

## Five-Year Review Report

Third Five-Year Review Report

for

Southern Shipbuilding Corporation Superfund Site  
Slidell, St. Tammany Parish, Louisiana

September 2010

Region 6  
United States Environmental Protection Agency  
Dallas, Texas

## **Five-Year Review Memorandum**

### **Southern Shipbuilding Corporation Superfund Site CERCLIS ID# LAD008148015 Slidell, St. Tammany Parish, Louisiana**

This U.S. Environmental Protection Agency (EPA) memorandum documents the performance, determinations, and approval of the Southern Shipbuilding Corporation Superfund Site ("SSC site" or "the site") Third Five-Year Review Report prepared by EPA-Region 6.

#### **Summary of Five-Year Review Findings**

The remedy for the Southern Shipbuilding Corporation Superfund Site in Slidell, St. Tammany Parish, Louisiana was chosen to remove principal health threats that presented excess lifetime cancer risk and prevent further actual or threatened releases of hazardous substances from the site. The site was cleaned up under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 42 U.S.C. §9601 et seq. as two operable units. In Operable Unit 1, materials containing polynuclear aromatic hydrocarbon (PAHs) concentrations above 10 parts per million (ppm) benzo(a)pyrene (BAP) equivalents and sediments containing tributyltin concentrations greater than 80 parts per billion (ppb) were removed and incinerated at the nearby Bayou Bonfouca Superfund Site, under a determination by the Regional Administrator of EPA Region 6 to treat the two Superfund sites as one, under section 104(d)(4) of CERCLA.

The residual ash was returned to the SSC site and buried under a clay cap. Soils containing PAH concentrations between 1 and 10 ppm BAP equivalents were excavated and disposed of on-site under the clay cap. Soils containing concentrations of arsenic greater than 30 ppm, lead greater than 2,000 ppm, and polychlorinated biphenyls greater than 10 ppm were excavated and disposed of off-site. Asbestos containing materials (ACM) were also excavated and disposed of off-site.

All affected areas were backfilled and re-graded. Operations and maintenance at the site consists of routine site inspections to ensure clay cap integrity. Site inspections and interviews with parties associated with the site show that the cap is effectively preventing exposure to the wastes that remain at the site. The site is currently inactive, but future land use is expected to present some reuse negotiations and issues. The Record of Decision (ROD) for Operable Unit 2 (OU2), which provides no further remedial action, contemplated continued light industrial use at the site in reaching this determination.

However, in the event that a change in use of the site was considered, the ROD recommended that the City of Slidell control such development through zoning and construction requirements; and it made specific recommendations for additional remedial measures in such event, such as installation of two feet of additional clean soil as a cover with controls on the disposition of excavated materials. The site owner has indicated that he plans to have the property rezoned and to redevelop the property for commercial and residential purposes. The City of Slidell and some residents apparently support this development. According to the City, there may be some other residents who prefer a green belt use for the property. In the event that the EPA decides to require appropriate institutional controls or other remedial actions in connection with such development, an Amended ROD should be published. The screening standards noted from the site cleanup are protective for industrial use and not residential. Further evaluation of the site and any necessary administrative and response actions; including but not limited to, sampling events shall occur if the current land use is changed.

The trigger for this third five-year review was the actual start of construction in September 1995, the first Five-Year Review Report in September 2000, and the second Five-Year Review Report in September 2005. As of the site inspection accomplished in July 2010 and other site documentation, the remedial action at the site as originally set forth in the ROD was implemented as planned and it appeared to continue to be protective of human health and the environment in the short term. However, on August 28 - 29, 2005, the Slidell Louisiana area, as well as the Greater New Orleans area and Mississippi Gulf Coast were severely impacted by the Category IV (Saffir/Simpson Scale) Hurricane Katrina. This storm caused unprecedented catastrophic destruction due to high winds and an unparalleled storm surge. In the Slidell area, the Bayou Bonfouca which empties into the northeast sector of Lake Pontchartrain, was informally reported to have incurred a storm surge of as much as 12 feet well upstream. Annual inspections of the site since the storm have been conducted to document and correct any deficiencies in the protectiveness of the site. As necessary, appropriate response actions will be taken to address site conditions that pose a threat to public health and the environment.

#### **Actions Needed**

The recommended actions below address the issues necessary to ensure protectiveness. This includes potential site damages incurred from seasonal weather events, as well as the possibility of the property's use changing from light industrial to commercial and/or residential purposes. Furthermore, these actions will also address the matter pertaining to some minor erosion areas in the cap at the site. The performance of these actions, in the circumstances described, will be needed to ensure future remedy protectiveness:

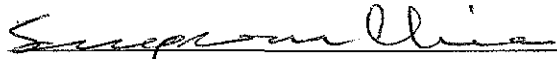
- The site should be re-evaluated for asbestos and other contaminant risk if the site is to be rezoned for residential risk. Re-evaluation should include but not be limited to sampling events for all possible contaminants and comparing to all most recent screening and toxicity standards applicable;
- Mow and maintain heavily overgrown grass and tall weeds on the cap's surface and northern perimeter;
- Remove trees growing on the cap's surface and backfill holes and cracks with clay;
- Seed repaired areas to prevent erosion, which may require covering clay materials with topsoil;
- Repair ripped or damaged site perimeter fencing (secondary significance behind preceding follow-up actions);
- Work closely with the site owner, Louisiana Department on Environmental Quality, and the City of Slidell when tangible reuse proposals and redevelopment plans are submitted, to ensure the site remains protective of human health and the environment;
- In the event of an approved proposal for redevelopment of the site through the "Ready for Reuse (RfR)" process or otherwise that involves the requirement for institutional controls or other remedial measures at the site, an Amended ROD must also be initiated and approved by the EPA since the 1997 ROD called for no further action;
- Require the developer of the site to ensure implementation of any necessary institutional controls as needed to change the use status of the site, to ensure the protection of remedial components, or for other reasons;
- Oversee the enforcement of any newly required institutional controls at the SSC site; and
- Due to frequent extreme meteorological events in the area, continue annual inspections of the site until the September 2015 Five-Year Review or until the site is approved by EPA as RfR and redeveloped according to RfR approved plans.

### **Determinations**

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I have determined that the remedy for the Southern Shipbuilding Corporation Superfund Site, Slidell, St. Tammany Parish, Louisiana, cannot be found to be protective of human health and the environment in the long term at this time.

The remedy conducted at the Southern Shipbuilding Corporation Superfund Site is found to be protective of human health and the environment in the short-term only at its current condition. In order to ensure both short- and long-term protectiveness, the performance of the action items as described above and in this Five-Year Review Report must be appropriately addressed. The recommended actions are expected to be addressed within the next twelve months. The current land owner is responsible for implementing these changes recommended in this five year review.

  
for Samuel Coleman, P.E., Director  
Superfund Division  
U.S. Environmental Protection Agency Region 6

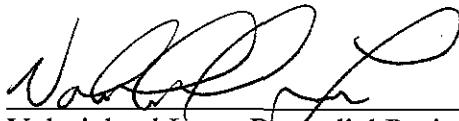
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CONCURRENCES

Five-Year Review

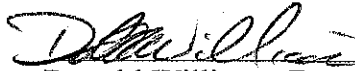
for the

Southern Shipbuilding Corporation Superfund Site  
CERCLIS ID# LAD008148015



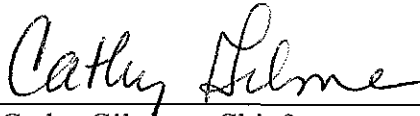
Valmichael Leos, Remedial Project Manager  
Superfund LA / NM / OK Section

09/29/10  
Date



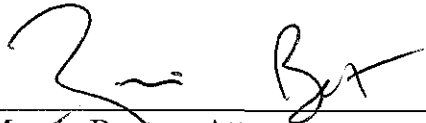
Donald Williams, Deputy Associate Director  
Superfund Remedial Branch

9/29/10  
Date



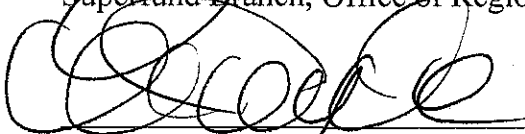
Cathy Gilmore, Chief  
Superfund LA / NM / OK Section

9/29/10  
Date



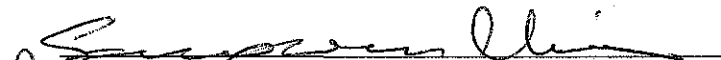
Marvin Benton, Attorney  
Superfund Branch, Office of Regional Counsel

9/29/10  
Date



Mark Peycke, Chief  
Superfund Branch, Office of Regional Counsel

09/29/10  
Date



Pam Phillips, Deputy Director  
Superfund Division

9-30-10  
Date

**Five-Year Review Report**

**Third Five-Year Review Report**

**For**

**Southern Shipbuilding Corporation Superfund Site  
Slidell, St. Tammany Parish, Louisiana**

**July 2010**

**Region 6  
United States Environmental Protection Agency  
Dallas, Texas**

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## Acronym List

ACM	Asbestos – Containing Material
ARARs	Applicable or Relevant and Appropriate Requirements
BAP	Benzo(a) Pyrene
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR	Code of Federal Regulations
CWA	Clean Water Act
EE/CA	Engineering Evaluation/Cost Analysis
E&E	Ecology and Environment (EPA contractor)
ERB	Emergency Response Branch
EPA	United States Environmental Protection Agency
FR	Federal Register
LDEQ	Louisiana Department of Environmental Quality
LDR	Land Disposal Restrictions
NCP	National Contingency Plan
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
O&M	Operation and Maintenance
OSWER	Office of Solid Waste and Emergency Response
OU	Operable Unit
PAH	Polynuclear Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
ppb	parts per billion
ppm	parts per million
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
RPM	Remedial Project Manager
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SSC	Southern Shipbuilding Corporation Superfund Site
TAT	Technical Assistance Team
TBCs	To Be Considereds
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard

## **Executive Summary**

The remedy for the Southern Shipbuilding Corporation Superfund Site (SSC) in Slidell, St. Tammany Parish, Louisiana was chosen to remove principal health threats that presented excess lifetime cancer risk, and prevent further actual or threatened releases of hazardous substances from the site. The site was cleaned up under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C § 9601 et seq. as two operable units.

