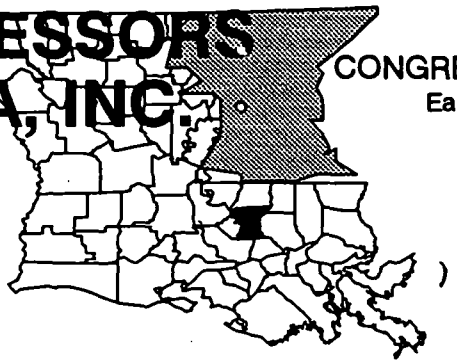
PETRO-PROCESSORS OF LOUISIANA, INC.

LOUISIANA

EPA ID# LAD057482713



REGION 6
CONGRESSIONAL DISTRICT 04
East Baton Rouge Parish

Site Description

Location:

- The Petro Processors Inc. Site consists of two locations near Scotlandville, East Baton Rouge Parish, Louisiana, about ten miles north of the City of Baton Rouge.
- The Scenic Highway Site is located just west of US Highway 61 and north of the intersection of Scenic Highway 964 and US Highway 61.
- The Brooklawn Site is located about 2 miles west, southwest of the Scenic Site.

Population:

- The community predominantly rural with a few houses located about 800 to 1000 feet from the border of Scenic Highway.

Setting:

- Nearest residence is about 3,000 feet from the site.
- Nearest drinking water well is 3,000 ft. upgradient of the site.
- The Petro Processors Site is comprised of two former petrochemical disposal areas situated about 1.5 miles apart: the Scenic Highway Area and the Brooklawn Area.
- Both areas total 62 acres; Brooklawn is the larger of the two areas.
- The Scenic site is now covered by a soil cap and seeded and the area is contoured to control erosion. No recovery wells have yet been placed to contain the shallow groundwater.
- Most of the Brooklawn area has been covered by a soil cap and seeded and the area is contoured to control erosion. Approximately 97 sumps have been placed and are in operation at the Brooklawn Site. Recovery wells in operation total about 100, with new wells being installed every week.
- Brooklawn still has two disposal ponds which remain open (Upper and Lower Lagoon); all other pits and one former pond ("Cypress Swamp") have been filled and covered. An old channel of Bayou Baton Rouge runs through part of the area and may be a conduit for migration of wastes.

Hydrology:

- Portions of both sites are on the Bayou Baton Rouge flood plain.
- The bayou flood plain at Brooklawn is also on the Mississippi River flood plain; the Mississippi River flood plain immediately south of Brooklawn (Devil's Swamp) is a Wetlands.
- Pleistocene terrace deposits are predominately clays, while alluvium deposits are interlayered silty clays and sandy silts.
- The shallow ground water regime is referred to as - 40 MSL zone. The deep groundwater regime of concern is the "400-foot sand".
- Receptor analysis modeling is being conducted to protect the N400-foot sand".

Wastes and Volumes

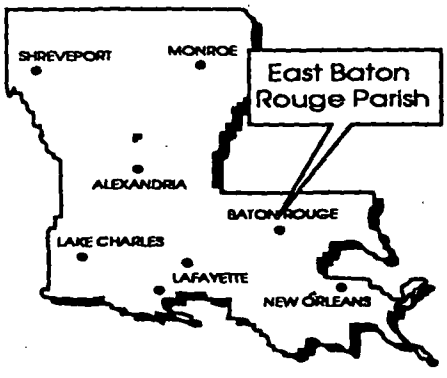
- The site's principle pollutants are petrochemical wastes including the following:

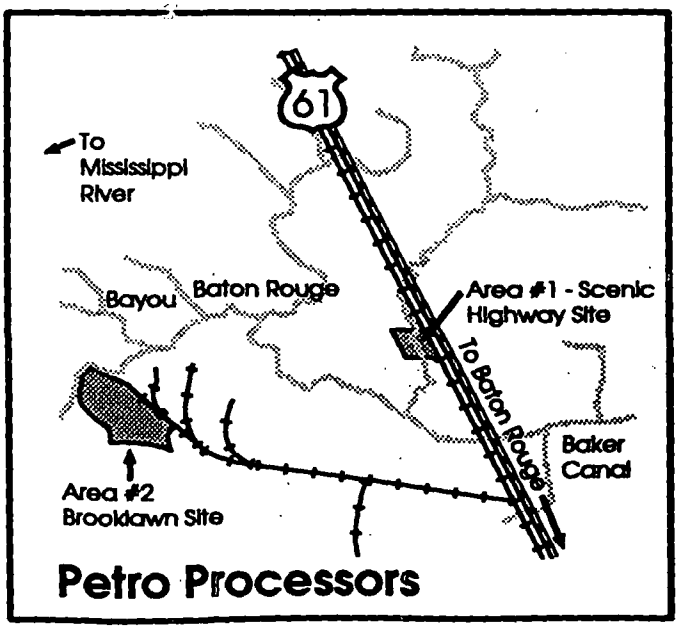
  - Chlorinated Hydrocarbons (Hexachlorobutadiene is predominant contaminant)
  - Polycyclic Aromatic Hydrocarbons (PAHs)
  - Heavy Metals
  - Oils

