-1-94	1625

Note: ~~1 week TAT, No Rush Fee~~

___ Water
___ Solid
___ Oil
X Sludge

By submitting these samples, you agree to the terms and conditions contained in our most recent schedule of services.

Matrix[1]: W = water, S = soil, SD = solid, L = liquid, SL = sludge, O = oil, CT = charcoal tube, A = air bag

We cannot accept verbal changes. Please fax written changes to (504) 767-5717.

WHITE: CLIENT FINAL REPORT — CANARY: LABORATORY — PINK: CLIENT

Solid Waste Disposers Annual Report

Entergy

Entergy Services, Inc.
639 Loyola Avenue
P. O. Box 61000, L-ENT-5E
New Orleans, LA 70161-1000
Tel 504 576 6467

LA Environmental Support

July 30, 1999

Certified Mail No. Z 431 933 590
Return Receipt Requested

Mr. William J. Mollere, Administrator
Solid Waste Division
Project Management Section
P. O. Box 82178
Baton Rouge, LA 70884-2178

Subject: Annual Solid Waste Reports
July 1, 1999 - June 30, 1999
Reference: Entergy Louisiana, Inc. - Little Gypsy Plant
GD-089-2735

Dear Mr. Mollere:

Enclosed you will find the Annual Industrial Solid Waste Generator Report and the following Annual Solid Waste Disposer Reports for the referenced site:

Permit Number	Facility
PA 472 OU-0194A	Oily Waste Pond
OC-0228B	Low Volume Pond, Boiler Blowdown Pond, Metal Cleaning Waste Pond, West Ditch Enlargement

Should you have any questions, please call me at (504) 576-7123.

Sincerely,

Robert O. Bourg
Senior Environmental Analyst

Attachments

bcc: Gerald McGlamery
Bruce Bryan
Donald McBride (with attachments)

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
INDUSTRIAL SOLID WASTE GENERATOR ANNUAL REPORT
July 1, 1998 through June 30, 1999

1. Site Identification Number GD-089-2735
2. Name of Generator Entergy Louisiana, Inc. - Little Gypsy Plant
3. Mailing Address 17420 River Road, LaPlace, LA, 70068
4. Contact Donald McBride Telephone 504-653-3853
5. SUMMARY OF INDUSTRIAL SOLID WASTE GENERATED THIS YEAR:
(If additional sheets are required, please provide your identification number and the date on each sheet)

SEVEN-DIGIT WASTE NUMBER	QUANTITY (WET-WEIGHT TONS)	COLLECTOR/ TRANSPORTER IDENTIFICATION NUMBER	DISPOSER IDENTIFICATION NUMBER
2735-002	1.92	T 061 3125	D 063 1941
(Asbestos - friable and/or		Custom Ecology Inc.	Woodside Landfill
non-friable)			
Total Amount Generated	1.92		

6. CERTIFICATION: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature: Date: 7-30-99

Name and Title: Robert O. Bourg - Senior Environmental Analyst

This form is to be returned to the Solid Waste Division at the following address no later than August 1 of each reporting year. Questions regarding the form may be directed to the Solid Waste Division, Project Management Section at (504) 765-0249.

Solid Waste Division
P.O. Box 82178
Baton Rouge, LA 70884-2178

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SOLID WASTE DISPOSER ANNUAL REPORT

TYPE I AND II LANDFILLS, LANDFARMS, SURFACE IMPOUNDMENTS AND
TYPE III CONSTRUCTION DEMOLITION DEBRIS AND WOODWASTE LANDFILLS

(Please Refer to the Detailed Instructions)

1. Site Identification No: GD-089-2735 July 1, 19 98 through June 30, 19 99
2. Permit Number PA 472 (OU-0194A)
3. Name of Permit Holder Entergy Louisiana, Inc. - Little Gypsy Plant
4. Name of Disposal Facility Oily Waste Pond
5. Mailing Address 17420 River Rd, LaPlace, LA, 70068 Parish St. Charles
6. Contact Mr. Donald McBride Telephone (504) 653-3800
7. Type of Facility: ☐ Landfill ☐ Landfarm ☒ Surface Impoundment ☐ Construction/Demolition Debris Landfill ☐ Woodwaste Landfill

8. Surface Impoundments.
This section applies only to surface impoundments.

A. Indicate the quantity of waste (solids/sludge) that have been removed from the surface impoundments during the past year (July 1 - June 30).

0 Wet-weight Tons

B. Provide the identification number and permit number of the facility used to dispose of the waste.

Site Identification Number N/A
Facility Permit Number N/A

Type I and II Landfills, Landfarms and Surface Impoundments.
This section applies only to Type I and II landfills, landfarms, and surface impoundments.

A. Estimated remaining permitted capacity (expressed in wet-weight tons) 48,463.90

B. Estimated life of facility (expressed in months and based on the permitted capacity of the facility)

indefinite

10. Construction/Demolition and Woodwaste Landfills. This section applies only to construction/demolition and woodwaste landfills. Please mark all that apply.

☐ This facility receives only woodwaste that are beneficially used in accordance with Best Management Practice Plan that has been approved in writing by the Department of Agriculture and submitted to the Solid Waste Division.

☐ This facility receives only woodwastes resulting from utility right-of-way clearings. These woodwastes are only received from utility companies or their authorized contractors.

☐ This construction/demolition debris facility receives only wastes that have been generated on-site.

☐ This woodwaste facility receives only waste generated by the owner of the property on which the facility is located.

This form is to be returned to the Solid Waste Division at the following address no later than August 1 of each reporting year. Questions regarding the form may be directed to the Solid Waste Division, Project Management Section at (504) 765-0249.

Solid Waste Division
P. O. Box 82178
Baton Rouge, LA 70884-2178

July 1, 19 98 through June 30, 99

Site Identification Number GD-089-2735 Permit Number PA 472 (OU-0194A)

11. Summary of Non-industrial Waste Disposed:
Provide below a summary of the non-industrial waste received for this reporting period.

Note: Landfarm facilities are required to report in wet-weight tons and dry-weight tons. All other facilities must report only in wet-weight tons.

(A) Non-Industrial Waste	(B) (Wet-Weight Tons)	(C) (Dry-Weight Tons)
913 (Oily Waste Pond Sediment)	682.76	N/A
(D) Total	682.76	N/A
(E) Quantity of Waste Received (In-State):	682.76	
(F) Quantity of Waste Received (Out-of-State):	0	

12. Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

Signature _____ Date _____

Name and Title Robert O. Bourg - Senior Environmental Analyst
(Type the name and title of the person signing the form.)

July 1, 19 98 through June 30, 99

Site Identification Number GD-089-2735 Permit Number PA 472 (OU-0194A)

5. Type I Facilities: This section applies only to Type I facilities. Provide a summary of the industrial waste received utilizing the seven digit number that has been assigned to each industrial waste by the Solid Waste Division. Al like industrial waste are to be reported together. Subtotals of all like industrial waste are to be provided. Copy this form as necessary.

(A) Seven Digit Industrial Waste Number	(B) Quantity (Wet-Weight Tons)	(C) Quantity (Dry-Weight Tons)	(D) Subtotals of Like Industrial Wastes
2735-027	0.24		0.24

July 1, 19 98 through June 30, 99

Site Identification Number GD-089-2735 Permit Number PA 472 (OU-0194A)

14 All Facilities: Provide all calculations used to compute the quantity (expressed in wet-weight tons) of solid waste received at the facility. Landfarm facilities must provide the calculations used to compute the quantity (in dry-weight tons) of solid waste received at the facility. Surface impoundments must provide all calculations used to compute the quantity of total suspended solids disposed in the facility.

8A. Calculations: No sediment has been processed from the pond this year.

9A. Calculations:
Estimated remaining permitted capacity will be calculated by using the previous year's reported remaining capacity minus the capacity of the sludge added during this reporting year. The previous year's remaining capacity was calculated by subtracting the sludge volume from the total component volume. The sludge volume was based on a Rust Environmental & Infrastructure feasibility document using the average-end method. The sludge added during this reporting period is calculated in section 13B below.

Facility	Previous Remaining Capacity (tons)	Sludge Added(tons)	New Remaining Capacity (tons)
Oily Waste Pond	49,146.90	683.00	48,463.90
Total Present Remaining Capacity (tons):			48,463.90

9B Calculations: Indefinite life due to re-powering of the Plant in the future.

11B & 13B Calculations: This pond receives both industrial and non-industrial waste.

Quantity of Industrial Solid Waste received this year = Quantity of powdex resin + quantity of solka-floc resin.

Quantity of powdex resin = 1 cu.ft./box X 26 boxes/charge X
0 charges/yr X 1 year(s) X
50 lbs/cu.ft. X 5.00E-04 tons/lbs
= 0 tons

Quantity of solka-floc resin = 40 lbs/bag X 2 bags/charge X
6 charges/yr X 1 year(s) X 5.00E-04 tons/lbs
= 0.24 tons

Quantity of Industrial Solid Waste received this year = 0 tons + 0.24 tons

= 0.24 tons

Quantity of Non-Industrial Solid Waste received this year = Average annual sludge accumulation as calculated in last year's report minus the quantity of industrial solid waste received this year.

Quantity of Non-Industrial Solid Waste received this year = 683 *tons - 0.24 tons

*(683 tons represents the average annual accumulation as calculated by the volume of sludge measured by Rust using the average-end method after 16 years of service.)

= 682.76 tons

Sludge added during this reporting year = 683.00 tons

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SOLID WASTE DISPOSER ANNUAL REPORT

TYPE I AND II LANDFILLS, LANDFARMS, SURFACE IMPOUNDMENTS AND
TYPE III CONSTRUCTION DEMOLITION DEBRIS AND WOODWASTE LANDFILLS

(Please Refer to the Detailed Instructions)

1. Site Identification No. GD-089-2735 July 1, 19 98 through June 30, 19 99
2. Permit Number OC-0228B
3. Name of Permit Holder Entergy Louisiana, Inc. - Little Gypsy Plant
4. Name of Disposal Facility Low Volume Pond, Boiler Blowdown Pond, Metal Cleaning Waste Pond, West Ditch Enlargement
5. Mailing Address 17420 River Rd, LaPlace, LA, 70068 Parish St. Charles
6. Contact Mr. Donald McBride Telephone (504) 653-3800
7. Type of Facility: ☐ Landfill ☐ Landfarm ☒ Surface Impoundment ☐ Construction/Demolition Debris Landfill ☐ Woodwaste Landfill

8. Surface Impoundments.
This section applies only to surface impoundments.

A. Indicate the quantity of waste (solids/sludge) that have been removed from the surface impoundments during the past year (July 1 - June 30).

0.00 Wet-weight Tons

B. Provide the identification number and permit number of the facility used to dispose of the waste.

Site Identification Number N/A
Facility Permit Number N/A

9. Type I and II Landfills, Landfarms and Surface Impoundments.
This section applies only to Type I and II landfills, landfarms, and surface impoundments.

A. Estimated remaining permitted capacity (expressed in wet-weight tons) 0.00

B. Estimated life of facility (expressed in months and based on the permitted capacity of the facility)

0 months

10. Construction/Demolition and Woodwaste Landfills. This section applies only to construction/demolition and woodwaste landfills. Please mark all that apply.

☐ This facility receives only woodwaste that are beneficially used in accordance with Best Management Practice Plan that has been approved in writing by the Department of Agriculture and submitted to the Solid Waste Division.

☐ This facility receives only woodwastes resulting from utility right-of-way clearings. These woodwastes are only received from utility companies or their authorized contractors.

☐ This construction/demolition debris facility receives only wastes that have been generated on-site.

☐ This woodwaste facility receives only waste generated by the owner of the property on which the facility is located.

This form is to be returned to the Solid Waste Division at the following address no later than August 1 of each reporting year. Questions regarding the form may be directed to the Solid Waste Division, Project Management Section at (504) 765-0249.

Solid Waste Division
P. O. Box 82178
Baton Rouge, LA 70884-2178

July 1, 19 98 through June 30, 99

Site Identification Number GD-089-2735 Permit Number OC-0228B

11. Summary of Non-industrial Waste Disposed:
Provide below a summary of the non-industrial waste received for this reporting period.

Note: Landfarm facilities are required to report in wet-weight tons and dry-weight tons. All other facilities must report only in wet-weight tons.

(A) Non-Industrial Waste	(B) (Wet-Weight Tons)	(C) (Dry-Weight Tons)
N/A	0	N/A

July 1, 19 98 through June 30, 99

Site Identification Number GD-089-2735 Permit Number OC-0228B

13. Type I Facilities: This section applies only to Type I facilities. Provide a summary of the industrial waste received utilizing the seven digit number that has been assigned to each industrial waste by the Solid Waste Division. Al like industrial waste are to be reported together. Subtotals of all like industrial waste are to be provided. Copy this form as necessary.

(A) Seven Digit Industrial Waste Number	(B) Quantity (Wet-Weight Tons)	(C) Quantity (Dry-Weight Tons)	(D) Subtotals of Like Industrial Wastes
N/A	0.00		
N/A	0.00		

July 1, 19 98 through June 30, 99

Site Identification Number GD-089-2735 Permit Number OC-0228B

14 All Facilities: Provide all calculations used to compute the quantity (expressed in wet-weight tons) of solid waste received at the facility. Landfarm facilities must provide the calculations used to compute the quantity (in dry-weight tons) of solid waste received at the facility. Surface impoundments must provide all calculations used to compute the quantity of total suspended solids disposed in the facility.

8A. Calculations: The total sediment processed from this facility this year is equal to the sum of its various components:

Metal Cleaning Waste Pond:	0.00	tons
Boiler Blowdow Pond:	0.00	tons
Low Volume Pond:	0.00	tons
West Ditch Enlargement:	0.00	tons
NOTE: All of the above components were closed in fiscal year 96-97.		
Total sediment processed from this facility:	0.00	tons

9A. Calculations:

All components were out of service and closed in fiscal year 96-97.

Component	Previous Remaining Capacity (tons)	Sludge Added(tons)	New Remaining Capacity (tons)
Metal Cleaning Waste Pond (MCW):	0.00	0.00	0.00
Boiler Blowdow Pond (BBD):	0.00	0.00	0.00
Low Volume Pond (LVP):	0.00	0.00	0.00
West Ditch Enlargement (WDE):	0.00	0.00	0.00

Total Present Remaining Capacity (tons): 0.00

9B. Calculations:
All components were out of service and closed in the 96 - 97 fiscal year.
Therefore, the estimated remaining life for the facility is 0 months.

11B Calculations: All of the components of this facility receive flow from process area drains only. Therefore the sediment collecting in the components of this pond is industrial solid waste.

Quantity received this year = 0 tons

13B. Calculations:

All components were out of service and closed durinig this reporting period.

Component	Waste Code	Av. Annual Sludge Acc. (tons)	Adjustment Factor	Amount Collected (tons)	Differences in Operation
MCW	2735-200	N/A	N/A	0.00	(out of service)
BBD	2735-357	N/A	N/A	0.00	(out of service)
LVP	2735-357	N/A	N/A	0.00	(out of service 10/1/94)
WDE	2735-357	N/A	N/A	0.00	(out of service 4/1/95)

Quantity of 200 received this year = 0 tons
Quantity of 357 received this year = 0.00 tons

Amount of Industrial Solid Waste Collected = 0.00 tons

EarthTech

A Tyco International Ltd. Company

Operational Plan

Appendix F

OPERATIONS PLAN
OILY WASTE POND
LOUISIANA POWER & LIGHT COMPANY
LITTLE GYPSY ELECTRIC GENERATING PLANT

1.0 PLAN OBJECTIVES

This Operations Plan has been prepared to address the requirements of the Louisiana Solid Waste Rules and Regulations (LSWRR) for operation of a Type I Industrial Solid Waste Surface Impoundment. Specifically, this plan addresses the requirements stated in the Louisiana Administrative Code (LAC) 33:VII.713.D.2, and describes in detail how the waste is managed during all phases of treatment disposal operations. The impoundment described in this plan is an existing surface impoundment, referred to as the Oily Waste Pond, which was constructed in the 1970s. This plan has been prepared as a supplement to a Standard Permit Application for the Pond.

2.0 FACILITY DESCRIPTION

The Oily Waste Treatment System at the Entergy Louisiana, Inc. (Entergy) Little Gypsy Electric Generating Plant is designed to remove oil and oil-contaminated particles from collected wastewater and surface water run-off. Wastewater and surface water run-off is routed to various lift stations, which pump the wastewater to the Oily Waste Pond. Following treatment, effluent is discharged at permitted NPDES Outfall 002 to the east drainage ditch and eventually flows to Lake Pontchartrain. Monitoring of the effluent is performed in accordance with the facility's NPDES Permit.

The Oily Waste Pond is an element of the Oily Waste Treatment System. The Pond is approximately 600 feet by 146 feet by 12 feet deep, with a capacity of approximately 5.7 million gallons, including freeboard.

3.0 DESCRIPTION OF WASTE TREATMENT PROCESS

The Oily Waste Pond is an element of the Oily Waste Treatment System at the Little Gypsy Plant. The Oily Waste Treatment System treats wastewater from the following sources: Units 1 and 2 (sand filter backwash), Unit 2 (Powdex Unit), Units 1 and 2 (clarifier blow-down), area drains from Units 1, 2, and 3, the oily waste drains from Units 1, 2, and 3, Unit 1 (Solka Floc Filters), general storm water runoff, and fuel oil transfer pumps and oil storage tank areas. These wastewaters are pumped into the Oily Waste Pond from various lift stations. The Oily Waste Pond serves as an API gravity separator. Suspended oils in the wastewater rise to the surface and are periodically skimmed for removal. Emulsified and heavy oils are pumped from the Oily Waste Pond into the Oil Separator. In the Oil Separator, separation is achieved by re-circulation and air floatation. The oil rises to the top of the process tank where it is removed by a skimmer and pumped to the Slop Oil Tank for disposal. Suspended solids are precipitated in the process tank through the addition of alum and polyelectrolyte. The sludge which accumulates at the bottom of the separator is pumped to the Oily Waste Pond for later disposal. Recirculation in the Oil Separator is provided by a Recycle Pump in the Detention Tank. A ring jump air inductor generates a high concentration of small air bubbles, uniformly dispersed in the Recycle Pump inlet. The air/water mixture produced increases the rate at which the oil floats to the surface. Treated effluent flows from the Separator to a Parshall Flume for flow measurement and then to the east drainage ditch.

The Parshall Flume serves as NPDES Outfall 002, which is monitored in accordance with the facility's NPDES Permit conditions. The effluent discharged must meet the following limits:

- pH range of 6.0 - 9.0;
- Total Suspended Solids (TSS) daily average of 30 mg/l, daily maximum of 100 mg/l;
- Oil and grease daily average of 15 mg/l, daily maximum of 20 mg/l; and
- Total Organic Carbon (TOC) daily maximum of 50 mg/l.

If the above limits are exceeded by twice the limit value, the LDEQ will be notified immediately.

4.0 WASTE HANDLING PROCEDURES

The Oily Waste Pond is used exclusively for the treatment of nonhazardous wastewater generated at the Little Gypsy Plant. In accordance with the Louisiana Administrative Code (LAC) 33:VII.713.D, the following operational activities are prohibited:

- the receipt of hazardous waste or other wastes that present special handling or disposal problems;
- open burning;
- salvaging;
- scavenging; and
- the receipt of waste generated as a result of underground storage tank (UST) corrective action or incinerator ash, unless a quality assurance/quality control plan is developed and approved prior to receipt of these wastes.

As described in the previous section, the waste is handled through the use of pipelines, lift stations, pumps, and overflow structures. Occasionally, waste (oils or settled sludge) is physically removed for off-site disposal.

The site Emergency Response Plan, which provides guidelines for plant personnel during emergency situations, is provided in Appendix B (LAC 33:VII.713.D.5.a). In brief, the safety requirements to protect employees and the general public are as follows: the general public are not allowed in the surface impoundment area and fire and explosion protection is provided by a plant emergency organization that reacts to an emergency alarm in the facility. Trained-CPR and first aid personnel are available on site. The location and identification of the nearest hospital and assisting fire, emergency response, and police services has been provided in the response to LAC 33:VII.521.B.1.d.

General safety issues, including training requirements as required by LAC 33:VII.713.D.5.b, are conveyed to all facility personnel by the Energy Supply-Fossil Safety Manual which is provided for all facility personnel.

5.0 OPERATIONAL REQUIREMENTS

In accordance with the operational requirements of LAC 33:VII.713.D.2, waste management and facility inspections will be performed as described below.

Inspections:

The Oily Waste Impoundment will be inspected daily and after major storm events for evidence of overtopping and erosion. During these inspections, the freeboard level and the integrity of the facility will also be checked. This surface impoundment is designed, constructed, maintained, and operated to prevent overtopping by overfilling, wave action, or action of storms in accordance with LAC 33:VII.713.D.3.b. However, if a leak is found in the impoundment, the administrative authority shall be notified in accordance with LAC 33:I.Subpart 2., as stated in LAC 33:VII.713.D.3.d. The operation of the surface impoundment is not affected by inclement weather conditions (LAC 33:VII.521.H.1.b) since wastewater is routed to the ponds via pipeline. A two-foot freeboard will be maintained in the ponds to prevent overflow of wastewater during or after heavy rainfall events. If excessive vegetative growth is present which may affect the operation of the impoundment or the drainage of effluent from the Oily Waste Treatment System, the growth will be trimmed or completely removed. Any noted evidence of unauthorized treatment or disposal of prohibited wastes will be immediately reported to the Operations Manager.

The site Emergency Response Plan, which provides guidelines for plant personnel during emergency situations, is provided in Appendix B of the Solid Waste Permit Application for the Oily Waste Pond (LAC 33:VII.713.D.5.a). This plan outlines facility operations and emergency procedures to be followed in case of a fire, explosion, or other emergencies and has been filed with the administrative authority and with the local fire department and the closest hospital or clinic. This plan will be updated annually or when implementation demonstrates that a revision is needed. Training sessions concerning the procedures outlined in the Emergency Response Plan will be conducted annually for all employees working at the facility. A copy of the training program will also be filed with the administrative authority (LAC 33:VII.713.D.5.b).

6.0 REPORTING REQUIREMENTS

A report summarizing the quantities and types of waste processed during the previous year's activities will be submitted to the administrative authority on an annual basis.

EarthTech
A Tyco International Ltd. Company

Cost Estimate

Appendix G

Table 1
Clean Closure Cost Estimate
Little Gypsy Plant
February 2005

Oily Waste Pond	**Total Cost**
Waste Solidification	$253,378
Waste Transportation to Landfill	$151,365
Verification Sampling and Analysis	$5,443
Disposal Costs	$294,321
Backfill Material and Placement	$337,115
Wastewater Removal and Treatment	$132,246
Mob./Demob.	$29,078
Removal and Decon of Structures	$3,489
Seeding (3-Acre Minimum)	$5,234
TOTAL COST	**$1,211,669**
+ 20 % Contingency	$242,334
TOTAL COST ESTIMATE	**$1,454,003**

EarthTech

A Tyco International Ltd. Company

Owner Financial Assurance Documentation

Appendix H

Entergy

Entergy Services, Inc.
P.O. Box 61000
New Orleans, LA 70161
Tel 504 576 4393

Via Hand Delivery

Jay A. Lewis
Vice President, CFO
Operations

March 30, 2004

SOLID WASTE FACILITY LETTER FROM THE CHIEF FINANCIAL OFFICER

(Liability Coverage, Closure, and/or Post-Closure)

Secretary
Louisiana Department of Environmental Quality
Post Office Box 4303
Baton Rouge, Louisiana 70821-4303

Little Gypsy Oily Waste Pond
AI 687
GD-089-2735
OU-0194A
PA-472

Attention: Office of Management and Finance, Financial Services Division

Dear Sir:

I am the chief financial officer of Entergy Louisiana, Inc., 4809 Jefferson Highway, Jefferson, Louisiana 70121. This letter is in support of this firm's use of the financial test to demonstrate financial responsibility for liability coverage, closure and post-closure as specified in LAC 33:VII.727.A.1 and A.2.

1. Entergy Louisiana, Inc. (Entergy Louisiana) is the applicant for a standard permit of the following solid waste facilities, whether in Louisiana or not, for which liability coverage is being demonstrated through the financial test specified in LAC 33:VII.727.A.1. The amount of annual aggregate liability coverage covered by the test is shown for each facility:

   Ninemile Point Electric Generating Plant (GD-051-2742); 1617 River Road, Westwego, LA 70094; **Liability Retention - $3,000,000**; Facilities included:

Facility	OC/OU No.	Log No.	Permit Application No.
007 Oil Separation Pond	OU-0196A	SP-0-94-0075A	PA 474
008 Oil Separation Pond	OU-0197A	SP-0-94-0076A	PA 489
Low Volume Holding Pond, Low Volume Settling Pond, Metal Cleaning Waste Pond	OC-0229B	SP-0-94-0077B	N/A

Little Gypsy Electric Generating Plant (GD-089-2753) 17420 River Road, LaPlace, LA 70068; **Liability Retention - $3,000,000**; Facilities included:

Facility	OC/OU No.	Log No.	Permit Application No.
Oily Waste Pond	OU-0194A	SP-0-94-0072A	PA 472
Low Volume Pond, Boiler Blowdown Pond, Metal Cleaning Waste Pond, West Ditch Enlargement	OC-0228B	SP-0-94-0073B	N/A

Sterlington Electric Generating Plant (GD-073-2738) End of Hwy. 553, Sterlington, LA 71280; **Liability Retention - $3,000,000**; Facilities included:

Facility	OC/OU No.	Log No.	Permit Application No.
Oily Waste Pond	OU-0191	SP-0-94-0063	PA 442
Low Volume Pond, North Chemical Cleaning Waste Pond, South Chemical Cleaning Waste Pond	OC-0231B	SP-0-94-0079B	N/A
Sludge Pond	OC-0232A	SP-0-94-0080A	N/A

2. Entergy Louisiana is the applicant for a standard permit of the following solid waste facilities, whether in Louisiana or not, for which financial assurance for closure and post-closure care is demonstrated through a financial test similar to that specified in LAC 33:VII.727.A.2 or other forms of self-insurance. The current closure and post-closure cost estimates covered by the test are shown for each facility:

Ninemile Point Electric Generating Plant (GD-051-2742), 1617 River Road, Westwego, LA 70094. Current closure and post-closure cost estimates covered by the test are shown for each facility:

Facility	OC/OUPA No.	Log No.	Closure & Post Closure Cost Estimates
007 Oil Separation Pond	OU-0196A/PA 474	SP-0-94-0075A	$ 1,789,312
008 Oil Separation Pond	OU-0197A/PA 489	SP-0-94-0076A	$ 569,256
Low Volume Holding Pond, Low Volume Settling Pond, Metal Cleaning Waste Pond	OC-0229B	SP-0-94-0077B	$ 513,750
Total For Plant			**$ 2,872,318**

Little Gypsy Electric Generating Plant (GD-089-2753) 17420 River Road, LaPlace, LA 70068. Current closure and post-closure cost estimates covered by the test are shown for each facility:

Facility	OC/OU/PA No.	Log No.	Closure & Post Closure Cost Estimates
Oily Waste Pond	OU-0194A/PA 472	SP-0-94-0072A	$ 1,454,003
Low Volume Pond, Boiler Blowdown Pond, Metal Cleaning Waste Pond, West Ditch Enlargement	OC-0228B	SP-0-94-0073B	$ 640,840
Total For Plant			**$ 2,094,843**

Sterlington Electric Generating Plant (GD-073-2738) End of Hwy. 553, Sterlington, LA 71280. Current closure and post-closure cost estimates covered by the test are shown for each facility:

Facility	OC/OU/PA No.	Log No.	Closure & Post Closure Cost Estimates
Oily Waste Pond	OU-0191/ PA 442	SP-0-94-0063	$ 758,806
Low Volume Pond, North Chemical Cleaning Waste Pond, South Chemical Cleaning Waste Pond	OC-0231B	SP-0-94-0079B	$ 1,148,995
Sludge Pond	OC-0232A	SP-0-94-0080A	$ 5,647
Total For Plant			**$ 1,913,448**

3. Entergy Corporation guarantees through a corporate guarantee similar to that specified in LAC 33:VII.727.A.1 and A.2, liability coverage, closure and post-closure care of the following solid waste facilities, whether in Louisiana or not, of which Entergy Louisiana is a subsidiary of this firm. The amount of annual aggregate liability coverage covered by the guarantee for each facility and/or the current cost estimates for the closure and/or post-closure care so guaranteed is shown for each facility: None.

4. Entergy Louisiana is the owner or operator of the following solid waste facilities, whether in Louisiana or not, for which financial assurance for liability coverage, closure and/or post-closure care is not demonstrated either to the U. S. Environmental Protection Agency or to a state through a financial test or any other financial assurance mechanism similar to those specified in LAC 33:VII.727.A.1 and/or A.2. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None.

Entergy Louisiana is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on December 31. The figures for the following items marked with an asterisk are derived from Entergy Louisiana's independently audited, year-end financial statements for the latest completed year, ended December 31, 2003.

PART C: LIABILITY COVERAGE, CLOSURE, AND/OR POST-CLOSURE

ALTERNATIVE 1

	1. Sum of current closure and/or post-closure cost estimates (total of all cost estimates listed above)	$ 6,880,609
	2. Amount of annual aggregate liability coverage to be demonstrated (See attached certificates of insurance)	$ 9,000,000
	3. Sum of lines 1 and 2	$ 15,880,609
*	4. Total liabilities (If any portion of your closure and/or post-closure cost estimates is included in your "total liabilities" in your firm's financial statements, you may deduct that portion from this line and add that amount to lines 5 and 6.)	$3,606,001,000
*	5. Tangible net worth	$1,068,538,000
*	6. Net worth	$1,068,538,000
*	7. Current assets	$ 449,072,000
*	8. Current liabilities	$ 360,501,000
*	9. The sum of net income plus depreciation, depletion, and amortization	$ 339,126,000
*	10. Total assets in the U.S. (required only if less than 90 percent of assets are located in the U.S.)	N/A

	11. Is line 5 at least $10 million?	Yes
	12. Is line 5 at least 6 times line 3?	Yes
*	13. Are at least 90 percent of assets located in the U.S.? If not complete line 14.	Yes
	14. Is line 10 at least 6 times line 3?	N/A

I hereby certify that the wording of this letter is identical to the wording specified in LAC 33:VII.727.A2.i.iv.(e).

Jay A. Lewis
Vice President and Chief Financial Officer
March 30, 2004

JAL:rob

Deloitte & Touche LLP
Suite 3700
701 Poydras Street
New Orleans, Louisiana 70139-3700

Tel: (504) 581-2727
Fax: (504) 561-7293
www.deloitte.com

Deloitte
& Touche

INDEPENDENT ACCOUNTANTS' REPORT ON APPLYING AGREED-UPON PROCEDURES

To the Board of Directors
Entergy Louisiana, Inc.
Jefferson, Louisiana

We have performed the procedures included in the Louisiana Administrative Code 33:VII.727.A.1.d.iii and A.2, which were agreed to by the Louisiana Department of Environmental Quality and Entergy Louisiana, Inc. (the "Company"), solely to assist the specified parties in evaluating the Company's compliance with the financial test option as of December 31, 2003, included in the accompanying letter dated March 30, 2004 from Mr. Jay A. Lewis, Vice President and Chief Financial Officer of the Company, which is included in Attachment 1. Management is responsible for the Company's compliance with those requirements. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of the parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

The procedures that we performed and related findings are as follows:

1. We compared the amount of "Total liabilities" as shown on line 4 of page 4 in Attachment 1 to the sum of the amounts of: "Current liabilities" and "Non-current liabilities", in the audited financial statements of the Company as of December 31, 2003, on which we have issued our report dated March 9, 2004, which expresses an unqualified opinion and includes an explanatory paragraph that describes changes in 2003 in the method of accounting for asset retirement obligations and for consolidation of variable interest entities, and noted that the sum of such amounts and the amount of line 4 described above, were in agreement.

2. We compared the amounts of "Tangible net worth" and "Net worth" as shown on lines 5 and 6, respectively, of page 4 in Attachment 1 to the total amount of "Shareholders' equity" in the financial statements referred to in procedure 1 and noted that such amounts were in agreement.

3. We compared the amounts of "Current assets" and "Current liabilities" as shown on lines 7 and 8, respectively, of page 4 in Attachment 1 to the financial statements referred to in procedure 1 and noted that such amounts were in agreement.

4. We compared the amount of "The sum of net income plus depreciation, depletion, and amortization" as shown on line 9 of page 4 in Attachment 1 to the sum of the amounts of: "Net income" and "Depreciation and amortization" in the financial statements referred to in procedure 1 and noted that the sum of such amounts and the amount of line 9 described above, were in agreement.

5. We proved the arithmetic accuracy of the statements made in lines 11 and 12 of page 5 in Attachment 1.

We were not engaged to, and did not, perform an examination, the objective of which would be the expression of an opinion on the accompanying letter dated March 30, 2004. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the board of directors and management of the Company and the Louisiana Department of Environmental Quality, and is not intended to be and should not be used by anyone other than these specified parties.

Deloitte + Touche LLP

March 30, 2004

ACORD™

CERTIFICATE OF INSURANCE

ISSUE DATE
10/30/2003

PRODUCER
MCGRIFF, SEIBELS & WILLIAMS, INC.
P. O. Box 10265
Birmingham, AL 35202-0265

This certificate is issued as a matter of information only and confers no rights upon the Certificate Holder. This Certificate does not amend, extend or alter the coverage afforded by the policies below.

COMPANIES AFFORDING COVERAGE

Company A	Associated Electric & Gas Ins. Svcs.
Company B	
Company C	
Company D	
Company E	

INSURED
Entergy Louisiana, Inc.
c/o Entergy Services, Inc.
639 Loyola Avenue
New Orleans, LA 70161
USA

This is to certify that the policies of insurance described herein have been issued to the Insured named herein for the policy period indicated. Notwithstanding any requirement, term or condition of contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, conditions and exclusions of such policies. Limits shown may have been reduced by paid claims.

CO LT	TYPE OF INSURANCE	POLICY NUMBER	EFFECTIVE EXPIRATION	LIMITS OF LIABILITY	
	GENERAL LIABILITY ☐ Commercial General Liability ☐ Claims Made ☐ Occurrence ☐ Owners' and Contractors' Protection ☐ ☐ General Aggregate Limit applies per: ☐ Policy ☐ Project ☐ Location			EACH OCCURRENCE	
				FIRE DAMAGE	
				MEDICAL EXPENSE	
				PERS. AND ADVERTISING INJURY	
				GENERAL AGGREGATE	
				PRODUCTS AND COMP. OPER. AGG.	
	AUTOMOBILE LIABILITY ☐ Any Automobile ☐ All Owned Automobiles ☐ Scheduled Automobiles ☐ Hired Automobiles ☐ Non-owned Automobiles ☐			COMBINED SINGLE LIMIT	
				BODILY INJURY (Per person)	
				BODILY INJURY (Per accident)	
				PROPERTY DAMAGE (Per accident)	
				COMPREHENSIVE	
				COLLISION	
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY			WC Statutory Limit ☐ Other ☐	
				EL EACH ACCIDENT	
				EL DISEASE (Each employee)	
				EL DISEASE (Policy Limit)	
A	**EXCESS LIABILITY** ☐ Occurrence ☒ Claims Made	X0898A1A03 Subject to $3,000,000 SIR Aggregate as Applicable	11/01/2003 11/01/2004	EACH OCCURRENCE	$ 3,000,000
				AGGREGATE	$ 3,000,000

Re: Operations of the Little Gypsy Electric Generating Plant, LaPlace,LA.

CERTIFICATE HOLDER

Louisiana Department of Environmental Quality
Solid Waste Division
P.O. Box 82178
Baton Rouge , LA 70884

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT A FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE ISSUER, COMPANY, ITS AGENTS OR REPRESENTATIVES.