### **Operable Unit 1**

In Operable Unit 1, materials containing polynuclear aromatic hydrocarbon (PAH) concentrations above 10 parts per million (ppm) benzo(a) pyrene (BAP) equivalents and sediments containing tributyltin concentrations greater than 80 parts per billion (ppb) were removed and incinerated at the nearby Bayou Bonfouca Superfund Site per the Record of Decision (ROD) amended July 26, 1995. Under a determination by the Regional Administrator of the United States Environmental Protection Agency (EPA) Region 6, the two Superfund sites were treated as one; section 104(d)(4) of CERCLA. The residual ash was returned to SSC site and buried under a clay cap. Soils containing PAH concentrations between 1 and 10 ppm BAP equivalents were excavated and disposed of on-site under the clay cap. Soils containing concentrations of arsenic greater than 30 ppm, lead greater than 2,000 ppm, and polychlorinated biphenyls (PCB) greater than 10 ppm were excavated and disposed of off-site. Asbestos containing materials were also excavated and disposed of off-site. All affected areas were backfilled and re-graded. Operations and maintenance at the site consists of routine site inspections to ensure clay cap integrity. Site inspections and interviews with parties associated with the site show that the cap is effectively preventing exposure to the wastes that remain at the site. The site is currently inactive, but future land use is expected to present some reuse negotiations and issues.

### **Operable Unit 2**

From September 1995 to April 1996 a Remedial Investigation/Feasibility Study (RI/FS) was conducted for OU2. Contaminated soils were excavated from OU2 and disposed of or sent to Bayou Bonfouca Superfund Site for on-site incineration between April and June 1996. Asbestos containing materials were disposed of from June to August 1997. The ROD, September 1997, for Operable Unit 2, which required no further remedial action, contemplated continued light industrial use at the site. However, in the event that a change in use of the site is considered, the ROD recommends that the City of Slidell control such development through zoning and construction requirements; and the ROD makes specific recommendations for additional remedial measures in such an event, such as installation of two feet of additional clean soil as cover with controls on the disposition of excavated materials. The site owner has indicated that he plans to have the property rezoned and to redevelop the property for commercial and residential purposes. The City of Slidell has indicated an interest in seeing the area being redeveloped as a park or for

economic development. In the event that the EPA decides to require appropriate institutional controls or other remedial action in connection with such development, an Amended ROD should be published. Future sampling events could be warranted to investigate possible residual asbestos contamination and/or other contaminant levels in regards to possible future residential use.

The trigger for this Third Five-Year Review was the start of construction in September 1995, the First Five-Year Review Report in September 2000, and the Second Five-Year Review Report in September 2005. The site inspection of the Second Five-Year Review Report occurred before Hurricane Katrina in August 2005 which severely impacted the SSC site. The pre-hurricane site inspection stated that "the remedial action at the site as originally set forth in the Record of Decision was implemented as planned and it appeared to continue to be protective of human health and the environment". However, the report notes that due to Hurricane Katrina an accurate assessment could not be made concerning the site due to inaccessibility of the site post-Katrina. In the 2008 Eleventh Annual Inspection Report of SSC, it is noted that on September 30, 2005, environmental samples were taken from the site to assess the possible effects of Katrina on the site. On December 19, 2005, EPA reported that the SSC site sustained no appreciable damage from Hurricane Katrina in regards to the remedy's protectiveness from release of or exposure to hazardous materials.

For this Third Five Year Review, as of the site inspection accomplished on June 3, 2010 and other site documentation, the remedial action at the site as originally set forth in the ROD had been implemented as planned and it appears to continue to be protective of human health and the environment in the short term. For long term protection, the property owner shall address the issues presented in this Five-Year Review report such as perimeter fencing repair, tree removal from clay cap, vegetation maintenance, backfilling minor erosion areas with clay, and reseeding barren areas for erosion control.

## Five-Year Review Summary Form

Five-Year Review Summary Form			
<b>SITE IDENTIFICATION</b>			
Site Name (from WasteLAN): Southern Shipbuilding Corporation			
EPA ID (from WasteLAN): LAD008148015			
Region: IV	State: LA	City/Council: Slidell, St. Tammany Parish	
<b>SITE STATUS</b>			
NPL status: Final <input checked="" type="checkbox"/> Deleted Other (specific) _____			
Remediation status (choose all that apply): Under Construction Operating Complete <input checked="" type="checkbox"/>			
Multiple Ous?* <input checked="" type="checkbox"/> YES NO		Construction Completion Date: 08/29/1997	
Has site been put into reuse? YES NO <input checked="" type="checkbox"/>			
<b>REVIEW STATUS</b>			
Lead agency: EPA State Tribe Other Federal Agency USACE MVN			
Author name: John Templeton			
Author title: Environmental Engineer		Author affiliation: USACE MVN ED-F	
Review Period: **09/30/2005 to 7/15/2010			
Date(s) of site inspection: May 2010			
Type of review:			
	Post -SARA	Pre-SARA	NPL-Removal only
	Non-NPL Remedial Action Site		NPL State/Tribe-lead
<input checked="" type="checkbox"/> Statutory Review	Regional Discretion		
Review number: 1 (first) 2 (second) (3 (third) <input checked="" type="checkbox"/> other (specify) _____			
Triggering action:			
	Actual RA Onsite Construction at OU # _____	<input checked="" type="checkbox"/> Actual RA Start at OU #1	
	Construction Completion	Previous Five-Year Review Report	
	Other (specify) _____		
Triggering action date (from WasteLAN): 09/30/2005			
Due date (five years or after triggering action date): 06/15/2010			
*["OU" refers to operatble unit.]			
**[Review period should correspond to the actual start and end dates of the Five-Year Reivew in WasteLAN.]			

## Five-Year Review Summary Form, continued

### Issues

As stated in the September 1997 ROD, the site remedy is protective for light industrial use. The ROD contemplated the maintenance of site zoning requirements by the City of Slidell, but recommended that in the event that residential uses were to be permitted on the site, two feet of additional clay soil cover, along with control of excavated materials should be required by the City of Slidell through zoning and construction permit requirements. Marina Stevens, of Slidell City Planning, indicated that the Southern Shipbuilding Corps area is still zoned M-2 Light Industrial. At present, the site is not used for any activity except routine and minimal maintenance of the grounds. There was no evidence of preparations for construction or development of facilities necessary for reuse.

There have been discussions between Mr. Steven Siegler, Managing Director of Equity Development Systems Ltd., and the City of Slidell to work towards a reuse resolution. Mr. Siegler had indicated to EPA, USACE, Louisiana Department of Environmental Quality (LDEQ), and the City of Slidell officials that his company was moving forward with proposed plans to redevelop all of the Southern Shipbuilding Corporation site for possible residential and commercial purposes. The City of Slidell and its community members and the site owner are interested in returning the site into a commercial and residential stream of commerce, rather than for light industrial reuse. Further evaluation of the site and necessary administrative and remedial actions shall occur if the current land use is proposed for zoning change.

### Recommendations and Follow-up Actions:

- Mow and maintain heavily overgrown grass and tall weeds on the cap's surface and northern perimeter;
- Remove trees growing on the cap's surface and backfill holes and cracks with clay;
- Seed repaired areas to prevent erosion, which may require covering clay materials with topsoil;
- Repair ripped or damaged site perimeter fencing (secondary significance behind preceding follow-up actions);
- Work closely with the site owner, LDEQ, and the City of Slidell when tangible reuse proposals and redevelopment plans are submitted, to ensure the site remains protective of human health and the environment;
- In the event of plans for rezoning or residential reuse the site should be sampled for possible residual asbestos containing materials and all other applicable contaminants. Contaminant levels should be reassessed in regards to the most recent screening standards available;
- In the event of an approved proposal for redevelopment of the site through the "Ready for Reuse (RfR)" process or otherwise that involves the requirement for institutional controls or other remedial measures at the site, an Amended ROD

must also be initiated and approved by the EPA since the 1997 ROD called for no further action;

- Require the developer of the site to ensure implementation of any necessary institutional controls as needed to change the use status of the site, to ensure the protection of remedial components, or for other reasons;
- Oversee the enforcement of any newly required institutional controls at the SSC site; and
- Due to frequent extreme meteorological events in the area, continue annual inspections of the site until the September 2015 Five-Year Review or until the site is approved by EPA as RfR and redeveloped according to RfR approved plans.

