STATEMENT OF BASIS (AI No. 1637)

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0005371 to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Bruce Foods Corporation
Plant No. 1
Post Office Drawer 1030
New Iberia, Louisiana 70562

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Michelle Bickham

DATE PREPARED: March 4, 2009

1. PERMIT STATUS

A. Reason For Permit Action:

Permit reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term

B. LPDES permits – LA0005371
LPDES permit effective date: March 1, 2004
LPDES permit expiration date: February 28, 2009

C. Date Application Received: August 27, 2008; additional information was received via a phone call on February 11, 2009, and emails on February 12, 2009.

2. FACILITY INFORMATION

A. FACILITY TYPE/ACTIVITY - pepper processing plant

Bruce Foods Corporation, Plant No. 1 is an existing pepper processing plant. The facility bottles pickled peppers as well as makes hot sauce. Approximately 85,800 pounds of Tobasco peppers and 56,700 pounds of Serrano peppers are received annually at the facility for pickling. These peppers are put in a brine solution when they are received and are stored in this brine. They are then washed before being put into jars and pickled. Approximately 10 million pounds of pepper "mash" is received annually from the El Paso facility and other facilities in order to be processed into hot sauce. The "mash" is ground into a finer form then screened. Then vinegar, pepper, and salt are added prior to bottling it. The facility no longer receives whole peppers to be ground and used in making hot sauce. Approximately 21,000,000 pounds of hot sauce is produced annually. All of the operations (pickling, salt stations, and hot sauce production) occur year round. The facility discharges process wastewater including water produced from mixing the peppers with vinegar, brining, and bottling that is sent to the oxidation pond. The facility washes down equipment as well as the floor, and these wastewaters are discharged to the facility's oxidation pond. The sanitary discharge from the facility goes through a sewage treatment plant and is then routed to the oxidation pond. Stormwater runoff from the facility is also directed to the oxidation pond system. The facility is requesting that Outfall 002 (the discharge of emergency overflow of process water, sanitary, and stormwater) be added back to the permit. This outfall was removed in the previous permit; however, according to the facility the present pumping system cannot keep up with the volume of water during certain rainfall events thus causing some areas of the facility to flood. Therefore, they are requesting the outfall to be placed back into the permit to help alleviate the flooding problem.

B. FEE RATE
1. Fee Rating Facility Type: minor
2. Complexity Type: II
3. Wastewater Type: II
4. SIC code: 2035

C. LOCATION - 1653 Old Spanish Trail Road, St. Martinville, St. Martin Parish
Latitude 30° 05' 08", Longitude 91° 54' 11"

3. OUTFALL INFORMATION

Outfall 001

Discharge Type:	process wastewater, floor and equipment washdown water, treated sanitary wastewater, and stormwater runoff
Treatment:	3-cell oxidation pond system (sanitary wastewater is treated by a sewage treatment plant prior to entering the oxidation pond)
Location:	at the point of discharge from the oxidation pond system
Flow:	10,000 gpd
Discharge Route:	local drainage thence to Bayou Tortue thence to Bayou Teche

Outfall 002

Discharge Type:	emergency overflow of process wastewater, floor and equipment washdown water, treated sanitary wastewater, and stormwater runoff
Treatment:	none
Location:	at the point of discharge from the ditch east of the oxidation ponds
Flow:	variable
Discharge Route:	local drainage thence to Bayou Tortue thence to Bayou Teche

4. RECEIVING WATERS

STREAM - local drainage thence to Bayou Tortue thence to Bayou Teche

BASIN AND SEGMENT – Vermilion Teche River Basin, Segment 060401
(The facility is located in Segment 060908 but discharges to Segment 060401)

DESIGNATED USES -
a. primary contact recreation
b. secondary contact recreation
c. propagation of fish and wildlife

5. TMDL STATUS

Subsegment 060401 is not listed on LDEQ's Final 2006 303(d) list as impaired. However, subsegment 060401 was previously listed as impaired for nutrients, organic enrichment/low DO, pathogen indicators, carbofuran, and suspended solids, for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. The following TMDLs have been established for Subsegment 060401:

TMDL for the Pesticide Carbofuran in the Mermentau River and Vermilion-Teche River Basins.

There are no known point source discharges of Carbofuran in the Mermentau Basin; therefore, no allocation was given to point sources. There is one point source in the Vermilion-Teche (FMC Corp. LA0064360) but they no longer discharge Carbofuran. Likewise no allocation was given to point source discharges in the Vermilion-Teche River Basin. Because this facility does not process, produce, or handle Carbofuran or related products, effluent limitations or conditions will not be placed in this permit.