Site Assessment and Ranking

NPL LISTING HISTORY
Site HRS Score: 41.44
Proposed Date: 9/8/83
Final Date: 9/21/84
NPL Update: No. 1

Site Map and Diagram





The Remediation Process

Site History:

- The Scenic Highway Site originated as a borrow pit used for petrochemical waste disposal from 1961-1974. Brooklawn was opened in 1969 to accept petrochemical wastes since the Scenic area was filled to capacity.

- Although filled and closed in 1974, the potential for leachate migration and erosion of the Scenic pit was of concern due to the hazardous constituents contained in the pit. Operations at Brooklawn ceased in 1980, but ponds were left open to the elements.

- In July 1980, the U.S. Department of Justice, the State of Louisiana, the City of Baton Rouge, and the Parish of East Baton Rouge filed suite against PPI and several generators which had materials transported to PPI. A Consent Decree for site closure was eventually developed with the participation of all parties and court and was entered into the Federal Courts record on February 16, 1984.

- The Consent Decree required the Defendants to investigate, design and implement a conceptual remedial action specified in the Consent Decree. The conceptual remedy generally called for the excavation and solidification of all visible contamination at the site and subsequent placement into an onsite landfill with an "appropriate" liner and leachate collection system. Additional elements included the solidification, incineration, or off-site disposal of all nonaqueous phase wastes within the lagoons. In addition, recovery wells were to be installed and operated in those areas where free phase organic liquids are present.

- Shortly after the entering of the Consent Decree, the Industry Defendants (through a company they set up known as NPC Services, Inc.) prepared workplans, conducted investigations and prepared a Remedial Design and Construction Plan which detailed site remediation activities. Unfortunately, during the early phases of construction (late 1987) NPC's air monitoring program detected the release of volatile hazardous substances from the Brooklawn site. NPC determined that vapor emissions were, or could be, generated from several sources.

- NPC subsequently reported in a Supplemental Remedial Action Plan (SRAP) dated December 1988 that "After a thorough study of the causes and effects of these releases it was determined that remediation could not continue under the approved plan without causing further releases". Under the terms of the Consent Decree, NPC was then required to examine alternate methods of remediation. The SRAP presents NPC's evaluation of alternate remediation methods.

- The various alternatives investigated by NPC included (1) modification of original closure plan by modifying excavation techniques and deploying typical emission source controls such as foams, water sprays, visqueen and soil covers, (2) in-situ volatilization, (3) bioremediation, (4) incineration, (5) solvent extraction, (6) in-situ solidification and capping, (7) vapor containment structures and (8) hydraulic containment and recovery. NPC determined that hydraulic recovery and containment was the only technology that could be safely employed at the present time due primarily to the potential for vapor emissions problems caused by implementation of the other technologies.

- Upon review, EPA Region 6 rejected the SRAP because it did not contain a sufficiently rigorous evaluation of the alternate technologies. EPA subsequently embarked upon its own review of possible alternative remediation technologies. Upon completion of its eighteen month long study, EPA concluded that two other technologies in addition to hydraulic containment and recovery had merit. These two alternatives included air/stream stripping and in-situ soil flushing. However, EPA recognized that these technologies needed to be bench-scale and pilot tested before EPA could argue their merit to a Federal Judge.

- The Federal Judge recognized EPA's concern and ordered Louisiana State University (LSU) to conduct research on the applicability of alternate technologies and to act as his expert witness to resolve technical disputes between the Industry Defendants and EPA. LSU is currently beginning its first phase of research.

- The end result of all the discussions between EPA, the State of Louisiana and the Federal Court, was an amended Consent Decree in 1987 which specified the implementation of hydraulic containment and recovery. NPC subsequently began additional investigation, design and construction activities necessary to implement the new remedy.

Health Considerations:

- Spontaneous ignition of the waste resulted in fires in the upper lagoon on several occasions.
- In 1969, a spill from the lagoons contaminated portions of a nearby ranch and 30 cattle were killed.
- Site is located over the "400-foot sands". a major drinking water aquifer.

Other Environmental Risks:

- Lagoons are in the Mississippi River flood plain.
- Bayou Baton Rouge flows by both sites and fingers into Devil's Swamp, a Wetlands area immediately south of Brooklawn. This area is used recreationally.