The USACE New Orleans District ED-F Environmental Team remains supportive of the EPA to ensure that the SSC site remains protective of human health and the environment. The USACE Environmental Team extends its offer to support the EPA in future measures including, but not limited to, amending RODs and continued annual inspections of the site.

### **Protectiveness Statement**

The site remedy is currently functioning and protective as intended in the ROD; however, action is needed in repairing areas of minor erosion with clay material, removal of tree growth and vegetation maintenance. The recommended actions are expected to be addressed within the next twelve months. The current land owner is responsible for implementing these changes recommended in this five year review.

### **Short-term and Long-term Protectiveness**

The remedy conducted at the Southern Shipbuilding Corporation Superfund Site is found to be protective of human health and the environment in the short-term at its current condition.

The general maintenance of the site, such as vegetation control and backfilling erosion with clay, must be continual for the remedy to be protective in the long-term. In the event of an approved proposal for redevelopment of the site through the "Ready for Reuse (RfR)" process or otherwise that involves the requirement for institutional controls or other remedial measures at the site, an Amended ROD must be initiated and approved by the EPA. Rezoning of the site as residential should require a sampling event to ensure proper control measures are undertaken to ensure long-term protection.



## I. INTRODUCTION

The purpose of a Five-Year Review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and recommendations to address them.

The United States Environmental Protection Agency (EPA or Agency) is overseeing the preparation of this Five-Year Review pursuant to section 121 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA § 121 states:

*If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The Agency interpreted this requirement further in the NCP; 40 CFR § 300.430(f)(4)(ii) states:

*If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

Contracted by the EPA Region 6, the United States Army Corps of Engineer Mississippi Valley New Orleans District (USACE MVN) conducted the Third Five-Year Review of the remedy implemented at the Southern Shipbuilding Corporation (SSC) Superfund Site in Slidell, Louisiana. The triggering action for this statutory review is the initiation of the remedial action in August 1995 and the Second Five-Year Review Report in September 2005.

## II. SITE CHRONOLOGY

Date	Event
August 1992	LDEQ investigates possible release of materials from the site sludge pit into Bayou Bonfouca
December 1992	EPA and LDEQ investigate the stability of site sludge pits and threat of contaminant releases
July 1993	EPA, USACE, and LDEQ conduct site inspections and USACE determines a imminent threat and substantial endangerment at the site
July 26-September 1, 1993	EPA initiates an Emergency Removal Action to pump down liquid levels in the sludge pits and provide additional freeboard
May 18-September 27, 1994	EPA conducts a time-critical removal action to again pump down liquid levels in the sludge pits and construct a fence around the site
July - October 1994	Engineering Evaluation/Cost Analysis (EE/CA) conducted
November 1994-May 1995	EPA conducts a time-critical response action to install sheet piling around the levees
March 1, 1995	EE/CA Report issued by EPA
March 1995 - September 1996	Removal Action conducted to remove drums, tanks, containers, their contents, and related contamination from the site
May 10, 1995	Site included on the National Priorities List (NPL)
July 20, 1995	ROD for OU1 signed
July 26, 1995	OU1 ROD Amended under CERCLA 104(d)(4) to permit the incineration of SSC site waste at the nearby Bayou Bonfouca Superfund Site
September 1995	Remedial Action (RA) for OU1 begins
September 1995 - April 1996	Remedial Investigation/Feasibility Study (RI/FS) for OU2 conducted
April 10 - May 28, 1996	"Fraction A" contaminated soils excavated from OU2 and sent to Bayou Bonfouca Superfund Site for on-site incineration
April 23 - Jun 27, 1996	Excavation and disposal of "Fraction B" contaminated soils from OU2 areas

Date	Event
August 1996	RI report for OU2 issued by EPA
September 1996	FS report for OU2 issued by EPA
September 30, 1996	Incineration of site wastes ends at Bayou Bonfouca Superfund Site
June 1997	Clay cover in OU1 area expanded and completed
June 1997 - August 1997	Excavation and disposal of asbestos-containing materials from OU2
September 15, 1997	No-action ROD for OU2
June 16, 1998	Site deleted from NPL
August 1998	First annual inspection completed
June 1999	Second annual inspection completed
September 2000	First Five-Year Review and Third annual inspection completed
May 22, 2001	Fourth annual inspection completed
2002	Fifth annual inspection completed
2003	Sixth annual inspection completed
2004	Seventh annual inspection completed
April and September 2005	Second Five-Year Review and eighth annual inspection completed
August 28-29, 2005	Category IV Hurricane Katrina strikes Slidell, Louisiana, as well as the Greater New Orleans area, and Louisiana, Mississippi, and Alabaman Gulf Coast
September 28, 30 2005	EPA conducted assessment activities and collected environmental samples
December 19, 2005	EPA reported that the SSC site sustained no appreciable damage from Hurricane Katrina
2006	Ninth annual inspection completed
2007	Tenth annual inspection completed
2008	Eleventh annual inspection completed
2009	EPA, LDEQ, USACE site visits
2010	Third Five-Year Review Completed

Table 1: Chronological events table at SSC Superfund Site.

### III. BACKGROUND

#### *Physical Characteristics*

The Southern Shipbuilding Corporation Superfund Site operated as a ship and barge construction and repair facility, as well as conducted "gas freeing" and barge cleaning operations from 1919 to 1993. The SSC site is situated on approximately 55.8

acres of land located in Township 9S, Range 14E, Section 44 (30° 16' 21" north latitude and 89° 48' 03") as shown in Figure 2. The site is located at 999 Canulette Road in St. Tammany Parish, Slidell, Louisiana. The property is currently owned by Equity Development Systems Limited (EDS) in New Orleans, Louisiana.

The Southern Shipbuilding Corporation site is surrounded by residential areas to the west and south. Approximately 25,695 residents live in the surrounding community according to the 2000 Census (2010 numbers are not in). The nearest residence potentially impacted by the site is approximately 400 feet from the site, to the southwest. The southeastern portion of the site is heavily wooded and is bounded by State Highway 433. The northern and eastern boundaries of the site are Bayou Bonfouca. Across Bayou Bonfouca to the north, the land use is both residential and commercial.

### ***Land and Resource Use***

Residential development has been encroaching on the Southern Shipbuilding Corporation Site over the last 40 years (E&E, 1995). Approximately 7,052 people lived within a one-mile radius of the site at the time the Record of Decision for Operable Unit 1 was signed (EPA, 1995). The nearest municipal water well is located 1.25 miles southwest of the site. The uppermost useable aquifer is the Shallow Aquifer, which is located approximately 75 feet below the land surface at the site. The site is situated within the 100-year flood plain, and the elevation is less than 10 feet above mean sea level.

### ***History of Contamination***

The facility was founded in 1919 by David and Frank Canulette and incorporated as Canulette Shipbuilding Company (Canulette) in 1920. During and after World War II, Canulette constructed vessels for the U.S. Navy. In 1954, the site was purchase and operated by the J&S Shipbuilding Corporation (J&S). J&S was acquired by the Seligman family in 1957, and its corporate name was changed to the Southern Shipbuilding Corporation. Operations at the site included "gas freeing" (the control of vapor buildup associated with cargo bearing barges), barge cleaning, and ship construction and repairing operations. The Southern Shipbuilding Corporation filed a petition for bankruptcy and ceased operations in 1993. The site included a graving dock where maintenance operations occurred and two sludge pits that were used to dispose of wastes pumped from vessels. Use of the sludge pits is believed to have ceased by 1972. Waste drums, containers, contaminated debris, scrap metal piles, and abandoned equipment were reported to have been scattered across the site. Contamination at the site resulted from the disposal of wastes in the sludge pits and poor waste management practices at the facility. Investigations determined those solid wastes and hazardous substances had been disposed of on the ground and in buildings at various locations across the site (EPA, 1997, and EPA, 1995).

The Southern Shipbuilding facility was issued two Compliance Orders by the Louisiana Department of Natural Resources (predecessor to the Louisiana Department of Environmental Quality [LDEQ]) in 1984 and 1987. These orders were related to unauthorized discharges (1984) of contaminants from the sludge pits and sampling and reporting requirements (1987) under the site's Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) permit. All permits associated with discharges from the site had expired by October 1992 (EPA, 1997).

In August 1992, the LDEQ attempted to investigate a complaint regarding the release of contaminants from the sludge pits, but access to the site was denied. Three days later it was discovered that the levees around the sludge pits had failed, and 325,000 gallons of materials were released into Bayou Bonfouca. The levees were repaired using sand bags. The LDEQ issued a third Compliance Order to Southern Shipbuilding, directing it to stop all unauthorized discharges and to comply with pollution control laws (EPA, 1993).