Authorized Representative

Certificate ID # R86-003U

Entergy

Entergy Services, Inc.
P.O. Box 61000
New Orleans, LA 70161
Tel 504 576 4393

Via Hand Delivery

Jay A. Lewis
Vice President, CFO
Operations

March 30, 2004

SOLID WASTE FACILITY LETTER FROM THE CHIEF FINANCIAL OFFICER

(Liability Coverage, Closure, and/or Post-Closure)

Secretary
Louisiana Department of Environmental Quality
Post Office Box 4303
Baton Rouge, Louisiana 70821-4303

Little Gypsy Low Volume Pond, Metal Cleaning Waste Pond, and West Ditch
AI 687
GD-089-2736
OC-0227A

Attention: Office of Management and Finance, Financial Services Division

Dear Sir:

I am the chief financial officer of Entergy Louisiana, Inc., 4809 Jefferson Highway, Jefferson, Louisiana 70121. This letter is in support of this firm's use of the financial test to demonstrate financial responsibility for liability coverage, closure and post-closure as specified in LAC 33:VII.727.A.1 and A.2.

1. Entergy Louisiana, Inc. (Entergy Louisiana) is the applicant for a standard permit of the following solid waste facilities, whether in Louisiana or not, for which liability coverage is being demonstrated through the financial test specified in LAC 33:VII.727.A.1. The amount of annual aggregate liability coverage covered by the test is shown for each facility:

   Ninemile Point Electric Generating Plant (GD-051-2742); 1617 River Road, Westwego, LA 70094; **Liability Retention - $3,000,000**; Facilities included:

Facility	OC/OU No.	Log No.	Permit Application No.
007 Oil Separation Pond	OU-0196A	SP-0-94-0075A	PA 474
008 Oil Separation Pond	OU-0197A	SP-0-94-0076A	PA 489
Low Volume Holding Pond, Low Volume Settling Pond, Metal Cleaning Waste Pond	OC-0229B	SP-0-94-0077B	N/A

Little Gypsy Electric Generating Plant (GD-089-2753) 17420 River Road, LaPlace, LA 70068; **Liability Retention - $3,000,000**; Facilities included:

Facility	OC/OU No.	Log No.	Permit Application No.
Oily Waste Pond	OU-0194A	SP-0-94-0072A	PA 472
Low Volume Pond, Boiler Blowdown Pond, Metal Cleaning Waste Pond, West Ditch Enlargement	OC-0228B	SP-0-94-0073B	N/A

Sterlington Electric Generating Plant (GD-073-2738) End of Hwy. 553, Sterlington, LA 71280; **Liability Retention - $3,000,000**; Facilities included:

Facility	OC/OU No.	Log No.	Permit Application No.
Oily Waste Pond	OU-0191	SP-0-94-0063	PA 442
Low Volume Pond, North Chemical Cleaning Waste Pond, South Chemical Cleaning Waste Pond	OC-0231B	SP-0-94-0079B	N/A
Sludge Pond	OC-0232A	SP-0-94-0080A	N/A

2. Entergy Louisiana is the applicant for a standard permit of the following solid waste facilities, whether in Louisiana or not, for which financial assurance for closure and post-closure care is demonstrated through a financial test similar to that specified in LAC 33:VII.727.A.2 or other forms of self-insurance. The current closure and post-closure cost estimates covered by the test are shown for each facility:

Ninemile Point Electric Generating Plant (GD-051-2742), 1617 River Road, Westwego, LA 70094. Current closure and post-closure cost estimates covered by the test are shown for each facility:

Facility	OC/OUPA No.	Log No.	Closure & Post Closure Cost Estimates
007 Oil Separation Pond	OU-0196A/PA 474	SP-0-94-0075A	$ 1,789,312
008 Oil Separation Pond	OU-0197A/PA 489	SP-0-94-0076A	$ 569,256
Low Volume Holding Pond, Low Volume Settling Pond, Metal Cleaning Waste Pond	OC-0229B	SP-0-94-0077B	$ 513,750
Total For Plant			**$ 2,872,318**

Little Gypsy Electric Generating Plant (GD-089-2753) 17420 River Road, LaPlace, LA 70068. Current closure and post-closure cost estimates covered by the test are shown for each facility:

Facility	OC/OU/PA No.	Log No.	Closure & Post Closure Cost Estimates
Oily Waste Pond	OU-0194A/PA 472	SP-0-94-0072A	$ 1,454,003
Low Volume Pond, Boiler Blowdown Pond, Metal Cleaning Waste Pond, West Ditch Enlargement	OC-0228B	SP-0-94-0073B	$ 640,840
Total For Plant			**$ 2,094,843**

Sterlington Electric Generating Plant (GD-073-2738) End of Hwy. 553, Sterlington, LA 71280. Current closure and post-closure cost estimates covered by the test are shown for each facility:

Facility	OC/OU/PA No.	Log No.	Closure & Post Closure Cost Estimates
Oily Waste Pond	OU-0191/ PA 442	SP-0-94-0063	$ 758,806
Low Volume Pond, North Chemical Cleaning Waste Pond, South Chemical Cleaning Waste Pond	OC-0231B	SP-0-94-0079B	$ 1,148,995
Sludge Pond	OC-0232A	SP-0-94-0080A	$ 5,647
Total For Plant			**$ 1,913,448**

3. Entergy Corporation guarantees through a corporate guarantee similar to that specified in LAC 33:VII.727.A.1 and A.2, liability coverage, closure and post-closure care of the following solid waste facilities, whether in Louisiana or not, of which Entergy Louisiana is a subsidiary of this firm. The amount of annual aggregate liability coverage covered by the guarantee for each facility and/or the current cost estimates for the closure and/or post-closure care so guaranteed is shown for each facility: None.

4. Entergy Louisiana is the owner or operator of the following solid waste facilities, whether in Louisiana or not, for which financial assurance for liability coverage, closure and/or post-closure care is not demonstrated either to the U. S. Environmental Protection Agency or to a state through a financial test or any other financial assurance mechanism similar to those specified in LAC 33:VII.727.A.1 and/or A.2. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None.

Entergy Louisiana is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on December 31. The figures for the following items marked with an asterisk are derived from Entergy Louisiana's independently audited, year-end financial statements for the latest completed year, ended December 31, 2003.

PART C: LIABILITY COVERAGE, CLOSURE, AND/OR POST-CLOSURE

ALTERNATIVE 1

	1. Sum of current closure and/or post-closure cost estimates (total of all cost estimates listed above)	$ 6,880,609
	2. Amount of annual aggregate liability coverage to be demonstrated (See attached certificates of insurance)	$ 9,000,000
	3. Sum of lines 1 and 2	$ 15,880,609
*	4. Total liabilities (If any portion of your closure and/or post-closure cost estimates is included in your "total liabilities" in your firm's financial statements, you may deduct that portion from this line and add that amount to lines 5 and 6.)	$3,606,001,000
*	5. Tangible net worth	$1,068,538,000
*	6. Net worth	$1,068,538,000
*	7. Current assets	$ 449,072,000
*	8. Current liabilities	$ 360,501,000
*	9. The sum of net income plus depreciation, depletion, and amortization	$ 339,126,000
*	10. Total assets in the U.S. (required only if less than 90 percent of assets are located in the U.S.)	N/A

	11. Is line 5 at least $10 million?	Yes
	12. Is line 5 at least 6 times line 3?	Yes
*	13. Are at least 90 percent of assets located in the U.S.? If not complete line 14.	Yes
	14. Is line 10 at least 6 times line 3?	N/A

I hereby certify that the wording of this letter is identical to the wording specified in LAC 33:VII.727.A2.i.iv.(e).

Jay A. Lewis
Vice President and Chief Financial Officer
March 30, 2004

JAL:rob

Deloitte & Touche LLP
Suite 3700
701 Poydras Street
New Orleans, Louisiana 70139-3700

Tel: (504) 581-2727
Fax: (504) 561-7293
www.deloitte.com

Deloitte
& Touche

INDEPENDENT ACCOUNTANTS' REPORT ON APPLYING AGREED-UPON PROCEDURES

To the Board of Directors
Entergy Louisiana, Inc.
Jefferson, Louisiana

We have performed the procedures included in the Louisiana Administrative Code 33:VII.727.A.1.d.iii and A.2, which were agreed to by the Louisiana Department of Environmental Quality and Entergy Louisiana, Inc. (the "Company"), solely to assist the specified parties in evaluating the Company's compliance with the financial test option as of December 31, 2003, included in the accompanying letter dated March 30, 2004 from Mr. Jay A. Lewis, Vice President and Chief Financial Officer of the Company, which is included in Attachment 1. Management is responsible for the Company's compliance with those requirements. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of the parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

The procedures that we performed and related findings are as follows:

1. We compared the amount of "Total liabilities" as shown on line 4 of page 4 in Attachment 1 to the sum of the amounts of: "Current liabilities" and "Non-current liabilities", in the audited financial statements of the Company as of December 31, 2003, on which we have issued our report dated March 9, 2004, which expresses an unqualified opinion and includes an explanatory paragraph that describes changes in 2003 in the method of accounting for asset retirement obligations and for consolidation of variable interest entities, and noted that the sum of such amounts and the amount of line 4 described above, were in agreement.

2. We compared the amounts of "Tangible net worth" and "Net worth" as shown on lines 5 and 6, respectively, of page 4 in Attachment 1 to the total amount of "Shareholders' equity" in the financial statements referred to in procedure 1 and noted that such amounts were in agreement.

3. We compared the amounts of "Current assets" and "Current liabilities" as shown on lines 7 and 8, respectively, of page 4 in Attachment 1 to the financial statements referred to in procedure 1 and noted that such amounts were in agreement.

4. We compared the amount of "The sum of net income plus depreciation, depletion, and amortization" as shown on line 9 of page 4 in Attachment 1 to the sum of the amounts of: "Net income" and "Depreciation and amortization" in the financial statements referred to in procedure 1 and noted that the sum of such amounts and the amount of line 9 described above, were in agreement.

5. We proved the arithmetic accuracy of the statements made in lines 11 and 12 of page 5 in Attachment 1.

We were not engaged to, and did not, perform an examination, the objective of which would be the expression of an opinion on the accompanying letter dated March 30, 2004. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the board of directors and management of the Company and the Louisiana Department of Environmental Quality, and is not intended to be and should not be used by anyone other than these specified parties.

Deloitte + Touche LLP

March 30, 2004

ACORD™

CERTIFICATE OF INSURANCE

ISSUE DATE
10/30/2003

PRODUCER
MCGRIFF, SEIBELS & WILLIAMS, INC.
P. O. Box 10265
Birmingham, AL 35202-0265

This certificate is issued as a matter of information only and confers no rights upon the Certificate Holder. This Certificate does not amend, extend or alter the coverage afforded by the policies below.

COMPANIES AFFORDING COVERAGE

Company A	Associated Electric & Gas Ins. Svcs.
Company B	
Company C	
Company D	
Company E	

INSURED
Entergy Louisiana, Inc.
c/o Entergy Services, Inc.
639 Loyola Avenue
New Orleans, LA 70161
USA

This is to certify that the policies of insurance described herein have been issued to the insured named herein for the policy period indicated. Notwithstanding any requirement, term or condition of contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, conditions and exclusions of such policies. Limits shown may have been reduced by paid claims.

CO LT	TYPE OF INSURANCE	POLICY NUMBER	EFFECTIVE EXPIRATION	LIMITS OF LIABILITY	
	GENERAL LIABILITY ☐ Commercial General Liability ☐ Claims Made ☐ Occurrence ☐ Owners' and Contractors' Protection ☐ ☐ General Aggregate Limit applies per: ☐ Policy ☐ Project ☐ Location			EACH OCCURRENCE	
				FIRE DAMAGE	
				MEDICAL EXPENSE	
				PERS. AND ADVERTISING INJURY	
				GENERAL AGGREGATE	
				PRODUCTS AND COMP. OPER. AGG.	
	AUTOMOBILE LIABILITY ☐ Any Automobile ☐ All Owned Automobiles ☐ Scheduled Automobiles ☐ Hired Automobiles ☐ Non-owned Automobiles ☐			COMBINED SINGLE LIMIT	
				BODILY INJURY (Per person)	
				BODILY INJURY (Per accident)	
				PROPERTY DAMAGE (Per accident)	
				COMPREHENSIVE	
				COLLISION	
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY			WC Statutory Limit ☐ Other ☐	
				EL EACH ACCIDENT	
				EL DISEASE (Each employee)	
				EL DISEASE (Policy Limit)	
A	**EXCESS LIABILITY** ☐ Occurrence ☒ Claims Made	X0898A1A03 Subject to $3,000,000 SIR Aggregate as Applicable	11/01/2003 11/01/2004	EACH OCCURRENCE	$ 3,000,000
				AGGREGATE	$ 3,000,000

Re: Operations of the Little Gypsy Electric Generating Plant, LaPlace,LA.

CERTIFICATE HOLDER

Louisiana Department of Environmental Quality
Solid Waste Division
P.O. Box 82178
Baton Rouge , LA 70884

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT A FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE ISSUER, COMPANY, ITS AGENTS OR REPRESENTATIVES.

Authorized Representative

Certificate ID # R86-003U

Entergy Louisiana, Inc.

2004 Financial Statements

Entergy

TABLE OF CONTENTS

	Page
Business	3
Definitions	4
Report of Management	7
Management's Financial Discussion and Analysis	8
Independent Auditors' Report	26
Income Statements	27
Statements of Cash Flows	29
Balance Sheets	30
Statements of Retained Earnings	32
Selected Financial Data - Five-Year Comparison	33
Notes to Financial Statements	34
Directors, Officers, and Other Information	99

ENTERGY LOUISIANA, INC.

Entergy Louisiana, Inc. (Entergy Louisiana), formerly Louisiana Power & Light Company, is a regulated public utility company that generates, transmits, distributes, and sells electric power to retail and wholesale customers. Entergy Louisiana serves approximately 662,000 customers in Louisiana. Entergy Louisiana provides power at wholesale to neighboring municipalities and transmission service to several rural electric cooperatives.

Entergy Louisiana is a wholly-owned subsidiary of Entergy Corporation, a Delaware corporation, which, through its subsidiaries, operates primarily through three business segments: U.S. Utility, Non-Utility Nuclear, and Energy Commodity Services. Entergy Corporation has no significant assets other than the stock of its subsidiaries. Through its U.S. Utility subsidiaries, Entergy Corporation provides electricity to approximately 2.7 million customers primarily in portions of the states of Arkansas, Louisiana, Mississippi, and Texas.

Headquartered in New Orleans, Louisiana, Entergy Corporation's U.S. Utility business segment includes five wholly-owned retail utility companies (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans); ownership in 100% of the outstanding common stock of System Energy, Entergy Services, Entergy Operations; and, through its wholly-owned subsidiaries, ownership of System Fuels, Inc.

System Energy is an Arkansas corporation that owns and leases an aggregate 90% undivided interest in Grand Gulf. System Energy sells the capacity and energy from its interest in Grand Gulf at wholesale to its only customers, Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans. Entergy Services, a Delaware corporation, provides management, administrative, accounting, legal, engineering, and other services primarily to the domestic utility companies. Entergy Operations, a Delaware corporation, provides nuclear management, operations, and maintenance services under contract for ANO, River Bend, Waterford 3, and Grand Gulf, subject to the owner oversight of Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, and System Energy, respectively. Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans own 35%, 33%, 19%, and 13%, respectively, of the common stock of System Fuels, a Louisiana corporation responsible for contracts to acquire nuclear material to be used in fueling Entergy's utility nuclear units, except for River Bend. System Fuels also maintains inventories of such materials during the various stages of processing. The domestic utility companies purchase enriched uranium hexafluoride from System Fuels, but contract separately for the fabrication of their own nuclear fuel. Entergy Services, Entergy Operations, and System Fuels provide their services to the domestic utility companies and System Energy on an "at cost" basis, pursuant to service agreements approved by the SEC under PUHCA.

DEFINITIONS

Certain abbreviations or acronyms used in the text and notes are defined below:

Abbreviation or Acronym	Term
AFUDC	Allowance for Funds Used During Construction
ALJ	Administrative Law Judge
ANO 1 and 2	Units 1 and 2 of Arkansas Nuclear One Steam Electric Generating Station (nuclear), owned by Entergy Arkansas
APSC	Arkansas Public Service Commission
Board	Board of Directors of Entergy Corporation
Cajun	Cajun Electric Power Cooperative, Inc.
capacity factor	Actual plant output divided by maximum potential plant output for the period
City Council or Council	Council of the City of New Orleans, Louisiana
CPI-U	Consumer Price Index - Urban
DOE	United States Department of Energy
domestic utility companies	Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans, collectively
EITF	FASB's Emerging Issues Task Force
Energy Commodity Services	Entergy's business segment that includes Entergy-Koch, LP and Entergy's non-nuclear wholesale assets business
Entergy	Entergy Corporation and its direct and indirect subsidiaries
Entergy Corporation	Entergy Corporation, a Delaware corporation
Entergy-Koch	Entergy-Koch, LP, a joint venture equally owned by subsidiaries of Entergy and Koch Industries, Inc.
EPA	United States Environmental Protection Agency
EPDC	Entergy Power Development Corporation, a wholly-owned subsidiary of Entergy Corporation
FASB	Financial Accounting Standards Board
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
firm liquidated damages	Transaction that requires receipt or delivery of energy at a specified delivery point (usually at a market hub not associated with a specific asset); if a party fails to deliver or receive energy, the defaulting party must compensate the other party as specified in the contract
FSP	FASB Staff Position
Grand Gulf	Unit No. 1 of Grand Gulf Steam Electric Generating Station (nuclear), 90% owned or leased by System Energy
GWh	Gigawatt-hour(s), which equals one million kilowatt-hours
Independence	Independence Steam Electric Station (coal), owned 16% by Entergy Arkansas, 25% by Entergy Mississippi, and 7% by Entergy Power
IRS	Internal Revenue Service
ISO	Independent System Operator
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt-hour(s)

DEFINITIONS (Continued)

Abbreviation or Acronym	Term
LDEQ	Louisiana Department of Environmental Quality
LPSC	Louisiana Public Service Commission
Mcf	1,000 cubic feet of gas
MMBtu	One million British Thermal Units
MPSC	Mississippi Public Service Commission
MW	Megawatt(s), which equals one thousand kilowatt(s)
MWh	Megawatt-hour(s)
Nelson Unit 6	Unit No. 6 (coal) of the Nelson Steam Electric Generating Station, owned 70% by Entergy Gulf States
Net debt ratio	Gross debt less cash and cash equivalents divided by total capitalization less cash and cash equivalents
Net MW in operation	Installed capacity owned or operated
Net revenue	Operating revenue net of fuel, fuel-related, and purchased power expenses; and other regulatory credits
Non-Utility Nuclear	Entergy's business segment that owns and operates five nuclear power plants and sells electric power produced by those plants to wholesale customers
NRC	Nuclear Regulatory Commission
NYPA	New York Power Authority
PPA	Purchased power agreement
production cost	Cost in $/MMBtu associated with delivering gas, excluding the cost of the gas
PRP	Potentially responsible party (a person or entity that may be responsible for remediation of environmental contamination)
PUCT	Public Utility Commission of Texas
PUHCA	Public Utility Holding Company Act of 1935, as amended
PURPA	Public Utility Regulatory Policies Act of 1978
Ritchie Unit 2	Unit 2 of the R.E. Ritchie Steam Electric Generating Station (gas/oil)
River Bend	River Bend Steam Electric Generating Station (nuclear), owned by Entergy Gulf States
SEC	Securities and Exchange Commission
SFAS	Statement of Financial Accounting Standards as promulgated by the FASB
SMEPA	South Mississippi Electric Power Agency, which owns a 10% interest in Grand Gulf
spark spread	Dollar difference between electricity prices per unit and natural gas prices after assuming a conversion ratio for the number of natural gas units necessary to generate one unit of electricity
System Agreement	Agreement, effective January 1, 1983, as modified, among the domestic utility companies relating to the sharing of generating capacity and other power resources
System Energy	System Energy Resources, Inc.
System Fuels	System Fuels, Inc.

DEFINITIONS (Concluded)

Abbreviation or Acronym	Term
TWh	Terawatt-hour(s), which equals one billion kilowatt-hours
unit-contingent	Transaction under which power is supplied from a specific generation asset; if the specified generation asset is unavailable as a result of forced outage or unanticipated event or circumstance, the seller is not liable to the buyer for any damages resulting from the seller's failure to deliver power
unit-contingent with availability guarantees	Transaction under which power is supplied from a specific generation asset; if the specified generation asset is unavailable as a result of forced outage or unanticipated event or circumstance, the seller is not liable to the buyer for any damages resulting from the seller's failure to deliver power unless the actual availability over a specified period of time is below an availability threshold specified in the contract
Unit Power Sales Agreement	Agreement, dated as of June 10, 1982, as amended and approved by FERC, among Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy, relating to the sale of capacity and energy from System Energy's share of Grand Gulf
UK	The United Kingdom of Great Britain and Northern Ireland
U.S. Utility	Entergy's business segment that generates, transmits, distributes, and sells electric power, with a small amount of natural gas distribution
Waterford 3	Unit No. 3 (nuclear) of the Waterford Steam Electric Generating Station, 100% owned or leased by Entergy Louisiana
weather-adjusted usage	Electric usage excluding the effects of deviations from normal weather
White Bluff	White Bluff Steam Electric Generating Station, 57% owned by Entergy Arkansas

ENTERGY CORPORATION AND SUBSIDIARIES

REPORT OF MANAGEMENT

Management of Entergy Corporation and its subsidiaries has prepared and is responsible for the financial statements and related financial information included herein. The financial statements are based on accounting principles generally accepted in the United States of America. Financial information included elsewhere in this report is consistent with the financial statements.

To meet their responsibilities with respect to financial information, management maintains and enforces a system of internal accounting controls designed to provide reasonable assurance, on a cost-effective basis, as to the integrity, objectivity, and reliability of the financial records, and as to the protection of assets. This system includes communication through written policies and procedures, an employee Code of Entegrity, and an organizational structure that provides for appropriate division of responsibility and the training of personnel. This system is also tested by a comprehensive internal audit program.

The Audit Committee of the Board of Directors, composed solely of Directors who are not employees of Entergy, meets with the independent auditors, management, and internal accountants periodically to discuss internal accounting controls and auditing and financial reporting matters. The Audit Committee appoints the independent auditors annually and reviews with the independent auditors the scope and results of the audit effort. The Committee also meets periodically with the independent auditors and the chief internal auditor without management, providing free access to the Committee.

Independent public accountants provide an objective assessment of the degree to which management meets its responsibility for fairness of financial reporting. They regularly evaluate the system of internal accounting controls and perform such tests and other procedures as they deem necessary to reach and express an opinion on the fairness of the financial statements.

Management believes that these policies and procedures provide reasonable assurance that its operations are carried out with a high standard of business conduct.

J. WAYNE LEONARD
Chief Executive Officer of Entergy Corporation

LEO P. DENAULT
Executive Vice President and Chief Financial Officer of Entergy Corporation

HUGH T. MCDONALD
Chairman, President, and Chief Executive Officer of Entergy Arkansas, Inc.

JOSEPH F. DOMINO
Chairman of Entergy Gulf States, Inc., President and Chief Executive Officer - Texas of Entergy Gulf States, Inc.

E. RENAE CONLEY
Chairman, President, and Chief Executive Officer of Entergy Louisiana, Inc.; President and Chief Executive Officer-Louisiana of Entergy Gulf States, Inc.

CAROLYN C. SHANKS
Chairman, President, and Chief Executive Officer of Entergy Mississippi, Inc.

DANIEL F. PACKER
Chairman, President, and Chief Executive Officer of Entergy New Orleans, Inc.

GARY J. TAYLOR
Chairman, President, and Chief Executive Officer of System Energy Resources, Inc.

THEODORE H. BUNTING, JR.
Vice President and Chief Financial Officer of System Energy Resources, Inc.

JAY A. LEWIS
Vice President and Chief Financial Officer of Entergy Arkansas, Inc., Entergy Gulf States, Inc., Entergy Louisiana, Inc., Entergy Mississippi, Inc., and Entergy New Orleans, Inc.

Results of Operations

Net Income

2004 Compared to 2003

Net income decreased $18.7 million primarily due to lower net revenue, partially offset by lower other operation and maintenance expenses.

2003 Compared to 2002

Net income increased slightly primarily due to higher net revenue and lower interest charges, almost entirely offset by higher other operation and maintenance expenses, higher depreciation and amortization expenses, and higher taxes other than income taxes.

Net Revenue

2004 Compared to 2003

Net revenue, which is Entergy Louisiana's measure of gross margin, consists of operating revenues net of: 1) fuel, fuel-related, and purchased power expenses and 2) other regulatory credits. Following is an analysis of the change in net revenue comparing 2004 to 2003.

	(In Millions)
2003 net revenue	$973.7
Price applied to unbilled sales	(31.9)
Deferred fuel cost revisions	(29.4)
Rate refund provisions	(12.2)
Volume/weather	17.0
Summer capacity charges	11.8
Other	2.3
2004 net revenue	**$931.3**

The price applied to the unbilled sales variance is due to a decrease in the fuel price included in unbilled sales in 2004 caused primarily by the effect of nuclear plant outages in 2003 on average fuel costs.

The deferred fuel cost revisions variance resulted from a revised unbilled sales pricing estimate made in the first quarter of 2003 to more closely align the fuel component of that pricing with expected recoverable fuel costs.

Rate refund provisions caused a decrease in net revenue due to additional provisions recorded in 2004 compared to 2003 for potential rate actions and refunds.

The volume/weather variance is due to a total increase of 620 GWh in weather-adjusted usage in all sectors, partially offset by the effect of milder weather on billed sales in the residential and commercial sectors.

The summer capacity charges variance is due to the amortization in 2003 of deferred capacity charges for the summer of 2001 compared to the absence of the amortization in 2004. The amortization of these capacity charges began in August 2002 and ended in July 2003.

Gross operating revenues, fuel and purchased power expenses, and other regulatory credits

Gross operating revenues increased primarily due to:

- an increase of $98.0 million in fuel cost recovery revenues due to higher fuel rates; and
- an increase due to volume/weather, as discussed above.

The increase was partially offset by the following:

- a decrease of $31.9 million in the price applied to unbilled sales, as discussed above;
- a decrease of $12.2 million in rate refund provisions, as discussed above; and
- a decrease of $5.2 million in gross wholesale revenue due to decreased sales to affiliated systems.

Fuel and purchased power expenses increased primarily due to:

- an increase in the recovery from customers of deferred fuel costs; and
- an increase in the market price of natural gas.

Other regulatory credits increased primarily due to:

- the deferral in 2004 of $14.3 million of capacity charges related to generation resource planning as allowed by the LPSC;
- the amortization in 2003 of $11.8 million of deferred capacity charges, as discussed above; and
- the deferral in 2004 of $11.4 million related to Entergy's voluntary severance program, in accordance with a proposed stipulation with the LPSC staff.

2003 Compared to 2002

Net revenue, which is Entergy Louisiana's measure of gross margin, consists of operating revenues net of: 1) fuel, fuel-related, and purchased power expenses and 2) other regulatory charges (credits). Following is an analysis of the change in net revenue comparing 2003 to 2002.

	(In Millions)
2002 net revenue	$922.9
Deferred fuel cost revisions	59.1
Asset retirement obligation	8.2
Volume	(16.2)
Vidalia settlement	(9.2)
Other	8.9
2003 net revenue	**$973.7**

The deferred fuel cost revisions variance resulted from a revised unbilled sales pricing estimate made in December 2002 and a further revision made in the first quarter of 2003 to more closely align the fuel component of that pricing with expected recoverable fuel costs.

The asset retirement obligation variance was due to the implementation of SFAS 143, "Accounting for Asset Retirement Obligations," adopted in January 2003. See "**Critical Accounting Estimates**" for more details on SFAS 143. The increase was offset by decommissioning expense and had no effect on net income.

The volume variance was due to a decrease in electricity usage in the service territory. Billed usage decreased 1,868 GWh in the industrial sector including the loss of a large industrial customer to cogeneration.

See "**Liquidity and Capital Resources**" below for more details regarding the September 2002 settlement related to the Vidalia contract.

Gross operating revenues, fuel and purchased power expenses, and other regulatory charges (credits)

Gross operating revenues increased primarily due to:

- an increase of $277.2 million in fuel cost recovery revenues due to higher fuel rates; and
- an increase of $94.7 million in gross wholesale revenue due to increased sales to affiliated systems.

Fuel and purchased power expenses increased primarily due to an increase in the market prices of natural gas and purchased power.

Other regulatory credits increased primarily due to:

- an increase of $8.2 million due to the change in accounting for asset retirement obligations in compliance with SFAS 143, adopted in January 2003. This increase has no effect on net income; and
- an increase of $5.9 million due to the deferral of capacity charges in the third quarter of 2003 as allowed by the LPSC related to generation resource planning.

Other Income Statement Variances

2004 Compared to 2003

Other operation and maintenance expenses decreased primarily due to voluntary severance program accruals of $19.7 million in 2003, partially offset by an increase of $9.1 million in customer service support costs.

2003 Compared to 2002

Other operation and maintenance expenses increased primarily due to:

- voluntary severance program accruals of $19.7 million; and
- an increase of $13.4 million in benefit costs.

Decommissioning expenses increased $10.1 million primarily due to the implementation of SFAS 143, "Accounting for Asset Retirement Obligations," adopted in January 2003. See "**Critical Accounting Estimates**" for more details on SFAS 143. The increase in decommissioning expense was offset by regulatory credits and interest and dividend income and had no effect on net income.

Taxes other than income taxes increased primarily due to the franchise tax adjustments of $10.8 million recorded in 2002 as a result of a favorable court decision that allowed Entergy Louisiana to receive a refund for certain franchise taxes previously expensed and paid under protest.

Depreciation and amortization expenses increased primarily due to an increase in plant in service.

Interest charges decreased primarily due to decreased interest on long-term debt of $25.5 million due to the redemption of $150 million of First Mortgage Bonds in June 2003 and the redemption of $187 million of First Mortgage Bonds from April through December of 2002, partially offset by the issuance of $150 million of First Mortgage Bonds in March 2002.

Income Taxes

The effective income tax rates for 2004, 2003, and 2002 were 38.4%, 40.0%, and 36.9%, respectively. See Note 3 to the domestic utility companies and System Energy financial statements for a reconciliation of the federa

statutory rate of 35.0% to the effective income tax rate. Tax reserves not expected to reverse within the next year are reflected as non-current taxes accrued on the balance sheet.

Liquidity and Capital Resources

Cash Flow

Cash flows for the years ended December 31, 2004, 2003, and 2002 were as follows:

	2004	2003	2002
		(In Thousands)	
Cash and cash equivalents at beginning of period	$8,787	$311,800	$42,408
Cash flow provided by (used in):			
Operating activities	424,718	413,939	1,035,777
Investing activities	(243,231)	(268,372)	(212,333)
Financing activities	(44,225)	(448,580)	(554,052)
Net increase (decrease) in cash and cash equivalents	137,262	(303,013)	269,392
Cash and cash equivalents at end of period	$146,049	$8,787	$311,800

Operating Activities

Cash flow from operations increased $10.8 million in 2004 primarily due to the increased collection of deferred fuel costs and the receipt of an income tax payment through Entergy's inter-company tax allocation process. The increase was almost entirely offset by money pool activity.

In 2003, the domestic utility companies and System Energy filed, with the IRS, a change in tax accounting method notification for their respective calculations of cost of goods sold. The adjustment implemented a simplified method of allocation of overhead to the production of electricity, which is provided under the IRS capitalization regulations. The cumulative adjustment placing these companies on the new methodology resulted in a $505 million deduction for Entergy Louisiana on Entergy's 2003 income tax return. There was no cash benefit from the method change in 2003. In 2004 Entergy Louisiana realized $100 million in cash tax benefit from the method change. This tax accounting method change is an issue across the utility industry and will likely be challenged by the IRS on audit. As of December 31, 2004, Entergy Louisiana has a net operating loss (NOL) carryforward for tax purposes of $195.7 million, principally resulting from the change in tax accounting method related to cost of goods sold. If the tax accounting method change is sustained, Entergy Louisiana expects to utilize the NOL carryforward through 2005.

Cash flow from operations decreased $621.8 million in 2003 as a result of Entergy Louisiana changing its method of accounting for tax purposes related to its wholesale electric power contracts, including the contract to purchase power from the Vidalia project (the contract is discussed in Note 8 to the domestic utility companies and System Energy financial statements). The new tax accounting method provided a cumulative cash flow benefit of approximately $790 million through 2004, which is expected to reverse in the years 2005 through 2031. The election did not reduce book income tax expense. The timing of the reversal of this benefit depends on several variables, including the price of power. In a settlement approved by the LPSC, Entergy Louisiana will keep a portion of the benefit in exchange for crediting customer rates. The credit will be $11 million annually through at least 2010. See Part I, Item 1 for additional details concerning the settlement.

Entergy Louisiana reduced its indebtedness and preferred stock with a portion of the cash from the tax benefit. In accordance with the terms of the settlement, Entergy Louisiana requested SEC approval to return up to $350 million of common equity capital to Entergy Corporation in order to maintain Entergy Louisiana's capital structure. In December 2002, Entergy Louisiana repurchased $120 million of common stock from Entergy Corporation and, at the time of settlement, paid a dividend of $122.6 million pursuant to the SEC approval. The provisions of the settlement provide that the LPSC shall not recognize or use Entergy Louisiana's use of this cash in

setting any of Entergy Louisiana's rates. Therefore, to the extent Entergy Louisiana's use of the proceeds would ordinarily have reduced its rate base, no change in rate base shall be reflected for ratemaking purposes. The SEC approval for additional return of equity capital is now expired.

Entergy Louisiana's receivables from or (payables to) the money pool were as follows as of December 3' for each of the following years:

2004	2003	2002	2001
	(In Thousands)		
$40,549	($41,317)	$18,854	$3,812

Money pool activity used $81.9 million of Entergy Louisiana's operating cash flow in 2004, provided $60.2 million in 2003, and used $15.0 million in 2002. See Note 4 to the domestic utility companies and System Energy financial statements for a description of the money pool.

Investing Activities

The decrease of $25.1 million in net cash used by investing activities in 2004 was primarily due to decreased spending on customer service projects, partially offset by increases in spending on transmission projects and fossil plant projects.

The increase of $56.0 million in net cash used by investing activities in 2003 was primarily due to increased spending on customer service, transmission, and nuclear projects.

Financing Activities

The decrease of $404.4 million in net cash used by financing activities in 2004 was primarily due to:

- the net issuance of $98.0 million of long-term debt in 2004 compared to the retirement of $261.0 million in 2003;
- a principal payment of $14.8 million in 2004 for the Waterford Lease Obligation compared to a principal payment of $35.4 million in 2003; and
- a decrease of $29.0 million in common stock dividends paid.

The decrease of $105.5 million in net cash used by financing activities in 2003 was primarily due to:

- a decrease of $125.9 million in common stock dividends paid; and
- the repurchase of $120 million of common stock from Entergy Corporation in 2002.

The decrease in net cash used in 2003 was partially offset by the following:

- the retirement in 2003 of $150 million of 8.5% Series First Mortgage Bonds compared to the net retirement of $134.6 million of First Mortgage Bonds in 2002; and
- principal payments of $35.4 million in 2003 for the Waterford 3 Lease Obligation compared to principal payments of $15.9 million in 2002.

See Note 5 to the domestic utility companies and System Energy financial statements for details of long-term debt.

Uses of Capital

Entergy Louisiana requires capital resources for:

- construction and other capital investments;
- debt and preferred stock maturities;
- working capital purposes, including the financing of fuel and purchased power costs; and
- dividend and interest payments.