TMDL for TSS, Turbidity and Siltation for the Bayou Teche Watershed

The TMDL for TSS, Turbidity, and Siltation for the Bayou Teche Watershed was finalized on May 2, 2002. As per the TMDL "Point source loads do not represent a significant source of TSS as defined in this TMDL. Point sources discharge primarily organic TSS, which does not contribute to habitat impairment resulting from sedimentation. Because the point sources are minor contributors, and dischargers of organic suspended solids from point sources are already addressed by LDEQ through their permitting of point sources to maintain water quality standards for DO, the wasteload allocation for point source contributions were set to zero. This TMDL only addresses the landform contribution of TSS/sediment and does not address the insignificant point source contributions." Therefore, TSS limits will remain in the permit in accordance with state policy.

Bayou Teche Oxygen Demand TMDL

The Bayou Teche Oxygen Demand/Nutrients was finalized on February 25, 2000. An Addendum to the 2000 Bayou Teche TMDL for Biochemical Oxygen-Demanding Substances was finalized on November 30, 2005. The discharger inventory for Bayou Teche was reviewed. Twenty-two facilities were originally modeled and six facilities were added to the model in the addendum. The remaining facilities, including Bruce Food Corporation, were not included in the model.

LDEQ's position, as stated in the declaratory ruling issued by Dale Givens regarding water quality criteria for nutrients (Sierra Club v. Givens, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998)), is that when oxygen demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. LAC 33:IX.2707.C.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients where the WQMP does not otherwise require specific nutrient limitations is achieved by limiting the discharge of oxygen-demanding substances through a BOD_5 limitation. Compliance with the BOD_5 limitation as the indicator parameter will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard. Effluent monitoring of the indicator parameter as conducted by the permittee in accordance with the permit in addition to LDEQ's ambient water quality monitoring program will allow for further evaluation by the Department to determine the effectiveness of the limitation. The reopener clause located in the permit allows the Department to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards.

Given the distance from the discharge point to the impaired named waterbody for which the TMDL was completed, effluent limitations and requirements in this permit will be based on Louisiana's approved WQMP - Statewide Sanitary Effluent Limitations Policy for discharges of this treatment type and size.

Bayou Teche Fecal Coliform TMDL

The Louisiana Water Quality Regulations require permitted point source discharges of treated sanitary wastewater meet the standard at end-of-pipe. Therefore, there will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL. Standard end-of-pipe limitations for fecal coliform will remain in this permit.

6. PROPOSED EFFLUENT LIMITS

BASIS - See Rationale below.

- BOD_5 and TSS limitations for Outfall 001 have been changed based on new production numbers, and the two phases for the limitations have been eliminated.
- The monitoring frequency for Outfall 001 has been changed from 2/month to 1/week.
- Outfall 002 (the discharge of overflow bypass of process water, sanitary, and stormwater) has been added back to the permit.
- A provision for the summation of mass limits for BOD_5 and TSS for Outfalls 001 and 002 combined has been added to the permit.
- An annual average mass discharge in lbs/year for BOD_5 and TSS has been added to the permit for Outfalls 001 and 002.

7. COMPLIANCE HISTORY/COMMENTS

There have been no recent inspections at the facility.

All DMR's were submitted in accordance with the current permit. Below are the excursions:

Date	Parameter	Outfall	Reported Value	Permit Limits
8/08	Fecal Coliform	001	255/1800 col	200/400 col
7/08	Fecal Coliform	001	265/700 col	200/400 col
3/08	BOD	001	68 mg/L	45 mg/L
3/08	TSS	001	380 mg/L	135 mg/L
2/08	BOD	001	94 mg/L	45 mg/L
2/08	TSS	001	188 mg/L	135 mg/L
1/08	BOD	001	160 mg/L	45 mg/L
1/08	TSS	001	185 mg/L	135 mg/L
12/07	BOD	001	85 mg/L	45 mg/L
12/07	TSS	001	184 mg/L	135 mg/L
11/07	Fecal Coliform	001	510/>1000 col	200/400 col
10/07	Fecal Coliform	001	436/>1000 col	200/400 col
9/07	BOD	001	110 mg/L	45 mg/L
8/07	BOD	001	84 mg/L	45 mg/L
8/07	Fecal Coliform	001	>1000 col	200/400 col
7/07	BOD	001	86 mg/L	45 mg/L
6/07	Fecal Coliform	001	>1000/>1000 col	200/400 col
3/07	BOD	001	81 mg/L	45 mg/L
3/07	TSS	001	137 mg/L	135 mg/L
2/07	BOD	001	56 mg/L	45 mg/L
2/07	TSS	001	140 mg/L	135 mg/L
12/06	Fecal Coliform	001	>1000 col	200/400 col

8. EXISTING EFFLUENT LIMITS

Outfall 001 – process wastewater, floor washdown wastewater, sanitary wastewater, and stormwater runoff