### ***Initial Response***

The site was identified to the EPA in December 1992 after the U.S. Coast Guard (USCG) had investigated a citizen complaint. The USCG discovered oily material seeping into the bayou. An investigation conducted by the EPA Emergency Response Branch (ERB) and the EPA Technical Assistance Team (TAT) between December 1992 and July 1993 determined that the north sludge pit was releasing material into the bayou. Inspections of the levees around the sludge pits, performed by the U.S. Army Corps of Engineers (USACE), EPA, TAT, and LDEQ, led to the conclusion that potential catastrophic failure of the levees was an imminent and substantial endangerment to human health and the environment (EPA, 1993).

In 1993 and 1994, the EPA ERB initiated two removal actions at the site to pump down water levels within the sludge pits and treat the discharge waters. In 1994-1995, the EPA and USACE installed sheet piling around the levees to abate the threat of the pits releasing into Bayou Bonfouca. Also in 1994-1995, an Engineering Evaluation/Cost Analysis (EE/CA) was conducted utilizing the EPA, TAT, Ecology and Environment Inc. (E&E) to support decision-making regarding appropriate removal actions. Procedures to add the site to the National Priorities List (NPL) were initiated, and the site was added to the NPL on May 10, 1995. The site was divided into two Operable Units (OU) for investigation and response purposes. OU1 consisted of the area of the facility around the graving dock and the sludge pits (approximately 11 acres); OU2 comprised the rest of the site (EPA, 1997). Figure 3 shows the boundaries between the operating units.

The EE/CA performed in 1994 to support the removal actions was based on extensive investigative work that conformed to the requirements of a Remedial Investigation/Feasibility Study (RI/FS) for OUI; and thus, it was able to be used similarly to an RI/FS, in support of developing the Proposed Plan and Record of Decision (ROD)

for OU1. The RI/FS for OU2 was conducted during 1995 and 1996 (E&E, 1996b, and E&E 1996c).

The EE/CA determined that the soils and sludge located in and around the sludge pits were extensively contaminated with polynuclear aromatic hydrocarbons (PAHs). The sediments in the graving dock were determined to be extensively contaminated with tributyltin (E&E, 1995). The OU2 RI/FS determined that 30 areas of soil within OU2 were contaminated with PAHs, polychlorinated biphenyls (PCBs), lead and arsenic (EPA, 1997). It was also later determined that several locations were contaminated with asbestos-containing material (ACM) (E&E, 1997). The sediments in Bayou Bonfouca were determined to contain low levels of contamination that could not be directly linked to the site. The shallow unconfined aquifer beneath OU2 at the site was determined to be slightly impacted but the next lower confined aquifer was determined to not be impacted (E&E, 1995, and E&E, 1996c). The principle threats posed by the site were determined to be direct exposure to hazardous substances, pollutants, or contaminants that pose a threat to human health or the environment, and the potential migration of contamination away from source areas (EPA, 1995, and EPA, 1997).

In summary, the site assessment and removal action investigations by EPA showed the following types of contamination at the site:

- Low-impact contaminated surface and subsurface soil in the proximity of the impoundment areas extending from the surface down to about 10 feet;
- High-impact contaminated sludge and soils in the impoundment and overflow areas, and soil in close proximity to these areas;
- Contamination to sediments within and immediately near the graving area (dry dock); and
- Low-impact contamination of sediments in Bayou Bonfouca.

The site was divided into two Operable Units: OU1 comprised the surface impoundments and graving dock; OU2 comprised the remaining 45 acres. OU2 was contaminated with metal, organic compounds, and ACM in several areas. These waste contaminants were addressed by removal actions for each contaminated area.

In 1996, approximately 1,072 cubic-yards of oily sludge from OU2 area were blended with OU1 oily waste and incinerated at the nearby Bayou Bonfouca Superfund Site. The residual ash was then disposed in the SSC on-site landfill. In addition, 5,000 cubic yards of contaminated soil that was characterized as non-hazardous was excavated and disposed off-site at the Woodside Landfill. In 1997, about 300 cubic yards of soils contaminated with ACM was also disposed at the Woodside Landfill (EPA, 1997 and E&E, 1997). Approximately 2,000 cans, containers, and drums were removed from the site during the April 1995 removal action (EPA, 1997).

## ***Basis for Taking Action***

### Contaminants

Hazardous substances that have been released at the site in each media include:

#### Soil

PAHs [Benzo(a) Pyrene equivalents]  
Total PCBs  
Lead  
Arsenic

#### Bayou Bonfouca Sediment

Arsenic  
Barium  
Beryllium  
Cobalt  
Lead  
Tributyltin

## **IV. REMEDIAL ACTIONS**

### ***Remedy Selection***

Two RODs for remedial action were signed for this site. The ROD for OU1 was signed on July 20, 1995, and the selection remedy included:

- Excavation of contaminated soil and sludge containing carcinogenic polynuclear aromatic hydrocarbons (PAHs) greater than 10 parts per million (ppm) Benzo(a) pyrene (BAP) equivalents, transportation of excavated materials to the Bayou Bonfouca Superfund Site located 1.5 miles upstream, and incineration of the contaminated materials at the Bayou Bonfouca Superfund Site;
- Excavation of the graving dock sediments contaminated with tributyltin greater than 80 parts per billion (ppb), transportation of the excavated materials to the Bayou Bonfouca Superfund Site located 1.5 miles upstream, and incineration of the contaminated material at the Bayou Bonfouca Superfund Site;
- After incineration at the Bayou Bonfouca Superfund Site, transportation of the residual ash back to the SSC site and disposal under a two foot clay cap on-site;

- Excavation of soils contaminated with carcinogenic PAHs between 1 and 10 ppm BAP equivalents and disposal under the SSC site clay cap;
- Backfilling and grading all excavated areas;
- Groundwater monitoring; and
- Access controls and warning signs.

The remedial action goal for PAHs of 1 ppm BAP equivalents was established based on a risk assessment. This concentration represents an excess carcinogenic risk within the range of  $10^{-5}$  to  $10^{-6}$ . The risk assessment assumed a future residential scenario. No non-carcinogenic risks above a Hazard Index of 1 were found at OU1.

The ROD for OU2 was signed on September 15, 1997, and it recommended no further response at the site. This recommendation was based on the fact that the contaminated portions of OU2 had been addressed through previous removal actions conducted along with the removal actions at OU1. Based on a risk assessment assuming future use as light industrial, consistent with City of Slidell zoning requirements, the remedial action goals established for OU2 were 10 ppm BAP equivalents for PAHs, 2,000 ppm for lead, 30 ppm for arsenic, and 10 ppm for PCBs. These concentrations were determined to fall within the target excess carcinogenic risk range of  $10^{-4}$  to  $10^{-6}$ . No non-carcinogenic risks above a Hazard Index of 1 were found at OU2. The ROD for OU2 stated that natural attenuation would adequately address the groundwater contamination at OU1, and no further action was recommended. In accordance with the remedial action goal assumptions, the reasonably anticipated future land use assumed in the ROD was light industrial. The ROD noted that City of Slidell zoning classification of light industrial land use is protective and that the City's zoning controls will ensure that land use remains protective in the event of a change to residential uses. However, the OU2 ROD went on to recommend certain actions by the local authority in connection with land use, including the following:

- Local planning officials and future property owners, users, or residents, should ensure that all excavation activities are conducted in a manner which would ensure that remaining contaminants in OU1 and OU2 are not brought to the surface, where they could pose a direct future contact threat.
- The City of Slidell is legally and physically able to enact zoning ordinances which would ensure that, in the event of a change in zoning that would allow residential developments upon the site, such development will be fully protective.
- They City of Slidell should require as a condition of securing a building permit that the developer place a minimum of two feet of clean fill over the remaining contaminated areas of OU2, and the developer will ensure that any soil excavated beneath that cover will be removed off-site or redeposited on-site under clean fill.



- The City of Slidell Planning Director has been provided with a copy of the administrative record for the site to be filed in appropriate city land recordation files and zoning files to give notice to future property users of the above-described institutional controls recommended for the site.
- The shallow unconfined groundwater in OU1 should not be used for any purposes unless future testing by the property owner or developer deems it fit for use.

The ROD also required an annual review and inspection of the site for five years after the date of the ROD to ensure that it is protective of public health and the environment (EPA, 1997). This annual inspection requirement was extended by the first Five-Year Review and the second Five-Year Review until the time of this third Five-Year Review.

### ***Remedy Implementation***

The EPA and USACE signed an Interagency Agreement Grant in July 1995 to conduct the Remedial Action (RA) for OU1 at the Southern Shipbuilding Corporation Superfund Site. The USACE mobilized to the site in August, and the excavation and staging of contaminated sludge, sediment, and soil at OU1 began in September. The material that was to be incinerated was transported to the Bayou Bonfouca Superfund Site by barge. Transport of the contaminated materials began in October 1995, and the incineration began with a trial burn in December 1995. The sludge pits were used to create landfills to dispose of the incinerator ash and marginally contaminated soils. Sampling results after excavation indicated that sediments within the graving dock were still contaminated with tributyltin. The condition of the dock was such that further excavation could not be done. To prevent exposure of ecological receptors to the sediments, an 18 inch clay layer overlain by gravel was constructed in the graving dock.