Record of Decision

Signed: Consent Decree 1984
Amended: Consent Decree 1989

- The existing 1984 Consent Decree and 1989 Amendment may be considered a Source Control and Groundwater Containment Remedial Action for the Petro Processors Site.

- The Supplemental Remedial Action Plan (SRAP), incorporated by reference into the Consent Decree calls for a system of about 200 recovery and containment wells at the Brooklawn Site, following capping of the contaminated lagoons.A similar system will be designed for Scenic.

Community Involvement

- Community Involvement Plan: Developed 10/84, revised 01/88, and again revised 03/91.
- Open houses and workshops: 7/90, 1/91, 3/94, 7/94
- Original Proposed Plan Fact Sheet and Public Meeting: / .
- Original ROD Fact Sheet: /
- Milestone Fact Sheets: 07/87 press release; update 02/89; 10/89, 06/90, 02/91, 3/91.
- Citizens on site mailing list: 112
- Constituency Interest: Concerned. Odors, contamination of air, surface and ground water, PRP oversight.
- Site Repository: Alsen Community Center

Technical Assistance Grant

- Availability Notice: None
- Letters of Intent Received:
  1) 9/18/90 - Coalition for Community Action;
  2) LOI notice published 10/14/90.
- Final Application Received: 01/23/91
- Grant Award: 09/05/91
- Current Status:

Fiscal and Program Management

- **Remedial Project Manager:** Cynthia Kaleri
- **State Contact:** Harold Etheridge
- **Community Involvement Coordinator:** Melanie Ontiveros Lillard
- **Attorney:** Jon Weisberg
- **State Coordinator:** Mark Satterwhite
- **Prime Contractor:** PRC, Inc. - Oversight, EPA
  NPC, Inc. - PRPs' Remedial Company

Cost Recovery:

- PRPs Identified: 11
- Viable PRP: Petro Processors of Louisiana, Inc.; U.S. Steel Corp.; Copolymer Rubber and Chemical Corp.; Uniroyal, Inc.; Ethyl Corp.; Dow Chemical Co.; Shell Oil Company, American Hoechst Corp.; Exxon Corp.; Exxon Chemical Co.; Allied Chemical Corp.; Rubicon Chemicals Corporation.
- Oversight of the implementation of the Consent Decree. Consent Decree entered into the Record on February 17, 1984.

• The existing 1984 Consent Decree and 1989 Amendment may be considered a Source Control and Groundwater Containment Remedial Action for the Petro Processors Site. Site boundaries are well defined by the Remedial Planning Activities Report, incorporated by reference into the Consent Decree.

• The Supplemental Remedial Action Plan (SRAP) called for a system of about 200 recovery and containment wells at the Brooklawn Site, following capping of the contaminated lagoons.

• An air emissions risk assessment was conducted utilizing data from previous years, before the caps were in place. Excess risks calculated were within or less than EPA's risk range of 10-4 - 10-6.

• All contaminated source areas, except the upper and lower lagoons at the Brooklawn Site are capped and a full scale treatment facility is operational for the wells currently in place. A similar system for the Scenic Highway Site is being developed; the Scenic Site cap is now in place.

• An air pathway risk assessment was conducted utilizing historical data to assess the impact from the 2 lagoons left open. Excess risks calculated were within or less than the risk range established in the NCP for remedial actions.

• A full scale treatment facility has been constructed at the Brooklawn location to manage contaminated groundwater and organics currently being recovered from Brooklawn and that planned to be recovered from Scenic. The treatment scheme includes the following: 1) Phase separate water and organics; 2) air strip contaminated water; 3) incinerate fumes from air strippers and incinerate organic liquids from phase separation unit; 4) polish treated water via carbon adsorption; and 5) discharge the water under an NPDES permit. Although the facility is operational, final testing for the incinerator, liquid mode is not complete so organic liquids are currently being stored onsite.

• A trial burn (agency oversight testing of the liquid mode operation of the incinerator) is scheduled for November 7, 1994 and the facility will be fully operational following the trial burn since the incinerator may continue to operate under an interim status prior to final operating conditions being set.

• With operation of the new facility, plans are also underway for closing out the upper and lower lagoons.

Cleanup Measurements

• Construction of some phases of the remedy, such as the engineered clay fills covering the Brooklawn and Scenic sites, the installation of a french drain system in Cypress Swamp and recovery wells at Brooklawn, have been completed. These measures have helped to reduce the migration of contaminants and prevent air emissions from the source areas. With operation of the full scale treatment facility, wells can be added at Scenic to complete the containment/recovery remedy.