STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF:	*	**REVOCATION OF ORDER AUTHORIZING**
GENTILLY LANDFILL	*	**COMMENCEMENT OF**
TYPE III	*	**OPERATION**
AI 1036/D-071-0264/P-0375	*	**&**
	*	**AUTHORIZATION FOR**
PROCEEDINGS UNDER THE	*	**UTILIZATION OF GENTILLY**
LOUISIANA ENVIRONMENTAL	*	**LANDFILL FOR DISPOSAL**
QUALITY ACT, La. R.S. 30:2001	*	**OF HURRICANE GENERATED**
et seq.	*	**CONSTRUCTION AND**
	*	**DEMOLITION DEBRIS**

DECISION WITH REASONS

I. BACKGROUND:

On August 29, 2005, Hurricane Katrina (hurricane) struck Louisiana, causing widespread damage within numerous parishes, including the parish of Orleans. By State of Louisiana Proclamation No. 48 KBB 2005, the Governor declared on August 26, 2005, that a state of emergency exists in the state of Louisiana, as Hurricane Katrina posed an imminent threat, carrying severe storms, high winds and torrential rain that caused flooding and damage to private property and public facilities and threatened the safety and security of the citizens of the state of Louisiana. By State of Louisiana Proclamation No. 54 KBB 2005, the Governor extended the state of emergency due to the extreme damage caused by Hurricane Katrina and the continuing disaster and emergency conditions in the affected areas. On August 29, 2005, the Federal Emergency Management Agency (FEMA) issued a Disaster Declaration, FEMA-1603-DR covering south Louisiana.

On August 30, 2005, the Secretary of the LDEQ exercised the legal authority granted to him pursuant to the provisions of Louisiana Revised Statutes 30:2001 *et seq.,* and particularly La. R.S. 30:2033 and 2011(D)(6), and issued a Declaration of Emergency and Administrative Order wherein he declared that an emergency exists, and that certain measures were necessary to prevent irreparable damage to the environment and serious threats to life or safety throughout the designated emergency areas, including the parish of Orleans. This Emergency Declaration was amended on September 3, 2005; November 2, 2005; November 17, 2005; and more recently on January 13, 2006. Each Emergency Declaration contains certain measures specifically authorized by the LDEQ and deemed necessary to respond to the emergency.

As a result of the hurricane striking the impacted parishes, massive amounts of debris were generated. Based upon Corps of Engineer Debris Models, Hurricane Katrina generated an estimated 22 million tons (55 million cubic yards) of debris. Additionally, an estimated 600,000 residential structures were impacted—77% were totally destroyed; over 6,000 commercial structures were impacted—67% were totally destroyed. An estimated 140,000-160,000 homes in southeast Louisiana received flood damage.

To address this unprecedented disaster, federal, state and local agencies engaged in formalizing a process to enable the State of Louisiana, the United States Corps of Engineers (Corps) and the Federal Emergency Management Agency (FEMA) to comprehensively manage funding for large scale and complex debris clearance. Debris management sites were identified by the local parishes and municipalities and evaluated and approved by the LDEQ based on established criteria. The sites were designated for specific purposes: woodwaste burning operations; woodwaste chipping and grinding; construction and demolition debris staging or

disposal; staging of boats, vehicles, and/or white goods; and the staging of household hazardous waste.

II. GENTILLY LANDFILL:

A. Consideration of Alternatives:

To specifically address the hurricane generated construction and demolition debris disposal needs for the massive amounts of debris in the New Orleans area, three potential debris disposal sites were considered: Recovery 1, Amid, and Gentilly. In evaluating the prospective utilization of these three sites, the LDEQ considered the following:

1.) Recovery 1: The Recovery 1 landfill is a municipal solid waste landfill which was closed in the mid 1990's. The site is surrounded by water bodies on its north, east and south boundaries. The only areas available for disposal would be on the top of the landfill and an adjacent area to the west. After further evaluation, disposal on top of the landfill was rejected due to its height, landfill stability, and concern over imposition of additional loads. The area to the west is smaller than 20 acres and consequently would not provide sufficient air space for the large quantity of hurricane generated construction and demolition debris. Additionally, LDEQ was informed by the United States Fish and Wildlife Service that the landfill area was designated as a national wild life refuge and could not be used for disposal.