The RI/FS for OU2 was conducted concurrent with the RA for OU1. Results showed that contamination at OU2 occurred across limited areas. EPA decided to address the contamination through limited removal actions. Soils from OU2 were separated into two categories: Fraction A and Fraction B. Fraction A soils were contaminated with concentrations of carcinogenic PAHs greater than 10 ppm BAP equivalents and concentrations of other contaminants acceptable for incineration (arsenic < 30 ppm, lead < 500 ppm, and total PCBs < 10 ppm). Beginning in April 1996, the Fraction A soils were excavated and sent to the Bayou Bonfouca Superfund Site for incineration. The incinerator ash was returned to the SSC site and disposed along with the contaminated materials from OU1. Fraction B soils were contaminated with concentration of arsenic >30 ppm, lead > 2,000 ppm, PAHs > 1 ppm BAP equivalents, and total PCBs > 10 ppm; however, this material was not categorized as hazardous waste. Thus, Fraction B soils were excavated and disposed off-site at the Woodside Municipal Landfill, Walker, Louisiana, a RCRA Subtitle D facility. Asbestos contamination was also discovered in soil and debris at OU2. Asbestos-containing material was excavated and properly disposed off-site. All excavated areas were backfilled with clean fill and

graded (EPA, 1997). All work associated with these actions were completed by June 1996, and all incineration ended in September 1996 (EPA, 1997 and E&E 1996a).

The RA completed at Southern Shipbuilding Superfund Site included excavation of highly-contaminated soils for OU1 and OU2 and incineration at the nearby Bayou Bonfouca Superfund Site. The target depth established for remediation was 2 feet. Soils from OU1 containing concentrations of carcinogenic PAHs greater than 10 parts per million (ppm) benzo(a) pyrene (BAP) equivalents were incinerated at the Bayou Bonfouca Superfund Site. Graving dock sediments contaminated with tributyltin concentrations greater than 80 parts per billion (ppb) were also excavated and incinerated at the Bayou Bonfouca Superfund Site. The ash from the incinerator was returned to the site and disposed of on-site under a two foot clay cap. Soils from OU1 contaminated with carcinogenic PAHs between 1 and 10 ppm BAP equivalents were also excavated and disposed of under the clay cap.

Removal action levels were based on site specific risk assessments. A clay layer was established in the graving dock to limit exposure of ecological receptors to contaminated sediments that remained after excavation. Wastes left on-site in drums, containers, and tanks, as well as contaminated debris and trash were previously disposed of during the April 1995 emergency response removal action. The ROD for OU1 also suggested that existing fencing be maintained, that warning signs be posted, and that groundwater monitoring be conducted. The ROD for OU2 recommended that Slidell zoning restrictions be maintained and enforced for the site to maintain the protectiveness of the remedy (EPA, 1997 and EPA, 1995).

As a result of various remedial activities at the SSC site, approximately 35,000 cubic yards of contaminated soil, sludge, and sediment from OU1 were incinerated at the Bayou Bonfouca Superfund Site and disposed of under the SSC clay cap. About 53,000 cubic yards of marginally-contaminated soils from OU1 were also disposed of under the clay cap (EPA, 1997). From April to May 1996, through a removal action involving OU2 site areas, the EPA excavated at the SSC site and incinerated at the Bayou Bonfouca Superfund Site approximately 1,072 cubic yards of highly-contaminated soil; and the residual ash was disposed of under the clay cap at the SSC site. About 5,000 cubic yards of non-hazardous contaminated soil and debris was disposed off-site at the Woodside Landfill, Walker, Louisiana. Approximately 300 cubic yards of soil and debris contaminated with ACM was excavated and disposed of off-site (EPA, 1997 and E&E, 1997). Also, approximately 2,000 cans, containers, and drums were removed from the site during the April 1995 removal action (EPA, 1997).

### ***System Operation/Operation and Maintenance***

There are no EPA mandated O&M requirements for the site. Nonetheless, the EPA conducts annual site inspections to verify the condition and integrity of the clay cap, as well as to identify any other adverse conditions affecting the site remedy. To-date, no major repairs have been required or major deficiencies noted. As noted above, the annual

inspections were required by the ROD until 2002 (EPA, 1997). This requirement was revised by the First Five-Year Review to continue until 2005. The Second Five-Year Review revised this requirement to extend until 2010 and the Third Five-Year Review Report.

## **V. PROGRESS SINCE THE LAST FIVE-YEAR REVIEW**

Treated soil, ash, and low-level contaminated soils remain on the SSC site under a clay cap which covers approximately nine acres of the site. EPA considers the cap to be protective; nonetheless, since hazardous substances will remain on the SSC site, the EPA is required to conduct five-year reviews.

The First Five-Year Review Report in September 2000 indicated that the selected remedies conducted at the SSC site were protective of human health and the environment. That conclusion was based on interviews with persons familiar with the remedial action, a site inspection made on August 22, 2000, a review of data, and currently applicable regulatory requirements. Until the time of site investigation for the Second Five-Year Review report, no changes had occurred since the September 2000 Five-Year Review that warranted a reassessment of that finding. However, before final completion of the Second Five-Year Review Report, on August 28-29, 2005, the greater New Orleans area, including Slidell, Louisiana, and extensive areas of the Mississippi Gulf Coast were struck by Hurricane Katrina, a category IV (Saffir/Simpson Scale) storm. Katrina caused wide scale, unprecedented and extensive devastation from high winds and massive flooding related to storm surge. Before completion of the Second Five-Year Review report access to the site was not granted for assessing storm damage. The Second Five-Year Review report concluded that no reliable conclusions could be drawn on the nature and extent of any damage incurred at the site by Hurricane Katrina, or whether the site was protective of human health and the environment.

After submission of the Second Five-Year Review report, EPA representatives were able to access the SSC property to assess storm damage and collect environmental samples on September 28 and 30, 2005. On December 19, 2005, EPA reported that the SSC site sustained no appreciable damage from Hurricane Katrina.

Following the 2005 assessment, the annual inspections of SSC continued. The eleventh annual inspection was completed in August 2008. The report found the Site's remedy to be protective of public health and the environment in the short-term. The report lists the actions needed to ensure future favorable protectiveness as:

- Repair ripped or damaged site perimeter fencing, after clearing downed trees and other woody debris along Canulette Road;
- Mow and maintain heavy overgrown grass and tall weeds on the cap's surface and northern perimeter;
- Remove pine trees growing on the cap's surface and backfill holes and cracks with clay

- Repair all eroded areas with clay; and
- Seed repaired areas to prevent erosion.

At the time of inspection and finalization of this Third Five-Year Review there has been no progress or significant changes made at SSC. The necessary actions listed in the eleventh annual inspection report are on-going issues presented in several annual inspections and again in this Third Five-Year Review.

## **VI. FIVE-YEAR REVIEW PROCESS**

### ***Administrative Components***

City of Slidell key officials were notified of the initiation of the Third Five-Year Review on May 15, 2010. The Southern Shipbuilding Corporation Superfund Site Five-Year Review team was lead by John Templeton of USACE, Technical Manager of ED-F Environmental Team. Dan Haggerty represented USACE Geotechnical Engineering Division for cap inspection during the site inspection. Components of the review included:

- Community Involvement
- Document Review
- Data Review
- Site Inspection
- Local Interviews
- Five-Year Review Development and Review

### ***Community Involvement***

Activities to involve the community in the Five-Year Review began with a notice placed on May 19, 2010 in the *St. Tammany News* and the *Slidell Independent*, local newspapers, stating that a Five-Year Review was to be conducted (notice as **Attachment 4**). A notice stating the same was sent to various members of the Slidell community including, the Palm Lakes Homeowners (neighborhood association adjacent to the site), the City of Slidell Fire and Rescue Department; the Local Emergency Planning Committee; the offices of all Councilman/Councilwomen; and the mayor. The letter invited the participants to submit any comments to USACE (**Attachment 5**).

There was no contact initiated from the public to the USACE. USACE did perform follow-up interviews with various members of the community.

## ***Document Review***

This Five-Year Review consisted of a review of relevant documents (**Attachment 2**) listed in the 1997 Record of Decision, EPA's site annual inspection reports, and the First and Second Five-Year Review Reports.

## ***Data Review***

The target depth was two feet for excavation of contaminated soil and debris during the cleanup and remedial actions conducted as a removal action for OU2. Sampling results from the RI and additional confirmatory sampling indicated that 23 acres in OU2 exceeded remedial action goals. These areas were excavated. Confirmation samples were collected when the initial excavation depth was less than two feet. The results of these samples were used to determine if additional excavation was necessary. Initially, no confirmation samples were collected if the excavation depth was two feet (E&E, 1996a). Subsurface soils samples were collected from the two foot interval in these excavations to document contaminant concentrations as a control at the foot interval.