Following are the amounts of Entergy Louisiana's planned construction and other capital investments, existing debt and lease obligations, and other purchase obligations:

	2005	2006-2007	2008-2009	After 2009	Total
			(In Millions)		
Planned construction and capital investment (1)	$455	$472	N/A	N/A	$927
Long-term debt	$55	$-	$7	$924	$986
Operating leases	$10	$11	$6	$2	$29
Purchase obligations (2)	$639	$1,120	$980	$4,691	$7,430
Nuclear fuel lease obligations (3)	$23	$9	N/A	N/A	$32

(1) Includes approximately $130 to 160 million annually for maintenance capital, which is planned spending on routine capital projects that are necessary to support reliability of service, equipment or systems and to support normal customer growth.

(2) Purchase obligations represent the minimum purchase obligation or cancellation charge for contractual obligations to purchase goods or services. For Entergy Louisiana almost all of the total consists of unconditional fuel and purchased power obligations, including its obligations under the Vidalia purchased power agreement and the Unit Power Sales Agreement, both of which are discussed in Note 8 to the domestic utility companies and System Energy financial statements.

(3) It is expected that additional financing under the leases will be arranged as needed to acquire additional fuel, to pay interest, and to pay maturing debt. If such additional financing cannot be arranged, however, the lessee in each case must repurchase sufficient nuclear fuel to allow the lessor to meet its obligations.

In addition to these contractual obligations, Entergy Louisiana expects to contribute $2.6 million to its pension plans and $8.5 million to other postretirement plans in 2005.

The planned capital investment estimate for Entergy Louisiana reflects capital required to support existing business and customer growth. The estimated capital expenditures are subject to periodic review and modification and may vary based on the ongoing effects of regulatory constraints, environmental compliance, market volatility, economic trends, business restructuring, and the ability to access capital. Management provides more information on long-term debt and preferred stock maturities in Notes 5 and 6 to the domestic utility companies and System Energy financial statements.

In January 2004, Entergy Louisiana signed a definitive agreement to acquire the 718 MW Perryville power plant for $170 million. The agreement has subsequently been amended to allow the current plant owner to retain the interconnection facilities associated with the plant, resulting in a decrease in the acquisition price to $162 million. As a result of the amended terms, the FERC issued an order in October 2004 disclaiming jurisdiction over the acquisition. This order currently is subject to rehearing by the FERC. The plant is owned by a subsidiary of Cleco Corporation, which subsidiary submitted a bid in response to Entergy's Fall 2002 request for proposals for supply-side resources. The signing of the agreement followed a voluntary Chapter 11 bankruptcy filing by the plant's owner. Entergy expects that Entergy Louisiana will own 100 percent of the Perryville plant, and that Entergy Louisiana will sell 75 percent of the output to Entergy Gulf States under a long-term cost-of-service power purchase agreement. In addition, Entergy Louisiana and Entergy Gulf States executed an interim power purchase agreement with the plant's owner through the date of the acquisition's closing (as long as that occurs by December 2005) for 100 percent of the output of the Perryville power plant. In April 2004, the bankruptcy court approved Entergy Louisiana's agreement to acquire the plant. In March 2004, Entergy Gulf States and Entergy Louisiana filed with the LPSC for its approval of the acquisition and long-term cost-of-service power purchase agreement. Entergy is seeking approval from the LPSC of cost recovery for the acquisition, giving consideration to the need for the power and the prudence of Entergy Louisiana and Entergy Gulf States in engaging in the transaction. Hearings are scheduled for March 2005. Assuming regulatory approval by the LPSC, Entergy Louisiana expects the Perryville acquisition to close in mid-2005.

As a wholly-owned subsidiary, Entergy Louisiana dividends its earnings to Entergy Corporation at a percentage determined monthly. In addition, all of Entergy Louisiana's retained earnings are currently available for distribution.

Sources of Capital

Entergy Louisiana's sources to meet its capital requirements include:

- internally generated funds;
- cash on hand;
- debt or preferred stock issuances; and
- bank financing under new and existing facilities.

Entergy Louisiana issued $285 million of first mortgage bonds in 2004 as follows:

Issue Date	Description	Maturity	Amount (In Thousands)
March 2004	5.50% Series	April 2019	$100,000
October 2004	6.40% Series	October 2034	70,000
October 2004	5.09% Series	November 2014	115,000
			$285,000

Entergy Louisiana retired $187.2 million of long-term debt in 2004 as follows:

Retirement Date	Description	Maturity	Amount (In Thousands)
November 2004	6.50% Series	March 2008	$115,000
November 2004	9.00% Series	September 2045	72,165
			$187,165

Entergy Louisiana may refinance or redeem debt and preferred stock prior to maturity, to the extent market conditions and interest and dividend rates are favorable.

All debt and common and preferred stock issuances by Entergy Louisiana require prior regulatory approval. Preferred stock and debt issuances are also subject to issuance tests set forth in corporate charters, bond indentures, and other agreements. Entergy Louisiana has sufficient capacity under these tests to meet its foreseeable capital needs.

In July 2004, Entergy Louisiana renewed its 364-day credit facility and Entergy New Orleans entered into a separate credit facility with the same lender. Both facilities will expire in April 2005. Entergy Louisiana can borrow up to $15 million and Entergy New Orleans can borrow up to $14 million under their respective credit facilities, but at no time can the total amount borrowed under these facilities by the two companies combined exceed $15 million. As of December 31, 2004, no borrowings were outstanding under these facilities. Borrowings and securities issuances by Entergy Louisiana are limited to amounts authorized by the SEC. The current short-term borrowing limitation, including borrowings under the money pool, is $225 million. Under its SEC Orders and without further SEC authorization, Entergy Louisiana cannot incur additional indebtedness or issue other securities unless (a) it and Entergy Corporation maintain a common equity ratio of at least 30% and (b) with the exception of money pool borrowings, the security to be issued (if rated) and all outstanding securities of Entergy Louisiana, as well as all outstanding securities of Entergy Corporation, that are rated, are rated investment grade. See Note 4 to the domestic utility companies and System Energy financial statements for further discussion of Entergy Louisiana's short-term borrowing limits.

Significant Factors and Known Trends

Utility Restructuring

In November 2001, the LPSC decided not to move forward with retail open access for any customers at this time. The LPSC instead directed its staff to hold collaborative group meetings concerning open access from time to time, and to have the LPSC staff monitor developments in neighboring states and to report to the LPSC regarding the progress of retail access developments in those states. In September 2004, in response to a study funded by certain industrial customers that evaluated a limited industrial-only retail choice program, the LPSC asked the LPSC staff to solicit comments and obtain information from utilities, customers, and other interested parties concerning the potential costs and benefits of a limited choice program, the impact of such a program on other customers, as well as issues such as stranded costs and transmission service. Comments from interested parties were filed with the LPSC on January 14, 2005. The LPSC has not established a procedural framework for consideration of the comments. At this time, it is not certain what further action, if any, the LPSC might take in response to the information it received.

At FERC, the pace of restructuring at the wholesale level has begun but has been delayed. It is too early to predict the ultimate effects of changes in United States energy markets. Restructuring issues are complex and are continually affected by events at the national, regional, state, and local levels. However, these changes may result, in the long-term, in fundamental changes in the way traditional integrated utilities and holding company systems, like the Entergy system, conduct their business. Some of these changes may be positive for Entergy, while others may not.

State Rate Regulation

The rates that Entergy Louisiana charges for its services are an important item influencing its financial position, results of operations, and liquidity. Entergy Louisiana is closely regulated and the rates charged to its customers are determined in regulatory proceedings. A governmental agency, the LPSC, is primarily responsible for approval of the rates charged to customers.

In January 2005, Entergy Gulf States and Entergy Louisiana filed testimony with the LPSC in support of a proposed settlement with the LPSC that would resolve, among other dockets, dockets established to consider issues concerning power purchases for both Entergy Gulf States and Entergy Louisiana for the summers of 2001, 2002, 2003, and 2004. The proposed settlement currently includes an offer to refund $14 million to Entergy Louisiana's customers. The LPSC has solicited comments on the proposed settlement from the parties to the various proceedings at issue in the proposed settlement. The proposed settlement is scheduled to be presented to the LPSC for consideration on March 23, 2005.

In January 2004, Entergy Louisiana made a rate filing with the LPSC requesting a base rate increase of approximately $167 million. In that filing, Entergy Louisiana noted that approximately $73 million of the base rate increase was attributable to the acquisition of a generating station and certain power purchase agreements that, based on current natural gas prices, would produce fuel and purchased power savings for customers that substantially mitigate the impact of the requested base rate increase. The filing also requested an allowed ROE of 11.4%. Entergy Louisiana's previously authorized ROE mid-point currently in effect is 10.5%. Hearings concluded in December 2004. Based on evidence submitted at the hearing, the LPSC staff is recommending approximately a $7 million base rate increase. The LPSC staff proposed the implementation of a formula rate plan that includes a provision for the recovery of incremental capacity costs, including those related to the proposed Perryville acquisition, without filing a traditional base rate proceeding. A decision by the LPSC is expected in mid- to late-March 2005 on these issues.

In addition to rate proceedings, Entergy Louisiana's fuel costs recovered from customers are subject to regulatory scrutiny. This regulatory risk represents Entergy Louisiana's largest potential exposure to price changes in the commodity markets.

Entergy Louisiana's retail rate matters and proceedings, including fuel cost recovery-related issues, are discussed in Note 2 to the domestic utility companies and System Energy financial statements.

System Agreement Proceedings

The domestic utility companies historically have engaged in the coordinated planning, construction, and operation of generating and transmission facilities under the terms of an agreement called the System Agreement that has been approved by the FERC. Litigation involving the System Agreement is being pursued by the LPSC at bot' the FERC and before itself. These proceedings include challenges to the allocation of costs as defined by the System Agreement, raise questions of imprudence by the domestic utility companies in their execution of the System Agreement, and seek support for local regulatory authority over System Agreement issues.

In February 2004, a FERC ALJ issued an Initial Decision in the LPSC-initiated proceeding at the FERC. The Initial Decision decided some issues in favor of the relief sought by the LPSC, and decided some issues against the relief sought by the LPSC. Several parties, including Entergy, the LPSC, the APSC, the MPSC, the City Council, and the FERC Staff, filed briefs on exceptions in response to the ALJ's Initial Decision. Entergy's exceptions to the ALJ's Initial Decision include: the practical effect of the Initial Decision is full production cost equalization, which was rejected in the Initial Decision and previously has been rejected by the FERC; resource planning for the Entergy System would be impeded if the Initial Decision were adopted; the remedy in the Initial Decision is inconsistent with the history, structure, and precedent regarding the System Agreement; the Initial Decision's remedy ignores the historical pattern of production cost disparities on the Entergy System and would result in substantial, sudden transfers of costs between groups of Entergy customers; the numerical standards proposed in the Initial Decision are arbitrary and are so complex that they will be difficult to implement; the Initial Decision improperly rejected Entergy's resource planning remedy; the Initial Decision erroneously determined that the full costs of the Vidalia project should be included in Entergy Louisiana's production costs for purposes of calculating relative production costs; and the Initial Decision erroneously adopted a new method of calculating reserve sharing costs rather than the current method.

If the FERC grants the relief requested by the LPSC in the proceeding, the relief may result in a material increase in the total production costs the FERC allocates to companies whose costs currently are projected to be less than the Entergy System average, and a material decrease in the total production costs the FERC allocates to companies whose costs currently are projected to exceed that average. If the FERC adopts the ALJ's Initi' Decision, the amount of production costs that would be reallocated among the domestic utility companies would b determined through consideration of each domestic utility company's relative total production cost expressed as a percentage of Entergy System average total production cost. The ALJ's Initial Decision would reallocate production costs of the domestic utility companies whose percent of Entergy System average production cost are outside an upper or lower bandwidth. This would be accomplished by payments from domestic utility companies whose production costs are below Entergy System average production cost to domestic utility companies whose production costs are above Entergy System average production cost.

An assessment of the potential effects of the ALJ's Initial Decision requires assumptions regarding the future total production cost of each domestic utility company, which assumptions include the mix of solid fuel and gas-fired generation available to each company and the costs of natural gas and purchased power. Entergy Louisiana and Entergy Gulf States are more dependent upon gas-fired generation than Entergy Arkansas, Entergy Mississippi, or Entergy New Orleans. Of these, Entergy Arkansas is the least dependent upon gas-fired generation. Therefore, increases in natural gas prices likely will increase the amount by which Entergy Arkansas' total production costs are below the average production costs of the domestic utility companies. Considerable uncertainty exists regarding future gas prices. Annual average Henry Hub gas prices have varied significantly over recent years, ranging from $1.72/mmBtu to $5.85/mmBtu for the 1995-2004 period, and averaging $3.43/mmBtu during the ten-year period 1995-2004 and $4.58/mmBtu during the five-year period 2000-2004. Recent market conditions have resulted in gas prices that have averaged $5.85/mmBtu for the twelve months ended December 2004. Based upon analyses considering the effect on future production costs if the FERC adopts the ALJ's Initial Decision, the following potential annual production cost reallocations among the domestic utility companies could result assuming annual average gas prices range from $6.39/mmBtu in 2005 declining to $4.97/mmBtu by 2009:

	Range of Annual Payments or (Receipts)	Average Annual Payments or (Receipts) for 2005-2009 Period
	(In Millions)	(In Millions)
Entergy Arkansas	$154 to $281	$215
Entergy Gulf States	($130) to ($15)	($63)
Entergy Louisiana	($199) to ($98)	($141)
Entergy Mississippi	($16) to $8	$1
Entergy New Orleans	($17) to ($5)	($12)

Management believes that any changes in the allocation of production costs resulting from a FERC decision and related retail proceedings should result in similar rate changes for retail customers. Although the outcome and timing of the FERC, APSC, and other proceedings cannot be predicted at this time, Entergy Louisiana does not believe that the ultimate resolution of these proceedings will have a material effect on its financial condition or results of operation.

In February 2004, the APSC issued an "Order of Investigation," in which it discusses the negative effect that implementation of the FERC ALJ's Initial Decision would have on Entergy Arkansas' customers. The APSC order establishes an investigation into whether Entergy Arkansas' continued participation in the System Agreement is in the best interest of its customers, and whether there are steps that Entergy Arkansas or the APSC can take "to protect [Entergy Arkansas' customers] from future attempts by Louisiana, or any other Entergy retail regulator, to shift its high costs to Arkansas." Entergy Arkansas filed testimony in response to the APSC's Order of Investigation. The testimony emphasizes that the ALJ's Initial Decision is not a final order by the FERC; briefly discusses some of the aspects of the Initial Decision that are included in Entergy's exceptions filed with the FERC; emphasizes that Entergy will seek to reverse the production cost-related portions of the Initial Decision; and states that Entergy Arkansas believes that it is premature, before the FERC makes a decision, for Entergy Arkansas to determine whether its continued participation in the System Agreement is appropriate.

In April 2004, the APSC commenced the investigation into Entergy Louisiana's Vidalia purchased power contract and requested historical documents, records, and information from Entergy Arkansas, which Entergy Arkansas has provided to the APSC. Also in April 2004, the APSC issued an order directing Entergy Arkansas to show cause why Entergy Arkansas should not have to indemnify and hold its customers harmless from any adverse financial effects related to Entergy Louisiana's pending acquisition of the Perryville power plant, or show that the Perryville unit will produce economic benefits for Entergy Arkansas' customers. Entergy Arkansas filed a response in May 2004 stating that Entergy will seek to reverse the production cost-related portions of the ALJ's Initial Decision in the System Agreement proceeding at the FERC, that the Perryville acquisition is part of Entergy's request for proposal generation planning process, that Entergy Arkansas is not in a position to indemnify its retail customers from actions taken by the FERC, and that the Perryville acquisition is expected to reduce the domestic utility companies' overall production costs. Procedural schedules have not been established in these APSC investigations.

In April 2004, the City Council issued a resolution directing Entergy New Orleans and Entergy Louisiana to notify the City Council and obtain prior approval for any action that would materially modify, amend, or terminate the System Agreement for one or more of the domestic utility companies. Entergy New Orleans and Entergy Louisiana appealed to state court the City Council's resolution on the basis that the imposition of this requirement with respect to the System Agreement, a FERC-approved tariff, exceeds the City Council's jurisdiction and authority. In July 2004, the City Council answered the appeal and filed a third party demand and counterclaim against Entergy, the domestic utility companies, Entergy Services, and System Energy, seeking a declaratory judgment that Entergy and its subsidiaries cannot terminate the System Agreement until obligations owed under a March 2003 rate case settlement are satisfied. In August 2004, Entergy New Orleans and Entergy Louisiana, as well as the named third party defendants, filed pleadings objecting to the City Council's third party demand and counterclaim on various grounds, including federal preemption. In February 2005, the state court issued an oral decision dismissing the City Council's claims for lack of subject matter jurisdiction and prematurity.

The LPSC instituted a companion ex-parte System Agreement investigation to litigate several of the System Agreement issues that the LPSC is litigating before the FERC in the previously discussed System Agreement proceeding. This companion proceeding will require the LPSC to interpret various provisions of the System Agreement, including those relating to minimum-run and must-run units, the propriety of the methods used for billing and dispatch on the Entergy System, and the use of a rolling, twelve-month average of system peaks for allocating certain costs. In addition, by this companion proceeding the LPSC is questioning whether Entergy Louisiana and Entergy Gulf States were prudent for not seeking changes to the System Agreement previously, so as to lower costs imposed upon their ratepayers and to increase costs imposed upon ratepayers of other domestic utility companies. The LPSC staff has filed testimony suggesting that the remedy for the alleged imprudence of Entergy Louisiana and Entergy Gulf States should be a reduction in allowed rate of return on common equity of 100 basis points. The domestic utility companies have challenged the propriety of the LPSC's litigating System Agreement issues. Nevertheless, on January 16, 2002 the LPSC affirmed a decision of its ALJ upholding the LPSC staff's right to litigate System Agreement issues at the LPSC, rather than before the FERC. The procedural schedule is suspended at this time and an evidentiary hearing is not scheduled. An unrelated case between the LPSC and Entergy Louisiana raised the question of whether a state regulator is preempted by federal law from reviewing and interpreting FERC rate schedules that are part of the System Agreement, and from subsequently enforcing that interpretation. The LPSC interpreted a System Agreement rate schedule in the unrelated case, and then sought to enforce its interpretation. The Louisiana Supreme Court affirmed. In 2003, the U.S. Supreme Court ruled in Entergy Louisiana's favor and reversed the decisions of the LPSC and the Louisiana Supreme Court.

Transmission

In 2000, FERC issued an order encouraging utilities to voluntarily place their transmission facilities under the control of independent RTOs (regional transmission organizations) by December 15, 2001. Delays in implementing the FERC order have occurred due to a variety of reasons, including the fact that utility companies, other stakeholders, and federal and state regulators continue to work to resolve various issues related to the establishment of such RTOs.

In April 2004, Entergy filed a proposal with the FERC to commit voluntarily to retain an independent entity (Independent Coordinator of Transmission or ICT) to oversee the granting of transmission or interconnection service on Entergy's transmission system, to implement a transmission pricing structure that ensures that Entergy's retail native load customers are required to pay for only those upgrades necessary to reliably serve their needs, and to have the ICT serve as the security coordinator for the Entergy region. Assuming applicable regulatory support and approvals can be obtained, Entergy proposed to contract with the ICT to oversee the granting of transmission service on the Entergy system as well as the implementation of the proposed weekly procurement process (WPP). The proposal was structured to not transfer control of Entergy's transmission system to the ICT, but rather to vest with the ICT broad oversight authority over transmission planning and operations.

Entergy also proposed to have the ICT administer a transmission expansion pricing protocol that will increase the efficiency of transmission pricing on the Entergy system and that will be designed to protect Entergy's native load customers from bearing the cost of transmission upgrades not required to reliably serve these customers' needs. Entergy intends for the ICT to determine whether transmission upgrades associated with new requests for service should be funded directly by the party requesting such service or by a broader group of transmission customers, including Entergy's native load customers. This determination would be made in accordance with protocols approved by the FERC, and any party contesting such determination, including Entergy, would be required to seek review at the FERC. Several technical conferences regarding the ICT proposal, or various components thereof, were held in 2004. Entergy has also responded to discovery requests that resulted from these conferences.

In January 2005, Entergy filed a petition for declaratory order with the FERC requesting that the FERC provide guidance on two important issues: (1) whether the functions performed by the ICT will cause it to become a "public utility" under the Federal Power Act or the "transmission provider" under Entergy's open access transmission tariff; and (2) whether Entergy's transmission pricing proposal, as administered by the ICT, satisfies the FERC's transmission pricing policy. The petition also indicates that, subject to the outcome of the petition and obtaining support of Entergy's retail regulators, Entergy would be willing to have the ICT perform the following additional functions: (a) grant or deny requests for transmission service; (b) calculate available flowgate capacity; (c) administer

Entergy's OASIS; and (d) perform an enhanced planning function (integrating the plans of Entergy and other potential transmission owners to identify regional synergies.) Comments and interventions on the petition were filed by market participants and retail regulators on February 4, 2005. In their individual comments, the APSC, LPSC, and City Council supported Entergy's position that the ICT would not become a "public utility" or "transmission provider" and that the transmission pricing proposal satisfies the FERC's transmission pricing policy. Certain other parties urged the FERC to reject the petition for declaratory order or, in the alternative, that the FERC assert jurisdiction over the ICT and determine that Entergy's proposed pricing policy is inconsistent with FERC's current pricing policy. FERC action on the petition is expected during the first half of 2005.

In March 2004, the APSC initiated a proceeding to review Entergy's proposal and compare the benefits of such a proposal to the alternative of Entergy joining the Southwest Power Pool RTO. The APSC sought comments from all interested parties on this issue. Various parties, including the APSC General Staff, filed comments opposing the ICT proposal. A public hearing has not been scheduled by the APSC at this time, although Entergy Arkansas has responded to various APSC data requests. In May 2004, Entergy Mississippi filed a petition for review with the MPSC requesting MPSC support for the ICT proposal. A hearing in that proceeding was held in August 2004. Additionally, Entergy Louisiana and Entergy Gulf States have filed an application with the LPSC requesting that the LPSC find that the ICT proposal is a prudent and appropriate course of action. A hearing on the transmission pricing aspects of the ICT proposal is scheduled for May 2005, with a separate hearing on the WPP portion of the proposal currently scheduled for August 2005.

Interconnection Orders

The domestic utility companies (except Entergy New Orleans) are currently defendants to several complaints and rehearing requests before the FERC in which independent generation entities (GenCos) are seeking a refund of monies that the GenCos had previously paid to the Entergy companies for facilities necessary to connect their generation facilities to Entergy's transmission system. The FERC has issued initial orders in response to two of the complaints and in certain other dockets ordering Entergy to refund approximately $100 million in expenses and tax obligations previously paid by the GenCos, including $3 million for Entergy Louisiana. The refunds will be in the form of transmission credits that will be utilized over time as the GenCos take transmission service from Entergy.

In addition, Entergy Louisiana was recently directed, effective as of March 2001, to provide transmission credits, with interest, associated with a specific generator that asserted to the FERC that it retained in its contract for interconnection a right to execute the latest form of Entergy's standard interconnection agreement in lieu of its existing contract, which thereby would apply FERC's most recent interconnection cost allocation policies to that generator. Following an ALJ's Initial Decision and an order affirming such decision by FERC, approximately $15 million in expenses and tax obligations previously paid by the generator have been ordered refunded in the form of transmission credits, to be utilized over time and applied to Entergy transmission service bills incurred after March 2001. Entergy Louisiana has sought rehearing of the FERC's order.

To the extent the Entergy companies are ordered to provide such refunds, these costs will qualify for inclusion in the Entergy companies' rates. The recovery of these costs is not automatic, however, especially at the retail level, where the majority of the cost recovery would occur. Entergy intends to pursue all regulatory and legal avenues available to it in order to have these orders reversed and have the affected interconnection agreements reinstated as agreed to originally by the generators.

Available Flowgate Capacity Proceeding

On December 17, 2004, the FERC issued an order initiating a hearing and investigation concerning the justness and reasonableness of the Available Flowgate Capacity (AFC) methodology, the methodology used to evaluate short-term transmission service requests under the domestic utility companies' open access transmission tariff, and establishing a refund effective date. In its order, the FERC indicated that although it "appreciates that Entergy is attempting to explore ways to improve transmission access on its system," it believed that an investigation was warranted to gather more evidence in light of the concerns raised by certain transmission customers and certain issues raised in a FERC audit report finding errors and problems with the predecessor methodology used by Entergy for evaluating short-term transmission requests, the Generator Operating Limits methodology. The FERC order

indicates that the investigation will include an examination of (i) Entergy's implementation of the AFC program, (ii) whether Entergy's implementation has complied with prior FERC orders and open access transmission tariff provisions addressing the AFC program, and (iii) whether Entergy's provision of access to short-term transmission on its transmission system was just, reasonable, and not unduly discriminatory.

Entergy has submitted an Emergency Interim Request for Rehearing requesting the FERC to defer the hearing process and instead proceed initially with an independent audit of the AFC program and the expansion of the current process involving other market participants to address a broader range of issues. Entergy believes that this type of approach is a more efficient and effective mechanism for evaluating the AFC program. Following the completion of the independent audit and process involving other market participants, the FERC could determine whether other procedural steps are necessary. The FERC has not yet ruled on the Emergency Interim Request for Rehearing submitted by Entergy.

Entergy believes that it has complied with the provisions of its open access transmission tariff, including the provisions addressing the implementation of the AFC methodology; however, the ultimate scope of this proceeding cannot be predicted at this time. A hearing in the AFC proceeding is currently scheduled to commence in August 2005.

Industrial and Commercial Customers

Entergy Louisiana's large industrial and commercial customers continually explore ways to reduce their energy costs. In particular, cogeneration is an option available to a portion of Entergy Louisiana's industrial customer base. Entergy Louisiana responds by working with industrial and commercial customers and negotiating electric service contracts to provide competitive rates that match specific customer needs and load profiles. Despite these actions, Entergy Louisiana lost a large industrial customer to cogeneration in late 2002. The customer accounted for approximately 2% of its net revenue in 2001. Entergy Louisiana actively participates in economic development, customer retention, and reclamation activities to increase industrial and commercial energy demand, from both existing and new customers. Entergy Louisiana does not currently expect additional significant losses to cogeneration because of the current economics of the electricity markets and Entergy Louisiana's marketing efforts in retaining industrial customers.

Market and Credit Risks

Entergy Louisiana has certain market and credit risks inherent in its business operations. Market risks represent the risk of changes in the value of commodity and financial instruments, or in future operating results or cash flows, in response to changing market conditions. Credit risk is risk of loss from nonperformance by suppliers, customers, or financial counterparties to a contract or agreement.

Interest Rate and Equity Price Risk - Decommissioning Trust Funds

Entergy Louisiana's nuclear decommissioning trust funds expose it to fluctuations in equity prices and interest rates. The NRC requires Entergy Louisiana to maintain trusts to fund the costs of decommissioning Waterford 3. The funds are invested primarily in equity securities; fixed-rate, fixed-income securities; and cash and cash equivalents. Management believes that its exposure to market fluctuations will not affect results of operations for the Waterford 3 trust funds because of the application of regulatory accounting principles. The decommissioning trust funds are discussed more thoroughly in Notes 1, 8, and 12 to the domestic utility companies and System Energy financial statements.

Nuclear Matters

Entergy Louisiana owns and operates, through an affiliate, the Waterford 3 nuclear power plant. Entergy Louisiana is, therefore, subject to the risks related to owning and operating a nuclear plant. These include risks from the use, storage, handling and disposal of high-level and low-level radioactive materials, limitations on the amounts and types of insurance commercially available for losses in connection with nuclear operations, and technological and financial uncertainties related to decommissioning nuclear plants at the end of their license

lives, including the sufficiency of funds in decommissioning trusts. In the event of an unanticipated early shutdown of Waterford 3, Entergy Louisiana may be required to provide additional funds or credit support to satisfy regulatory requirements for decommissioning.

In August 2001, the NRC issued a bulletin requesting all pressurized water reactor owners and operators to report on the structural integrity of their reactor vessel head penetration nozzles to justify continued operations past December 31, 2001. These types of reactors are susceptible to stress corrosion cracking of the reactor vessel head nozzles. Waterford is a pressurized water reactor. To date, there has been no primary side stress corrosion cracking identified in the Waterford reactor vessel head. Inspections of the Waterford reactor vessel head will continue during planned refueling outages.

Environmental Risks

Entergy Louisiana's facilities and operations are subject to regulation by various governmental authorities having jurisdiction over air quality, water quality, control of toxic substances and hazardous and solid wastes, and other environmental matters. Management believes that Entergy Louisiana is in substantial compliance with environmental regulations currently applicable to its facilities and operations. Because environmental regulations are subject to change, future compliance costs cannot be precisely estimated.

Litigation Risks

The state of Louisiana has proven to be an unusually litigious environment. Judges and juries in Louisiana have demonstrated a willingness to grant large verdicts, including punitive damages, to plaintiffs in personal injury, property damage, and business tort cases. Entergy Louisiana uses legal and appropriate means to contest litigation threatened or filed against it, but the litigation environment poses a business risk.

Critical Accounting Estimates

The preparation of Entergy Louisiana's financial statements in conformity with generally accepted accounting principles requires management to apply appropriate accounting policies and to make estimates and judgments that can have a significant effect on reported financial position, results of operations, and cash flows. Management has identified the following accounting policies and estimates as critical because they are based on assumptions and measurements that involve a high degree of uncertainty, and the potential for future changes in the assumptions and measurements could produce estimates that would have a material effect on the presentation of Entergy Louisiana's financial position or results of operations.

Nuclear Decommissioning Costs

Regulations require Entergy Louisiana to decommission the Waterford 3 nuclear power plant after the facility is taken out of service, and money is collected and deposited in trust funds during the facility's operating life in order to provide for this obligation. Entergy Louisiana conducts periodic decommissioning cost studies (typically updated every three to five years) to estimate the costs that will be incurred to decommission the facility. The following key assumptions have a significant effect on these estimates:

- Cost Escalation Factors - Entergy Louisiana's decommissioning studies include an assumption that decommissioning costs will escalate over present cost levels by an annual factor averaging approximately 4.4%. A 50 basis point change in this assumption could change the ultimate cost of decommissioning a facility by as much as 11%.
- Timing - The date of the plant's retirement must be estimated and an assumption must be made whether decommissioning will begin immediately upon plant retirement, or whether the plant will be held in "safestore" status for later decommissioning, as permitted by applicable regulations. While the effect of these assumptions cannot be determined with precision, assuming either license extension or use of a "safestore" status can possibly decrease the present value of these obligations.
- Spent Fuel Disposal - Federal regulations require the DOE to provide a permanent repository for the storage of spent nuclear fuel, and legislation has been passed by Congress to develop this repository at

Yucca Mountain, Nevada. Until this site is available, however, nuclear plant operators must provide for interim spent fuel storage on the nuclear plant site, which can require the construction and maintenance of dry cask storage sites or other facilities. The costs of developing and maintaining these facilities can have a significant effect (as much as 16% of estimated decommissioning costs). Entergy Louisiana's decommissioning studies include cost estimates for spent fuel storage. However, these estimates could change in the future based on the timing of the opening of the Yucca Mountain facility, the schedule for shipments to that facility when it is opened, or other factors.

- Technology and Regulation - To date, there is limited practical experience in the United States with actual decommissioning of large nuclear facilities. As experience is gained and technology changes, cost estimates could also change. If regulations regarding nuclear decommissioning were to change, this could have a potentially significant effect on cost estimates. The effect of these potential changes is not presently determinable. Entergy Louisiana's decommissioning cost studies assume current technologies and regulations.

Entergy Louisiana collects substantially all of the projected costs of decommissioning Waterford 3 through rates charged to customers. The amounts collected through rates, which are based upon decommissioning cost studies, are deposited in decommissioning trust funds. These collections plus earnings on the trust fund investments are estimated to be sufficient to fund the future decommissioning costs. If decommissioning cost study estimates are changed and approved by regulators, collections from customers would also change.

SFAS 143

Entergy Louisiana implemented SFAS 143, "Accounting for Asset Retirement Obligations," effective January 1, 2003. Nuclear decommissioning costs comprise substantially all of Entergy Louisiana's asset retirement obligations, and the measurement and recording of Entergy Louisiana's decommissioning obligations changed significantly with the implementation of SFAS 143. The most significant differences in the measurement of these obligations are outlined below:

- Recording of full obligation - SFAS 143 requires that the fair value of an asset retirement obligation be recorded when it is incurred. This caused the recorded decommissioning obligation of Entergy Louisiana to increase significantly, as Entergy Louisiana had previously only recorded this obligation as the related costs were collected from customers, and as earnings were recorded on the related trust funds.
- Fair value approach - SFAS 143 requires that these obligations be measured using a fair value approach. Among other things, this entails the assumption that the costs will be incurred by a third party and will therefore include appropriate profit margins and risk premiums. Entergy Louisiana's decommissioning studies had been based on Entergy Louisiana performing the work, and did not include any such margins or premiums.
- Discount rate - SFAS 143 requires that these obligations be discounted using a credit-adjusted risk-free rate.

The net effect of implementing SFAS 143 for Entergy Louisiana was recorded as a regulatory asset, with no resulting impact on Entergy Louisiana's net income. Entergy Louisiana recorded this regulatory asset because its existing rate mechanism is based on the original or historical cost standard that allows Entergy Louisiana to recover all ultimate costs of decommissioning existing assets from current and future customers. Upon implementation of SFAS 143 in 2003, assets and liabilities increased by $305 million as a result of recording the asset retirement obligation at its fair value of $305 million as determined under SFAS 143, increasing total utility plant by $99 million, reducing accumulated depreciation by $82 million, and recording the related regulatory asset of $124 million.

Unbilled Revenue

As discussed in Note 1 to the domestic utility companies and System Energy financial statements, Entergy Louisiana records an estimate of the revenues earned for energy delivered since the latest customer billing. Each month the estimated unbilled revenue amounts are recorded as revenue and a receivable, and the prior month's estimate is reversed. The difference between the estimate of the unbilled receivable at the beginning of the period and the end of the period is the amount of unbilled revenue recognized during the period. The estimate recorded

primarily based upon an estimate of customer usage during the unbilled period and the billed price to customers in that month, including fuel price. Therefore, revenue recognized may be affected by the estimated price and usage at the beginning and end of each period and fuel price fluctuations, in addition to changes in certain components of the calculation including changes to estimates such as line loss, which affects the estimate of unbilled customer usage, and assumptions regarding price such as the fuel cost recovery mechanism.

Pension and Other Postretirement Benefits

Entergy sponsors defined benefit pension plans which cover substantially all employees. Additionally, Entergy currently provides postretirement health care and life insurance benefits for substantially all employees who reach retirement age while still working for Entergy. Entergy's reported costs of providing these benefits, as described in Note 10 to the domestic utility companies and System Energy financial statements, are impacted by numerous factors including the provisions of the plans, changing employee demographics, and various actuarial calculations, assumptions, and accounting mechanisms. Because of the complexity of these calculations, the long-term nature of these obligations, and the importance of the assumptions utilized, Entergy's estimate of these costs is a critical accounting estimate.

Assumptions

Key actuarial assumptions utilized in determining these costs include:

- Discount rates used in determining the future benefit obligations;
- Projected health care cost trend rates;
- Expected long-term rate of return on plan assets; and
- Rate of increase in future compensation levels.

Entergy reviews these assumptions on an annual basis and adjusts them as necessary. The falling interest rate environment and worse-than-expected performance of the financial equity markets over the past several years have impacted Entergy's funding and reported costs for these benefits. In addition, these trends have caused Entergy to make a number of adjustments to its assumptions.