2.) Amid: According to the City of New Orleans permit application submitted to the LDEQ in 2002 for the proposed Gentilly landfill, the Gentilly landfill was intended to replace the AMID Type III construction and demolition landfill that was nearing the end of its design life and its subsequent closure. The LDEQ noted that as of October 2005, AMID, at it normal pre-Katrina waste acceptance rate, had only three months of air space

remaining. Therefore, this facility was clearly inadequate as a disposal option for the massive amounts of hurricane generated construction and demolition debris in the area.

3.) Gentilly: The decision of the LDEQ to authorize utilization of the Gentilly landfill for disposal of the massive amounts of hurricane generated construction and demolition debris was made after a careful examination of scientific/engineering considerations, sound reasoning and a proper evaluation of practical alternatives to that decision.

This facility was recently permitted by the LDEQ. In June of 2002, the LDEQ received a permit application from the City of New Orleans to construct and operate the Gentilly landfill for the disposal of construction/demolition debris and woodwaste. This landfill was to be constructed over a closed municipal landfill. The site is approximately 200 acres and is located at 10200 Almonaster Avenue in New Orleans, Louisiana.

After determining that the permit application was technically complete and complied with the requirements of the Solid Waste Regulations, a public notice was published noting the technical completeness of the application and inviting the public to comment on the application. Although the public notice was published in both the *Times Picayune* and *The Advocate*, the LDEQ received no public comments or requests for hearing on the application.

On December 28, 2004, the LDEQ Assistant Secretary of the Office of Environmental Services, issued Standard Permit P-0375 to the City of New Orleans for the construction and operation of the Gentilly landfill. The landfill is designated as a Type III landfill; Type III landfills are authorized for the disposal of construction and demolition debris and woodwaste.

The Gentilly landfill was constructed over a previously closed landfill. This "piggyback" concept, i.e., the placement of one landfill on top of another, has been practiced not only in Louisiana but also throughout the country. The goal behind this technique is to fully maximize the utilization of the area that has already been disturbed for disposal of waste, thus preserving pristine areas. Under the "piggyback" concept, the existing cover system over the closed landfill acts as a liner system for the landfill on top. The Solid Waste Regulations require that construction and demolition debris landfills be constructed over an area with low permeable soils. The existing cover system of the closed municipal landfill at Gentilly, meets this requirement. Since the height of the closed landfill is at ground elevation, leachate (a liquid that has passed through or emerged from solid waste and may contain soluble, suspended, or miscible materials removed from such wastes) outbreaks emerging from the closed landfill, or the stability of the closed landfill, should not be a concern. In fact, in a Memorandum from the United States Environmental Protection Agency (EPA) dated November 11, 2005 to FEMA, RE: "Potential Federal CERCLA Liability for use of the Gentilly Landfill for debris operations from Hurricane Katrina, FEMA-1603-DR-LA, ESF#10 Task Order", EPA states:

> Release of leachate from the closed landfill to surface soil or water is not supported by engineering analysis. The historical landfill closure plan, cap design, and plan for the new landfill were designed to sustain 100 feet of C&D debris to be placed on the new landfill. The geotechnical investigation based on the soil borings from the old landfill waste indicate that the material in the old landfill has consolidated. It consists of low permeability ash with negligible material that would undergo loss compression. Material in the old landfill is thus unlikely to expel fluids, particularly not leachate in such quantities as to flow some distance from the landfill or, as discussed below, to contaminate groundwater. The weight loading of this landfill with Katrina waste and potential squeezing of leachate that

> would contaminate ground water or surface water is of limited concern.

Furthermore, soil borings drilled through the closed landfill, on top of which the Gentilly landfill sits, revealed that the waste has been drastically decomposed.

As stated earlier, the Gentilly landfill permit application has undergone an extensive permitting process which included careful technical scrutiny to ensure that the facility met all applicable legal requirements for permitting. The original design was based on an operational plan and sequential placement of waste to control storm water runon/runoff. However, due to the abnormally high rate of hurricane generated construction and demolition debris transported to the site for disposal, operational changes had to be made. These changes affected the fill sequence and the construction schedule. Specifically, although temporary berms were initially constructed to control the run off, permanent berms have now been constructed around the operating area of the landfill and will be extended as the operating area expands.