Confirmation samples were also collected for areas where asbestos-containing material removals were conducted (E&E, 1997). The results of all confirmation samples indicate that the remedial action goals set in the September 1997 ROD for OU2 were met at all locations (E&E, 1997 and E&E, 1996a). The sample results and discussions are reported in the Removal Support Report: Part 2 – Operable Unit 2, Southern Shipbuilding Corporation, Slidell, St. Tammany Parish, Louisiana (E&E, 1996a) and the Removal Support Report: Part 2, Addendum 1 – Operable Unit 2, Southern Shipbuilding Corporation, Slidell, St. Tammany Parish, Louisiana (E&E, 1997).

In the wake of Hurricane Katrina, representatives of the EPA collected environmental samples from SSC on September 30, 2005. On December 19, 2005, EPA reported that the SSC site sustained no appreciable damage from Hurricane Katrina (EPA 2008).

Operation and maintenance at the site does not require any sample collection or data analysis of any environmental media.

## ***Site Inspection***

The Third Five-Year Review inspection by USACE was conducted on June 3, 2010. The team found the integrity of the cap to be sound, intact, and secure. There was no evidence of construction or building of any kind on or around the cap.

On the June 3, 2010 inspection, the inspection team found the cap area to be significantly vegetated with grasses. There were no signs of tree growth in the cap. The

site inspection showed that the site owner has effectively backfilled most of the areas of minor erosion with a clay material that were noted in prior inspections. The material used for the backfilling appears to be a mostly clay material with some silt/sand content. These areas have yet to sprout grass and other vegetation. The cap appeared to have sound structural integrity. There still remains minor erosion at the northern end of the cap area, however; this minor erosion did not appear to compromise the integrity of the cap and showed no evidence of exposed materials that have been left in place. There was no evidence of subsidence or desiccation of the cap. Moreover, there was no evidence of deep ruts, holes, or cracks in the cap. There was no evidence of areas where water pools or has pooled in any low-lying areas, and no identified slope instability. USACE and EPA representatives have continually discussed the minor erosion with the property owner and the owner has agreed to repair and maintain the areas as part of the general site maintenance. No O&M records were requested or provided. As of June 2010, the cap remains protective of human health and the environment based on site conditions and meteorological activity at that time.

The fence around the perimeter of the site remains to be largely destroyed in some areas by Hurricane Katrina. Large sections of the fence are bent, twisted, collapsed, fallen, or completely absent in certain areas. The areas of fence deficiencies lie in heavily wooded areas where access is greatly limited. The main entrance gate; however, is intact. There were no signs or evidence of trespassing or loitering despite the fences condition due to the dense wooding. The condition of the fence is considered to be of secondary importance to remedy integrity to vegetation, tree growth and erosion control.

The following table gives the general GPS coordinates of the deficiencies which are also mapped in **Figure 4**.

	General Latitude	General Longitude
Minor Erosion	30°16.372'	89°48.05'
Fence Deficiencies	30°16.191'	89°48.042'
Fence Deficiencies	30°16.156'	89°47.885'

*Table 2: Noted Deficiency Locations*

## **Interviews**

Interviews were conducted with Mr. Steven Siegler, a businessman and the current site property owner; officials of the City of Slidell, Mayor/Police Chief Freddy Drennan, Councilman-District A, Lionel Hicks; environmental community activist Carl Helwig, and Palm Lakes Homeowners President Johnnie Verrette. The city attorney, Tim Mathison was also spoken with in regards to the site. Copies of interview response forms are attached to this report as **Attachment 3**. Other members of the communities were contacted by letter. A list of these people and a copy of the letter is presented in **Attachment 5**. The newspaper advertisement of the Five Year Review is presented in **Attachment 4**.

All parties interviewed responded favorably for how effectively the site was addressed and the remedial action activities that cleaned up the former site operations. No interviewee was aware of any current issues regarding the site and its management. Parties expressed interest in redevelopment of the site for a recreational park and/or other commercial development for economic growth.

## VII. TECHNICAL ASSESSMENT

### **Question A: Is the remedy functioning as intended by the decision documents?**

The review of documents, Applicable or Relevant and Appropriate Requirements (ARARs), risk assumptions, and the results of the site inspection indicate that the remedy is functioning as intended by the ROD. The digging, hauling, incineration and off-site disposal of some soils, and capping of ash and low-impact contaminated soils has achieved the remedial objectives to minimize the migration of contaminants to groundwater and surface water and prevent direct contact with, or ingestion of, contaminants in soil and sediments. While institutional controls have not been implemented, these have not affected the protectiveness for the site.

Voluntary operation and maintenance of the cap by the site owner has, on the whole, been effective. A small area at the northern end of the cap showed evidence of minor erosion due to run-off. The erosion did not penetrate beyond the cap layer, and so did not effect protectiveness. The site owner is arranging to repair and maintain the minor eroded areas of the cap and will include the task of inspection and repair in future operation and maintenance routines. The site owner has also indicated his intent to ensure the removal of any current and future tree growth within the cap area.

### **Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?**

#### Changes in Standards and To Be Considereds

Hazardous waste incineration is no longer occurring as part of the site remedy, and the 40 CFR Part 264 Subpart O regulations no longer apply to the site. There are no discharges from the site into Bayou Bonfouca, and the regulations under 40 CFR Parts 129 and 131 no longer apply to the site remedy. No archaeological or historical structures were identified at the site, and the National Historic Preservation Act and the Archaeological and Historic Preservation Act no longer apply to the remedy of the site.

Since the ROD was signed, there have been no changes to the regulations under 40 CFR Part 257.3-1 through 3-4. There have been no changes to Executive Order No.

11988 (floodplains) or Executive Order No. 11990 (wetlands). In addition, there have been no changes to the Fish and Wildlife Act or the Endangered Species Act.

The EPA has promulgated changes in the Land Disposal Requirements, pertaining to the classification of contaminated soils in 40 CFR 268.49, (63 FR 28602-28622). The remedy satisfies these ARAR specifications.

#### Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment. These assumptions are considered to be conservative and reasonable in evaluating risk and developing risk-based cleanup levels. No change to these assumptions or the cleanup levels developed from them is warranted. There has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy. The remedy is progressing as expected and the five-year reviews and annual inspections find that all remedial objectives have been effectively met.

#### **Question C: Has any other information come to light that could call into question the protectiveness of the remedy?**

No ecological targets were identified during the baseline risk assessment and none were identified during the five-year reviews; therefore, monitoring of ecological target is not necessary. The Second Five-Year review notes the possibility of severe impacts to the site caused by Hurricane Katrina. The assessments at the end of September 2005; however, indicate that the site sustained no appreciable damage from Hurricane Katrina.

The site owner has proposed site redevelopment plans that would require property zoning changes from current light industrial to commercial and residential status. Furthermore, the City of Slidell officials have expressed some interest similar zoning changes. If a proposed reuse plan is implemented, the City of Slidell would have to follow the recommendations that were made by the EPA in the OU2 ROD for the current remedy to remain protective of human health or the environment. The City has indicated intent to do so. Certainly, the City's record in the maintenance and defense of its zoning requirements in connection with this site would indicate ability and a willingness to enforce its zoning ordinances. In the face of federal lawsuit alleging constitutional violations by the site owner, the City aggressively litigated the matter in Louisiana, C.A. No. 00-2410 (E.D. La.). Further evaluation of the site and any necessary administrative and response actions shall occur if the current land use is changed.

#### ***Technical Assessment Summary***

According to the data reviewed, the site inspections, and the interviews; the remedy is functioning as intended by the July 1995 for OU1 and September 1997 for



OU2 RODs. ARARs for soil contamination cited in the ROD have been met. There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment, and there has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy.

## **VIII. ISSUES**

As stated in the September 1997 OU2 Record of Decision, the site remedy is generally protective for light industrial use. At present, the site is not used for any activity except routine and minimal maintenance of the fence and grounds. There was no evidence of preparations for construction or development of facilities necessary for reuse. There have been ongoing discussions with the City of Slidell and the property owner, Mr. Siegler, to work towards a reuse resolution. Mr. Siegler has indicated to the EPA, LDEQ, and City of Slidell officials that his company is interested in plans to redevelop all of the Southern Shipbuilding Corporation site for possible residential and commercial purposes. The City of Slidell community members and the site owner are interested in developing the site into a commercial and residential stream of commerce rather than for light industrial reuse. Further evaluation of the site and the necessary administrative and remedial actions shall occur if the current land use is changed.

As of the site inspection accomplished in June 2010 and other site documentation, the remedial action at the site as originally set forth in the Record of Decision had been implemented as planned and it appears to continue to be protective of human health and the environment.