In selecting an assumed discount rate to calculate benefit obligations, Entergy reviews market yields on high-quality corporate debt and matches these rates with Entergy's projected stream of benefit payments. Based on recent market trends, Entergy reduced its discount rate used to calculate benefit obligations from 6.75% in 2002 to 6.25% in 2003 and to 6% in 2004. Entergy reviews actual recent cost trends and projected future trends in establishing health care cost trend rates. Based on this review, Entergy increased its health care cost trend rate assumption used in calculating the December 31, 2004 accumulated postretirement benefit obligation to a 10% increase in health care costs in 2005 gradually decreasing each successive year, until it reaches a 4.5% annual increase in health care costs in 2011 and beyond.

In determining its expected long-term rate of return on plan assets, Entergy reviews past long-term performance, asset allocations, and long-term inflation assumptions. Entergy targets an asset allocation for its pension plan assets of roughly 65% equity securities, 31% fixed income securities, and 4% other investments. The target allocation for Entergy's other postretirement benefit assets is 51% equity securities and 49% fixed income securities. Based on recent market trends, Entergy reduced its expected long-term rate of return on plan assets used to calculate benefit obligations from 8.75% for 2002 and 2003 to 8.5% in 2004. The assumed rate of increase in future compensation levels used to calculate benefit obligations was 3.25% in 2002, 2003, and 2004.

Cost Sensitivity

The following chart reflects the sensitivity of pension cost to changes in certain actuarial assumptions (dollars in thousands):

Actuarial Assumption	Change in Assumption	Impact on 2004 Pension Cost	Impact on Projected Benefit Obligation
		Increase/(Decrease)	
Discount rate	(0.25%)	$1,061	$12,385
Rate of return on plan assets	(0.25%)	$786	-
Rate of increase in compensation	0.25%	$523	$3,018

The following chart reflects the sensitivity of postretirement benefit cost to changes in certain actuarial assumptions (dollars in thousands):

Actuarial Assumption	Change in Assumption	Impact on 2004 Postretirement Benefit Cost	Impact on Accumulated Postretirement Benefit Obligation
		Increase/(Decrease)	
Health care cost trend	0.25%	$416	$2,407
Discount rate	(0.25%)	$234	$3,033

Each fluctuation above assumes that the other components of the calculation are held constant.

Accounting Mechanisms

In accordance with SFAS No. 87, "Employers' Accounting for Pensions," Entergy utilizes a number c accounting mechanisms that reduce the volatility of reported pension costs. Differences between actuaria assumptions and actual plan results are deferred and are amortized into cost only when the accumulated differences exceed 10% of the greater of the projected benefit obligation or the market-related value of plan assets. If necessary, the excess is amortized over the average remaining service period of active employees.

Additionally, Entergy accounts for the impact of asset performance on pension expense over a twenty-quarter phase-in period through a "market-related" value of assets calculation. Since the market-related value of assets recognizes investment gains or losses over a twenty-quarter period, the future value of assets will be impacted as previously deferred gains or losses are recognized. As a result, the losses that the pension plan assets experienced in 2002 may have an adverse impact on pension cost in future years depending on whether the actuarial losses at each measurement date exceed the 10% corridor in accordance with SFAS 87.

Costs and Funding

Total pension cost for Entergy Louisiana in 2004 was $3.3 million. Entergy Louisiana anticipates 2005 pension cost to increase to $6.8 million due to decrease in the discount rate (from 6.25% to 6.00%) and the expected rate of return (from 8.75% to 8.5%) used to calculate benefit obligations. Entergy Louisiana contributed $3.9 million to its pension plan in 2004 and anticipates making $2.6 million in contributions in 2005. The decrease in pension funding requirements is due to the Pension Funding Equity Act relief passed in April 2004, partially offset by declining interest rates and the phased-in effect of asset underperformance from 2000 to 2002.

Entergy Louisiana's accumulated benefit obligation at December 31, 2004, and 2002 exceeded plan assets. As a result, Entergy Louisiana was required to recognize an additional minimum liability as prescribed by SFAS 87 in those years. At December 31, 2003, Entergy Louisiana's accumulated benefit obligation was less than plar assets, therefore there was no additional minimum pension liability required to be recognized. At December 31, 2004, Entergy Louisiana recorded an additional pension minimum liability of $38.9 million; an offsetting intangib

asset of $4.8 million, and a regulatory asset of $34.1 million. Net income for 2004, 2003, and 2002 was not impacted by the additional minimum pension liability.

Total postretirement health care and life insurance benefit costs for Entergy Louisiana in 2004 were $12.3 million, including $2.8 million in savings due to the estimated effect of future Medicare Part D subsidies. Entergy Louisiana expects 2005 postretirement health care and life insurance benefit costs to approximate $12.7 million, including $3.2 million in savings due to the estimated effect of future Medicare Part D subsidies. The increase in postretirement health care and life insurance benefit costs is due to the decrease in the discount rate (from 6.25% to 6.00%) and an increase in the health care cost trend rate used to calculate benefit obligations.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders
Entergy Louisiana, Inc.:

We have audited the accompanying balance sheets of Entergy Louisiana, Inc. as of December 31, 2004 and 2003, and the related statements of income, retained earnings, and cash flows (pages 219 through 224 and applicable items in pages 284 through 348) for each of the three years in the period ended December 31, 2004. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the financial position of Entergy Louisiana, Inc. as of December 31, 2004 and 2003, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2004 in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 5 and Note 8 to the notes to respective financial statements, in 2003 Entergy Louisiana, Inc. adopted the provisions of Statement of Financial Accounting Standards Board Interpretation No. 46, *Consolidation of Variable Interest Entities,* and Statement of Financial Accounting Standards No. 143, *Accounting for Asset Retirement Obligations.*

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Company's internal control over financial reporting as of December 31, 2004, based on the criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 8, 2005 expressed an unqualified opinion on management's assessment of the effectiveness of the Company's internal control over financial reporting and an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

DELOITTE & TOUCHE LLP

New Orleans, Louisiana
March 8, 2005

ENTERGY LOUISIANA, INC.
INCOME STATEMENTS

	For the Years Ended December 31,		
	2004	2003	2002
		(In Thousands)	
OPERATING REVENUES			
Domestic electric	$2,226,986	$2,165,570	$1,815,352
OPERATING EXPENSES			
Operation and Maintenance:			
Fuel, fuel-related expenses, and gas purchased for resale	671,549	525,645	436,568
Purchased power	667,893	668,337	438,627
Nuclear refueling outage expenses	13,633	11,130	11,502
Other operation and maintenance	367,824	376,770	340,803
Decommissioning	21,958	20,569	10,422
Taxes other than income taxes	68,999	70,084	60,698
Depreciation and amortization	197,380	192,972	182,871
Other regulatory charges (credits) - net	(43,765)	(2,160)	17,219
TOTAL	1,965,471	1,863,347	1,498,710
OPERATING INCOME	261,515	302,223	316,642
OTHER INCOME			
Allowance for equity funds used during construction	7,494	6,900	5,195
Interest and dividend income	8,209	8,820	7,668
Miscellaneous - net	(929)	(3,100)	(3,244)
TOTAL	14,774	12,620	9,619
INTEREST AND OTHER CHARGES			
Interest on long-term debt	70,210	73,227	98,242
Other interest - net	3,931	3,529	2,425
Allowance for borrowed funds used during construction	(4,822)	(5,475)	(3,880)
TOTAL	69,319	71,281	96,787
INCOME BEFORE INCOME TAXES	206,970	243,562	229,474
Income taxes	79,475	97,408	84,765
NET INCOME	127,495	146,154	144,709
Preferred dividend requirements and other	6,714	6,714	6,714
EARNINGS APPLICABLE TO COMMON STOCK	$120,781	$139,440	$137,995

See Notes to Respective Financial Statements.

ENTERGY LOUISIANA, INC.
STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,		
	2004	2003	2002
		(In Thousands)	
OPERATING ACTIVITIES			
Net income	$127,495	$146,154	$144,709
Adjustments to reconcile net income to net cash flow provided by operating activities:			
Reserve for regulatory adjustments	14,076	1,858	-
Other regulatory charges (credits) - net	(43,765)	(2,160)	17,219
Depreciation, amortization, and decommissioning	219,338	213,541	193,293
Deferred income taxes and investment tax credits	75,078	859,157	39,849
Changes in working capital:			
Receivables	(36,185)	(4,418)	(68,936)
Accounts payable	(36,862)	49,028	7,370
Taxes accrued	89,079	(804,805)	779,590
Interest accrued	(1,791)	(10,324)	(3,971)
Deferred fuel costs	21,955	(56,211)	(41,891)
Other working capital accounts	20,693	10,395	(118,718)
Provision for estimated losses and reserves	6,119	12,194	5,818
Changes in other regulatory assets	(14,456)	59,169	(23,879)
Other	(16,056)	(59,639)	105,324
Net cash flow provided by operating activities	424,718	413,939	1,035,777
INVESTING ACTIVITIES			
Construction expenditures	(240,283)	(257,754)	(209,826)
Allowance for equity funds used during construction	7,494	6,900	5,195
Nuclear fuel purchases	-	(41,525)	(50,473)
Proceeds from the sale/leaseback of nuclear fuel	-	41,525	50,473
Decommissioning trust contributions and realized change in trust assets	(12,615)	(17,506)	(13,854)
Changes in other investments - net	2,173	(12)	6,152
Net cash flow used in investing activities	(243,231)	(268,372)	(212,333)
FINANCING ACTIVITIES			
Proceeds from the issuance of long-term debt	282,745	-	144,679
Retirement of long-term debt	(203,756)	(296,366)	(300,617)
Repurchase of common stock	-	-	(120,000)
Dividends paid:			
Common stock	(116,500)	(145,500)	(271,400)
Preferred stock	(6,714)	(6,714)	(6,714)
Net cash flow used in financing activities	(44,225)	(448,580)	(554,052)
Net increase (decrease) in cash and cash equivalents	137,262	(303,013)	269,392
Cash and cash equivalents at beginning of period	8,787	311,800	42,408
Cash and cash equivalents at end of period	$146,049	$8,787	$311,800
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid/(received) during the period for:			
Interest - net of amount capitalized	$73,170	$84,089	$99,998
Income taxes	($70,650)	$35,128	($781,540)

See Notes to Respective Financial Statements.

ENTERGY LOUISIANA, INC.
BALANCE SHEETS
ASSETS

	December 31, 2004	December 31, 2003
	(In Thousands)	
CURRENT ASSETS		
Cash and cash equivalents:		
Cash	$3,875	$8,787
Temporary cash investments - at cost, which approximates market	142,174	-
Total cash and cash equivalents	146,049	8,787
Accounts receivable:		
Customer	88,154	93,393
Allowance for doubtful accounts	(3,135)	(4,487)
Associated companies	43,121	9,074
Other	13,070	12,334
Accrued unbilled revenues	143,453	138,164
Total accounts receivable	284,663	248,478
Deferred fuel costs	8,654	30,609
Accumulated deferred income taxes	12,712	-
Materials and supplies - at average cost	77,665	74,349
Deferred nuclear refueling outage costs	5,605	19,226
Prepayments and other	6,861	67,623
TOTAL	542,209	449,072
OTHER PROPERTY AND INVESTMENTS		
Investment in affiliates - at equity	14,230	14,230
Decommissioning trust funds	172,083	151,996
Non-utility property - at cost (less accumulated depreciation)	21,176	21,307
Other	4	2,177
TOTAL	207,493	189,710
UTILITY PLANT		
Electric	5,985,889	5,836,914
Property under capital lease	250,964	250,102
Construction work in progress	188,848	172,405
Nuclear fuel under capital lease	31,655	65,066
TOTAL UTILITY PLANT	6,457,356	6,324,487
Less - accumulated depreciation and amortization	2,799,936	2,686,778
UTILITY PLANT - NET	3,657,420	3,637,709
DEFERRED DEBITS AND OTHER ASSETS		
Regulatory assets:		
SFAS 109 regulatory asset - net	132,686	156,111
Other regulatory assets	302,456	217,689
Long-term receivables	10,736	1,511
Other	25,994	22,737
TOTAL	471,872	398,048
TOTAL ASSETS	$4,878,994	$4,674,539

See Notes to Respective Financial Statements.

ENTERGY LOUISIANA, INC.
BALANCE SHEETS
LIABILITIES AND SHAREHOLDERS' EQUITY

	December 31,	
	2004	2003
	(In Thousands)	
CURRENT LIABILITIES		
Currently maturing long-term debt	$55,000	$14,809
Accounts payable:		
Associated companies	57,681	101,191
Other	128,523	121,875
Customer deposits	66,963	61,215
Accumulated deferred income taxes	-	566
Taxes accrued	7,268	-
Interest accrued	18,438	20,229
Obligations under capital leases	22,753	35,506
Other	10,428	5,110
TOTAL	367,054	360,501
NON-CURRENT LIABILITIES		
Accumulated deferred income taxes and taxes accrued	1,805,410	1,728,156
Accumulated deferred investment tax credits	96,130	101,258
Obligations under capital leases	8,903	29,560
Other regulatory liabilities	51,260	39,026
Decommissioning liabilities	347,255	325,298
Accumulated provisions	92,653	86,534
Long-term debt	930,695	887,687
Other	106,815	47,981
TOTAL	3,439,121	3,245,500
SHAREHOLDERS' EQUITY		
Preferred stock without sinking fund	100,500	100,500
Common stock, no par value, authorized 250,000,000 shares; issued 165,173,180 shares in 2004 and 2003	1,088,900	1,088,900
Capital stock expense and other	(1,718)	(1,718)
Retained earnings	5,137	856
Less - treasury stock, at cost (18,202,573 shares in 2004 and 2003)	120,000	120,000
TOTAL	1,072,819	1,068,538
Commitments and Contingencies		
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$4,878,994	$4,674,539

See Notes to Respective Financial Statements.

ENTERGY LOUISIANA, INC.
STATEMENTS OF RETAINED EARNINGS

	For the Years Ended December 31,		
	2004	2003	2002
	(In Thousands)		
Retained Earnings, January 1	$856	$6,916	$140,321
Add:			
Net income	127,495	146,154	144,709
Deduct:			
Dividends declared:			
Preferred stock	6,714	6,714	6,714
Common stock	116,500	145,500	271,400
Total	123,214	152,214	278,114
Retained Earnings, December 31	$5,137	$856	$6,916

See Notes to Respective Financial Statements.

ENTERGY LOUISIANA, INC.
SELECTED FINANCIAL DATA - FIVE-YEAR COMPARISON

	2004	2003	2002	2001	2000
			(In Thousands)		
Operating revenues	$2,226,986	$2,165,570	$1,815,352	$1,901,913	$2,062,437
Net Income	$127,495	$146,154	$144,709	$132,550	$162,679
Total assets	$4,878,994	$4,674,539	$4,753,704	$4,149,701	$4,289,409
Long-term obligations (1)	$939,598	$917,247	$919,319	$1,197,473	$1,411,345

(1) Included long-term debt (excluding currently maturing debt), preferred stock with sinking fund (for the year 2000 only), and noncurrent capital lease obligations.

	2004	2003	2002	2001	2000
			(Dollars In Millions)		
Electric Operating Revenues:					
Residential	$770	$739	$638	$658	$717
Commercial	501	473	403	429	441
Industrial	779	723	637	760	767
Governmental	38	41	36	39	39
Total retail	2,088	1,976	1,714	1,886	1,964
Sales for resale:					
Associated companies	96	102	8	25	21
Non-associated companies	13	12	11	23	40
Other	30	76	82	(32)	38
Total	$2,227	$2,166	$1,815	$1,902	$2,063
Billed Electric Energy Sales (GWh):					
Residential	8,842	8,795	8,780	8,255	8,648
Commercial	5,762	5,622	5,538	5,369	5,367
Industrial	13,140	12,870	14,738	14,402	15,184
Governmental	439	491	510	498	481
Total retail	28,183	27,778	29,566	28,524	29,680
Sales for resale:					
Associated companies	1,129	1,344	146	381	228
Non-associated companies	122	132	139	334	554
Total	29,434	29,254	29,851	29,239	30,462

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

The accompanying separate financial statements of Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans (the "domestic utility companies") and System Energy are included in this document and result from these companies having registered securities with the SEC. These companies maintain accounts in accordance with FERC and other regulatory guidelines. Certain previously reported amounts have been reclassified to conform to current classifications, with no effect on net income or shareholders' equity.

Use of Estimates in the Preparation of Financial Statements

The preparation of the domestic utility companies' and System Energy's financial statements, in conformity with generally accepted accounting principles, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses. Adjustments to the reported amounts of assets and liabilities may be necessary in the future to the extent that future estimates or actual results are different from the estimates used.

Revenues and Fuel Costs

Entergy Arkansas, Entergy Louisiana, and Entergy Mississippi generate, transmit, and distribute electric power primarily to retail customers in Arkansas, Louisiana, and Mississippi, respectively. Entergy Gulf States generates, transmits, and distributes electric power primarily to retail customers in Texas and Louisiana. Entergy Gulf States also distributes gas to retail customers in and around Baton Rouge, Louisiana. Entergy New Orleans sells both electric power and gas to retail customers in the City of New Orleans, except for Algiers, where Entergy Louisiana is the electric power supplier.

Entergy recognizes revenue from electric power and gas sales when it delivers power or gas to its customers. To the extent that deliveries have occurred but a bill has not been issued, the domestic utility companies accrue an estimate of the revenues for energy delivered since the latest billings. Entergy calculates the estimate based upon several factors including billings through the last billing cycle in a month, actual generation in the month, historical line loss factors, and prices in effect in the domestic utility companies' various jurisdictions. Each month the estimated unbilled revenue amounts are recorded as revenue and a receivable, and the prior month's estimate is reversed. Therefore, changes in price and volume differences resulting from factors such as weather affect the calculation of unbilled revenues from one period to the next, and may result in variability in reported revenues from one period to the next as prior estimates are so recorded and reversed.

The domestic utility companies' rate schedules include either fuel adjustment clauses or fixed fuel factors, which allow either current recovery in billings to customers or deferral of fuel costs until the costs are billed to customers. Because the fuel adjustment clause mechanism allows monthly adjustments to recover fuel costs, Entergy Louisiana, Entergy New Orleans, and the Louisiana portion of Entergy Gulf States include a component of fuel cost recovery in their unbilled revenue calculations. Where the fuel component of revenues is billed based on a pre-determined fuel cost (fixed fuel factor), the fuel factor remains in effect until changed as part of a general rate case, fuel reconciliation, or fixed fuel factor filing. Entergy Mississippi's fuel factor includes an energy cost rider that is adjusted quarterly. As discussed in Note 2 to the domestic utility companies and System Energy financial statements, the MPSC approved Entergy Mississippi's deferral of the refund of fuel over-recoveries for the third quarter of 2004 that would have been refunded in the first quarter of 2005. The deferred amount plus carrying charges will be refunded in the second and third quarters of 2005. In the case of Entergy Arkansas and the Texas portion of Entergy Gulf States, their fuel under-recoveries are treated as regulatory investments in the cash flow

statements because those companies are allowed by their regulatory jurisdictions to recover the fuel cost regulatory asset over longer than a twelve-month period, and the companies earn a carrying charge on the under-recovered balances.

System Energy's operating revenues are intended to recover from Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans operating expenses and capital costs attributable to Grand Gulf. The capital costs are computed by allowing a return on System Energy's common equity funds allocable to its net investment in Grand Gulf, plus System Energy's effective interest cost for its debt allocable to its investment in Grand Gulf.

Property, Plant, and Equipment

Property, plant, and equipment is stated at original cost. The original cost of plant retired or removed, less salvage, is charged to accumulated depreciation. Normal maintenance, repairs, and minor replacement costs are charged to operating expenses. Substantially all of the domestic utility companies' and System Energy's plant is subject to mortgage liens.

Electric plant includes the portions of Grand Gulf and Waterford 3 that have been sold and leased back. For financial reporting purposes, these sale and leaseback arrangements are reflected as financing transactions.

Net property, plant, and equipment by company and functional category, as of December 31, 2004 and 2003, is shown below:

2004	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Millions)			
Production						
Nuclear	$951	$1,627	$1,543	$-	$-	$1,866
Other	269	529	197	221	12	-
Transmission	646	708	385	406	29	8
Distribution	1,283	1,339	1,000	713	337	-
Other	216	247	269	175	70	16
Construction work in progress	226	332	189	90	33	29
Nuclear fuel (leased and owned)	106	71	32	-	-	66
Asset retirement obligation	24	-	42	-	-	31
Property, plant, and equipment - net	$3,721	$4,853	$3,657	$1,605	$481	$2,016

2003	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Millions)			
Production						
Nuclear	$940	$1,638	$1,593	$-	$-	$1,941
Other	326	583	205	228	17	-
Transmission	636	647	369	380	26	9
Distribution	1,184	1,197	923	632	294	-
Other	214	238	266	166	75	17
Construction work in progress	239	326	172	109	45	31
Nuclear fuel (leased and owned)	110	64	65	-	-	47
Asset retirement obligation	45	32	45	-	-	33
Property, plant, and equipment - net	$3,694	$4,725	$3,638	$1,515	$457	$2,078

Depreciation is computed on the straight-line basis at rates based on the estimated service lives of the various classes of property. Depreciation rates on average depreciable property are shown below:

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
2004	3.2%	2.1%	2.9%	2.5%	2.8%	2.9%
2003	3.2%	2.2%	3.0%	2.5%	3.1%	2.8%
2002	3.2%	2.4%	3.0%	2.5%	3.1%	2.8%

Non-utility property - at cost (less accumulated depreciation) for Entergy Gulf States is reported net of accumulated depreciation of $125.1 million and $122.7 million as of December 31, 2004 and 2003, respectively.

Jointly-Owned Generating Stations

Certain Entergy subsidiaries jointly own electric generating facilities with third parties. The investments and expenses associated with these generating stations are recorded by the Entergy subsidiaries to the extent of their respective undivided ownership interests. As of December 31, 2004, the subsidiaries' investment and accumulated depreciation in each of these generating stations were as follows:

Generating Stations		Fuel-Type	Total Megawatt Capability (1)	Ownership	Investment	Accumulated Depreciation
					(In Millions)	
Entergy Arkansas -						
Independence	Unit 1	Coal	815	31.50%	$117	$73
	Common Facilities	Coal		15.75%	$31	$18
White Bluff	Units 1 and 2	Coal	1,635	57.00%	$428	$264
Entergy Gulf States -						
Roy S. Nelson	Unit 6	Coal	550	60.90%	$403	$241
Big Cajun 2	Unit 3	Coal	575	42.00%	$233	$128
Entergy Mississippi -						
Independence	Units 1 and 2 and Common Facilities	Coal	1,630	25.00%	$232	$116
System Energy -						
Grand Gulf	Unit 1	Nuclear	1,270	90.00%(2)	$3,702	$1,780

(1) "Total Megawatt Capability" is the dependable load carrying capability as demonstrated under actual operating conditions based on the primary fuel (assuming no curtailments) that each station was designed to utilize.

(2) Includes an 11.5% leasehold interest held by System Energy. System Energy's Grand Gulf lease obligations are discussed in Note 9 to the domestic utility companies and System Energy financial statements.

Nuclear Refueling Outage Costs

The domestic utility companies and System Energy record nuclear refueling outage costs in accordance with regulatory treatment and the matching principle. These refueling outage expenses are incurred to prepare the units to operate for the next operating cycle without having to be taken off line. Except for the River Bend plant, the costs are deferred during the outage and amortized over the period to the next outage. In accordance with the regulatory treatment of the River Bend plant, the costs are accrued in advance and included in the cost of service used to establish retail rates. Entergy Gulf States relieves the accrued liability when it incurs costs during the next River Bend outage.

Allowance for Funds Used During Construction (AFUDC)

AFUDC represents the approximate net composite interest cost of borrowed funds and a reasonable return on the equity funds used for construction. Although AFUDC increases both the plant balance and earnings, it is realized in cash through depreciation provisions included in rates.

Income Taxes

Entergy Corporation and the majority of its subsidiaries file a U.S. consolidated federal income tax return. Income taxes are allocated to the subsidiaries in proportion to their contribution to consolidated taxable income. SEC regulations require that no Entergy subsidiary pay more taxes than it would have paid if a separate income tax return had been filed. In accordance with SFAS 109, "Accounting for Income Taxes," deferred income taxes are recorded for all temporary differences between the book and tax basis of assets and liabilities, and for certain credits available for carryforward.

Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates in the period in which the law or rate was enacted.

Investment tax credits are deferred and amortized based upon the average useful life of the related property, in accordance with ratemaking treatment.

Application of SFAS 71

The domestic utility companies and System Energy currently account for the effects of regulation pursuant to SFAS 71, "Accounting for the Effects of Certain Types of Regulation." This statement applies to the financial statements of a rate-regulated enterprise that meet three criteria. The enterprise must have rates that (i) are approved by a body empowered to set rates that bind customers (its regulator); (ii) are cost-based; and (iii) can be charged to and collected from customers. These criteria may also be applied to separable portions of a utility's business, such as the generation or transmission functions, or to specific classes of customers. If an enterprise meets these criteria, it capitalizes costs that would otherwise be charged to expense if the rate actions of its regulator make it probable that those costs will be recovered in future revenue. Such capitalized costs are reflected as regulatory assets in the accompanying financial statements. A significant majority of Entergy's regulatory assets, net of related regulatory and deferred tax liabilities, earn a return on investment during their recovery periods. SFAS 71 requires that rate-regulated enterprises assess the probability of recovering their regulatory assets at each balance sheet date. When an enterprise concludes that recovery of a regulatory asset is no longer probable, the regulatory asset must be removed from the entity's balance sheet.

SFAS 101, "Accounting for the Discontinuation of Application of FASB Statement No. 71," specifies how an enterprise that ceases to meet the criteria for application of SFAS 71 for all or part of its operations should report that event in its financial statements. In general, SFAS 101 requires that the enterprise report the discontinuation of the application of SFAS 71 by eliminating from its balance sheet all regulatory assets and liabilities related to the applicable segment. Additionally, if it is determined that a regulated enterprise is no longer recovering all of its costs and therefore no longer qualifies for SFAS 71 accounting, it is possible that an impairment may exist that could require further write-offs of plant assets.

EITF 97-4: "Deregulation of the Pricing of Electricity - Issues Related to the Application of FASB Statements No. 71 and 101" specifies that SFAS 71 should be discontinued at a date no later than when the effects of a transition to competition plan for all or a portion of the entity subject to such plan are reasonably determinable. Additionally, EITF 97-4 promulgates that regulatory assets to be recovered through cash flows derived from another portion of the entity that continues to apply SFAS 71 should not be written off; rather, they should be considered regulatory assets of the segment that will continue to apply SFAS 71.

See Note 2 to the domestic utility companies and System Energy financial statements for discussion of transition to competition activity in the retail regulatory jurisdictions served by the domestic utility companies. Only Texas currently has an enacted retail open access law, but Entergy believes that significant issues remain to be addressed by regulators, and the enacted law does not provide sufficient detail to reasonably determine the impact on Entergy Gulf States' regulated operations.

Cash and Cash Equivalents

Entergy considers all unrestricted highly liquid debt instruments with an original or remaining maturity of three months or less at date of purchase to be cash equivalents. Investments with original maturities of more than three months are classified as other temporary investments on the balance sheet.

Investments

Entergy applies the provisions of SFAS 115, "Accounting for Investments for Certain Debt and Equity Securities," in accounting for investments in decommissioning trust funds. As a result, Entergy records the decommissioning trust funds at their fair value on the consolidated balance sheet. Because of the ability of the domestic utility companies and System Energy to recover decommissioning costs in rates and in accordance with the regulatory treatment for decommissioning trust funds, Entergy Arkansas, Entergy Gulf States (for the regulated portion of River Bend), Entergy Louisiana, and System Energy have recorded an offsetting amount of unrealized gains/(losses) on investment securities in other regulatory liabilities/assets. For the nonregulated portion of River Bend, Entergy Gulf States has recorded an offsetting amount of unrealized gains/(losses) in other deferred credits. See Note 12 to the domestic utility companies and System Energy financial statements for details on the decommissioning trust funds.

Derivatives and Hedging

SFAS 133, "Accounting for Derivative Instruments and Hedging Activities," requires that all derivatives be recognized in the balance sheet, either as assets or liabilities, at fair value, unless they meet the normal purchase-normal sales criteria. The changes in the fair value of recognized derivatives are recorded each period in current earnings or other comprehensive income, depending on whether a derivative is designated as part of a hedge transaction and the type of hedge transaction.

Contracts for commodities that will be delivered in quantities expected to be used or sold in the ordinary course of business, including certain purchases and sales of power and fuel, are not classified as derivatives. These contracts are exempted under the normal purchase, normal sales criteria of SFAS 133. Revenues and expenses from these contracts are reported on a gross basis in the appropriate revenue and expense categories as the commodities are received or delivered.

For other contracts for commodities in which Entergy is hedging the variability of cash flows related to a variable-rate asset, liability, or forecasted transactions that qualify as cash flow hedges, the changes in the fair value of such derivative instruments are reported in other comprehensive income. To qualify for hedge accounting, the relationship between the hedging instrument and the hedged item must be documented to include the risk management objective and strategy and, at inception and on an ongoing basis, the effectiveness of the hedge in offsetting the changes in the cash flows of the item being hedged. Gains or losses accumulated in other comprehensive income are reclassified as earnings in the periods in which earnings are affected by the variability of the cash flows of the hedged item. The ineffective portions of all hedges are recognized in current-period earnings.

Fair Values

The estimated fair values of the domestic utility companies' and System Energy's financial instruments and derivatives are determined using bid prices and market quotes. Considerable judgment is required in developing the estimates of fair value. Therefore, estimates are not necessarily indicative of the amounts that the domestic utility companies and System Energy could realize in a current market exchange. Gains or losses realized on

financial instruments held by regulated businesses may be reflected in future rates and therefore do not accrue to the benefit or detriment of stockholders.

The domestic utility companies and System Energy consider the carrying amounts of most of their financial instruments classified as current assets and liabilities to be a reasonable estimate of their fair value because of the short maturity of these instruments. Additional information regarding financial instruments and their fair values is included in Notes 5 and 6 to the domestic utility companies and System Energy financial statements.

Impairment of Long-Lived Assets

The domestic utility companies and System Energy periodically review their long-lived assets whenever events or changes in circumstances indicate that recoverability of these assets is uncertain. Generally, the determination of recoverability is based on the net cash flows expected to result from such operations and assets. Projected net cash flows depend on the future operating costs associated with the assets, the efficiency and availability of the assets and generating units, and the future market and price for energy over the remaining life of the assets.

River Bend AFUDC

The River Bend AFUDC gross-up is a regulatory asset that represents the incremental difference imputed by the LPSC between the AFUDC actually recorded by Gulf States Utilities on a net-of-tax basis during the construction of River Bend and what the AFUDC would have been on a pre-tax basis. The imputed amount was only calculated on that portion of River Bend that the LPSC allowed in rate base and is being amortized over the estimated remaining economic life of River Bend.

Transition to Competition Liabilities

In conjunction with electric utility industry restructuring activity in Texas, regulatory mechanisms were established to mitigate potential stranded costs. Texas restructuring legislation allowed depreciation on transmission and distribution assets to be directed toward generation assets. The liability recorded as a result of this mechanism is classified as "transition to competition" deferred credits on the balance sheet for Entergy Gulf States.

Reacquired Debt

The premiums and costs associated with reacquired debt of the domestic utility companies and System Energy (except that portion allocable to the deregulated operations of Entergy Gulf States) are being amortized over the life of the related new issuances, in accordance with ratemaking treatment.

Entergy Gulf States' Deregulated Operations

Entergy Gulf States does not apply regulatory accounting principles to its wholesale jurisdiction, Louisiana retail deregulated portion of River Bend, and the 30% interest in River Bend formerly owned by Cajun. The Louisiana retail deregulated portion of River Bend is operated under a deregulated asset plan representing a portion (approximately 16%) of River Bend plant costs, generation, revenues, and expenses established under a 1992 LPSC order. The plan allows Entergy Gulf States to sell the electricity from the deregulated assets to Louisiana retail customers at 4.6 cents per kWh or off-system at higher prices, with certain provisions for sharing such incremental revenue above 4.6 cents per kWh between ratepayers and shareholders.

The results of these deregulated operations before interest charges for the years ended December 31, 2004, 2003, and 2002 are as follows:

	2004	2003	2002
		(In Thousands)	
Operating revenues	$280,279	$273,150	$209,752
Operating expenses			
Fuel, operation, and maintenance	197,275	177,385	158,927
Depreciation and accretion	30,653	47,566	40,092
Total operating expense	227,928	224,951	199,019
Operating income	52,351	48,199	10,733
Income tax expense	20,414	17,722	4,503
Net income from deregulated utility operations	$31,937	$30,477	$6,230

The net investment associated with these deregulated operations as of December 31, 2004 and 2003 was approximately $830 and $838 million, respectively.

New Accounting Pronouncements

During 2004, Entergy adopted the provisions of FSP 106-2, "Accounting and Disclosure Requirements Related to Medicare Prescription Drug, Improvement and Modernization Act of 2003," which is discussed further in Note 10 to the domestic utility companies and System Energy financial statements.

SFAS 151, "Inventory Costs – an amendment of ARB No. 43, Chapter 4" and SFAS 153, "Exchanges of Nonmonetary Assets", were also issued during the fourth quarter of 2004 and are effective for Entergy in 2006 and 2005, respectively. Entergy does not expect the impact of the adoption of these standards to be material.

During 2003, Entergy adopted the provisions of the following accounting standards: SFAS 143, "Accounting for Asset Retirement Obligations," which is discussed further in Note 8 to the domestic utility companies and System Energy financial statements; FIN 46, Consolidation of Variable Interest Entities," which is discussed further in Note 5 to the domestic utility companies and System Energy financial statements; and SFAS 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." SFAS 150, which became effective July 1, 2003, requires mandatorily redeemable financial instruments to be classified and treated as liabilities in the presentation of financial position and results of operations. The only effect of implementing SFAS 150 for Entergy is the inclusion of long-term debt and preferred stock with sinking fund under the liabilities caption in Entergy's balance sheet. Entergy's results of operations and cash flows were not affected by this standard.

During 2003, Entergy also adopted the provisions of the following accounting standards: SFAS 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities" and related interpretations by the Derivatives Implementation Group, and FIN 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees Including Indirect Guarantees of Indebtedness of Others". The adoption of these standards did not have a material effect on Entergy's financial statements.

NOTE 2. RATE AND REGULATORY MATTERS

Electric Industry Restructuring and the Continued Application of SFAS 71

Although Arkansas and Texas enacted retail open access laws, the retail open access law in Arkansas has now been repealed. Retail open access in Entergy Gulf States' service territory in Texas has been delayed. Entergy believes that significant issues remain to be addressed by Texas regulators, and the enacted law does not provide sufficient detail to allow Entergy Gulf States to reasonably determine the impact on Entergy Gulf States' regulated operations. Entergy therefore continues to apply regulatory accounting principles to the retail operations of all of the domestic utility companies. Following is a summary of the status of retail open access in the domestic utility companies' retail service territories.

Arkansas

(Entergy Arkansas)

In April 1999, the Arkansas legislature enacted Act 1556, the Arkansas Electric Consumer Choice Act, providing for competition in the electric utility industry through retail open access. In December 2001, the APSC recommended to the Arkansas General Assembly that legislation be enacted during the 2003 legislative session to either repeal Act 1556 or further delay retail open access until at least 2010. In February 2003, the Arkansas legislature voted to repeal Act 1556 and the repeal was signed into law by the governor.