4.) Other Considerations: In addition to technical adequacy of the Gentilly landfill for hurricane generated construction and demolition debris disposal needs, other considerations for the LDEQ's decision to utilize the Gentilly landfill for disposal were explored. The Gentilly landfill is in close proximity to the hurricane devastated areas and the bulk of the hurricane generated construction and demolition debris; there were no other permitted Type III landfills in the immediate vicinity. Moreover, this landfill is in a remote location, located in a heavy industrial area, and is bounded on the east and west sides by abandoned construction and demolition landfills and to the south by the Gulf Intracoastal Waterway. The surrounding area along Almonaster Boulevard, off of which the Gentilly landfill sits, is heavily wooded and except for some industrial development,

is relatively undeveloped. As such, waste haulers have readily accessible roads to the landfill. Other than the debris waste haulers, there is virtually no other traffic.

Opponents of the LDEQ's decision to use the Gentilly landfill have promoted the use of the Highway 90 Type III landfill as well as the Riverbirch Type I and II landfill for disposal of hurricane generated construction and demolition debris in the New Orleans area. A Type I landfill is a facility used for the disposal of industrial solid waste; a Type II landfill is a facility used for the disposal of residential or commercial solid waste. While these alternatives were carefully considered by the LDEQ, an examination of certain factors clearly revealed their inappropriateness.

First, the LDEQ notes that the transportation of the waste to these landfills from New Orleans East takes much longer to transport, regardless of the distance. This is primarily due to traffic congestion in the area of the Riverbirch facilities. Waste transporters have stated to the LDEQ that they can make four or five trips per day to the Gentilly landfill as compared with only two trips per day to Highway 90. Thus, diverting debris to other landfills would increase waste hauling time and expense, and worsen the traffic problems in the New Orleans. This would significantly hinder the recovery of the city by delaying the disposal of the mountains of debris that remain.

Second, in rejecting the utilization of a Type I and II landfill to dispose of the hurricane generated construction and demolition debris in the New Orleans areas, the LDEQ considered the relatively benign nature of the waste and the massive volume thereof. Although the LDEQ, pursuant to the Emergency Declaration, authorizes the disposal of material not technically included in the regulatory definition of construction and demolition debris, (i.e., yard waste and other vegetative matter; furniture, carpet and

painted or stained lumber contained in the demolished buildings; incidental admixture of construction and demolition debris with asbestos-contaminated waste) the composition of the waste still is of minimal risk to the environment. Notably, all Type III landfill disposal facilities are authorized to accept such waste as pursuant to the Declaration of Emergency and Administrative Order.

Moreover, the sheer volume of the hurricane generated construction and demolition debris requiring disposal in the most expeditious and environmentally sound manner as possible under the circumstances, renders utilization of Type I or II landfills unfeasible. Placement of debris in landfills is done sequentially—one cell is constructed and used for disposal and when that cell fills up, another is constructed. Because the construction of cells for Type I and II landfills requires much more time and expense (largely because of the liner and leachate collection systems construction requirements) than the construction of type III landfill cells, the cell construction time will be outpaced by the volume of debris received and requiring disposal. Additionally, the future capacity of Type I and Type II landfills in the greater New Orleans metropolitan area will be drastically reduced. Type I and II landfill disposal capacity should be reserved for industrial and municipal solid waste respectively.

Third, in order to properly evaluate the impact of diverting debris to other landfills, LDEQ scientists utilized EPA's MOBILE6 emissions model to determine daily excess air pollutant emissions from hauling 75,000 cubic yards of C&D debris to an alternative landfill site location in Jefferson Parish. The alternative site used was the Highway 90 C&D landfill in Jefferson Parish. The geographic centroid for construction and demolition debris was calculated to be approximately 1.0 mile west of St. Bernard

northwest parish line in Orleans Parish. This point is the center most point of the total mass or volume of the hurricane generated construction and demolition debris. Gentilly landfill is approximately 8 miles from this point while Highway 90 landfill is approximately 23 miles. Thus, one round trip for hurricane generated construction and demolition debris waste haulers would be 16 miles for disposal at Gentilly as opposed to 46 miles for disposal at Highway 90. As a result of the increased distance and travel time, waste haulers' truck emissions of volatile organic compounds, nitrogen oxides, carbon monoxide, particulate matter, sulfate and ammonia would increase by nearly 300%.