## **IX. RECOMMENDATIONS AND FOLLOW-UP ACTIONS**

- Work closely with the site owner, LDEQ, and the City of Slidell when tangible reuse proposals and redevelopment plans are submitted to ensure the site remains protective of human health and the environment;
- In the event of an approved proposal for redevelopment of the site through the "Read for Reuse (RfR)" process or otherwise that involves the requirement for institutional controls or other remedial measures at the site, an Amended ROD must also be initiated and approved by the EPA;
- Require the developer of the site to ensure implementation of any necessary institutional controls as needed to change the use status of the site, to ensure the protection of remedial components, or for other reasons;
- Oversee the enforcement of any newly required institutional controls at the SSC site;

- Due to frequent and extreme meteorological events in the area, continue annual inspections of the site until the fourth Five-Year Review in 2015 or until the site is approved by EPA as RfR and redeveloped according to RfR approved plans; and
- For long-term protection, continue maintenance of vegetation on cap, repairing of minor erosion areas, and repair the perimeter fencing.

## **X. PROTECTIVENESS STATEMENT**

The remedy conducted at the Southern Shipbuilding Corporation Superfund site is found to be protective of human health and the environment in the short-term. As of June 2010, the clay cap that was installed over an area where incinerator ash and contaminated soils were placed continued to maintain its overall structural integrity. Based on the site interviews, the site inspection, and the data review, it appeared in June 2010 that the remedy was functioning and protective as intended in the ROD. No new laws or regulations have been promulgated or enacted that would call into question the effectiveness of the remedy at the Southern Shipbuilding Corporation Superfund Site.

There are minor deficiencies that need to be addressed to ensure long-term protection at the site. There are signs of minor erosion of the clay cap that need to be repaired; however, as of June 2010, there were no signs of exposed incinerator ash or contaminated soils. Continued maintenance of cap vegetation includes mowing of grasses, removal of all tree growth, and reseeded of barren areas to reduce erosion. The perimeter fence should also be repaired to ensure long-term protection.

## **XI. NEXT REVIEW**

The next annual inspection of the site should be conducted by September 2011.

The Fourth Five-Year Review of the site should be conducted on or before September 30, 2015. The subsequent review should include a site inspection and community interviews, a review of the land use or reuse progress at the site, a review of any site-related institutional controls to ensure that the remedy remains protective, and a determination whether annual inspections should continue when future reuse is realized.

**Signatures of Environmental Professionals**


This Five-Year Review has been conducted, prepared and reviewed by USACE MVN environmental professionals whose signature is applied to the approval page in the front of this report.

“I have the specific qualifications based on education, training, and experience to assess a Property of the nature, history, and setting of the subject Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.”



\_\_\_\_\_  
USACE MVN Environmental Professional, PE

The below professional (E.I) has performed this environmental assessment under the direction of the EP

  
\_\_\_\_\_  
John Templeton

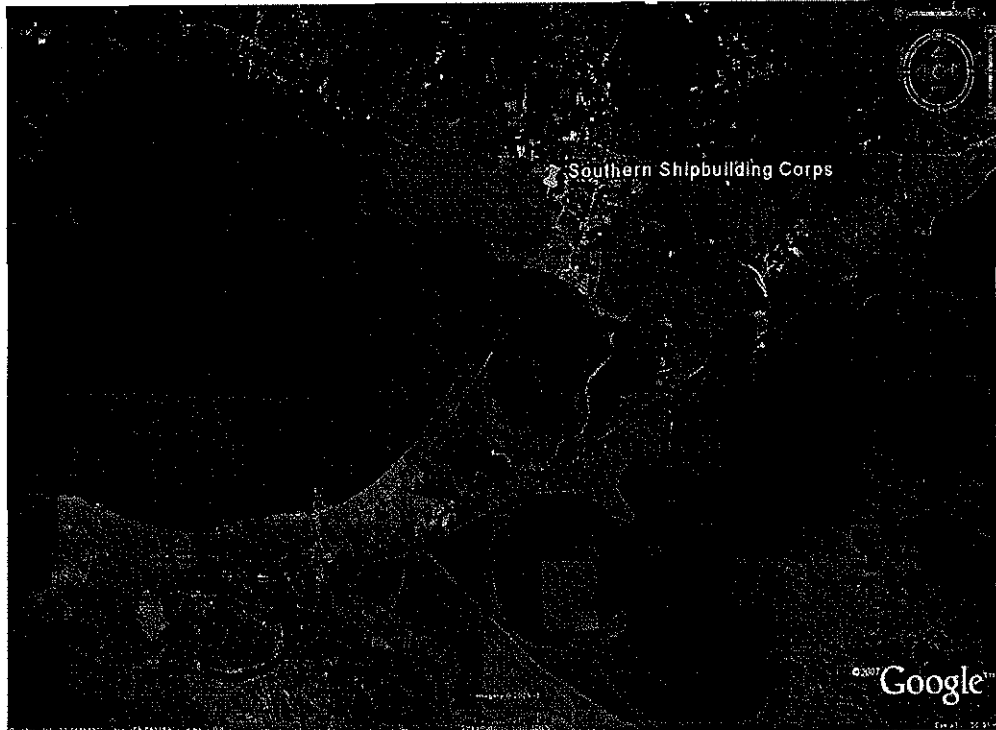
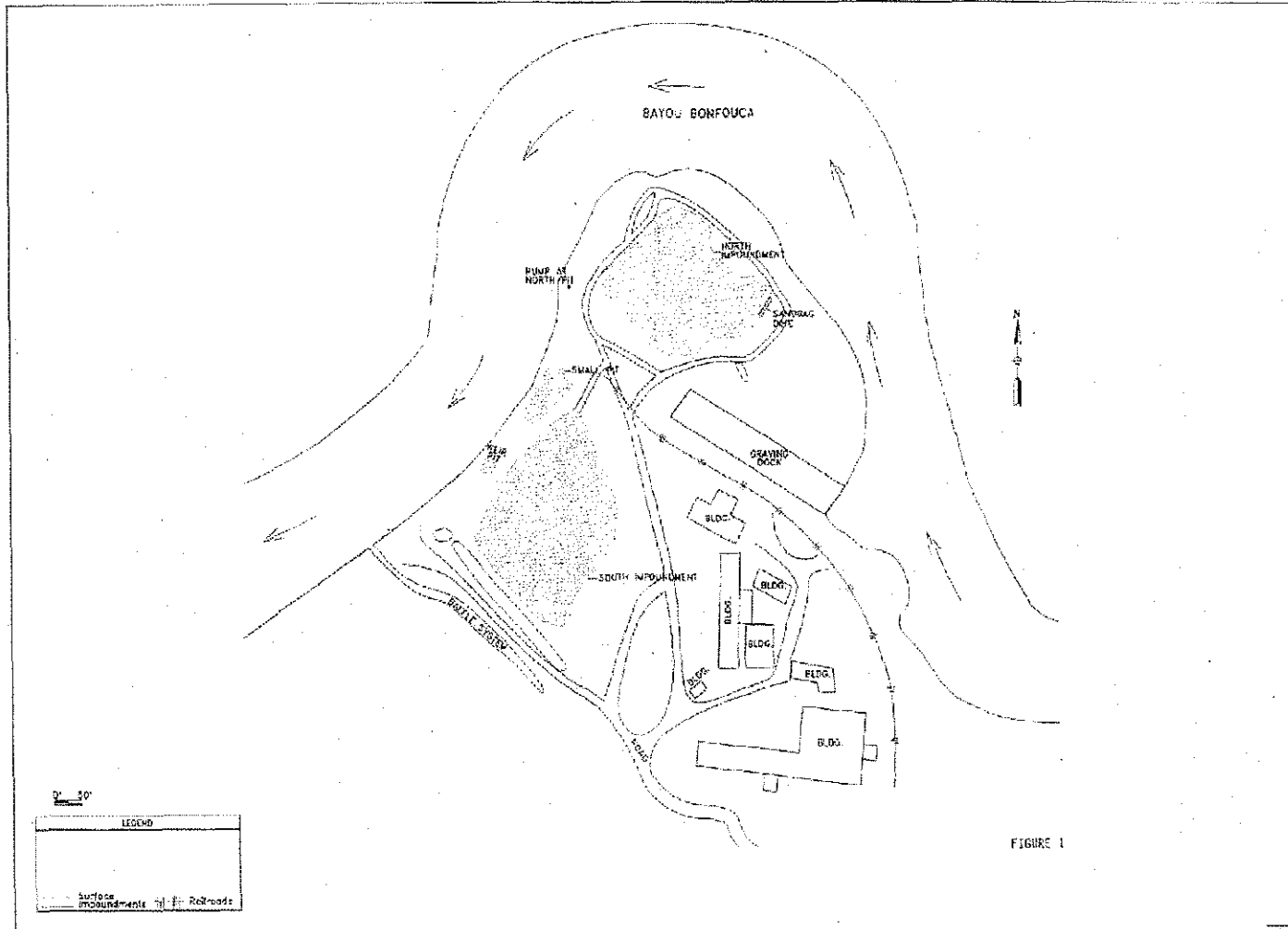