Texas

(Entergy Gulf States)

As ordered by the PUCT, in January 2003, Entergy Gulf States filed its proposal for an interim solution (retail open access without a FERC-approved RTO), which among other elements, included:

- the recommendation that retail open access in Entergy Gulf States' Texas service territory, including corporate unbundling, occur by January 1, 2004, or else be delayed until at least January 1, 2007. If retail open access is delayed past January 1, 2004, Entergy Gulf States requested authorization to separate into two bundled utilities, one subject to the retail jurisdiction of the PUCT and one subject to the retail jurisdiction of the LPSC.
- the recommendation that Entergy's transmission organization, possibly with the oversight of another entity, will continue to serve as the transmission authority for purposes of retail open access in Entergy Gulf States' service territory.
- the recommendation that the decision points be identified that would require prior to January 1, 2004, the PUCT's determination, based upon objective criteria, whether to proceed with further efforts toward retail open access in Entergy Gulf States' Texas service territory.

After considering the proposal, in an April 2003 order the PUCT set forth a sequence of proceedings and activities designed to initiate an interim solution. These proceedings and activities included initiating a proceeding to certify an independent organization to administer market protocols and ensure nondiscriminatory access to transmission and distribution systems.

In July 2004 the PUCT denied Entergy's application to certify Entergy's transmission organization as an independent organization under Texas law. In its order, the PUCT also ordered: the cessation of efforts to develop an interim solution for retail open access in Entergy Gulf States' Texas service territory, termination of the pilot project in that territory, and a delay in retail open access in that territory until either a FERC-approved RTO is in place or some other independent transmission entity is certified under Texas law. Several parties have appealed the termination of the pilot program aspect of the order, claiming the issue was not properly a part of the proceeding.

In February 2005, bills were submitted in the Texas Legislature that would clarify that Entergy Gulf States is no longer subject to a rate freeze and specify that retail open access will not commence in Entergy Gulf States' Texas service territory until the PUCT certifies a power region.

Louisiana

(Entergy Gulf States and Entergy Louisiana)

In November 2001, the LPSC decided not to move forward with retail open access for any customers at this time. The LPSC instead directed its staff to hold collaborative group meetings concerning open access from time to time, and to have the LPSC staff monitor developments in neighboring states and to report to the LPSC regarding the progress of retail access developments in those states. In September 2004, in response to a study funded by certain industrial customers that evaluated a limited industrial-only retail choice program, the LPSC asked the LPSC staff to solicit comments and obtain information from utilities, customers, and other interested parties concerning the potential costs and benefits of a limited choice program, the impact of such a program on other customers, as well as issues such as stranded costs and transmission service. Comments from interested parties were filed with the LPSC on January 14, 2005. The LPSC has not established a procedural framework for consideration of the comments. At this time, it is not certain what further action, if any, the LPSC might take in response to the information it received.

Mississippi

(Entergy Mississippi)

In May 2000, after two years of studies and hearings, the MPSC announced that it was suspending its docket studying the opening of the state's retail electricity markets to competition. The MPSC based its decision on its finding that competition could raise the electric rates paid by residential and small commercial customers. The final decision regarding the introduction of retail competition ultimately lies with the Mississippi Legislature. Management cannot predict when, or if, Mississippi will deregulate its retail electricity market.

New Orleans

(Entergy New Orleans)

Entergy New Orleans filed an electric transition to competition plan in September 1997. No procedural schedule has been established for consideration of that plan by the City Council.

Regulatory Assets

Other Regulatory Assets

The domestic utility companies and System Energy are subject to the provisions of SFAS 71, "Accounting for the Effects of Certain Types of Regulation." Regulatory assets represent probable future revenues associated with certain costs that are expected to be recovered from customers through the ratemaking process. In addition to the regulatory assets that are specifically disclosed on the face of the balance sheets, the tables below provide detail of "Other regulatory assets" included on the balance sheets of the domestic utility companies and System Energy as of December 31, 2004 and 2003 (in millions).

2004	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
Asset Retirement Obligation – recovery dependent upon timing of decommissioning (Note 8)	$141.2	$-	$141.6	$-	$-	$97.3
Deferred distribution expenses – recovered through May 2008	-	-	-	-	4.9	-
Deferred fossil plant maintenance expenses – recovered through December 2007 (Note 2)	-	-	-	-	3.6	-
Deferred fuel – non-current – recovered through rate riders when rates are redetermined annually	13.7	-	-	8.1	-	-
Depreciation re-direct – recovery begins at start of retail open access (Note 1)	-	79.1	-	-	-	-
DOE Decom. and Decontamination Fees – recovered through fuel rates until December 2006 (Note 8)	13.1	2.3	5.0	-	-	4.9
Incremental ice storm costs – recovered until 2032	14.2	-	-	-	-	-
Low-level radwaste – recovery timing dependent upon pending lawsuit	16.2	3.1	-	-	-	-
Pension costs (Note 10)	70.8	-	34.1	20.2	15.2	7.4
Postretirement benefits – recovered through 2013 (Note 10)	19.1	-	-	-	-	-
Provision for storm damages – recovered through cost of service	29.0	57.1	41.7	-	-	-
Removal costs – recovered through depreciation rates (Note 8)	34.9	0.9	-	32.7	1.3	17.1
Resource planning – recovery timing will be determined by the LPSC in a base rate proceeding (Note 2)	-	-	25.4	-	-	-
River Bend AFUDC – recovered through August 2025 (Note 1)	-	37.5	-	-	-	-
Sale-leaseback deferral – recovered through June 2014 (Note 9)	-	-	-	-	-	127.3
Spindletop gas storage facility – recovered through 2032	-	42.3	-	-	-	-
Unamortized loss on reaquired debt – recovered over term of debt	37.0	43.4	27.4	15.6	4.6	41.8
Other – various	11.0	19.3	27.3	6.1	10.8	0.5
Total	$400.2	$285.0	$302.5	$82.7	$40.4	$296.3

2003	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
Asset Retirement Obligation (Note 8)	$203.7	$36.2	$132.3	$-	$-	$92.7
Deferred fuel – non-current	17.1	-	-	11.1	-	-
Depreciation re-direct (Note 1)	-	79.1	-	-	-	-
DOE Decom. and Decontamination Fees (Note 8)	17.1	3.0	6.5	-	-	6.4
Incremental ice storm costs	14.7	-	-	-	-	-
Low-level radwaste	16.2	3.1	-	-	-	-
Pension costs (Note 10)	41.7	-	-	6.4	10.4	7.1
Postretirement benefits (Note 10)	21.5	-	-	-	-	-
Provision for storm damages	25.3	57.4	40.9	3.5	-	-
Removal costs (Note 8)	26.6	4.2	-	24.4	2.1	15.1
Resource planning (Note 2)	-	-	5.8	-	-	-
River Bend AFUDC (Note 1)	-	39.4	-	-	-	-
Sale-leaseback deferral (Note 9)	-	-	-	-	-	131.7
Spindletop gas storage facility	-	38.0	-	-	-	-
Unamortized loss on reaquired debt	38.3	46.6	24.0	11.8	1.7	41.9
1994 FERC Settlement (Note 2)	-	-	-	-	-	4.0
Other	15.3	13.4	8.2	1.1	13.0	2.3
Total	$437.5	$320.4	$217.7	$58.3	$27.2	$301.2

Deferred fuel costs

The domestic utility companies are allowed to recover certain fuel and purchased power costs through fuel mechanisms included in electric rates that are recorded as fuel cost recovery revenues. The difference between revenues collected and the current fuel and purchased power costs is recorded as "Deferred fuel costs" on the domestic utility companies' financial statements. The table below shows the amount of deferred fuel costs as of December 31, 2004 and 2003 that Entergy expects to recover or (refund) through the fuel mechanisms of the domestic utility companies, subject to subsequent regulatory review.

	2004	2003
	(In Millions)	
Entergy Arkansas	$7.4	$10.6
Entergy Gulf States	$90.1	$118.4
Entergy Louisiana	$8.7	$30.6
Entergy Mississippi	($22.8)	$89.1
Entergy New Orleans	$2.6	($2.7)

Entergy Arkansas

Entergy Arkansas' rate schedules include an energy cost recovery rider to recover fuel and purchased energy costs in monthly bills. The rider utilizes prior calendar year energy costs and projected energy sales for the twelve-month period commencing on April 1 of each year to develop an annual energy cost rate. The energy cost rate includes a true-up adjustment reflecting the over-recovery or under-recovery, including carrying charges, of the energy cost for the prior calendar year.

In March 2004, Entergy Arkansas filed with the APSC its energy cost recovery rider for the period April 2004 through March 2005. The filed energy cost rate, which accounts for 12 percent of a typical residential customer's bill using 1,000 kWh per month, increased 16 percent due primarily to the elimination of a credit contained in the prior year's rate to refund previously over-recovered fuel costs. Also included in the current year's energy cost calculation is a decrease in rates of $3.9 million as a result of the operation of a revised energy allocation method between the retail and wholesale sectors resulting from the APSC's approval of a life-of resources power purchase agreement with Entergy New Orleans.

Entergy Gulf States (Texas)

In the Texas jurisdiction, Entergy Gulf States' rate schedules include a fixed fuel factor to recover fuel and purchased power costs, including carrying charges, not recovered in base rates. Under the current methodology, semi-annual revisions of the fixed fuel factor may be made in March and September based on the market price of natural gas. Entergy Gulf States will likely continue to use this methodology until the start of retail open access, which has been delayed. The amounts collected under Entergy Gulf States' fixed fuel factor and any interim surcharge implemented until the date retail open access commences are subject to fuel reconciliation proceedings before the PUCT. In the Texas jurisdiction, Entergy Gulf States' deferred electric fuel costs are $78.6 million as of December 31, 2004, which includes the following:

	Amount (In Millions)
Under-recovered fuel costs for the period 9/03 – 7/04 to be recovered through an interim fuel surcharge over a six-month period beginning in January 2005	$27.8
Items to be addressed as part of unbundling	$29.0
Imputed capacity charges	$ 9.3
Other	$12.5

The PUCT has ordered that the imputed capacity charges be excluded from fuel rates and therefore recovered through base rates. Entergy Gulf States filed a retail electric rate case and fuel proceeding with the PUCT in August 2004. As discussed below, the PUCT dismissed the rate case and fuel reconciliation proceeding in October 2004 indicating that Entergy Gulf States is still subject to a rate freeze based on the current PUCT-approved settlement agreement stipulating that a rate freeze would remain in effect until retail open access commenced in Entergy Gulf States' service territory, unless the rate freeze is lifted by the PUCT prior thereto. Without a Texas base rate proceeding, it is possible that Entergy Gulf States will not be allowed to recover imputed capacity charges in Texas retail rates in the future. Entergy Gulf States believes the PUCT has misinterpreted the settlement and has appealed the PUCT order to the Travis County District Court and also intends to pursue other available remedies as discussed in **"Electric Industry Restructuring and the Continued Application of SFAS 71."** The dismissal of the rate case does not preclude Entergy Gulf States from seeking the reconciliation of fuel and purchased power costs of $288 million incurred from September 2003 through March 2004 when, at the appropriate time, similar costs are reconciled in the future.

In January 2001, Entergy Gulf States filed with the PUCT a fuel reconciliation case covering the period from March 1999 through August 2000. Entergy Gulf States was reconciling approximately $583 million of fuel and purchased power costs. As part of this filing, Entergy Gulf States requested authority to collect $28 million, plus interest, of under-recovered fuel and purchased power costs. In August 2002, the PUCT reduced Entergy Gulf States' request to approximately $6.3 million, including interest through July 31, 2002. Approximately $4.7 million of the total reduction to the requested surcharge relates to nuclear fuel costs that the PUCT deferred ruling on at that time. In October 2002, Entergy Gulf States appealed the PUCT's final order in Texas District Court. In its appeal, Entergy Gulf States is challenging the PUCT's disallowance of approximately $4.2 million related to imputed capacity costs and its disallowance related to costs for energy delivered from the 30% non-regulated share of River Bend. The case was argued before the Travis County Texas District Court in August 2003 and the Travis County District Court judge affirmed the PUCT's order. In October 2003, Entergy Gulf States appealed this decision to the Court of Appeals. Oral argument before the appellate court occurred in September 2004 and the matter is still pending.

In September 2003, Entergy Gulf States filed an application with the PUCT to implement an $87.3 million interim fuel surcharge, including interest, to collect under-recovered fuel and purchased power expenses incurred from September 2002 through August 2003. Hearings were held in October 2003 and the PUCT issued an order in December 2003 allowing for the recovery of $87 million. The surcharge was collected over a twelve-month period that began in January 2004.

In March 2004, Entergy Gulf States filed with the PUCT a fuel reconciliation case covering the period September 2000 through August 2003. Entergy Gulf States is reconciling $1.43 billion of fuel and purchased power costs on a Texas retail basis. This amount includes $8.6 million of under-recovered costs that Entergy Gulf States is asking to reconcile and roll into its fuel over/under-recovery balance to be addressed in the next appropriate fuel proceeding. This case involves imputed capacity and River Bend payment issues similar to those decided adversely in the January 2001 proceeding, discussed above, which is now on appeal. On January 31, 2005, the ALJs issued a Proposal for Decision that recommends disallowing $10.7 million (excluding interest) related to these two issues. A final PUCT decision is expected in the first quarter of 2005.

In September 2004, Entergy Gulf States filed an application with the PUCT to implement a $27.8 million interim fuel surcharge, including interest, to collect under-recovered fuel and purchased power expenses incurred from September 2003 through July 2004. Entergy Gulf States proposed to collect the surcharge over a six-month period beginning January 2005. In December 2004, the PUCT approved the surcharge consistent with Entergy Gulf States' request. Amounts collected though the interim fuel surcharge, which will be implemented over the six-month period commencing January 2005, are subject to final reconciliation in a future fuel reconciliation proceeding.

Entergy Gulf States (Louisiana) and Entergy Louisiana

In Louisiana, Entergy Gulf States and Entergy Louisiana recover electric fuel and purchased power costs for the upcoming month based upon the level of such costs from the prior month. In Louisiana, Entergy Gulf States' purchased gas adjustments include estimates for the billing month adjusted by a surcharge or credit for deferred fuel expense arising from monthly reconciliations of actual fuel costs incurred with fuel cost revenues billed to customers.

In August 2000, the LPSC authorized its staff to initiate a proceeding to audit the fuel adjustment clause filings of Entergy Louisiana pursuant to a November 1997 LPSC general order. The time period that is the subject of the audit is January 1, 2000 through December 31, 2001. In September 2003, the LPSC staff issued its audit report and recommended a disallowance with regard to one item. The issue relates to the alleged failure to uprate Waterford 3 in a timely manner, a claim that also has been raised in the summer 2001, 2002, and 2003 purchased power proceedings. The LPSC staff has quantified the possible disallowance as between $7.6 and $14 million. Entergy Louisiana notified the LPSC that it will contest the recommendation. The procedural schedule in the case has been suspended. A status conference for the purpose of establishing a new procedural schedule will be set when the current hearings in the Power Purchase Agreement proceedings at the FERC are concluded. The FERC hearings in that matter concluded in November 2004. If the LPSC approves the proposed settlement (discussed below under **"Retail Rate Proceedings"**), the issue of a proposed imprudence disallowance relating to the uprate will be resolved and will no longer be at issue in this proceeding.

In January 2003, the LPSC authorized its staff to initiate a proceeding to audit the fuel adjustment clause filings of Entergy Gulf States and its affiliates pursuant to a November 1997 LPSC general order. The audit will include a review of the reasonableness of charges flowed by Entergy Gulf States through its fuel adjustment clause in Louisiana for the period January 1, 1995 through December 31, 2002. Discovery is underway, but a detailed procedural schedule extending beyond the discovery stage has not yet been established, and the LPSC staff has not yet issued its audit report.

Entergy Mississippi

Entergy Mississippi's rate schedules include an energy cost recovery rider which is adjusted quarterly to reflect accumulated over- or under-recoveries from the second prior quarter. In May 2003, Entergy Mississippi filed and the MPSC approved a change in Entergy Mississippi's energy cost recovery rider. Under the MPSC's order, Entergy Mississippi deferred until 2004 the collection of fuel under-recoveries for the first and second quarters of 2003 that would have been collected in the third and fourth quarters of 2003, respectively. The deferred

amount of $77.6 million plus carrying charges was collected through the energy cost recovery rider over a twelve-month period that began in January 2004.

In January 2005, the MPSC approved a change in Entergy Mississippi's energy cost recovery rider. Entergy Mississippi's fuel over-recoveries for the third quarter of 2004 of $21.3 million will be deferred from the first quarter 2005 energy cost recovery rider adjustment calculation. The deferred amount of $21.3 million plus carrying charges will be refunded through the energy cost recovery rider in the second and third quarters of 2005 at a rate of 45% and 55%, respectively.

Entergy New Orleans

Entergy New Orleans' electric rate schedules include a fuel adjustment tariff designed to reflect no more than targeted fuel and purchased power costs adjusted by a surcharge or credit for deferred fuel expense arising from monthly reconciliations, including carrying charges. Entergy New Orleans' gas rate schedules include estimates for the billing month adjusted by a surcharge or credit for deferred fuel expense arising from monthly reconciliations, including carrying charges.

In June and November 2004, the City Council passed resolutions implementing a package of measures developed by Entergy New Orleans and the Council Advisors to protect customers from potential gas price spikes during the 2004 - 2005 winter heating season. These measures include: maintaining Entergy New Orleans' financial hedging plan for its purchase of wholesale gas, and deferral of collection of up to $6.2 million of gas costs associated with a cap on the purchased gas adjustment in November and December 2004 and in the event that the average residential customer's gas bill were to exceed a threshold level. The deferrals resulting from these caps will receive accelerated recovery over a seven-month period beginning in April 2005.

In November 2004, the City Council directed Entergy New Orleans to confer with the Council Advisors regarding possible modification of the current gas cost collection mechanism in order to address concerns regarding its fluctuations particularly during the winter heating season.

Retail Rate Proceedings

Filings with the APSC (Entergy Arkansas)

Retail Rates

No significant retail rate proceedings are pending in Arkansas at this time.

Filings with the PUCT and Texas Cities (Entergy Gulf States)

Retail Rates

Entergy Gulf States is operating in Texas under the terms of a December 2001 settlement agreement approved by the PUCT. The settlement provided for a base rate freeze that has remained in effect during the delay in the implementation of retail open access in Entergy Gulf States' Texas service territory. In view of the PUCT order in July 2004 to further delay retail open access in the Texas service territory, Entergy Gulf States filed a retail electric rate case and fuel reconciliation proceeding with the PUCT in August 2004 seeking the following:

- approval of a base rate increase of $42.6 million annually for the Texas retail jurisdiction;
- approval to implement a $14.1 million per year rider to recover, over a 15-year period, $110.9 million of incurred costs related to its efforts to transition to a competitive retail market in accordance with the Texas restructuring law;
- approval to implement a proposed $11.3 million franchise fee rider to recover payments to municipalities charging such fees; and
- a requested return on equity of 11.5%.

In addition, Entergy Gulf States' fuel reconciliation filing made in conjunction with the base rate case sought to reconcile approximately $288 million in fuel and purchased power costs incurred during the period September 2003 through March 2004. In October 2004, the PUCT issued a written order in which it dismissed the rate case and fuel reconciliation proceeding indicating that Entergy Gulf States is still subject to a rate freeze based on a PUCT-approved agreement in 2001 stipulating that a rate freeze would remain in effect until retail open access commenced in Entergy Gulf States' service territory, unless the rate freeze is lifted by the PUCT prior thereto. Entergy Gulf States believes the PUCT has misinterpreted the settlement and has appealed the PUCT order to the Travis County District Court and intends to pursue other available remedies.

In February 2005, bills were submitted in the Texas Legislature that would clarify that Entergy Gulf States is no longer subject to a rate freeze and specify that retail open access will not commence in Entergy Gulf States' Texas service territory until the PUCT certifies a power region.

Recovery of River Bend Costs

In March 1998, the PUCT disallowed recovery of $1.4 billion of company-wide abeyed River Bend plant costs, which have been held in abeyance since 1988. Entergy Gulf States appealed the PUCT's decision on this matter to the Travis County District Court in Texas. In April 2002, the Travis County District Court issued an order affirming the PUCT's order on remand disallowing recovery of the abeyed plant costs. Entergy Gulf States appealed this ruling to the Third District Court of Appeals. In July 2003, the Third District Court of Appeals unanimously affirmed the judgment of the Travis County District Court. After considering the progress of the proceeding in light of the decision of the Court of Appeals, Entergy Gulf States accrued for the loss that would be associated with a final, non-appealable decision disallowing the abeyed plant costs. The net carrying value of the abeyed plant costs was $107.7 million at the time of the Court of Appeals decision. Accrual of the $107.7 million loss was recorded in the second quarter of 2003 as miscellaneous other income (deductions) and reduced net income by $65.6 million after-tax. In September 2004, the Texas Supreme Court denied Entergy Gulf States' petition for review, and Entergy Gulf States filed a motion for rehearing. In February 2005, the Texas Supreme Court denied the motion for rehearing, and the proceeding is now final.

Filings with the LPSC

Proposed Settlement (Entergy Gulf States and Entergy Louisiana)

In September 2004, the LPSC consolidated various dockets that were the subject of settlement discussions between the LPSC staff and Entergy Gulf States and Entergy Louisiana. The LPSC directed its staff to continue the settlement discussions and submit any proposed settlement to the LPSC for its consideration. In January 2005, Entergy Gulf States and Entergy Louisiana filed testimony with the LPSC in support of a proposed settlement that currently includes an offer to refund $76 million to Entergy Gulf States' Louisiana customers, with no immediate change in current base rates and to refund $14 million to Entergy Louisiana's customers. If the LPSC approves the proposed settlement, Entergy Gulf States will be regulated under a three-year formula rate plan that, among other provisions, establishes a ROE mid-point of 10.65% and permits Entergy Gulf States to recover incremental capacity costs without filing a traditional base rate proceeding. The settlement resolves all issues in, and will result in the dismissal of, Entergy Gulf States' fourth, fifth, sixth, seventh, and eighth annual earnings reviews, Entergy Gulf States' ninth post-merger earnings review and revenue requirement analysis, a fuel review for Entergy Gulf States, dockets established to consider issues concerning power purchases for Entergy Gulf States and Entergy Louisiana for the summers of 2001, 2002, 2003, and 2004, and a docket concerning retail issues arising under the Entergy System Agreement. The settlement does not include the System Agreement case pending at FERC. The LPSC has solicited comments on the proposed settlement from the parties to the various proceedings at issue in the proposed settlement. The proposed settlement is scheduled to be presented to the LPSC for consideration on March 23, 2005.

Annual Earnings Reviews (Entergy Gulf States)

In May 2002, Entergy Gulf States filed its ninth and last required post-merger analysis with the LPSC. The filing included an earnings review filing for the 2001 test year that resulted in a rate decrease of $11.5 million, which was implemented effective June 2002. In its latest testimony, in December 2003, the LPSC staff recommended a rate refund of $30.6 million and a prospective rate reduction of approximately $50 million. Hearings concluded in May 2004. Should the LPSC approve the proposed settlement discussed above, the ninth post-merger analysis would be resolved.

In December 2002, the LPSC approved a settlement between Entergy Gulf States and the LPSC staff pursuant to which Entergy Gulf States agreed to make a base rate refund of $16.3 million, including interest, and to implement a $22.1 million prospective base rate reduction effective January 2003. The settlement discharged any potential liability for claims that relate to Entergy Gulf States' fourth, fifth, sixth, seventh, and eighth post-merger earnings reviews, with the exception of certain issues related to the calculation of the River Bend Deregulated Asset Plan percentage. Entergy Gulf States made the refund in February 2003. Should the LPSC approve the proposed settlement discussed above, the outstanding issue in these proceedings would be resolved.

Retail Rates

(Entergy Gulf States)

In July 2004, Entergy Gulf States filed with the LPSC an application for a change in its rates and charges seeking an increase of $9.1 million in gas base rates in order to allow Entergy Gulf States an opportunity to earn a fair and reasonable rate of return. Entergy Gulf States also is seeking approval of certain proposed rate design, rate schedule, and policy changes. Discovery is underway, and a decision is expected during the third quarter of 2005.

(Entergy Louisiana)

In January 2004, Entergy Louisiana made a rate filing with the LPSC requesting a base rate increase of approximately $167 million. In that filing, Entergy Louisiana noted that approximately $73 million of the base rate increase was attributable to the acquisition of a generating station and certain power purchase agreements that, based on current natural gas prices, would produce fuel and purchased power savings for customers that substantially mitigate the impact of the requested base rate increase. The filing also requested an allowed ROE midpoint of 11.4%. Entergy Louisiana's previously authorized ROE mid-point currently in effect is 10.5%. Hearings concluded in December 2004. Based on the evidence submitted at the hearing, the LPSC staff is recommending approximately a $7 million base rate increase. The LPSC staff proposed the implementation of a formula rate plan that includes a provision for the recovery of incremental capacity costs, including those related to the proposed Perryville acquisition, without filing a traditional base rate proceeding. A decision by the LPSC is expected in mid- to late-March 2005 on these issues.

Filings with the MPSC (Entergy Mississippi)

Formula Rate Plan Filings

Entergy Mississippi is operating under a December 2002 order issued by the MPSC. The order endorsed a new power management rider schedule designed to more efficiently collect capacity portions of purchased power costs. Also, the order provides for improvements in the return on equity formula and more robust performance measures for Entergy Mississippi's formula rate plan. Under the provisions of Entergy Mississippi's formula rate plan, a bandwidth is placed around the benchmark ROE, and if Entergy Mississippi earns outside of the bandwidth (as well as outside of a range-of-no-change at each edge of the bandwidth), then Entergy Mississippi's rates will be adjusted, though on a prospective basis only. Under Mississippi law and Entergy Mississippi's formula rate plan, however, if Entergy Mississippi's earned ROE is above the top of the range-of-no-change at the top of the formula rate plan bandwidth, then Entergy Mississippi's "Allowed ROE" for the next twelve-month period is the point halfway between such earned ROE and the top of the bandwidth; and Entergy Mississippi's retail rates are set at

that halfway-point ROE level. In the situation where Entergy Mississippi's earned ROE is not above the top of the range-of-no-change at the top of the bandwidth, then Entergy Mississippi's "Allowed ROE" for the next twelve-month period is the top of the range-of-no-change at the top of the bandwidth.

Entergy Mississippi made its annual formula rate plan filing with the MPSC in March 2004 based on 2003 test year. In April 2004, the MPSC approved a joint stipulation entered into between the Mississippi Public Utilities Staff and Entergy Mississippi that provides for no change in rates based on a performance adjusted ROE mid-point of 10.77%, establishing an allowed regulatory earnings range of 9.3% to 12.2%.

Grand Gulf Accelerated Recovery Tariff (GGART)

In September 1998, FERC approved the GGART for Entergy Mississippi's allocable portion of Grand Gulf, which was filed with FERC in August 1998. The GGART provided for the acceleration of Entergy Mississippi's Grand Gulf purchased power obligation over the period October 1, 1998 through June 30, 2004. In May 2003, the MPSC authorized the cessation of the GGART effective July 1, 2003. Entergy Mississippi filed notice of the change with FERC, and the FERC approved the filing on July 30, 2003. Entergy Mississippi accelerated a total of $168.4 million of Grand Gulf purchased power obligation costs under the GGART over the period October 1, 1998 through June 30, 2003.

Filings with the City Council (Entergy New Orleans)

Formula Rate Plans

In May 2003, the City Council approved a resolution allowing for a total increase of $30.2 million in electric and gas base rates effective June 1, 2003. In April 2004, Entergy New Orleans made filings with the City Council as required by the earnings review process prescribed by the Gas and Electric Formula Rate Plans approved by the City Council in 2003. The filings sought an increase in Entergy New Orleans' electric revenues of $1.2 million and an increase in Entergy New Orleans' gas revenues of $32,000. The Council Advisors and intervenors reviewed the filings, and filed their recommendations in July 2004. In August 2004, in accordance with the City Council's requirements for the formula rate plans, Entergy New Orleans made a filing with the City Council reflecting the parties' concurrence that no change in Entergy New Orleans' electric or gas rates is warranted. Later in August 2004, the City Council approved an unopposed settlement among Entergy New Orleans, the Council Advisors, and the intervenors in connection with the Gas and Electric Formula Rate Plans. In accordance with the resolution approving the settlement agreement, Entergy New Orleans' gas and electric base rates remain unchanged from levels set in May 2003. The resolution ordered Entergy New Orleans to defer $3.9 million relating to voluntary severance plan costs allocated to its electric operations and $1.0 million allocated to its gas operations, which amounts were accrued on its books in 2003, and to record on its books regulatory assets in those amounts to be amortized over five years effective January 2004. Entergy New Orleans also was ordered to defer $6.0 million of fossil plant maintenance expense incurred in 2003 and to record on its books a regulatory asset in that amount to be amortized over a five-year period effective January 2003.

Entergy New Orleans will file its formula rate plan for the year ended December 31, 2004 by May 31, 2005 and also intends to file for an extension of the formula rate plan by September 1, 2005. If the formula rate plan is not extended by the City Council, the rate adjustments in effect based on the December 31, 2004 test year shall continue.

In May 2003, the City Council approved implementation of a generation performance-based rate calculation in the electric fuel adjustment clause under which Entergy New Orleans receives 10% of calculated fuel and purchased power cost savings in excess of $20 million, based on a defined benchmark, subject to a 13.25% return on equity limitation for electric operations as provided for in the electric formula rate plan. Entergy New Orleans bears 10% of any "negative" fuel and purchased power cost savings. In October 2004, Entergy New Orleans' annual evaluation report was submitted for the period June 2003 through May 2004. Savings associated with the first year generation performance-based rate calculation was $71 million of which Entergy New Orleans' share was $5.1 million.

Fuel Adjustment Clause Litigation

In April 1999, a group of ratepayers filed a complaint against Entergy New Orleans, Entergy Corporation, Entergy Services, and Entergy Power in state court in Orleans Parish purportedly on behalf of all Entergy New Orleans ratepayers. The plaintiffs seek treble damages for alleged injuries arising from the defendants' alleged violations of Louisiana's antitrust laws in connection with certain costs passed on to ratepayers in Entergy New Orleans' fuel adjustment filings with the City Council. In particular, plaintiffs allege that Entergy New Orleans improperly included certain costs in the calculation of fuel charges and that Entergy New Orleans imprudently purchased high-cost fuel from other Entergy affiliates. Plaintiffs allege that Entergy New Orleans and the other defendant Entergy companies conspired to make these purchases to the detriment of Entergy New Orleans' ratepayers and to the benefit of Entergy's shareholders, in violation of Louisiana's antitrust laws. Plaintiffs also seek to recover interest and attorneys' fees. Entergy filed exceptions to the plaintiffs' allegations, asserting, among other things, that jurisdiction over these issues rests with the City Council and FERC. In March 2004, the plaintiffs supplemented and amended their petition. If necessary, at the appropriate time, Entergy will also raise its defenses to the antitrust claims. The suit in state court has been stayed by stipulation of the parties pending a decision by the City Council in the proceeding discussed in the next paragraph.

Plaintiffs also filed this complaint with the City Council in order to initiate a review by the City Council of the plaintiffs' allegations and to force restitution to ratepayers of all costs they allege were improperly and imprudently included in the fuel adjustment filings. Testimony was filed on behalf of the plaintiffs in this proceeding asserting, among other things, that Entergy New Orleans and other defendants have engaged in fuel procurement and power purchasing practices and included costs in Entergy New Orleans' fuel adjustment that could have resulted in Entergy New Orleans customers being overcharged by more than $100 million over a period of years. Hearings were held in February and March 2002. In February 2004, the City Council approved a resolution that resulted in a refund to customers of $11.3 million, including interest, during the months of June through September 2004. The resolution concludes, among other things, that the record does not support an allegation that Entergy New Orleans' actions or inactions, either alone or in concert with Entergy or any of its affiliates, constituted a misrepresentation or a suppression of the truth made in order to obtain an unjust advantage of Entergy New Orleans, or to cause loss, inconvenience or harm to its ratepayers. Management believes that it has adequately provided for the liability associated with this proceeding. The plaintiffs have appealed the City Council resolution to the state court in Orleans Parish. Oral argument on the plaintiffs' appeal was conducted in February 2005.

Purchased Power for Summer 2001, 2002 and 2003 (Entergy Gulf States and Entergy Louisiana)

In March 2001, Entergy Louisiana and Entergy Gulf States filed applications with the LPSC for authorization to participate in contracts that would be executed by the Entergy System to meet the summer peak load requirements for the summer of 2001. In May 2001, the LPSC determined that 24% of Entergy Louisiana's and Entergy Gulf States' costs relating to summer 2001 purchases should be categorized as capacity charges. Subsequently, the LPSC raised certain prudence issues related to the 2001 purchases. The administrative law judge (ALJ) presiding over the case issued a Preliminary Recommendation regarding prudence issues primarily associated with the power uprates at the Waterford 3 and Grand Gulf nuclear units. In the event that such decision becomes final, additional calculations would be required to determine the potential refund obligation for the periods 2001, 2002 and 2003. The ALJ also concluded that Entergy should be permitted the opportunity to recover the expenses of the uprates through appropriate rate proceedings.

In March 2002 and 2003, Entergy Louisiana and Entergy Gulf States filed an application with the LPSC for the approval of capacity and energy purchases for the summers of 2002 and 2003, respectively, similar to the applications filed for the summers of 2000 and 2001. The LPSC ordered that 14% of Entergy Louisiana's and Entergy Gulf States' costs relating to summer 2002 purchases be categorized as capacity charges, and that 11% of Entergy Louisiana's and Entergy Gulf States' costs relating to summer 2003 power purchases, the price of which was stated on the basis of $/MWh, be categorized as capacity charges. The LPSC did not allow the capacity charges to be set up as a regulatory asset, but authorized Entergy Louisiana and Entergy Gulf States to include these costs in any base rate case for their respective test years. Prudence issues relating to summer 2002 and 2003 purchases were resolved in subsequent settlements approved by the LPSC. In the event that the LPSC adopts the

ALJ's recommendation relating to potential uprates at nuclear facilities in the summer 2001 case, and such decision becomes final following an appeal or the expiration of appeal delays, these settlements reserve the LPSC's right to propose in a future case disallowances relating to the effect that such uprates would have had on the summer 2002 and summer 2003 firm energy contracts, while Entergy Gulf States and Entergy Louisiana reserve their right to oppose any such proposal.

No refunds were ordered in the summer 2002 settlement, although with respect to the capacity costs to be incurred pursuant to a particular purchased power contract, Entergy Louisiana agreed in the settlement to forgo recovery of approximately $0.8 million in 2002, $1.3 million in 2003, and $1.0 million in 2004, and Entergy Gulf States agreed to forgo recovery of approximately $0.5 million in 2002, $0.9 million in 2003, and $0.7 million in 2004. All other purchases for the summers of 2002 and 2003 were found to be prudent. Issues relating to the reasonableness of the long-term planning process were moved from the summer 2002 case into a separate sub-docket. In the summer 2003 settlement, the LPSC also reserved its right to investigate any alleged imprudence regarding the System's decision to spin off the ISES and Ritchie generating units to an unregulated affiliate, Entergy Power, Inc.

Should the LPSC approve the proposed settlement discussed above, all issues arising out of the purchased power cases for the summers of 2001, 2002, and 2003 would be resolved.

FERC Settlement (Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

In November 1994, FERC approved an agreement settling a long-standing dispute involving income tax allocation procedures of System Energy. In accordance with the agreement, System Energy refunded a total of approximately $62 million, plus interest, to Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans through June 2004. System Energy also reclassified from utility plant to other deferred debits approximately $81 million of other Grand Gulf costs. Although such costs were excluded from rate base, System Energy amortized and recovered these costs over a 10-year period. Interest on the $62 million refund and the loss of the return on the $81 million of other Grand Gulf costs reduced Entergy's and System Energy's net income by approximately $10 million annually.