Parameter	LPDES	
	Monthly Average	**Daily Maximum**
Flow	Report 2/month Est.	Report 2/month Est.
BOD_5	78.6 lbs/day (Phase I) 84.0 lbs/day (Phase II) --- 2/month Grab	133.3 lbs/day (Phase I) 140.7 lbs/day (Phase II) 45 mg/L (Phases I and II) 2/month Grab
TSS	162.4 lbs/day (Phase I) 172.2 lbs/day (Phase II) --- Grab	235.9 lbs/day (Phase I) 248.3 lbs/day (Phase II) 135 mg/L (Phases I and II) 2/month Grab
Chlorides	---	4289 mg/L 2/month Grab
Fecal Coliform	200 col/100mL 2/month Grab	400 col/100 mL 2/month Grab
Oil & Grease	---	20 mg/L 2/month Grab
pH	6.0-9.5 s.u. 2/month Grab	

9. ENDANGERED SPECIES

The receiving waterbody, Subsegment 060401 of the Vermilion Teche River Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008, from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

10. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National

Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

11. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

Rationale for Bruce Foods Corporation

1. **Outfall 001*** - process wastewater, floor and equipment washdown water, treated sanitary wastewater, and stormwater runoff (estimated flow is 10,000 gpd)

Pollutant	Limitation		Reference
	Monthly Avg	Daily Max	
Flow	Report	Report	
BOD_5	114.5 lbs/day**	194 lbs/day** 45 mg/L	40 CFR407.62, 40CFR407.82; previous permit
TSS	236 lbs/day**	343.4 lbs/day** 135 mg/L	40 CFR407.62, 40CFR407.82; previous permit
Chlorides	---	4289 mg/L	Previous permit
Fecal Coliform Colonies/100 mL	200	400	Previous permit
Oil & Grease	---	20 mg/L	40 CFR407.82; previous permit
pH, s.u.	6.0 (min)	9.5 (max)	40 CFR407.62, 40CFR407.82; previous permit

Treatment: 3 cell oxidation pond system (sanitary wastewater is treated by a sewage treatment plant prior to entering the oxidation pond)

Monitoring Frequency: 1/week at the point of discharge from the oxidation pond system; the monitoring frequency is being increased because of the numerous excursions at the outfall. The phases are being removed from the permit as the salt stations are in use year round.

Limits Justification: Limitations are based on 40 CFR407 Subpart F (Canned and Preserved Fruits Category), 40 CFR 407 Subpart H (Canned and Preserved Vegetables Category), the previous permit, and current guidance for similar discharges from other industrial facilities. A Water Quality Screen for chlorides was performed in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards. The screen showed a limit of 39,049 mg/L; however the facility has demonstrated that the existing chlorides limits can be met so the limitation will remain the same as the previous permit.

2. **Outfall 002***– emergency overflow of process wastewater, floor and equipment washdown water, treated sanitary wastewater, and stormwater runoff (estimated flow is variable)

Pollutant	Limitation Monthly Avg.	Limitation Daily Max	Reference
Flow	Report	Report	
BOD_5	114.5 lbs/day**	194 lbs/day** 45 mg/L	40 CFR407.62; 40CFR407.82; previous permit
TSS	236 lbs/day**	343.4 lbs/day** 135 mg/L	40 CFR407.62, 40CFR407.82; previous permit
Chlorides	---	4289 mg/L	Previous permit
Fecal Coliform Colonies/100 mL	200	400	Previous permit
Oil & Grease	---	20 mg/L	40 CFR407.82; previous permit
pH, s.u.	6.0 (min)	9.5 (max)	40 CFR407.62, 40CFR407.82; previous permit

Treatment: none

Monitoring Frequency: 1/discharge event at the point of discharge from the ditch east of the oxidation ponds

Limits Justification: Limitations are based on 40 CFR407 Subpart F (Canned and Preserved Fruits Category), 40 CFR 407 Subpart H (Canned and Preserved Vegetables Category), the previous permit, and current guidance for similar discharges from other industrial facilities. A Water Quality Screen for chlorides was performed in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards. The screen showed a limit of 39,049 mg/L; however the facility has demonstrated that the existing chlorides limits can be met so the limitation will remain the same as the previous permit.

Mass effluent limitations are calculated using production numbers submitted by an email from the facility on February 12, 2009 and are as follows: (1) whole Tobassco and Serrano peppers – 142,500 pounds annually; (2) hot sauce production - 21,000,000 pounds annually. The facility operates 5 days per week or 260 days per year. See Calculations below.