B. Financial Assurance

In its permit application for the Gentilly landfill, the City of New Orleans stated that it would utilize a Local Government Guarantee to provide and maintain closure and post-closure care financial assurance as required by LAC 33:VII.727.a.2 of the Solid Waste Regulations, prior to the acceptance of waste. A local government may satisfy the regulatory financial assurance requirements for closure and post-closure care if the local government has outstanding, rated, general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, and a current rating of Aaa, Aa, A, or Baa, as issued by Moody's, or AAA, AA, A or BBB, as issued by Standard and Poor's.

When the LDEQ issued the permit to the City of New Orleans for the Gentilly landfill, the City was eligible to satisfy the financial assurance requirements in this manner. However, due to the economic hardships caused by the hurricane, the LDEQ made the decision to require a trust agreement as the financial assurance mechanism. A trust fund has been established for the benefit of the Louisiana Department of Environmental Quality for the payment of the closure

costs of the Gentilly Landfill. The operator of the Gentilly landfill, pursuant to a contract with the City of New Orleans, is responsible for the closure of the landfill. The operator has deposited $2,072,438.00 in the trust fund, which amount is due based upon the amount of cubic yards of waste taken in by the landfill as of December 31, 2005.

III. OTHER MATTERS:

On October 31, 2005, the Louisiana Environmental Action Network (LEAN) filed a Petition for Judicial Review in the 19th Judicial District Court for the parish of East Baton Rouge. The petition challenged the LDEQ September 29, 2005, "Order Authorizing Commencement of Operations." The LDEQ issued the Order to the City of New Orleans authorizing the use of the landfill for disposal of hurricane generated construction and demolition debris in the New Orleans area. Subsequent to the filing of the petition, the Court ruled on certain motions/exceptions filed by the LDEQ and conducted a number of status conferences in connection with the litigation.

During the litigation process, it became apparent to the LDEQ that although the decision to use the Gentilly landfill was properly based upon LDEQ's emergency authority under the Environmental Quality Act, this authority and underlying reasoning for arriving at that decision was not clearly reflected in the Order to Authorize Commencement of Operations. Although the basis for the LDEQ's decision to use the Gentilly landfill was clear to the LDEQ, the Order Authorizing Commencement of Operations may have been less than ideal in communicating the LDEQ's reasons for making the decision.

Therefore, in order to clearly articulate the basis and rationale for its decision to use, and to continue to use, the Gentilly landfill for disposal of the massive amounts of hurricane generated construction and demolition debris, the Order Authorizing Commencement of

Operations, issued by the LDEQ on September 29, 2005, and the subject of pending litigation (LEAN v. LDEQ, 19th JDC, No. 537-649 Sec. "8"), is revoked and an Administrative Order and Decision With Reasons is issued.

IV. GENTILLY LANDFILL'S AUTHORIZATION TO OPERATE:

Concurrently with the revocation of the Order Authorizing Commencement of Operations issued to the City of New Orleans on September 29, 2005, the LDEQ hereby authorizes the operation of the Gentilly landfill for disposal of hurricane generated construction and demolition debris pursuant to its authority under the Louisiana Environmental Quality Act, La. R.S. 30:2001, *et seq.*, specifically, La. R.S. 30:2033 and La. R.S. 30:2011(D)(6), and the LDEQ's Declaration of Emergency and Administrative Order. The landfill will be operated in accordance with Standard Permit-0375 and any LDEQ specifically authorized deviations therefrom. This authorization is issued for a term of 90 days from the date of this decision, until the expiration of the Emergency Declaration, or upon completion of the hurricane generated construction and demolition debris operation for which this site is approved, whichever occurs first.

V. APPEALS OR REQUESTS FOR REVIEW:

In accordance with the provisions of La. R.S. 30:2033, any appeal or request for review is required to be brought in an action for injunctive relief filed in the Nineteenth Judicial District Court for the Parish of East Baton Rouge.

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Chuck Carr Brown, Ph.D. Date
Assistant Secretary