NOTE 3. INCOME TAXES

Income tax expenses for 2004, 2003, and 2002 consist of the following:

2004	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Current:						
Federal (a)(b)	$14,490	$42,436	$2,439	($23,568)	($19,259)	$222,622
State (a)(b)	8,727	7,944	1,957	(1,221)	(3,655)	33,926
Total (a)(b)	23,217	50,380	4,396	(24,789)	(22,914)	256,548
Deferred -- net	70,674	63,615	80,207	63,234	40,226	(175,059)
Investment tax credit adjustments -- net	(4,827)	(5,707)	(5,128)	(1,405)	(444)	(3,476)
Recorded income tax expense	$89,064	$108,288	$79,475	$37,040	$16,868	$78,013

2003	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Current:						
Federal (a)	$40,632	($11,535)	($745,724)	($2,969)	($7,655)	$95,670
State (a)	16,306	(1,503)	(16,243)	2,565	(1,871)	15,382
Total (a)	56,938	(13,038)	(761,967)	(404)	(9,526)	111,052
Deferred -- net	53,309	36,652	864,656	36,240	15,853	(31,731)
Investment tax credit adjustments -- net	(4,951)	(12,078)	(5,281)	(1,405)	(452)	(3,476)
Recorded income tax expense	$105,296	$11,536	$97,408	$34,431	$5,875	$75,845

2002	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Current:						
Federal (a)	$13,206	$66,227	$43,048	$21,817	($7,103)	$99,429
State (a)	3,243	11,345	1,867	3,969	(47)	14,994
Total (a)	16,449	77,572	44,915	25,786	(7,150)	114,423
Deferred -- net	59,963	(4,210)	45,253	(6,529)	7,196	(34,770)
Investment tax credit adjustments -- net	(5,008)	(7,365)	(5,403)	(1,411)	(468)	(3,476)
Recorded income tax expense	$71,404	$65,997	$84,765	$17,846	($422)	$76,177

(a) Entergy Louisiana's actual cash taxes paid/(refunded) were $(70,650) in 2004, $35,128 in 2003, and $(781,540) in 2002. Entergy Louisiana's mark-to-market tax accounting election significantly reduced taxes paid in 2002. In 2001, Entergy Louisiana changed its method of accounting for tax purposes related to its wholesale electric power contracts. The most significant of these is the contract to purchase power from the Vidalia project (the contract is discussed in Note 8 to the domestic utility companies and System Energy financial statements). The new tax accounting method has provided a cumulative cash flow benefit of approximately $790 million through 2004, which is expected to reverse in the years 2005 through 2031. The election did not reduce book income tax expense. The timing of the reversal of this benefit depends on several variables, including the price of power. Approximately half of the consolidated cash flow benefit of the election occurred in 2001 and the remainder occurred in 2002. In accordance with Entergy's intercompany tax allocation agreement, the cash flow benefit for Entergy Louisiana occurred in the fourth quarter of 2002.

(b) In 2003, the domestic utility companies and System Energy filed, with the IRS, a change in tax accounting method notification for their respective calculations of cost of goods sold. The adjustment implemented a simplified method of allocation of overhead to the production of electricity, which is provided under the IRS capitalization regulations. The cumulative adjustment placing these companies on the new methodology resulted in a $1.171 billion deduction for Entergy Arkansas, a $674 million deduction for Entergy Gulf States, a $505 million deduction for Entergy Louisiana, a $145 million deduction for Entergy Mississippi, a $31 million deduction for Entergy New Orleans, and a $430 million deduction for System Energy on Entergy's 2003 income tax return. There was no cash benefit from the method change in 2003. In 2004, Entergy Arkansas realized $173 million, Entergy Gulf States realized $69 million, Entergy Louisiana realized $100 million, Entergy Mississippi realized $36 million, and System Energy realized $144 million in cash tax benefit from the method change. This tax accounting method change is an issue across the utility industry and will likely be challenged by the IRS on audit. Entergy believes that its contingency provision established in its financial statements will sufficiently cover its risk associated with this issue.

Total income taxes differ from the amounts computed by applying the statutory income tax rate to income before taxes. The reasons for the differences for the years 2004, 2003, and 2002 are:

2004	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Computed at statutory rate (35%)	$80,946	$105,194	$72,440	$38,688	$15,729	$64,386
Increases (reductions) in tax resulting from:						
State income taxes net of federal income tax effect	12,204	8,289	6,411	3,845	1,158	7,665
Regulatory differences - utility plant items	13,775	6,951	10,052	(1,482)	1,373	10,528
Amortization of investment tax credits	(4,827)	(5,316)	(5,128)	(1,405)	(444)	(3,476)
Flow-through/permanent differences	(9,127)	(7,080)	(3,576)	(2,114)	(878)	(993)
Other -- net	(3,907)	250	(724)	(492)	(70)	(97)
Total income taxes	$89,064	$108,288	$79,475	$37,040	$16,868	$78,013
Effective Income Tax Rate	38.5%	36.0%	38.4%	33.5%	37.5%	42.4%

2003	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Computed at statutory rate (35%)	$80,957	$18,934	$85,247	$35,522	$4,807	$63,647
Increases (reductions) in tax resulting from:						
State income taxes net of federal income tax effect	12,987	473	7,764	3,000	21	7,765
Regulatory differences - utility plant items	15,994	13,260	10,568	(930)	2,045	11,530
Amortization of investment tax credits	(4,951)	(8,797)	(5,281)	(1,404)	(452)	(3,476)
Flow-through/permanent differences	1,090	(10,625)	(2,012)	(1,112)	(625)	(420)
Benefit of Entergy Corp. expenses	(1,145)	(888)	-	-	-	(3,408)
Other -- net	364	(821)	1,122	(645)	79	207
Total income taxes	$105,296	$11,536	$97,408	$34,431	$5,875	$75,845
Effective Income Tax Rate	45.5%	21.3%	40.0%	33.9%	42.8%	41.7%

2002	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Computed at statutory rate (35%)	$72,467	$84,064	$80,317	$24,589	($228)	$62,836
Increases (reductions) in tax resulting from:						
State income taxes net of federal income tax effect	8,784	6,401	6,065	2,069	551	7,049
Regulatory differences - utility plant items	10,615	2,738	6,875	(3,032)	1,125	11,453
Amortization of investment tax credits	(5,008)	(6,528)	(5,403)	(1,411)	(468)	(3,476)
Flow-through/permanent differences	(10,687)	(15,000)	(1,878)	(1,453)	(538)	(1,183)
Benefit of Entergy Corp. expenses	(3,428)	(3,830)	(180)	(2,331)	(434)	(191)
Other -- net	(1,339)	(1,848)	(1,031)	(585)	(430)	(311)
Total income taxes	$71,404	$65,997	$84,765	$17,846	($422)	$76,177
Effective Income Tax Rate	34.5%	27.5%	36.9%	25.4%	64.7%	42.4%

Significant components of net deferred and long-term accrued tax liabilities as of December 31, 2004 and 2003 are as follows:

2004	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Deferred and Long-term Accrued Tax Liabilities:						
Net regulatory assets/(liabilities)	($128,594)	($479,158)	($169,675)	($22,864)	$44,867	($223,391)
Plant-related basis differences - net	(1,237,303)	(1,388,391)	(921,976)	(389,558)	(103,733)	(471,026)
Power purchase agreements	-	-	(971,676)	-	-	-
Rate refunds	(39,163)	-	(17,736)	(49,124)	(14,375)	-
Deferred fuel	(2,899)	(36,017)	(1,286)	(6,424)	(3,873)	-
Other reserves	2,686	(33,916)	27,421	5,856	(323)	(80,597)
Other	(80,980)	(20,781)	(68,381)	(16,516)	(2,982)	(11,851)
Total	(1,486,253)	(1,958,263)	(2,123,309)	(478,630)	(80,419)	(786,865)
Deferred Tax Assets:						
Accumulated deferred investment tax credit	26,936	34,359	36,989	5,235	1,538	28,922
Sale and leaseback	-	-	82,410	-	-	144,745
NOL carryforward	300,249	164,749	164,840	34,642	18,973	-
Unbilled/Deferred revenues	-	17,001	-	10,193	-	-
Pension-related items	-	14,499	13,039	-	10,656	6,737
Reserve for regulatory adjustments	-	131,112	-	-	-	-
Rate refund	-	32,932	-	-	-	170,222
Customer deposits	40,880	33,425	17,479	15,777	91	-
Nuclear decommissioning	12,070	-	2,833	-	-	-
Other	11,801	10,721	13,021	2,386	193	11,296
Total	391,936	438,798	330,611	68,233	31,451	361,922
Net deferred tax liability	($1,094,317)	($1,519,465)	($1,792,698)	($410,397)	($48,968)	($424,943)

2003	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Deferred and Long-term Accrued Tax Liabilities:						
Net regulatory assets/(liabilities)	($157,147)	($478,254)	($195,074)	($34,738)	$38,834	($246,5
Plant-related basis differences, net	(798,641)	(1,095,206)	(806,955)	(284,550)	(74,041)	(332,197)
Power purchase agreements	-	-	(945,495)	-	-	-
Deferred fuel	(4,154)	(45,762)	-	(40,091)	(1,109)	-
Long term taxes accrued	(26,611)	(55,155)	-	(52,646)	(17,491)	(57,239)
Other	(85,528)	(26,012)	(67,272)	(21,806)	(1,728)	(11,497)
Total	(1,072,081)	(1,700,389)	(2,014,796)	(433,831)	(55,535)	(647,452)
Deferred Tax Assets:						
Accumulated deferred investment tax credit	28,836	36,192	38,962	5,773	1,709	30,251
Sale and leaseback	-	-	83,539	-	-	139,595
NOL carryforward	-	-	104,489	-	-	-
Unbilled/Deferred revenues	-	11,959	-	7,357	-	-
Pension-related items	5,453	11,474	12,562	-	9,324	7,354
Reserve for regulatory adjustments	-	138,933	-	-	-	-
Rate refund	2,351	23,184	789	379	3,977	170,222
Customer deposits	37,778	35,840	16,804	18,085	84	-
Nuclear decommissioning	13,171	-	2,833	-	-	-
Other	6,399	26,147	26,096	9,722	1,415	8,124
Total	93,988	283,729	286,074	41,316	16,509	355,546
Net deferred tax liability	($978,093)	($1,416,660)	($1,728,722)	($392,515)	($39,026)	($291,906)

As of December 31, 2004, federal net operating loss carryforwards were $766.9 million for Entergy Arkansas, $447.5 million for Entergy Gulf States, $195.7 million for Entergy Louisiana, $40.9 million for Entergy Mississippi, and $54.9 million for Entergy New Orleans. If the federal net operating loss carryforwards are not utilized, they will expire in the year 2023.

As of December 31, 2004, state net operating loss carryforwards were $1.9 billion for Entergy Louisiana, $278 million for Entergy Gulf States, $11 million for Entergy New Orleans, and $638 million for Entergy Arkansas. If the state net operating loss carryforwards are not utilized, they will expire in the years 2016 through 2018 for Entergy Louisiana, 2018 for Entergy Gulf States, 2018 for Entergy New Orleans, and 2008 for Entergy Arkansas.

NOTE 4. LINES OF CREDIT AND SHORT-TERM BORROWINGS (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

The short-term borrowings of Entergy's subsidiaries are limited to amounts authorized by the SEC. The current limits authorized are effective through November 30, 2007. In addition to borrowing from commercial banks, Entergy's subsidiaries are authorized under the SEC order to borrow from Entergy's money pool. The money pool is an inter-company borrowing arrangement designed to reduce Entergy's subsidiaries' dependence on external short-term borrowings. Borrowings from the money pool and external borrowings combined may not exceed the SEC authorized limits. Under the SEC Order and without further SEC authorization, the domestic utility companies and System Energy cannot incur additional short-term indebtedness unless (a) the issuer and Entergy Corporation maintain a common equity ratio of at least 30% and (b) with the exception of money pool borrowings, the security to be issued (if rated) and all outstanding securities of the issuer (other than preferred stock of Entergy Gulf States and Entergy New Orleans), as well as all outstanding securities of Entergy Corporation, that are rated are rated investment grade.

The following are the SEC authorized limits for short-term borrowings and the outstanding short-term borrowings from the money pool for the domestic utility companies and System Energy as of December 31, 2004:

	Authorized	Borrowings
	(In Millions)	
Entergy Arkansas	$235	-
Entergy Gulf States	$340	$59.7
Entergy Louisiana	$225	-
Entergy Mississippi	$160	-
Entergy New Orleans	$100	-
System Energy	$140	-

Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans each have 364-day credit facilities available as follows:

Company	Expiration Date	Amount of Facility	Amount Drawn as of Dec. 31, 2004
Entergy Arkansas	April 2005	$85 million	-
Entergy Louisiana	April 2005	$15 million(a)	-
Entergy Mississippi	May 2005	$25 million	-
Entergy New Orleans	April 2005	$14 million(a)	-

(a) The combined amount borrowed by Entergy Louisiana and Entergy New Orleans under these facilities at any one time cannot exceed $15 million.

The 364-day credit facilities have variable interest rates and the average commitment fee is 0.13%. The Entergy Arkansas facility requires it to maintain total shareholder's equity of at least 25% of its total assets.

NOTE 5. LONG - TERM DEBT (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

Long-term debt as of December 31, 2004 and 2003 consisted of:

	2004	2003
	(In Thousands)	
Entergy Arkansas		
Mortgage Bonds:		
6.125% Series due July 2005	$100,000	$100,000
5.4% Series due May 2018	150,000	150,000
5.0% Series due July 2018	115,000	115,000
7.0% Series due October 2023	175,000	175,000
6.7% Series due April 2032	100,000	100,000
6.0% Series due November 2032	100,000	100,000
5.9% Series due June 2033	100,000	100,000
6.38% Series due November 2034	60,000	-
Total mortgage bonds	900,000	840,000
Governmental Bonds (a):		
6.3% Series due 2016, Pope County (h)	19,500	19,500
5.6% Series due 2017, Jefferson County	45,500	45,500
6.3% Series due 2018, Jefferson County (h)	9,200	9,200
6.3% Series due 2020, Pope County	120,000	120,000
6.25% Series due 2021, Independence County (h)	45,000	45,000
5.05% Series due 2028, Pope County (b)	47,000	47,000
Total governmental bonds	286,200	286,200
Other Long-Term Debt		
Long-term DOE Obligation (c)	156,332	154,409
8.5% Junior Subordinated Deferrable Interest Debentures	-	61,856
Unamortized Premium and Discount – Net	(4,390)	(4,708)
Other	621	621
Total Long-Term Debt	1,338,763	1,338,378
Less Amount Due Within One Year	147,000	-
Long-Term Debt Excluding Amount Due Within One Year	$1,191,763	$1,338,378
Fair Value of Long-Term Debt (d)	$1,224,942	$1,235,278

	2004	2003
	(In Thousands)	
Entergy Gulf States		
Mortgage Bonds:		
8.25% Series due April 2004	$-	$292,000
6.77% Series due August 2005	98,000	98,000
Libor + 0.9% Series due June 2007	-	275,000
5.2% Series due December 2007	-	200,000
3.6% Series due June 2008	325,000	325,000
Libor + 0.4% Series due December 2009	225,000	-
4.875% Series due November 2011	200,000	-
6.0% Series due December 2012	140,000	140,000
5.6% Series due December 2014	50,000	-
5.25% Series due August 2015	200,000	200,000
6.2% Series due July 2033	240,000	240,000
Total mortgage bonds	1,478,000	1,770,000
Governmental Bonds (a):		
5.45% Series due 2010, Calcasieu Parish	22,095	22,095
6.75% Series due 2012, Calcasieu Parish	48,285	48,285
6.7% Series due 2013, Pointe Coupee Parish	17,450	17,450
5.7% Series due 2014, Iberville Parish	21,600	21,600
7.7% Series due 2014, West Feliciana Parish	94,000	94,000
5.8% Series due 2015, West Feliciana Parish	28,400	28,400
7.0% Series due 2015, West Feliciana Parish	39,000	39,000
7.5% Series due 2015, West Feliciana Parish	41,600	41,600
9.0% Series due 2015, West Feliciana Parish	45,000	45,000
5.8% Series due 2016, West Feliciana Parish	20,000	20,000
5.65% Series due 2028, West Feliciana Parish (e)	-	62,000
6.6% Series due 2028, West Feliciana Parish	40,000	40,000
Total governmental bonds	417,430	479,430
Other Long-Term Debt		
8.75% Junior Subordinated Deferrable Interest Debentures	87,629	87,629
Unamortized Premium and Discount – Net	(2,397)	(2,596)
Other	8,816	9,150
Total Long-Term Debt	1,989,478	2,343,613
Less Amount Due Within One Year	98,000	354,000
Long-Term Debt Excluding Amount Due Within One Year	$1,891,478	$1,989,613
Fair Value of Long-Term Debt (d)	$1,999,249	$2,438,997

	2004	2003
	(In Thousands)	
Entergy Louisiana		
Mortgage Bonds:		
6.5% Series due March 2008	$-	$115,000
5.09% Series due November 2014	115,000	-
5.5% Series due April 2019	100,000	-
7.6% Series due April 2032	150,000	150,000
6.4% Series due October 2034	70,000	-
Total mortgage bonds	435,000	265,000
Governmental Bonds (a):		
7.5% Series due 2021, St. Charles Parish (h)	50,000	50,000
7.0% Series due 2022, St. Charles Parish (h)	24,000	24,000
7.05% Series due 2022, St. Charles Parish (h)	20,000	20,000
5.95% Series due 2023, St. Charles Parish (h)	25,000	25,000
6.2% Series due 2023, St. Charles Parish (h)	33,000	33,000
6.875% Series due 2024, St. Charles Parish (h)	20,400	20,400
6.375% Series due 2025, St. Charles Parish	16,770	16,770
5.35% Series due 2029, St. Charles Parish (i)	-	-
Auction Rate due 2030, St. Charles Parish (h)	60,000	60,000
4.9% Series due 2030, St. Charles Parish (f)·(g)	55,000	55,000
Total governmental bonds	304,170	304,170
Other Long-Term Debt:		
Waterford 3 Lease Obligation 7.45% (Note 9)	247,725	262,534
9.0% Junior Subordinated Deferrable Interest Debentures	-	72,165
Unamortized Premium and Discount - Net	(1,200)	(1,373)
Total Long-Term Debt	985,695	902,496
Less Amount Due Within One Year	55,000	14,809
Long-Term Debt Excluding Amount Due Within One Year	$930,695	$887,687
Fair Value of Long-Term Debt (d)	$762,782	$668,700

	2004	2003
	(In Thousands)	
Entergy Mississippi		
Mortgage Bonds:		
6.2% Series due May 2004	$-	$75,000
6.45% Series due April 2008	-	80,000
4.35% Series due April 2008	100,000	100,000
4.65% Series due May 2011	80,000	-
5.15% Series due February 2013	100,000	100,000
4.95% Series due June 2018	95,000	95,000
7.7% Series due July 2023	-	60,000
6.0% Series due November 2032	75,000	75,000
7.25% Series due December 2032	100,000	100,000
6.25% Series due April 2034	100,000	-
Total mortgage bonds	650,000	685,000
Governmental Bonds (a):		
7.0% Series due 2022, Warren County	-	8,095
7.0% Series due 2022, Washington County	-	7,935
4.60% Series due 2022, Mississippi Business Finance Corp.	16,030	-
Auction Rate due 2022, Independence County (h)	30,000	30,000
Total governmental bonds	46,030	46,030
Other Long-Term Debt:		
Unamortized Premium and Discount - Net	(957)	(1,074)
Total Long-Term Debt	695,073	729,956
Less Amount Due Within One Year	-	75,000
Long-Term Debt Excluding Amount Due Within One Year	$695,073	$654,956
Fair Value of Long-Term Debt (d)	$716,201	$771,402

	2004	2003
	(In Thousands)	
Entergy New Orleans		
Mortgage Bonds:		
8.125% Series due July 2005	$30,000	$30,000
3.875% Series due August 2008	30,000	30,000
5.25% Series due August 2013	70,000	70,000
6.75% Series due October 2017	25,000	25,000
8.0% Series due March 2023	-	45,000
7.55% Series due September 2023	-	30,000
5.6% Series due September 2024	35,000	-
5.65% Series due September 2029	40,000	-
Total mortgage bonds	230,000	230,000
Other Long-Term Debt:		
Unamortized Premium and Discount - Net	(98)	(783)
Total Long-Term Debt	229,902	229,217
Less Amount Due Within One Year	30,000	-
Long-Term Debt Excluding Amount Due Within One Year	$199,902	$229,217
Fair Value of Long-Term Debt (d)	$231,957	$239,816

	2004	2003
	(In Thousands)	
System Energy		
Mortgage Bonds:		
4.875% Series due October 2007	$70,000	$70,000
Total mortgage bonds	70,000	70,000
Governmental Bonds (a):		
5.875% Series due 2022, Mississippi Business Finance Corp.	216,000	216,000
5.9% Series due 2022, Mississippi Business Finance Corp.	102,975	102,975
7.3% Series due 2025, Claiborne County	-	7,625
6.2% Series due 2026, Claiborne County	90,000	90,000
Total governmental bonds	408,975	416,600
Other Long-Term Debt:		
Grand Gulf Lease Obligation 5.01% (Note 9)	397,119	403,468
Unamortized Premium and Discount - Net	(1,235)	(1,319)
Total Long-Term Debt	874,859	888,749
Less Amount Due Within One Year	25,266	6,348
Long-Term Debt Excluding Amount Due Within One Year	$849,593	$882,401
Fair Value of Long-Term Debt (d)	$470,187	$489,436

(a) Consists of pollution control revenue bonds and environmental revenue bonds.
(b) The bonds are subject to mandatory tender for purchase from the holders at 100% of the principal amount outstanding on September 1, 2005 and can then be remarketed.
(c) Pursuant to the Nuclear Waste Policy Act of 1982, Entergy's nuclear owner/licensee subsidiaries have contracts with the DOE for spent nuclear fuel disposal service. The contracts include a one-time fee for generation prior to April 7, 1983. Entergy Arkansas is the only Entergy company that generated electric power with nuclear fuel prior to that date and includes the one-time fee, plus accrued interest, in long-term debt.
(d) The fair value excludes lease obligations and long-term DOE obligations, and includes debt due within one year. It is determined using bid prices reported by dealer markets and by nationally recognized investment banking firms.
(e) The bonds had a mandatory tender date of September 1, 2004. Entergy Gulf States purchased the bonds from the holders, pursuant to the mandatory tender provision, and has not remarketed the bonds at this time.
(f) On June 1, 2002, Entergy Louisiana remarketed $55 million St. Charles Parish Pollution Control Revenue Refunding Bonds due 2030, resetting the interest rate to 4.9% through May 2005.
(g) The bonds are subject to mandatory tender for purchase from the holders at 100% of the principal amount outstanding on June 1, 2005 and can then be remarketed.
(h) The bonds are secured by a series of collateral first mortgage bonds.
(i) The bonds in the principal amount of $110.95 million had a mandatory tender date of October 1, 2003. Entergy Louisiana purchased the bonds from the holders, pursuant to the mandatory tender provision, and has not remarketed the bonds at this time.

The annual long-term debt maturities (excluding lease obligations) for debt outstanding as of December 31, 2004, for the next five years are as follows:

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
2005	$147,000	$98,000	$55,000	-	$30,000	-
2006	-	-	-	-	-	-
2007	-	-	-	-	-	$70,000
2008	$621	$325,000	-	$100,000	$30,000	-
2009	-	$225,000	-	-	-	-

The long-term securities issuances of Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and System Energy are limited to amounts authorized by the SEC. Under their SEC orders and without further SEC authorization, Entergy Gulf States, Entergy Louisiana, and Entergy Mississippi cannot incur additional indebtedness or issue other securities unless (a) the issuer and Entergy Corporation maintain a common equity ratio of at least 30% and (b) the security to be issued (if rated) and all its outstanding securities of the issuer (other than preferred stock of Entergy Gulf States), as well as all outstanding securities of Entergy Corporation, that are rated, are rated investment grade.

Junior Subordinated Deferrable Interest Debentures and Implementation of FIN 46 (Entergy Arkansas, Entergy Gulf States, and Entergy Louisiana)

Entergy implemented FASB Interpretation No. 46, "Consolidation of Variable Interest Entities" effective December 31, 2003. FIN 46 requires existing unconsolidated variable interest entities to be consolidated by their primary beneficiaries if the entities do not effectively disperse risks among their investors. Variable interest entities (VIEs), generally, are entities that do not have sufficient equity to permit the entity to finance its operations without additional financial support from its equity interest holders and/or the group of equity interest holders are collectively not able to exercise control over the entity. The primary beneficiary is the party that absorbs a majority of the entity's expected losses, receives a majority of its expected residual returns, or both as a result of holding the

variable interest. A company may have an interest in a VIE through ownership or other contractual rights or obligations.

Entergy Louisiana Capital I, Entergy Arkansas Capital I, and Entergy Gulf States Capital I (Trusts) were established as financing subsidiaries of Entergy Louisiana, Entergy Arkansas, and Entergy Gulf States, respectively, (the parent company or companies, collectively) for the purposes of issuing common and preferred securities. The Trusts issued Cumulative Quarterly Income Preferred Securities (Preferred Securities) to the public and issued common securities to their parent companies. Proceeds from such issues were used to purchase junior subordinated deferrable interest debentures (Debentures) from the parent company. The Debentures held by each Trust are its only assets. Each Trust uses interest payments received on the Debentures owned by it to make cash distributions on the Preferred Securities and common securities. The parent companies fully and unconditionally guaranteed payment of distributions on the Preferred Securities issued by the respective Trusts. Prior to the application of FIN 46, each parent company consolidated its interest in its Trust. Because each parent company's share of expected losses of its Trust is limited to its investment in its Trust, the parent companies are not considered the primary beneficiaries and therefore de-consolidated their interest in the Trusts upon application of FIN 46 with no significant impacts to the financial statements. The parent companies' investment in the Trusts and the Debentures issued by each parent company are included in Other Property and Investments and Long-Term Debt, respectively.

Tax Exempt Bond Audit (Entergy Louisiana)

In November 2000, the Internal Revenue Service (IRS) began an audit of certain Tax Exempt Bonds issued by St. Charles Parish, State of Louisiana (the Issuer). The Bonds were issued to finance previously unfinanced acquisition costs expended by Entergy Louisiana to acquire certain radioactive solid waste disposal facilities (the Facilities) at the Waterford Steam Electric Generating Station. In January 2002, the IRS issued a preliminary adverse determination that the Bonds were not tax exempt. The stated basis for this determination was that radioactive waste did not constitute "solid waste" within the provisions of the Internal Revenue Code and therefore the Facilities did not qualify as solid waste disposal facilities. In a "technical advice memorandum," issued in October 2004 to the parish, the IRS National Office concurred with the preliminary adverse determination. The Issuer and Entergy Louisiana intend to continue to vigorously contest this matter.

NOTE 6. PREFERRED STOCK (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans)

The number of shares authorized and outstanding and dollar value of preferred stock for Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans as of December 31, 2004 and 2003 are presented below. Only the two Entergy Gulf States series "with sinking fund" contain mandatory redemption requirements. All other series of the U.S. Utility are redeemable at Entergy's option at the call prices presented. Dividends paid on all of Entergy's preferred stock series are eligible for the dividends received deduction. The dividends received deduction is limited by Internal Revenue Code section 244 for the following preferred stock series: Entergy Arkansas 4.72%, Entergy Gulf States 4.40%, Entergy Louisiana 4.96%, Entergy Mississippi 4.56%, and Entergy New Orleans 4.75%.

	Shares Authorized and Outstanding		Dollars (In Thousands)		Call Price Per Share as of December 31,
	2004	2003	2004	2003	2004
Entergy Arkansas Preferred Stock					
Without sinking fund:					
Cumulative, $100 par value:					
4.32% Series	70,000	70,000	$7,000	$7,000	$103.65
4.72% Series	93,500	93,500	9,350	9,350	$107.00
4.56% Series	75,000	75,000	7,500	7,500	$102.83
4.56% 1965 Series	75,000	75,000	7,500	7,500	$102.50
6.08% Series	100,000	100,000	10,000	10,000	$102.83
7.32% Series	100,000	100,000	10,000	10,000	$103.17
7.80% Series	150,000	150,000	15,000	15,000	$103.25
7.40% Series	200,000	200,000	20,000	20,000	$102.80
7.88% Series	150,000	150,000	15,000	15,000	$103.00
Cumulative, $0.01 par value:					
$1.96 Series (a)	600,000	600,000	15,000	15,000	$25.00
Total without sinking fund	1,613,500	1,613,500	$116,350	$116,350	

	Shares Authorized and Outstanding		Dollars (In Thousands)		Call Price Per Share as of December 31,
	2004	2003	2004	2003	2004
Entergy Gulf States Preferred Stock					
Preferred Stock					
Authorized 6,000,000 shares, $100 par value, cumulative					
Without sinking fund:					
4.40% Series	51,173	51,173	$5,117	$5,117	$108.00
4.50% Series	5,830	5,830	583	583	$105.00
4.40% 1949 Series	1,655	1,655	166	166	$103.00
4.20% Series	9,745	9,745	975	975	$102.82
4.44% Series	14,804	14,804	1,480	1,480	$103.75
5.00% Series	10,993	10,993	1,099	1,099	$104.25
5.08% Series	26,845	26,845	2,685	2,685	$104.63
4.52% Series	10,564	10,564	1,056	1,056	$103.57
6.08% Series	32,829	32,829	3,283	3,283	$103.34
7.56% Series	308,830	308,830	30,883	30,883	$101.80
Total without sinking fund	473,268	473,268	$47,327	$47,327	
With sinking fund:					
Adjustable Rate-A, 7.0% (b)	84,000	96,020	$8,400	$9,602	$100.00
Adjustable Rate-B, 7.0% (b)	90,000	112,500	9,000	11,250	$100.00
Total with sinking fund	174,000	208,520	$17,400	$20,852	
Fair Value of Preferred Stock with Sinking Fund (c)			$15,286	$15,354	

	Shares Authorized and Outstanding		Dollars (In Thousands)		Call Price Per Share as of December 31,
	2004	2003	2004	2003	2004
Entergy Louisiana Preferred Stock					
Without sinking fund:					
Cumulative, $100 par value:					
4.96% Series	60,000	60,000	$6,000	$6,000	$104.25
4.16% Series	70,000	70,000	7,000	7,000	$104.21
4.44% Series	70,000	70,000	7,000	7,000	$104.06
5.16% Series	75,000	75,000	7,500	7,500	$104.18
5.40% Series	80,000	80,000	8,000	8,000	$103.00
6.44% Series	80,000	80,000	8,000	8,000	$102.92
7.84% Series	100,000	100,000	10,000	10,000	$103.78
7.36% Series	100,000	100,000	10,000	10,000	$103.36
Cumulative, $25 par value:					
8.00% Series	1,480,000	1,480,000	37,000	37,000	$25.00
Total without sinking fund	2,115,000	2,115,000	$100,500	$100,500	

	Shares Authorized and Outstanding		Dollars (In Thousands)		Call Price Per Share as of December 31,
	2004	2003	2004	2003	2004
Entergy Mississippi Preferred Stock					
Without sinking fund:					
Cumulative, $100 par value:					
4.36% Series	59,920	59,920	$5,992	$5,992	$103.86
4.56% Series	43,887	43,887	4,389	4,389	$107.00
4.92% Series	100,000	100,000	10,000	10,000	$102.88
7.44% Series	100,000	100,000	10,000	10,000	$102.81
8.36% Series	200,000	200,000	20,000	20,000	$100.00
Total without sinking fund	503,807	503,807	$50,381	$50,381	

	Shares Authorized and Outstanding		Dollars (In Thousands)		Call Price Per Share as of December 31,
	2004	2003	2004	2003	2004
Entergy New Orleans Preferred Stock					
Without sinking fund:					
Cumulative, $100 par value:					
4.75% Series	77,798	77,798	$7,780	$7,780	$105.00
4.36% Series	60,000	60,000	6,000	6,000	$104.58
5.56% Series	60,000	60,000	6,000	6,000	$102.59
Total without sinking fund	197,798	197,798	$19,780	$19,780	

(a) The total dollar value represents the liquidation value of $25 per share.
(b) Represents weighted-average annualized rates for 2004 and 2003.
(c) Fair values were determined using bid prices reported by dealer markets and by nationally recognized investment banking firms. There is an additional disclosure of fair value of financial instruments in Note 11 to the domestic utility companies and System Energy financial statements.

Entergy Gulf States' preferred stock with sinking fund retirements were 34,500 shares in 2004 and 2003, and 18,579 shares in 2002.

Entergy Gulf States has annual sinking fund requirements of $3.45 million through 2009 for its preferred stock outstanding. Entergy Gulf States has the annual non-cumulative option to redeem, at par, additional amounts of certain series of its outstanding preferred stock.

NOTE 7. COMMON EQUITY (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans

Dividend Restrictions

Provisions within the Articles of Incorporation or pertinent indentures and various other agreements relating to the long-term debt and preferred stock of the domestic utility companies and System Energy restrict the payment of cash dividends or other distributions on their common and preferred stock. Additionally, PUHCA prohibits Entergy Corporation's subsidiaries from making loans or advances to Entergy Corporation. As of December 31, 2004, Entergy Arkansas and Entergy Mississippi had restricted retained earnings unavailable for distribution to Entergy Corporation of $394.9 million and $68.5 million, respectively.

NOTE 8. COMMITMENTS AND CONTINGENCIES

The domestic utility companies and System Energy are involved in a number of legal, tax, and regulatory proceedings before various courts, regulatory commissions, and governmental agencies in the ordinary course of their business. While management is unable to predict the outcome of such proceedings, it is not expected that th ultimate resolution of these matters will have a material adverse effect on Entergy Arkansas', Entergy Gulf States', Entergy Louisiana's, Entergy Mississippi's, Entergy New Orleans', or System Energy's results of operations, cash flows, or financial condition.

Vidalia Purchased Power Agreement (Entergy Louisiana)

Entergy Louisiana has an agreement extending through the year 2031 to purchase energy generated by a hydroelectric facility known as the Vidalia project. Entergy Louisiana made payments under the contract of approximately $147.7 million in 2004, $112.6 million in 2003, and $104.2 million in 2002. If the maximum percentage (94%) of the energy is made available to Entergy Louisiana, current production projections would require estimated payments of approximately $125.3 million in 2005, and a total of $3.5 billion for the years 2006 through 2031. Entergy Louisiana currently recovers the costs of the purchased energy through its fuel adjustment clause. In an LPSC-approved settlement related to tax benefits from the tax treatment of the Vidalia contract, Entergy Louisiana agreed to credit rates by $11 million each year for up to ten years, beginning in October 2002. The provisions of the settlement also provide that the LPSC shall not recognize or use Entergy Louisiana's use of the cash benefits from the tax treatment in setting any of Entergy Louisiana's rates. Therefore, to the extent Entergy Louisiana's use of the proceeds would ordinarily have reduced its rate base, no change in rate base shall be reflected for ratemaking purposes.

System Fuels (Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

The domestic utility companies that are owners of System Fuels have made loans to System Fuels to finance its fuel procurement, delivery, and storage activities. The following loans outstanding to System Fuels as of December 31, 2004 mature in 2008:

Owner	Ownership Percentage	Loan Outstanding at December 31, 2004
Entergy Arkansas	35%	$11.0 million
Entergy Louisiana	33%	$14.2 million
Entergy Mississippi	19%	$5.5 million
Entergy New Orleans	13%	$3.3 million

Nuclear Insurance (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

Third Party Liability Insurance

The Price-Anderson Act provides insurance for the public in the event of a nuclear power plant accident. The costs of this insurance are borne by the nuclear power industry. Originally passed by Congress in 1957 and most recently amended in 1988, the Price-Anderson Act requires nuclear power plants to show evidence of financial protection in the event of a nuclear accident. This protection must consist of two levels:

1. The primary level is private insurance underwritten by American Nuclear Insurers and provides liability insurance coverage of $300 million. If this amount is not sufficient to cover claims arising from the accident, the second level, Secondary Financial Protection, applies. An industry-wide aggregate limitation of $300 million exists for domestically-sponsored terrorist acts. There is no limitation for foreign-sponsored terrorist acts.