BPJ Best Professional Judgement
su Standard Units

* The following contains provisions for both Outfalls 001 and 002:

Any plant discharging process wastewater during the processing season shall meet annual average limitations under 40 CFR 407.62 and 40 CFR 407.82. An annual average limitation in lbs/year of BOD and TSS shall be calculated based on the amount of pickled peppers processed each year plus the amount of hot sauce produced each year. To calculate the facility's **Annual Average Limitation** perform the following steps: (Step 1) Divide the annual total pounds of pickled peppers by 1,000; (Step 2) Multiply the result derived from Step 1 by 0.83 to get the BOD limitation for pickled peppers; (Step 3) Multiply the result derived from Step 1 by 1.53 to get the TSS limitation for pickled peppers; (Step 4) Divide the

annual total pounds of hot sauce by 1,000; (Step 5) Multiply the result derived from Step 4 by 0.96 to get the BOD limitation for hot sauce; (Step 6) Multiply the result derived from Step 4 by 1.73 to get the TSS limitation for hot sauce; (Step 7) Calculate the BOD annual average limitation by adding the BOD result of the pickled peppers derived from Step 2 and the BOD result of the hotsauce derived from Step 5. Calculate the TSS annual average limitation by adding the TSS result of the pickled peppers derived from Step 3 and the TSS result of the hotsauce derived from Step 6.

In addition, the annual average loading shall be calculated in order to determine the amount of BOD and TSS discharged throughout the year. An annual average loading in lbs/year of BOD and TSS shall be calculated based on the analysis of the effluent sample taken once a week. To calculate the facility's **Annual Average Loading** for BOD and TSS, perform the following steps: (Step 1) Calculate the weekly sample loading **(lbs/day)** as follows: weekly analysis result for BOD or TSS (mg/l) x flow (MGD) x 8.34; (Step 2) Calculate weekly loading **(lbs/week)** as follows: multiply weekly sample loading derived from Step 1 by the number of operational days in that week; (Step 3) Calculate the Annual Average Loading by adding all the weekly loading values derived from Step 2 for each week over the calendar year. Report the Annual Average Limitation and Annual Average Loading for both BOD and TSS on an attachment to the DMR. (See Other Conditions in permit.)

** These calculated limitations represent the total mass limitations in lbs/day allocated to the combined discharges from Outfalls 001 and 002.

NOTE
For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.

Calculations:

Salt Stations

BOD_5

(548 lbs/day)(.18 lbs/1000 lbs) =0.1 lbs/day	monthly average
(548 lbs/day)(.25 lbs/1000 lbs) = 0.14 lbs/day	daily maximum

TSS

(548 lbs/day)(.33 lbs/1000 lbs) = 0.18 lbs/day	monthly average
(548 lbs/day)(.42lbs/1000 lbs) = 0.23 lbs/day	daily maximum

Pickled Peppers

BOD_5

(548 lbs/day)(.92 lbs/1000 lbs) = 0.5 lbs/day	monthly average
(548 lbs/day)(1.45 lbs/1000 lbs) = 0.8 lbs/day	daily maximum

TSS

(548 lbs/day)(1.91 lbs/1000 lbs) = 1.05 lbs/day	monthly average
(548 lbs/day)(2.63 lbs/1000 lbs) = 1.44 lbs/day	daily maximum

Hot Sauce

BOD_5

(80,769 lbs)(1.41 lbs/1000 lbs) = 113.9 lbs/day	monthly average
(80,769 lbs)(2.39 lbs/1000 lbs) = 193.0	daily maximum

TSS
(80,769 lbs)(2.91 lbs/1000 lbs) = 235.0 lbs/day monthly average
(80,769 lbs)(4.23 lbs/1000 lbs) = 341.7 lbs/day daily maximum

BOD_5 (salt stations + pickled peppers + hot sauce)
0.1 lbs/day + 0.5 lbs/day + 113.9 lbs/day = **114.5 lbs/day** **monthly average**
0.14 lbs/day + 0.8 lbs/day + 193 lbs/day = **194 lbs/day** **daily maximum**
TSS (salt stations + pickled peppers + hot sauce)
0.18 lbs/day + 1.05 lbs/day + 235 lbs/day = **236 lbs/day** **monthly average**
0.23 lbs/day + 1.44 lbs/day + 341.7 lbs/day = **343.4 lbs/day** **daily maximum**

STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT

A SWP3 is included in the permit because in accordance with LAC 33:IX.2511.A.1, storm water discharges shall not be required to obtain an LPDES permit "... except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14.a-k, facilities classified as SIC code 2035 are considered to have storm water discharges associated with industrial activity.

For first time permit issuance, the SWP3 shall be prepared, implemented, and maintained within six (6) months of the effective date of the final permit. **For renewal permit issuance**, the SWP3 shall be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in storm water discharges associated with industrial activity at the facility (see Narrative Requirements for the AI).