2. Within the Secondary Financial Protection level, each nuclear plant must pay a retrospective premium, equal to its proportionate share of the loss in excess of the primary level, up to a maximum of $100.6

million per reactor per incident. This consists of a $95.8 million maximum retrospective premium plus a five percent surcharge that may be applied, if needed, at a rate that is presently set at $10 million per year per nuclear power reactor. There are no domestically- or foreign-sponsored terrorism limitations.

Currently, 104 nuclear reactors are participating in the Secondary Financial Protection program - 103 operating reactors and one closed reactor that still stores used nuclear fuel on site. The product of the maximum retrospective premium assessment to the nuclear power industry and the number of nuclear power reactors provides over $10 billion in insurance coverage to compensate the public in the event of a nuclear power reactor accident.

Entergy Arkansas has two licensed reactors and Entergy Gulf States, Entergy Louisiana, and System Energy each have one licensed reactor (10% of Grand Gulf is owned by a non-affiliated company (SMEPA), which would share on a pro-rata basis in any retrospective premium assessment under the Price-Anderson Act).

An additional but temporary contingent liability exists for all nuclear power reactor owners because of a previous Nuclear Worker Tort (long-term bodily injury caused by exposure to nuclear radiation while employed at a nuclear power plant) insurance program that was in place from 1988 to 1998. The maximum premium assessment exposure to each reactor is $3 million and will only be applied if such claims exceed the program's accumulated reserve funds. This contingent premium assessment feature will expire with the Nuclear Worker Tort program's expiration, which is scheduled for 2008.

Property Insurance

Entergy's nuclear owner/licensee subsidiaries are members of certain mutual insurance companies that provide property damage coverage, including decontamination and premature decommissioning expense, to the members' nuclear generating plants. These programs are underwritten by Nuclear Electric Insurance Limited (NEIL). As of December 31, 2004, the domestic utility companies and System Energy were insured against such losses per the following structures:

<u>ANO 1 and 2, Grand Gulf, River Bend, and Waterford 3</u>

- Primary Layer (per plant) - $500 million per occurrence
- Excess Layer (per plant) - $100 million per occurrence
- Blanket Layer (shared among all plants) - $1.0 billion per occurrence
- Total limit - $1.6 billion per occurrence
- Deductibles:
  - $5.0 million per occurrence - Turbine/generator damage
  - $5.0 million per occurrence - Other than turbine/generator damage

Note: ANO 1 and 2 share in the Primary Layer with one policy in common.

In addition, Waterford 3 and Grand Gulf are also covered under NEIL's Accidental Outage Coverage program. This coverage provides certain fixed indemnities in the event of an unplanned outage that results from a covered NEIL property damage loss, subject to a deductible. The following summarizes this coverage as of December 31, 2003:

<u>Waterford 3</u>

- $2.95 million weekly indemnity
- $413 million maximum indemnity
- Deductible: 26 week waiting period

<u>Grand Gulf</u>

- $100,000 weekly indemnity
- $14 million maximum indemnity
- Deductible: 26 week waiting period

Under the property damage and accidental outage insurance programs, Entergy's nuclear plants could be subject to assessments should losses exceed the accumulated funds available from NEIL. As of December 31, 2004, the maximum amount of such possible assessments per occurrence were $15.1 million for Entergy Arkansas, $11.1 million for Entergy Gulf States, $13.0 million for Entergy Louisiana, $0.06 million for Entergy Mississippi, $0.06 million for Entergy New Orleans, and $11.5 million for System Energy.

Entergy maintains property insurance for its nuclear units in excess of the NRC's minimum requirement of $1.06 billion per site for nuclear power plant licensees. NRC regulations provide that the proceeds of this insurance must be used, first, to render the reactor safe and stable, and second, to complete decontamination operations. Only after proceeds are dedicated for such use and regulatory approval is secured would any remaining proceeds be made available for the benefit of plant owners or their creditors.

In the event that one or more acts of domestically-sponsored terrorism causes property damage under one or more or all nuclear insurance policies issued by NEIL (including, but not limited to, those described above) within 12 months from the date the first property damage occurs, the maximum recovery under all such nuclear insurance policies shall be an aggregate of $3.24 billion plus the additional amounts recovered for such losses from reinsurance, indemnity, and any other sources applicable to such losses. There is no aggregate limit involving one or more acts of foreign-sponsored terrorism.

Nuclear Decommissioning and Other Retirement Costs (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, System Energy)

SFAS 143, "Accounting for Asset Retirement Obligations," which was implemented effective January 1, 2003, requires the recording of liabilities for all legal obligations associated with the retirement of long-lived assets that result from the normal operation of those assets.

These liabilities are recorded at their fair values (which is the present values of the estimated future cash outflows) in the period in which they are incurred, with an accompanying addition to the recorded cost of the long-lived asset. The asset retirement obligation is accreted each year through a charge to expense, to reflect the time value of money for this present value obligation. The amounts added to the carrying amounts of the long-lived assets are depreciated over the useful lives of the assets. The net effect of implementing this standard for the rate-regulated business of the domestic utility companies and System Energy was recorded as a regulatory asset, with no resulting impact on Entergy's net income. Entergy recorded these regulatory assets because existing rate mechanisms in each jurisdiction are based on the principle that Entergy will recover all ultimate costs of decommissioning from customers. As a result of this treatment, SFAS 143 is expected to be earnings neutral to the rate-regulated business of the domestic utility companies and System Energy.

Upon implementation of SFAS 143 in 2003, assets and liabilities increased $1.1 billion for the U.S. Utility segment as a result of recording the asset retirement obligations at their fair values of $1.1 billion as determined under SFAS 143, increasing utility plant by $287 million, reducing accumulated depreciation by $361 million and recording the related regulatory assets of $422 million. The implementation of SFAS 143 for the portion of River Bend not subject to cost-based ratemaking decreased earnings in the first quarter of 2003 by $21 million net-of-tax as a result of a cumulative effect of accounting change. In accordance with ratemaking treatment and as required by SFAS 71, the depreciation provisions for the domestic utility companies and System Energy include a component for removal costs that are not asset retirement obligations under SFAS 143. In accordance with regulatory accounting principles, the domestic utility companies and System Energy have recorded regulatory assets (liabilities) in the following amounts to reflect their estimates of the difference between estimated incurred removal costs and estimated removal costs recovered in rates previously recorded as a component of accumulated depreciation:

	December 31, 2004	December 31, 2003
	(In Millions)	
Entergy Arkansas	$34.9	$26.6
Entergy Gulf States	$0.9	$4.2
Entergy Louisiana	($34.6)	($26.8)
Entergy Mississippi	$32.7	$24.4
Entergy New Orleans	$1.3	$2.1
System Energy	$17.1	$15.1

The cumulative decommissioning liabilities and expenses recorded in 2004 by Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, and System Energy were as follows:

	Liabilities as of December 31, 2003	Accretion	Change in Cash Flow Estimate	Liabilities as of December 31, 2004
	(In Thousands)			
ANO 1 and ANO 2	$567.5	$32.9	($107.7)	$492.7
River Bend	$298.8	$19.7	($166.4)	$152.1
Waterford 3	$325.3	$22.0	-	$347.3
Grand Gulf	$312.5	$23.4	-	$335.9

Entergy periodically reviews and updates estimated decommissioning costs. The actual decommissioning costs may vary from the estimates because of regulatory requirements, changes in technology, and increased costs of labor, materials, and equipment.

In the first quarter of 2004, Entergy Arkansas recorded a revision to its estimated decommissioning cost liability in accordance with a new decommissioning cost study for ANO 1 and 2 as a result of revised decommissioning costs and changes in assumptions regarding the timing of when the decommissioning of the plants will begin. The revised estimate resulted in a $107.7 million reduction in its decommissioning liability, along with a $19.5 million reduction in utility plant and an $88.2 million reduction in the related regulatory asset.

In the third quarter of 2004, Entergy Gulf States recorded a revision to its estimated decommissioning cost liability in accordance with a new decommissioning cost study for River Bend that reflected an expected life extension for the plant. The revised estimate resulted in a $166.4 million reduction in decommissioning liability, along with a $31.3 million reduction in utility plant, a $49.6 million reduction in non-utility property, a $40.1 million reduction in the related regulatory asset, and a regulatory liability of $17.7 million. For the portion of River Bend not subject to cost-based ratemaking, the revised estimate resulted in the elimination of the asset retirement cost that had been recorded at the time of adoption of SFAS 143 with the remainder recorded as miscellaneous other income of $27.7 million.

If SFAS 143 had been applied by Entergy Gulf States for the portion of River Bend not subject to cost-based ratemaking during prior periods, the following impacts would have resulted:

	Year Ended December 31, 2002
Entergy Gulf States	
Earnings applicable to common stock - as reported	$169,190
Pro forma effect of SFAS 143	($2,227)
Earnings applicable to common stock - pro forma	$166,963

Entergy maintains decommissioning trust funds that are committed to meeting the costs of decommissioning the nuclear power plants. The fair values of the decommissioning trust funds and asset retirement obligation-related regulatory assets of Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, and System Energy as of December 31, 2004 are as follows:

	Decommissioning Trust Fair Values	Regulatory Assets
	(In Millions)	
ANO 1 & ANO 2	$383.8	$141.2
River Bend	$291.0	-
Waterford 3	$172.1	$141.6
Grand Gulf	$205.1	$97.3

The Energy Policy Act of 1992 contains a provision that assesses domestic nuclear utilities with fees for the decontamination and decommissioning (D&D) of the DOE's past uranium enrichment operations. Annual assessments in 2004 were $4.4 million for Entergy Arkansas, $1.1 million for Entergy Gulf States, $1.6 million for Entergy Louisiana, and $1.8 million for System Energy 2004. The Energy Policy Act calls for cessation of annual D&D assessments not later than October 24, 2007. At December 31, 2004, two years of assessments were remaining. D&D fees are included in other current liabilities and other non-current liabilities and, as of December 31, 2004, recorded liabilities were $8.8 million for Entergy Arkansas, $1.9 million for Entergy Gulf States, $3.3 million for Entergy Louisiana, and $3.3 million for System Energy. Regulatory assets in the financial statements offset these liabilities, with the exception of Entergy Gulf States' 30% non-regulated portion. These assessments are recovered through rates in the same manner as fuel costs.

Income Taxes

Entergy is currently under audit by the IRS with respect to tax returns for tax periods subsequent to 199[illegible] and through 2001, and is subject to audit by the IRS and other taxing authorities for subsequent tax periods. The amount and timing of any tax assessments resulting from these audits are uncertain, and could have a material effect on Entergy's financial position and results of operations. Entergy believes that the contingency provisions established in its financial statements will sufficiently cover the risk associated with tax matters. Certain material audit matters as to which management believes there is a reasonable possibility of a future tax assessment are discussed below. See Note 3 to the domestic utility companies and System Energy financial statements for additional discussion of income taxes.

Depreciable Property Lives

During the years 1997 through 2004, Entergy subsidiaries, Entergy Services, Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy Resources reflected changes in tax depreciation methods with respect to certain types of depreciable property (*e.g.* street lighting, billing meters, and various generation plant equipment). As of December 31, 2004, the cumulative effect of these changes results in additional depreciation deductions generating a cash flow benefit of $45 million for Entergy Arkansas, $38 million for Entergy Gulf States, $32 million for Entergy Louisiana, $19 million for Entergy Mississippi, $6 million for Entergy New Orleans, and $12 million for System Energy. As of December 31, 2004, the related IRS interest exposure if the deduction is ultimately disallowed is $13 million for Entergy Arkansas, $11 million for Entergy Gulf States, $9 million for Entergy Louisiana, $6 million for Entergy Mississippi, $2 million for Entergy New Orleans, and $3 million for System Energy. This benefit reverses over time and will also fluctuate with each year's addition to those types of assets. Due to the temporary nature of the tax benefit, the potential interest charge represents the total net exposure of the domestic utility companies and System Energy.

For the years under audit, 1996-2001, the IRS challenged Entergy's classification of these assets an proposed adjustments to the depreciation deductions taken. Entergy disagrees with the position of the IRS and has

protested the disallowance of these deductions to the Office of IRS Appeals. Entergy expects to receive a Notice of Deficiency in 2005 for this item, and plans to vigorously contest this matter. Entergy believes that the contingency provision established in its financial statements sufficiently covers the risk associated with this item.

Mark to Market of Certain Power Contracts

In 2001, Entergy Louisiana changed its method of accounting for tax purposes related to its wholesale electric power contracts. The most significant of these is the contract to purchase power from the Vidalia hydroelectric project. The new tax accounting method has provided a cumulative cash flow benefit of approximately $790 million as of December 31, 2004. The related IRS interest exposure is $93 million at December 31, 2004. This benefit is expected to reverse in the years 2005 through 2031. The election did not reduce book income tax expense. The timing of the reversal of this benefit depends on several variables, including the price of power. Due to the temporary nature of the tax benefit, the potential interest charge represents Entergy's net earnings exposure. Entergy Louisiana's 2001 tax return is currently under examination by the IRS, though no adjustments have yet been proposed with respect to the mark to market election. Entergy believes that the contingency provision established in its financial statements will sufficiently cover the risk associated with this issue.

CashPoint Bankruptcy (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans)

In 2003 the domestic utility companies entered an agreement with CashPoint Network Services (CashPoint) under which CashPoint was to manage a network of payment agents through which Entergy's utility customers could pay their bills. The payment agent system allows customers to pay their bills at various commercial or governmental locations, rather than sending payments by mail. Approximately one-third of Entergy's utility customers use payment agents.

On April 19, 2004, CashPoint failed to pay funds due to the domestic utility companies that had been collected through payment agents. The domestic utility companies then obtained a temporary restraining order from the Civil District Court for the Parish of Orleans, State of Louisiana, enjoining CashPoint from distributing funds belonging to Entergy, except by paying those funds to Entergy. On April 22, 2004, a petition for involuntary Chapter 7 bankruptcy was filed against CashPoint by other creditors in the United States Bankruptcy Court for the Southern District of New York. In response to these events, the domestic utility companies expanded an existing contract with another company to manage all of their payment agents. The domestic utility companies filed proofs of claim in the CashPoint bankruptcy proceeding in September 2004. Although Entergy cannot precisely determine at this time the amount that CashPoint owes to the domestic utility companies that may not be repaid, it has accrued an estimate of loss based on current information. If no cash is repaid to the domestic utility companies, an event Entergy does not believe is likely, the current estimates of maximum exposure to loss are approximately as follows:

	Amount (In Millions)
Entergy Arkansas	$1.8
Entergy Gulf States	$7.7
Entergy Louisiana	$8.8
Entergy Mississippi	$4.3
Entergy New Orleans	$2.4

Environmental Issues (Entergy Gulf States)

Entergy Gulf States has been designated as a PRP for the cleanup of certain hazardous waste disposal sites. As of December 31, 2004, Entergy Gulf States does not expect the remaining clean-up costs to exceed its recorded liability of $1.5 million for the remaining sites at which the EPA has designated Entergy Gulf States as a PRP.

City Franchise Ordinances (Entergy New Orleans)

Entergy New Orleans provides electric and gas service in the City of New Orleans pursuant to franchise ordinances. These ordinances contain a continuing option for the city to purchase Entergy New Orleans' electric and gas utility properties.

Waterford 3 Lease Obligations (Entergy Louisiana)

On September 28, 1989, Entergy Louisiana entered into three identical transactions for the sale and leaseback of undivided interests (aggregating approximately 9.3%) in Waterford 3. In July 1997, Entergy Louisiana caused the lessors to issue $307.6 million aggregate principal amount of Waterford 3 Secured Lease Obligation Bonds, 8.09% Series due 2017, to refinance the outstanding bonds originally issued to finance the purchase of the undivided interests by the lessors. The lease payments were reduced to reflect the lower interest costs. Upon the occurrence of certain events, Entergy Louisiana may be obligated to pay amounts sufficient to permit the termination of the lease transactions and may be required to assume the outstanding bonds issued to finance, in part, the lessors' acquisition of the undivided interests in Waterford 3.

Employment Litigation (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy New Orleans, System Energy, or their affiliates, are defendants in numerous lawsuits filed by former employees asserting that they were wrongfully terminated and/or discriminated against on the basis of age, race, sex, and/or other protected characteristics. Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, System Energy, and their affiliates are vigorously defending these suits and deny any liability to the plaintiffs. Nevertheless, no assurance can be given as to the outcome of these cases.

Asbestos and Hazardous Material Litigation (Entergy Gulf States, Entergy Louisiana, Entergy New Orleans)

Numerous lawsuits have been filed in federal and state courts in Texas, Louisiana, and Mississippi primarily by contractor employees in the 1950-1980 timeframe against Entergy Gulf States, Entergy Louisiana, and Entergy New Orleans, and Entergy Mississippi as premises owners of power plants, for damages caused by alleged exposure to asbestos or other hazardous material. Many other defendants are named in these lawsuits as well. Presently, there are approximately 480 lawsuits involving approximately 10,000 claims. Management believes that adequate provisions have been established to cover any exposure. Additionally, negotiations continue with insurers to recover more reimbursement, while new coverage is being secured to minimize anticipated future potential exposures. Management believes that loss exposure has been and will continue to be handled successfully so that the ultimate resolution of these matters will not be material, in the aggregate, to its financial position or results of operation.

Grand Gulf - Related Agreements

Capital Funds Agreement (System Energy)

System Energy has entered into agreements with Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans whereby they are obligated to purchase their respective entitlements of capacity and energy from System Energy's 90% interest in Grand Gulf, and to make payments that, together with other available funds, are adequate to cover System Energy's operating expenses. System Energy would have to secure funds from other sources, including Entergy Corporation's obligations under the Capital Funds Agreement, to cover any shortfalls from payments received from Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans under these agreements.

Unit Power Sales Agreement (Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

System Energy has agreed to sell all of its 90% share of capacity and energy from Grand Gulf to Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans in accordance with specified percentages (Entergy Arkansas-36%, Entergy Louisiana-14%, Entergy Mississippi-33%, and Entergy New Orleans-17%) as ordered by FERC. Charges under this agreement are paid in consideration for the purchasing companies' respective entitlement to receive capacity and energy and are payable irrespective of the quantity of energy delivered so long as the unit remains in commercial operation. The agreement will remain in effect until terminated by the parties and the termination is approved by FERC, most likely upon Grand Gulf's retirement from service. Monthly obligations are based on actual capacity and energy costs. The average monthly payments for 2004 under the agreement are approximately $16.6 million for Entergy Arkansas, $6.7 million for Entergy Louisiana, $13.7 million for Entergy Mississippi, and $8.1 million for Entergy New Orleans.

Availability Agreement (Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans are individually obligated to make payments or subordinated advances to System Energy in accordance with stated percentages (Entergy Arkansas-17.1%, Entergy Louisiana-26.9%, Entergy Mississippi-31.3%, and Entergy New Orleans-24.7%) in amounts that, when added to amounts received under the Unit Power Sales Agreement or otherwise, are adequate to cover all of System Energy's operating expenses as defined, including an amount sufficient to amortize the cost of Grand Gulf 2 over 27 years. (See Reallocation Agreement terms below.) System Energy has assigned its rights to payments and advances to certain creditors as security for certain obligations. Since commercial operation of Grand Gulf 1, payments under the Unit Power Sales Agreement have exceeded the amounts payable under the Availability Agreement. Accordingly, no payments under the Availability Agreement have ever been required. If Entergy Arkansas or Entergy Mississippi fails to make its Unit Power Sales Agreement payments, and System Energy is unable to obtain funds from other sources, Entergy Louisiana and Entergy New Orleans could become subject to claims or demands by System Energy or its creditors for payments or advances under the Availability Agreement (or the assignments thereof) equal to the difference between their required Unit Power Sales Agreement payments and their required Availability Agreement payments.

Reallocation Agreement (Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

System Energy, Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans entered into the Reallocation Agreement relating to the sale of capacity and energy from Grand Gulf and the related costs, in which Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans agreed to assume all of Entergy Arkansas' responsibilities and obligations with respect to Grand Gulf under the Availability Agreement. FERC's decision allocating a portion of Grand Gulf 1 capacity and energy to Entergy Arkansas supersedes the Reallocation Agreement as it relates to Grand Gulf 1. Responsibility for any Grand Gulf 2 amortization amounts has been individually allocated (Entergy Louisiana-26.23%, Entergy Mississippi-43.97%, and Entergy New Orleans-29.80%) under the terms of the Reallocation Agreement. However, the Reallocation Agreement does not affect Entergy Arkansas' obligation to System Energy's lenders under the assignments referred to in the preceding paragraph. Entergy Arkansas would be liable for its share of such amounts if Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans were unable to meet their contractual obligations. No payments of any amortization amounts will be required so long as amounts paid to System Energy under the Unit Power Sales Agreement, including other funds available to System Energy, exceed amounts required under the Availability Agreement, which is expected to be the case for the foreseeable future.

Reimbursement Agreement (System Energy)

In December 1988, System Energy entered into two separate, but identical, arrangements for the sale and leaseback of an approximate aggregate 11.5% ownership interest in Grand Gulf. In connection with the equity

funding of the sale and leaseback arrangements, letters of credit are required to be maintained to secure certain amounts payable for the benefit of the equity investors by System Energy under the leases. The current letters of credit are effective until May 29, 2009.

Under the provisions of the reimbursement agreement relating to the letters of credit, System Energy ha agreed to a number of covenants regarding the maintenance of certain capitalization and fixed charge coverage ratios. System Energy agreed, during the term of the reimbursement agreement, to maintain a ratio of debt to total liabilities and equity less than or equal to 70%. In addition, System Energy must maintain, with respect to each fiscal quarter during the term of the reimbursement agreement, a ratio of adjusted net income to interest expense of at least 1.50 times earnings. As of December 31, 2004, System Energy's debt ratio was approximately 32.5%, and its fixed charge coverage ratio for 2004 was approximately 4.12, calculated, in each case, as prescribed in the reimbursement agreement.

NOTE 9. LEASES (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and System Energy)

General

As of December 31, 2004 the domestic utility companies had capital leases and non-cancelable operating leases for equipment, buildings, vehicles, and fuel storage facilities (excluding nuclear fuel leases and the sale and leaseback transactions) with minimum lease payments as follows:

Capital Leases

Year	Entergy Arkansas	Entergy Mississippi
	(In Thousands)	
2005	$9,610	$50
2006	5,682	42
2007	3,427	11
2008	1,754	-
2009	237	-
Years thereafter	2,606	-
Minimum lease payments	23,316	103
Less: Amount representing interest	3,386	2
Present value of net minimum lease payments	$19,930	$101

Operating Leases

Year	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi
		(In Thousands)		
2005	$23,743	$26,744	$9,974	$7,421
2006	20,029	23,942	5,647	6,596
2007	17,563	17,223	5,109	3,552
2008	14,977	9,742	3,546	3,039
2009	8,622	9,108	2,346	2,676
Years thereafter	54,339	115,216	2,524	11,068
Minimum lease payments	$139,273	$201,975	$29,146	$34,352

Rental Expense

Year	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi
		(In Millions)		
2004	$17.4	$24.4	$11.9	$3.4
2003	$19.4	$26.5	$13.8	$5.4
2002	$20.8	$25.8	$13.6	$5.4

In addition to the above rental expense, railcar operating lease payments and oil tank facilities lease payments are recorded in fuel expense in accordance with regulatory treatment. Railcar operating lease payments were $9.3 million in 2004, $6.8 million in 2003, and $8.3 million in 2002 for Entergy Arkansas and $2.0 million in 2004, $1.8 million in 2003, and $2.0 million in 2002 for Entergy Gulf States. Oil tank facilities lease payments for Entergy Mississippi were $3.2 million for 2004 and $3.1 million for each of the years 2003 and 2002.

Nuclear Fuel Leases

As of December 31, 2004, arrangements to lease nuclear fuel existed in an aggregate amount up to $150 million for Entergy Arkansas, $105 million for Entergy Gulf States, $80 million for Entergy Louisiana, and $110 million for System Energy. As of December 31, 2004, the unrecovered cost base of nuclear fuel leases amounted to approximately $93.9 million for Entergy Arkansas, $71.2 million for Entergy Gulf States, $31.7 million for Entergy Louisiana, and $65.6 million for System Energy. The lessors finance the acquisition and ownership of nuclear fuel through loans made under revolving credit agreements, the issuance of commercial paper, and the issuance of intermediate-term notes. The credit agreements for Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, and System Energy each have a termination date of October 30, 2006. The termination dates may be extended from time to time with the consent of the lenders. The intermediate-term notes issued pursuant to these fuel lease arrangements have varying maturities through February 15, 2009. It is expected that additional financing under the leases will be arranged as needed to acquire additional fuel, to pay interest, and to pay maturing debt. However, if such additional financing cannot be arranged, the lessee in each case must repurchase sufficient nuclear fuel to allow the lessor to meet its obligations in accordance with the fuel lease.

Lease payments are based on nuclear fuel use. The table below represents the total nuclear fuel lease payments (principal and interest) as well as the separate interest component charged to operations in 2004, 2003, and 2002:

	2004		2003		2002	
	Lease Payments	Interest	Lease Payments	Interest	Lease Payments	Interest
			(In Millions)			
Entergy Arkansas	$53.0	$4.3	$49.9	$3.3	$49.6	$3.2
Entergy Gulf States	29.7	3.2	27.8	3.0	29.2	3.0
Entergy Louisiana	36.1	2.5	32.3	2.4	32.9	2.6
System Energy	27.8	2.8	32.0	3.1	26.1	2.5
Total	$146.6	$12.8	$142.0	$11.8	$137.8	$11.3

Sale and Leaseback Transactions

Waterford 3 Lease Obligations (Entergy Louisiana)

In 1989, Entergy Louisiana sold and leased back 9.3% of its interest in Waterford 3 for the aggregate sum of $353.6 million. The lease has an approximate term of 28 years. The lessors financed the sale-leaseback through the issuance of Waterford 3 Secured Lease Obligation Bonds. The lease payments made by Entergy Louisiana are sufficient to service the debt.

In 1994, Entergy Louisiana did not exercise its option to repurchase the 9.3% interest in Waterford 3. As a result, Entergy Louisiana issued $208.2 million of non-interest bearing first mortgage bonds as collateral for the equity portion of certain amounts payable under the lease.

In 1997, the lessors refinanced the outstanding bonds used to finance the purchase of Waterford 3 at lower interest rates, which reduced the annual lease payments.

Upon the occurrence of certain events, Entergy Louisiana may be obligated to assume the outstanding bonds used to finance the purchase of the unit and to pay an amount sufficient to withdraw from the lease transaction. Such events include lease events of default, events of loss, deemed loss events, or certain adverse "Financial Events." "Financial Events" include, among other things, failure by Entergy Louisiana, following the expiration of any applicable grace or cure period, to maintain (i) total equity capital (including preferred stock) at least equal to 30% of adjusted capitalization, or (ii) a fixed charge coverage ratio of at least 1.50 computed on a rolling 12 month basis.

As of December 31, 2004, Entergy Louisiana's total equity capital (including preferred stock) was 51.33% of adjusted capitalization and its fixed charge coverage ratio for 2004 was 3.76.

As of December 31, 2004, Entergy Louisiana had future minimum lease payments (reflecting an overall implicit rate of 7.45%) in connection with the Waterford 3 sale and leaseback transactions, which are recorded as long-term debt, as follows:

	(In Thousands)
2005	$14,554
2006	18,261
2007	18,754
2008	22,606
2009	32,452
Years thereafter	334,062
Total	440,689
Less: Amount representing interest	192,964
Present value of net minimum lease payments	$247,725

Grand Gulf Lease Obligations (System Energy)

In December 1988, System Energy sold 11.5% of its undivided ownership interest in Grand Gulf for the aggregate sum of $500 million. Subsequently, System Energy leased back its interest in the unit for a term of 26 1/2 years. System Energy has the option of terminating the lease and repurchasing the 11.5% interest in the unit at certain intervals during the lease. Furthermore, at the end of the lease term, System Energy has the option of renewing the lease or repurchasing the 11.5% interest in Grand Gulf.

In May 2004 System Energy caused the Grand Gulf lessors to refinance the outstanding bonds that they had issued to finance the purchase of their undivided interest in Grand Gulf. The refinancing is at a lower interest rate, and System Energy's lease payments have been reduced to reflect the lower interest costs.

System Energy is required to report the sale-leaseback as a financing transaction in its financial statements. For financial reporting purposes, System Energy expenses the interest portion of the lease obligation and the plant depreciation. However, operating revenues include the recovery of the lease payments because the transactions are accounted for as a sale and leaseback for ratemaking purposes. Consistent with a recommendation contained in a FERC audit report, System Energy recorded as a net regulatory asset the difference between the recovery of the lease payments and the amounts expensed for interest and depreciation and is recording this difference as a regulatory asset or liability on an ongoing basis, resulting in a zero net balance at the end of the lease term. The amount of this net regulatory asset was $75.4 million and $83.2 million as of December 31, 2004 and 2003, respectively.

As of December 31, 2004, System Energy had future minimum lease payments (reflecting an implicit rate of 5.01%), which are recorded as long-term debt as follows:

	(In Thousands)
2005	$45,423
2006	46,019
2007	46,552
2008	47,128
2009	47,760
Years thereafter	302,402
Total	535,284
Less: Amount representing interest	138,165
Present value of net minimum lease payments	$397,119

NOTE 10. RETIREMENT AND OTHER POSTRETIREMENT BENEFITS (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

Pension Plans

Entergy's domestic utility companies and System Entergy participate in two of Entergy's pension plans: "Entergy Corporation Retirement Plan for Non-Bargaining Employees" and "Entergy Corporation Retirement Plan for Bargaining Employees." Entergy Corporation and its subsidiaries fund pension costs in accordance with contribution guidelines established by the Employee Retirement Income Security Act of 1974, as amended, and the Internal Revenue Code of 1986, as amended. The assets of the plans include common and preferred stocks, fixed-income securities, interest in a money market fund, and insurance contracts. As of December 31, 2004 and 2003, Entergy's domestic utility companies and System Energy recognized an additional minimum pension liability for the excess of the accumulated benefit obligation over the fair market value of plan assets. In accordance with SFAS 87, an offsetting intangible asset, up to the amount of any unrecognized prior service cost, was also recorded, with the remaining offset to the liability recorded as a regulatory asset, reflective of the recovery mechanism for pension costs in Entergy's jurisdictions. Entergy's domestic utility companies' and System Energy's pension costs are recovered from customers as a component of cost of service in each of its jurisdictions. Entergy uses a December 31 measurement date for its pension plans.

Components of Net Pension Cost

Total 2004, 2003, and 2002 pension cost of the domestic utility companies and System Energy, including amounts capitalized, included the following components:

2004	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Service cost - benefits earned during the period	$11,941	$9,693	$7,009	$3,615	$1,569	$3,386
Interest cost on projected benefit obligation	35,846	28,471	21,790	11,915	4,465	5,189
Expected return on assets	(36,913)	(39,682)	(27,510)	(14,716)	(2,568)	(4,556)
Amortization of transition asset	-	-	-	-	-	(319)
Amortization of prior service cost	1,662	1,511	650	513	226	67
Recognized net loss	3,952	405	1,344	794	898	788
Net pension cost	$16,488	$398	$3,283	$2,121	$4,590	$4,555

2003	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Service cost - benefits earned during the period	$11,156	$8,788	$6,369	$3,411	$1,539	$3,142
Interest cost on projected benefit obligation	33,009	27,708	20,028	11,339	3,958	4,200
Expected return on assets	(38,712)	(41,784)	(28,919)	(15,434)	(2,616)	(3,944
Amortization of transition asset	-	-	-	-	-	(319)
Amortization of prior service cost	1,737	1,931	789	584	236	73
Recognized net loss	256	150	-	83	-	27
Curtailment loss	5,305	2,133	2,748	1,065	129	944
Special termination benefits	5,543	2,857	2,619	811	367	1,720
Net pension cost	$18,294	$1,783	$3,634	$1,859	$3,613	$5,843

2002	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Service cost - benefits earned during the period	$9,787	$7,391	$5,901	$2,971	$1,414	$2,616
Interest cost on projected benefit obligation	31,058	27,737	19,747	11,013	4,126	3,735
Expected return on assets	(40,514)	(43,827)	(30,300)	(16,197)	(2,763)	(3,775)
Amortization of transition asset	-	-	-	-	-	(319)
Amortization of prior service cost	1,743	1,923	744	705	269	72
Net pension cost (income)	$2,074	($6,776)	($3,908)	($1,508)	$3,046	$2,329

Pension Obligations, Plan Assets, Funded Status, and Amounts Not Yet Recognized and Recognized in the Balance Sheet as of December 31, 2004 and 2003

2004	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Change in Projected Benefit Obligation (PBO)						
Balance at 12/31/03	$565,004	$467,707	$340,212	$190,184	$67,866	$79,033
Service cost	11,941	9,693	7,009	3,615	1,569	3,386
Interest cost	35,846	28,471	21,790	11,915	4,465	5,189
Actuarial loss	46,590	17,687	32,309	13,200	8,169	9,175
Benefits paid	(34,565)	(27,348)	(22,218)	(12,771)	(3,719)	(1,784)
Balance at 12/31/04	$624,816	$496,210	$379,102	$206,143	$78,350	$94,999
Change in Plan Assets						
Fair value of assets at 12/31/03	$423,214	$448,490	$316,669	$169,958	$29,565	$45,375
Actual return on plan assets	39,265	42,380	31,046	16,268	2,849	8,667
Employer contributions	5,342	17	3,907	1,823	2,118	3,742
Benefits paid	(34,565)	(27,348)	(22,218)	(12,771)	(3,719)	(1,784)
Fair value of assets at 12/31/04	$433,256	$463,539	$329,404	$175,278	$30,813	$56,000
Funded status	($191,560)	($32,671)	($49,698)	($30,865)	($47,537)	($38,999)
Amounts not yet recognized in the balance sheet						
Unrecognized transition asset	-	-	-	-	-	(277)
Unrecognized prior service cost	8,177	5,938	3,762	2,692	1,263	286
Unrecognized net loss	133,821	38,628	75,962	36,825	26,357	20,298
Prepaid/(accrued) pension cost recognized in the balance sheet	($49,562)	$11,895	$30,026	$8,652	($19,917)	($18,692)
Amounts recognized in the balance sheet						
Prepaid/(accrued) pension liability	($49,562)	$11,895	$30,026	$8,652	($19,917)	($18,692)
Additional minimum pension liability	(81,161)	-	(38,871)	(23,492)	(16,928)	(7,678)
Intangible asset	10,313	-	4,759	3,308	1,698	247
Regulatory asset	70,848	-	34,112	20,184	15,230	7,431
Net amount recognized	($49,562)	$11,895	$30,026	$8,652	($19,917)	($18,692)

2003	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Change in Projected Benefit Obligation (PBO)						
Balance at 12/31/02	$476,276	$420,644	$297,144	$167,175	$57,085	$59,418
Service cost	11,156	8,788	6,369	3,411	1,539	3,142
Interest cost	33,009	27,708	20,028	11,339	3,958	4,200
Amendment	121	96	-	5	-	5
Actuarial loss	62,444	31,342	30,844	17,133	7,417	9,984
Benefits paid	(28,445)	(25,611)	(19,332)	(10,634)	(2,559)	(366)
Curtailment loss	4,900	1,883	2,540	944	59	930
Special termination benefits	5,543	2,857	2,619	811	367	1,720
Balance at 12/31/03	$565,004	$467,707	$340,212	$190,184	$67,866	$79,033
Change in Plan Assets						
Fair value of assets at 12/31/02	$367,080	$380,999	$261,785	$144,947	$32,384	$34,041
Actual return on plan assets	84,579	93,102	74,216	35,645	(260)	11,700
Benefits paid	(28,445)	(25,611)	(19,332)	(10,634)	(2,559)	(366)
Fair value of assets at 12/31/03	$423,214	$448,490	$316,669	$169,958	$29,565	$45,375
Funded status	($141,790)	($19,217)	($23,543)	($20,226)	($38,301)	($33,658)
Amounts not yet recognized in the balance sheet						
Unrecognized transition asset	-	-	-	-	-	(59
Unrecognized prior service cost	9,839	7,449	4,412	3,206	1,489	353
Unrecognized net loss	93,535	24,044	48,533	25,970	19,367	16,021
Prepaid/(accrued) pension cost recognized in the balance sheet	($38,416)	$12,276	$29,402	$8,950	($17,445)	($17,880)
Amounts recognized in the balance sheet:						
Prepaid/(accrued) pension liability	($38,416)	$12,276	$29,402	$8,950	($17,445)	($17,880)
Additional minimum pension liability	(54,948)	-	-	(7,301)	(13,140)	(7,426)
Intangible asset	13,291	-	-	937	2,774	365
Regulatory asset	41,657	-	-	6,364	10,366	7,061
Net amount recognized	($38,416)	$12,276	$29,402	$8,950	($17,445)	($17,880)

Other Postretirement Benefits

The domestic utility companies and System Energy also currently provide health care and life insurance benefits for retired employees. Substantially all employees may become eligible for these benefits if they reach retirement age while still working for Entergy. Entergy uses a December 31 measurement date for its postretirement benefit plans.

Effective January 1, 1993, Entergy adopted SFAS 106, which required a change from a cash method to an accrual method of accounting for postretirement benefits other than pensions. At January 1, 1993, the actuarially determined accumulated postretirement benefit obligation (APBO) earned by retirees and active employees was estimated to be approximately $241.4 million for Entergy (other than Entergy Gulf States) and $128 million for Entergy Gulf States. Such obligations are being amortized over a 20-year period that began in 1993.

Entergy Arkansas, the portion of Entergy Gulf States regulated by the PUCT, Entergy Mississippi, and Entergy New Orleans have received regulatory approval to recover SFAS 106 costs through rates. Entergy Arkansas began recovery in 1998, pursuant to an APSC order. This order also allowed Entergy Arkansas to amortize a regulatory asset (representing the difference between SFAS 106 costs and cash expenditures for other postretirement benefits incurred for a five-year period that began January 1, 1993) over a 15-year period that began in January 1998.

The LPSC ordered the portion of Entergy Gulf States regulated by the LPSC and Entergy Louisiana to continue the use of the pay-as-you-go method for ratemaking purposes for postretirement benefits other than pensions. However, the LPSC retains the flexibility to examine individual companies' accounting for postretirement benefits to determine if special exceptions to this order are warranted.

Pursuant to regulatory directives, Entergy Arkansas, Entergy Mississippi, Entergy New Orleans, the portion of Entergy Gulf States regulated by the PUCT, and System Energy fund postretirement benefit obligations collected in rates. System Energy is funding, on behalf of Entergy Operations, postretirement benefits associated with Grand Gulf. Entergy Louisiana and Entergy Gulf States continue to recover a portion of these benefits regulated by the LPSC and FERC on a pay-as-you-go basis.

Components of Net Other Postretirement Benefit Cost

Total 2004, 2003, and 2002 other postretirement benefit costs of the domestic utility companies and System Energy, including amounts capitalized and deferred, included the following components:

2004	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Service cost - benefits earned during the period	$3,860	$5,328	$2,371	$1,213	$662	$1;389
Interest cost on APBO	10,075	11,050	6,641	3,222	3,204	1,430
Expected return on assets	(6,210)	(4,995)	-	(2,554)	(2,263)	(1,362)
Amortization of transition obligation	1,068	4,589	1,202	431	2,121	15
Amortization of prior service cost	27	-	98	16	38	(361)
Recognized net loss	3,937	1,620	2,003	1,503	522	358
Net other postretirement benefit cost	$12,757	$17,592	$12,315	$3,831	$4,284	$1,469

2003	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Service cost - benefits earned during the period	$6,560	$5,701	$3,322	$1,866	$948	$1,553
Interest cost on APBO	10,637	11,314	6,780	3,459	3,436	1,352
Expected return on assets	(4,859)	(4,349)	-	(2,186)	(2,010)	(1,088)
Amortization of transition obligation	3,327	5,307	2,238	1,301	2,449	135
Amortization of prior service cost	143	163	82	51	52	(140)
Recognized net loss	3,497	1,575	1,496	1,160	475	350
Curtailment loss	9,276	6,301	5,041	1,259	996	2,524
Special termination benefits	794	512	452	73	28	284
Net other postretirement benefit cost	$29,375	$26,524	$19,411	$6,983	$6,374	$4,970

2002	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Service cost - benefits earned during the period	$5,429	$4,153	$3,137	$1,513	$889	$1,300
Interest cost on APBO	9,448	9,734	6,242	3,099	3,264	1,150
Expected return on assets	(3,889)	(4,232)	-	(2,088)	(1,959)	(1,023)
Amortization of transition obligation	3,954	5,803	2,971	1,502	2,678	220
Amortization of prior service cost	245	278	141	87	89	24
Recognized net (gain)/loss	873	135	75	335	(55)	11
Net other postretirement benefit cost	$16,060	$15,871	$12,566	$4,448	$4,906	$1,682

Other Postretirement Benefit Obligations, Plan Assets, Funded Status, and Amounts Not Yet Recognized and Recognized in the Balance Sheet as of December 31, 2004 and 2003:

2004	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Change in APBO						
Balance at 12/31/03	$187,259	$194,205	$112,675	$57,786	$55,062	$25,466
Service cost	3,860	5,328	2,371	1,213	662	1,389
Interest cost	10,075	11,050	6,641	3,222	3,204	1,430
Actuarial loss	10,714	9,086	8,175	6,787	3,624	1,441
Benefits paid	(15,964)	(13,832)	(9,843)	(5,307)	(5,967)	(1,719)
Plan amendments (a)	(18,279)	(6,406)	(5,546)	(6,894)	(2,582)	(1,125)
Plan participant contributions	1,693	1,833	1,323	771	846	20
Balance at 12/31/04	179,358	201,264	115,796	57,578	54,849	26,902
Change in Plan Assets						
Fair value of assets at 12/31/03	$68,876	$59,511	$-	$28,932	$33,158	$16,821
Actual return on plan assets	5,657	4,773	-	2,154	2,340	1,495
Employer contributions	16,729	14,540	8,520	5,521	4,870	4,691
Plan participant contributions	1,693	1,833	1,323	771	846	20
Benefits paid	(15,964)	(13,832)	(9,843)	(5,307)	(5,967)	(1,719)
Fair value of assets at 12/31/04	$76,991	$66,825	$-	$32,071	$35,247	$21,308
Funded status	($102,367)	($134,439)	($115,796)	($25,507)	($19,602)	($5,594)
Amounts not yet recognized in the balance sheet						
Unrecognized transition obligation	6,567	30,310	3,057	2,810	13,929	119
Unrecognized prior service cost	(4,013)	-	919	(1,015)	418	(2,805)
Unrecognized net loss	79,185	57,089	44,723	28,429	15,620	9,699
Prepaid/(accrued) postretirement benefit cost recognized in the balance sheet	($20,628)	($47,040)	($67,097)	$4,717	$10,365	$1,419

(a) Reflects plan design changes, including a change in participation assumption for certain bargaining employees at Entergy Arkansas and Entergy Mississippi, effective January 1, 2004.

2003	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Change in APBO						
Balance at 12/31/02	$164,258	$167,678	$107,398	$53,398	$54,646	$21,410
Service cost	6,560	5,701	3,322	1,866	948	1,553
Interest cost	10,637	11,314	6,780	3,459	3,436	1,352
Actuarial loss	20,340	24,731	13,445	6,004	4,536	3,104
Benefits paid	(11,523)	(11,411)	(7,816)	(4,040)	(4,761)	(616)
Plan amendments (a)	(14,561)	(11,479)	(16,862)	(4,659)	(5,146)	(4,260)
Plan participant contributions	1,905	1,663	1,126	604	750	78
Curtailment loss	8,849	5,496	4,830	1,081	625	2,561
Special termination benefits	794	512	452	73	28	284
Balance at 12/31/03	$187,259	$194,205	$112,675	$57,786	$55,062	$25,466
Change in Plan Assets						
Fair value of assets at 12/31/02	$49,076	$50,001	$-	$23,420	$28,490	$13,569
Actual return on plan assets	6,290	6,587	-	2,979	2,614	1,475
Benefits paid	(11,523)	(11,411)	(7,816)	(4,040)	(4,761)	(616)
Employer contributions	23,128	12,671	6,690	5,969	6,065	2,315
Plan participant contributions	1,905	1,663	1,126	604	750	78
Fair value of assets at 12/31/03	$68,876	$59,511	$-	$28,932	$33,158	$16,821
Funded status	($118,383)	($134,694)	($112,675)	($28,854)	($21,904)	($8,645)
Amounts not yet recognized in the balance sheet						
Unrecognized transition obligation	21,928	41,305	10,822	9,136	19,088	134
Unrecognized prior service cost	-	-	-	-	-	(2,040)
Unrecognized net loss	71,855	49,401	38,551	22,745	12,595	8,748
Prepaid/(accrued) postretirement benefit cost recognized in the balance sheet	($24,600)	($43,988)	($63,302)	$3,027	$9,779	($1,803)

(a) Reflects plan design changes, including a change in the participation assumption for non-bargaining employees effective August 1, 2003.

Pension and Other Postretirement Plans' Assets

Entergy's pension and postretirement plans weighted-average asset allocations by asset category at December 31, 2004 and 2003 are as follows:

	Pension		Postretirement	
	2004	2003	2004	2003
Domestic Equity Securities	46%	56%	38%	37%
International Equity Securities	21%	14%	14%	0%
Fixed Income Securities	31%	28%	47%	60%
Other	2%	2%	1%	3%

Entergy's trust asset investment strategy is to invest the assets in a manner whereby long-term earnings on the assets (plus cash contributions) provide adequate funding for retiree benefit payments. The mix of assets is based on an optimization study that identifies asset allocation targets in order to achieve the maximum return for an acceptable level of risk, while minimizing the expected contributions and pension and postretirement expense.

In the optimization study, Entergy formulates assumptions (or hires a consultant to provide such analysis) about characteristics, such as expected asset class investment returns, volatility (risk), and correlation coefficients among the various asset classes. The future market assumptions used in the optimization study are determined by examining historical market characteristics of the various asset classes, and making adjustments to reflect future conditions expected to prevail over the study period.

The optimization analysis utilized in Entergy's latest study produced the following approved asset class target allocations.

	Pension	Postretirement
Domestic Equity Securities	45%	37%
International Equity Securities	20%	14%
Fixed Income Securities	31%	49%
Other (Cash and GACs)	4%	0%

These allocation percentages combined with each asset class' expected investment return produced an aggregate return expectation for the five years following the study of 7.6% for pension assets, 5.4% for taxable postretirement assets, and 7.2% for non-taxable postretirement assets. These returns are not inconsistent with Entergy's disclosed expected pre-tax return on assets of 8.5% over the life of the respective liabilities.

Since precise allocation targets are inefficient to manage security investments, the following ranges were established to produce an acceptable economically efficient plan to manage to targets:

	Pension	Postretirement
Domestic Equity Securities	45% to 55%	32% to 42%
International Equity Securities	15% to 25%	9% to 19%
Fixed Income Securities	25% to 35%	44% to 54%
Other	0% to 10%	0% to 5%

Accumulated Pension Benefit Obligation

The accumulated benefit obligation for the domestic utility companies and System Entergy as December 31, 2004 and 2003 was:

	December 31,	
	2004	2003
	(In Thousands)	
Entergy Arkansas	$558,283	$509,382
Entergy Gulf States	$449,986	$426,320
Entergy Louisiana	$341,681	$309,066
Entergy Mississippi	$189,119	$174,245
Entergy New Orleans	$69,202	$59,610
System Energy	$79,641	$64,661

Estimated Future Benefit Payments

Based upon the assumptions used to measure the company's pension and postretirement benefit obligation at December 31, 2004, and including pension and postretirement benefits attributable to estimated future employee service, Entergy expects that benefits to be paid over the next ten years will be as follows:

Estimated Future Pension Benefits Payments	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Year(s)						
2005	$34,240	$26,852	$21,707	$12,630	$3,634	$1,764
2006	$34,660	$27,037	$21,790	$12,771	$3,648	$1,783
2007	$35,332	$27,358	$21,956	$13,000	$3,676	$1,814
2008	$36,266	$27,885	$22,290	$13,326	$3,731	$1,859
2009	$37,674	$28,718	$22,840	$13,821	$3,823	$1,927
2010 - 2014	$227,605	$167,679	$130,644	$82,964	$21,870	$11,552

Estimated Future Other Postretirement Benefits Payments	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Year(s)						
2005	$13,588	$12,638	$8,528	$4,127	$4,565	$1,311
2006	$12,989	$12,280	$8,182	$3,849	$4,162	$1,390
2007	$13,362	$12,901	$8,402	$3,993	$4,268	$1,464
2008	$13,500	$13,381	$8,545	$4,095	$4,353	$1,522
2009	$13,707	$13,808	$8,642	$4,133	$4,443	$1,620
2010 - 2014	$67,855	$74,755	$43,297	$22,011	$21,774	$9,788

Contributions

The domestic utility companies and System Energy expect to contribute the following to the pension and other postretirement plans in 2005:

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
Pension Contributions	$20,560	$18,948	$2,622	$3,416	$15,667	$9,266
Other Postretirement Contributions	$16,063	$14,317	$8,528	$4,159	$4,436	$1,732

Additional Information

The change in the minimum pension liability had no effect on other comprehensive income at the domestic utility companies and System Energy in 2004 or 2003. The change in the minimum pension liability included in regulatory assets at each of the domestic utility companies and System Energy was as follows for 2004 and 2003:

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
2004	$29,191	$-	$34,112	$13,820	$4,865	$370
2003	$22,600	$-	($38,755)	($3,446)	$7,395	$7,061

Actuarial Assumptions

The assumed health care cost trend rate used in measuring the APBO of the domestic utility companies and System Energy was 10% for 2005, gradually decreasing each successive year until it reaches 4.5% in 2011 and beyond. The assumed health care cost trend rate used in measuring the Net Other Postretirement Benefit Cost of the domestic utility companies and System Energy was 10% for 2004, gradually decreasing each successive year until it reaches 4.5% in 2010 and beyond. A one percentage point change in the assumed health care cost trend rate for 2004 would have the following effects:

	1 Percentage Point Increase		1 Percentage Point Decrease	
2004	**Impact on the APBO**	**Impact on the sum of service costs and interest cost**	**Impact on the APBO**	**Impact on the sum of service costs and interest cost**
		Increase (Decrease) (In Thousands)		
Entergy Arkansas	$14,980	$1,548	($13,825)	($1,378)
Entergy Gulf States	$19,685	$2,205	($17,932)	($1,918)
Entergy Louisiana	$9,930	$1,021	($9,146)	($907)
Entergy Mississippi	$4,785	$479	($4,418)	($428)
Entergy New Orleans	$3,998	$362	($3,726)	($327)
System Energy	$3,152	$448	($2,821)	($384)

The significant actuarial assumptions used in determining the pension PBO and the SFAS 106 APBO for 2004, 2003, and 2002 were as follows:

	2004	2003	2002
Weighted-average discount rate:			
Pension	6.00%	6.25%	6.75%
Other postretirement	6.00%	6.71%	6.75%
Weighted-average rate of increase in future compensation levels	3.25%	3.25%	3.25%
Expected long-term rate of return on plan assets:			
Taxable assets	5.50%	5.50%	5.50%
Non-taxable assets	8.50%	8.75%	8.75%

The significant actuarial assumptions used in determining the net periodic pension and other postretirement benefit costs for 2004, 2003, and 2002 were as follows:

	2004	2003	2002
Weighted-average discount rate			
Pension	6.25%	6.75%	7.50%
Other postretirement	6.71%	6.75%	7.50%
Weighted-average rate of increase in future compensation levels	3.25%	3.25%	4.60%
Expected long-term rate of return on plan assets:			
Taxable assets	5.50%	5.50%	5.50%
Non-taxable assets	8.75%	8.75%	9.00%

The domestic utility companies' and System Energy's remaining pension transition assets are being amortized over the greater of the remaining service period of active participants or 15 years ending in 2005, and their SFAS 106 transition obligations are being amortized over 20 years ending in 2012.

Voluntary Severance Program

In the second half of 2003, the domestic utility companies and System Energy offered a voluntary severance program to certain groups of employees. As a result of this program, in the fourth quarter 2003 the domestic utility companies and System Energy recorded additional pension and postretirement costs (including amounts capitalized) of $53.9 million for special termination benefits and plan curtailment charges. These amounts are included in the net pension cost and net postretirement benefit cost for the year ended December 31, 2003.

Medicare Prescription Drug, Improvement and Modernization Act of 2003

In December 2003, the President signed the Medicare Prescription Drug, Improvement and Modernization Act of 2003 into law. The Act introduces a prescription drug benefit under Medicare (Part D), starting in 2006, as well as a federal subsidy to employers who provide a retiree prescription drug benefit that is at least actuarially equivalent to Medicare Part D. At December 2003, specific authoritative guidance on the accounting for the federal subsidy was pending. As allowed by Financial Accounting Standards Board Staff Position No. FAS 106-1, Entergy elected to record an estimate of the effects of the Act in accounting for its postretirement benefit plans at December 31, 2003, under SFAS 106 and in providing disclosures required by SFAS No. 132 (revised 2003), Employers' Disclosures about Pensions and Other Postretirement Benefits. At December 31, 2003, based on actuarial analysis of prescription drug benefits, estimated future Medicare subsidies were expected to reduce the December 31, 2003 Accumulated Postretirement Benefit Obligation by $56 million. For the year ended December 31, 2003 the impact of the Act on net postretirement benefit cost was immaterial, as it reflected only one month's impact of the Act.

In 2004, Entergy continued to record the expected effects of the Act in accounting for its postretirement benefit plans. In mid-2004, the Financial Accounting Standards Board issued Staff Position No. FAS 106-2, Accounting and Disclosure Requirements Related to the Medicare Prescription Drug, Improvement and Modernization Act of 2003, which was effective for Entergy's June 30, 2004 interim reporting.

In August 2004, the Centers for Medicare and Medicaid Services issued proposed regulations to implement the new Medicare law. A ruling from the Centers for Medicare and Medicaid Services was issued in late January 2005 with final guidance expected later this year.

The actuarially estimated effect of future Medicare subsidies was as follows:

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
	Increase (Decrease) In Thousands					
Impact on 12/31/2003 APBO	($28,824)	($25,603)	($16,194)	($9,888)	($8,035)	($3,811)
Impact on 12/31/2004 APBO	($35,928)	($31,846)	($20,085)	($12,227)	($9,742)	($4,982)
Impact on 2004 other postretirement benefit cost	($4,999)	($4,405)	($2,752)	($1,657)	($1,248)	($815)

NOTE 11. RISK MANAGEMENT AND DERIVATIVES

Market and Commodity Risks

In the normal course of business, the domestic utility companies and System Energy are exposed to a number of market and commodity risks including power price risk, fuel price risk, foreign currency exchange rate risk, and equity price and interest rate risks. Market risk is the potential loss that the domestic utility companies and System Energy may incur as a result of changes in the market or fair value of a particular instrument or commodity. All financial and commodity-related instruments, including derivatives, are subject to market risk.

The domestic utility companies and System Energy manage these risks through both contractual arrangements and derivatives. Contractual risk management tools include long-term power and fuel purchase agreements. The domestic utility companies and System Energy also use a variety of commodity and financial derivatives, including natural gas and electricity futures, forwards and options, and foreign currency forwards to manage the following risks:

- power price risk resulting from Entergy's short position during the summer months;
- fuel price risk for spot market gas purchases; and
- foreign currency exchange rate risk resulting from Euro-denominated nuclear fuel acquisition contracts.

Gains and losses realized from derivative transactions used to manage power and fuel price risk are included in fuel costs recovered through rates. Accordingly, these gains and losses are accounted for as regulatory assets and liabilities prior to transaction maturity. Power price risk is managed primarily through the purchase of short-term forward contracts that are accounted for as normal purchases. Any option premiums paid to manage power price risk are booked with an offsetting regulatory asset or liability. The volume of these purchases is based on Entergy's demand forecast.

Entergy manages fuel price risk for its Louisiana jurisdictions (Entergy Louisiana, Entergy New Orleans, and the Louisiana portion of Entergy Gulf States) and Entergy Mississippi primarily through the purchase of short-term swaps. These swaps are marked-to-market with offsetting regulatory assets or liabilities. The notional volumes of these swaps are based on a portion of projected purchases of gas for the summer (electric generation) and winter (gas distribution at Entergy Gulf States and Entergy New Orleans) peak seasons.

Entergy Gulf States manages foreign currency exchange rate risk associated with the acquisition of nuclear fuel through the purchase of forwards that are accounted for as cash flow hedges. The notional volumes of these forwards are based on forecasted purchases and the realized gain or loss from these forwards is included in the capitalized cost of the applicable batches of nuclear fuel. Gains totaling approximately $6.4 million were realized during 2004 on the maturity of cash flow hedges. These realized gains resulted from foreign currency hedges related to Euro-denominated nuclear fuel acquisition contracts, and related gains or losses, when realized, are included in the capitalized cost of nuclear fuel. The ineffective portion of the change in the value of Entergy Gulf States' cash flow hedges during 2004 was insignificant. Entergy Gulf States has no outstanding cash flow hedges as of December 31, 2004.

NOTE 12. DECOMMISSIONING TRUST FUNDS

Entergy Arkansas

Entergy Arkansas holds debt and equity securities, classified as available-for-sale, in nuclea decommissioning trust accounts. The securities held at December 31, 2004 and 2003 are summarized as follows:

2004	Fair Value	Total Unrealized Gains	Total Unrealized Losses
		(In Millions)	
Equity	$189.5	$66.6	$1.6
Debt Securities	194.3	4.3	1.9
Total	$383.8	$70.9	$3.5
2003			
Equity	$168.3	$47.2	$-
Debt Securities	192.2	7.0	1.2
Total	$360.5	$54.2	$1.2

The fair value and gross unrealized losses of available-for-sale equity and debt securities, summarized by investment type and length of time that the securities have been in a continuous loss position, are as follows at December 31, 2004:

	Equity Securities		Debt Securities	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
		(In Millions)		
Less than 12 months	$0.7	$-	$87.4	$1.6
More than 12 months	12.2	1.6	12.2	0.3
Total	$12.9	$1.6	$99.6	$1.9

The fair value of debt securities, summarized by contractual maturities, at December 31, 2004 is as follows:

	Fair Value (In Millions)
less than 1 year	$32.5
1 year - 5 years	128.3
5 years - 10 years	30.2
10 years - 15 years	3.3
15 years - 20 years	-
20 years+	-
Total	$194.3

During the year ended December 31, 2004, the proceeds from the dispositions of securities amounted t $1.7 million with gross gains of $17,098 and gross losses of $18,274.

Entergy Gulf States

Entergy Gulf States holds debt and equity securities, classified as available-for-sale, in nuclear decommissioning trust accounts. The securities held at December 31, 2004 and 2003 are summarized as follows:

2004	Fair Value	Total Unrealized Gains	Total Unrealized Losses
		(In Millions)	
Equity	$138.1	$20.4	$0.8
Debt Securities	152.9	8.8	0.2
Total	$291.0	$29.2	$1.0
2003			
Equity	$119.4	$8.0	$0.2
Debt Securities	148.5	10.4	1.0
Total	$267.9	$18.4	$1.2

The fair value and gross unrealized losses of available-for-sale equity and debt securities, summarized by investment type and length of time that the securities have been in a continuous loss position, are as follows at December 31, 2004:

	Equity Securities		Debt Securities	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
		(In Millions)		
Less than 12 months	$0.6	$-	$10.0	$0.1
More than 12 months	10.5	0.8	2.3	0.1
Total	$11.1	$0.8	$12.3	$0.2

The fair value of debt securities, summarized by contractual maturities, at December 31, 2004 is as follows:

	Fair Value
	(In Millions)
less than 1 year	$8.7
1 year - 5 years	42.0
5 years - 10 years	51.3
10 years - 15 years	37.7
15 years - 20 years	11.0
20 years+	2.2
Total	$152.9

During the year ended December 31, 2004, the proceeds from the dispositions of securities amounted to $2.9 million with gross gains of $790 and gross losses of $98,852.

Entergy Louisiana

Entergy Louisiana holds debt and equity securities, classified as available-for-sale, in nuclear decommissioning trust accounts. The securities held at December 31, 2004 and 2003 are summarized as follows:

2004	Fair Value	Total Unrealized Gains	Total Unrealized Losses
		(In Millions)	
Equity	$92.5	$17.1	$2.5
Debt Securities	79.6	2.8	0.8
Total	$172.1	$19.9	$3.3
2003			
Equity	$74.6	$6.0	$-
Debt Securities	77.4	3.3	0.1
Total	$152.0	$9.3	$0.1

The fair value and gross unrealized losses of available-for-sale equity and debt securities, summarized by investment type and length of time that the securities have been in a continuous loss position, are as follows at December 31, 2004:

	Equity Securities		Debt Securities	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
		(In Millions)		
Less than 12 months	$0.3	$-	$28.9	$0.6
More than 12 months	15.5	2.5	8.2	0.2
Total	$15.8	$2.5	$37.1	$0.8

The fair value of debt securities, summarized by contractual maturities, at December 31, 2004 is as follows:

	Fair Value
	(In Millions)
less than 1 year	$38.8
1 year - 5 years	17.6
5 years - 10 years	12.4
10 years - 15 years	4.8
15 years - 20 years	6.0
20 years+	-
Total	$79.6

During the year ended December 31, 2004, the proceeds from the dispositions of securities amounted to $4.3 million with gross gains of $244,250 and gross losses of $25,882.

System Energy

System Energy holds debt and equity securities, classified as available-for-sale, in nuclear decommissioning trust accounts. The securities held at December 31 2004 and 2003 are summarized as follows:

2004	Fair Value	Total Unrealized Gains	Total Unrealized Losses
		(In Millions)	
Equity	$127.0	$15.0	$7.2
Debt Securities	78.1	1.9	0.6
Total	$205.1	$16.9	$7.8
2003			
Equity	$103.4	$5.5	$9.9
Debt Securities	69.5	2.6	0.3
Total	$172.9	$8.1	$10.2

The fair value and gross unrealized losses of available-for-sale equity and debt securities, summarized by investment type and length of time that the securities have been in a continuous loss position, are as follows at December 31, 2004:

	Equity Securities		Debt Securities	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
		(In Millions)		
Less than 12 months	$0.4	$-	$40.4	$0.5
More than 12 months	50.4	7.2	2.0	0.1
Total	$50.8	$7.2	$42.4	$0.6

The fair value of debt securities, summarized by contractual maturities, at December 31, 2004 is as follows:

	Fair Value
	(In Millions)
less than 1 year	$4.8
1 year - 5 years	22.4
5 years - 10 years	30.0
10 years - 15 years	7.9
15 years - 20 years	6.9
20 years+	6.1
Total	$78.1

During the year ended December 31, 2004, the proceeds from the dispositions of securities amounted to $7.5 million and gross gains of $32,362 and gross losses of $58,755.

Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, System Energy

Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, System Energy evaluate unrealized gains and losses at the end of each period to determine whether an other than temporary impairment has occurred. This analysis considers the length of time that a security has been in a loss position, the current performance of the security, and whether decommissioning costs are recovered in rates. No significant impairments were recorded in 2004 and 2003 as a result of these evaluations.

Due to the regulatory treatment of decommissioning collections and trust fund earnings, Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, System Energy record regulatory assets or liabilities for unrealized gains and losses on trust investments. For the unregulated portion of River Bend, Entergy Gulf States has recorded an offsetting amount of unrealized gains or losses in other deferred credits.

NOTE 13. TRANSACTIONS WITH AFFILIATES (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

Each domestic utility company purchases electricity from and sells electricity to the other domestic utility companies, and System Energy under rate schedules filed with FERC. The domestic utility companies and System Energy purchase fuel from System Fuels; receive management, technical, advisory, operating, and administrative services from Entergy Services; and receive management, technical, and operating services from Entergy Operations. Pursuant to SEC rules under PUHCA and the Federal Power Act, these transactions are on an "at cost" basis. In addition, Entergy Power sells electricity to Entergy Arkansas, Entergy Louisiana, and Entergy New Orleans, and RS Cogen sells electricity to Entergy Louisiana and Entergy New Orleans.

As described in Note 1 to the domestic utility companies and System Energy financial statements, all of System Energy's operating revenues consist of billings to Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans.

Additionally, as described in Note 4 to the domestic utility companies and System Energy financial statements, the domestic utility companies and System Energy participate in the Entergy's money pool and earn interest income from the money pool. Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans also receive interest income from System Fuels, Inc.

The tables below contain the various affiliate transactions of the domestic utility companies, System Energy, and other Entergy affiliates.

Intercompany Revenues

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Millions)			
2004	$256.8	$52.5	$96.6	$47.6	$117.8	$545.4
2003	$242.3	$42.8	$102.4	$27.6	$85.5	$583.8
2002	$172.6	$28.8	$8.8	$70.6	$7.1	$602.5

Intercompany Operating Expenses

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Millions)			
	(1)		(2)		(3)	
2004	$467.5	$558.2	$491.8	$484.4	$228.4	$109.4
2003	$460.6	$438.6	$444.6	$458.6	$211.2	$118.0
2002	$456.7	$321.2	$389.7	$298.6	$166.7	$109.0

(1) Includes $2.3 million in 2004, $0.1 million in 2003, and $0.7 million in 2002 for power purchased from Entergy Power.
(2) Includes power purchased from Entergy Power and RS Cogen LLC in 2004 of $9.1 million and $33.0 million, respectively, and in 2003 of $5.9 million and $19.1 million, respectively.
(3) Includes power purchased from Entergy Power and RS Cogen LLC in 2004 of $9.0 million and $10.6 million, respectively, and in 2003 of $5.7 million and $6.9 million, respectively.

Intercompany Interest Income

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Millions)			
2004	$0.6	$0.4	$1.1	$0.6	$0.2	$0.6
2003	$0.6	$0.4	$1.2	$0.3	$0.2	$0.1
2002	$1.0	$0.3	$0.7	$0.4	$0.2	$0.9

NOTE 14. QUARTERLY FINANCIAL DATA (UNAUDITED) (Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, and System Energy)

The business of the domestic utility companies and System Energy is subject to seasonal fluctuations with the peak periods occurring during the third quarter. Operating results for the four quarters of 2004 and 2003 were:

Operating Revenue

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
2004:						
First Quarter	$363,461	$638,996	$488,046	$236,829	$169,767	$127,168
Second Quarter	$405,509	$685,313	$555,511	$289,573	$186,337	$132,720
Third Quarter	$481,103	$840,630	$668,240	$390,337	$200,036	$144,052
Fourth Quarter	$403,072	$717,445	$515,189	$296,890	$179,728	$141,441
2003:						
First Quarter	$362,749	$584,354	$462,361	$227,369	$140,907	$141,985
Second Quarter	$394,884	$700,635	$569,580	$261,899	$154,065	$144,764
Third Quarter	$469,925	$777,182	$646,503	$309,739	$203,751	$141,239
Fourth Quarter	$362,112	$577,566	$487,126	$236,353	$155,293	$155,832

Operating Income (Loss)

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
2004:						
First Quarter	$48,566	$88,312	$48,318	$22,724	$15,487	$57,767
Second Quarter	$80,669	$101,832	$84,357	$42,157	$22,880	$59,585
Third Quarter	$123,910	$127,838	$87,130	$52,003	$24,450	$59,601
Fourth Quarter	$40,590	$41,437	$41,710	$29,730	($4,878)	$56,181
2003:						
First Quarter	$67,130	$75,693	$89,362	$30,096	($1,887)	$55,739
Second Quarter	$92,939	$99,150	$91,304	$44,625	$17,311	$54,029
Third Quarter	$135,790	$146,063	$108,232	$53,173	$28,230	$65,791
Fourth Quarter	$1,330	($13,136)	$13,325	$13,753	($15,736)	$62,853

Net Income (Loss)

	Entergy Arkansas	Entergy Gulf States	Entergy Louisiana	Entergy Mississippi	Entergy New Orleans	System Energy
			(In Thousands)			
2004:						
First Quarter	$19,276	$41,728	$21,211	$8,637	$7,114	$24,664
Second Quarter	$43,277	$55,591	$43,713	$20,808	$12,319	$25,532
Third Quarter	$67,944	$82,456	$45,496	$27,873	$13,189	$27,505
Fourth Quarter	$11,713	$12,489	$17,075	$16,179	($4,550)	$28,247
2003:						
First Quarter	$27,145	$11,792(a)	$43,807	$12,316	($4,327)	$23,735
Second Quarter	$47,537	($20,124)	$45,713	$22,350	$9,580	$22,820
Third Quarter	$69,319	$82,283	$57,863	$25,804	$14,118	$28,515
Fourth Quarter	($17,992)	($31,389)	($1,229)	$6,588	($11,512)	$30,933

(a) Entergy Gulf States' net income before the cumulative effect of accounting change for the first quarter of 2003 was $33,125.

ENTERGY LOUISIANA, INC.
DIRECTORS, OFFICERS, AND OTHER INFORMATION

DIRECTORS

E. Renae Conley
President and Chief Executive Officer of Entergy Louisiana; President and Chief Executive Officer-Louisiana of Entergy Gulf States

Leo P. Denault
Executive Vice President and Chief Financial Officer of Entergy Corporation

Mark T. Savoff
Executive Vice President of Entergy Corporation

Richard J. Smith
Group President, Utility Operations of Entergy Corporation, Entergy Arkansas, Entergy Gulf States, Entergy Louisiana, Entergy Mississippi, and Entergy New Orleans

OFFICERS

E. Renae Conley
President and Chief Executive Officer

Richard J. Smith
Group President, Utility Operations

Robert D. Sloan
Executive Vice President, General Counsel and Secretary

Joseph T. Henderson
Senior Vice President and General Tax Counsel

Nathan E. Langston
Senior Vice President and Chief Accounting Officer

William E. Madison
Senior Vice President-Human Resources and Administration

Murphy A. Dreher
Vice President-State Governmental Affairs, Louisiana

David C. Harlan
Vice President-System Planning

Jay A. Lewis
Vice President, Chief Financial Officer – Utility Operations Group

P. J. Martinez
Vice President-Operations, Louisiana

Steven C. McNeal
Vice President and Treasurer

Michael Twomey
Vice President, Regulatory Affairs-Louisiana

OTHER INFORMATION

Transfer Agent for Preferred Stock:
Mellon Investor Services, L.L.C.
85 Challenger Road
Ridgefield Park, New Jersey 07660
1-800-333-4368
www.melloninvestor.com

Registrar for Preferred Stock:
Mellon Investor Services, L.L.C.
85 Challenger Road
Ridgefield Park, New Jersey 07660
1-800-333-4368
www.melloninvestor.com

Trustee for First Mortgage Bonds:
Bank of New York
Corporate Trust Administration
101 Barclay Street
New York, New York 10286
1-800-254-2826

Corporate Address:
Entergy Louisiana, Inc.
639 Loyola Avenue
New Orleans, Louisiana 70113

To request a copy of Entergy Corporation's 2004 Annual Report to the Securities and Exchange Commission on Form 10-K (including Entergy Louisiana's 2004 Annual Report), call or write:

Entergy Corporation
Investor Relations
P. O. Box 61000
New Orleans, Louisiana 70161
Telephone: (504) 576-4365
1-800-292-9960
www.entergy.com