Figure 1: Site Vicinity Map



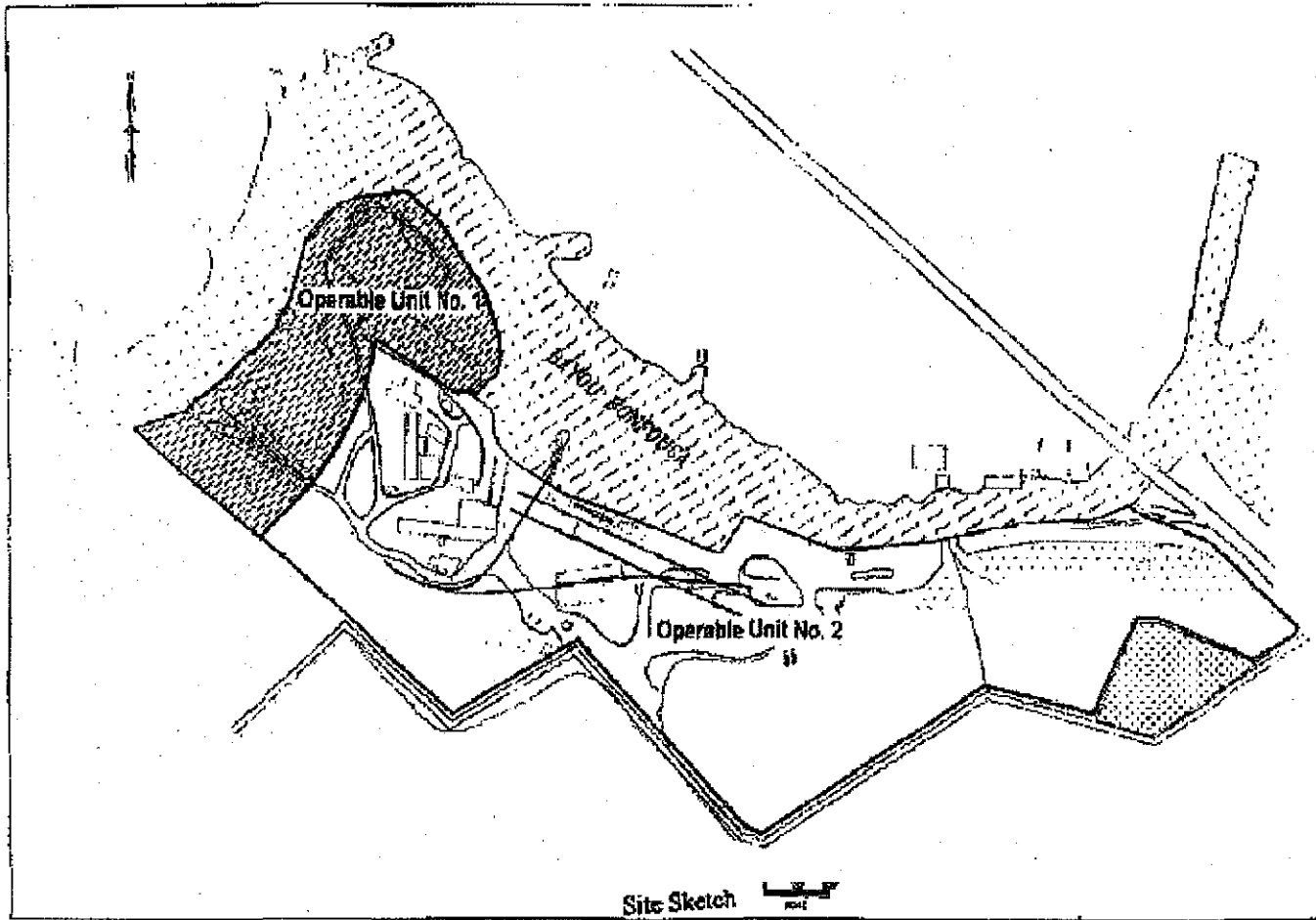


Figure 3: Site Plan

Figure 2 Operable Units

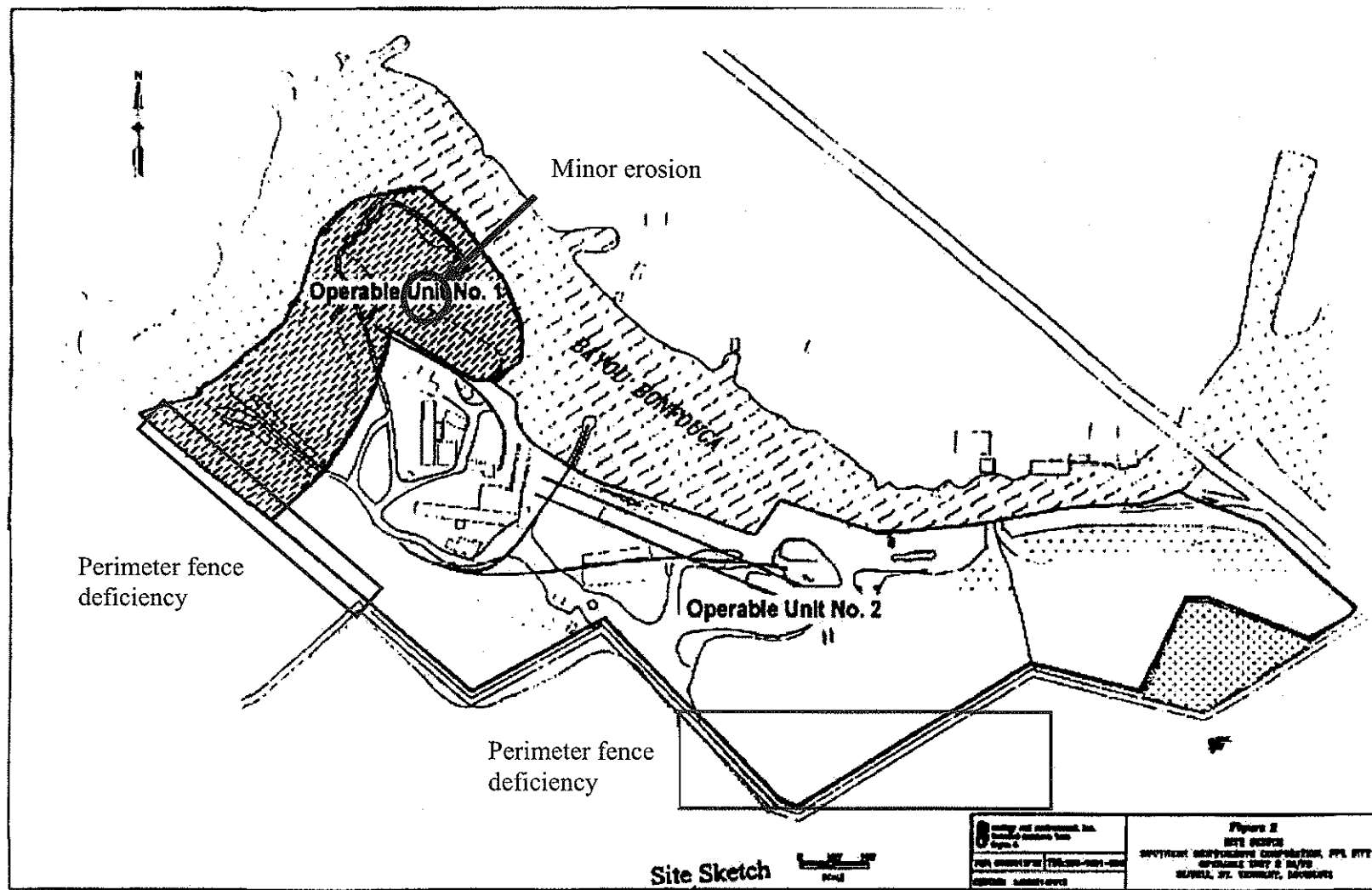


Figure 4: Deficiencies' general locations

## ATTACHMENT 1

### ARARs Review

Applicable or Relevant and Appropriate Requirements (ARARs) for this site were identified in the July 1995 ROD for OU1. The September 1997 ROD for OU2 contained no identification of ARARs pertinent to a final remedy, since this was a "no-action" ROD. This third Five-Year Review Report includes identification of and evaluation of changes in these ARARs to determine whether such changes may affect protectiveness of the selected remedy. The majority of these resources are more applicable to site remediation activities. The current state of the site and lack of operations does not require strict adherence to the following list of requirements.

The ROD for OU1 for the site identified the following ARARs as having an impact on the proposed remedy:

- RCRA Land Disposal Restriction (LDRs), as regulated under 40 CFR Part 268;
- Fish and Wildlife Coordination Act, 16 U.S.C. § 1661 et seq., which is applicable during levee stabilization activities;
- The operational standards and monitoring requirements for hazardous waste incinerators, as regulated under 40 CFR Part 264 Subpart O;
- Requirements to evaluate and avoid adverse impacts to wetlands, as regulated under the Executive Order on the Protection of Wetlands, Executive Order No. 11990;
- Requirements to evaluate the potential impacts to floodplains as regulated under the Executive Order on Floodplain Management, Executive Order No. 11988;
- Endangered Species Act, 16 U.S.C. § 1531 et seq., which applies to the remedy since several endangered species live in the vicinity of the site;
- National Historic Preservation Act, 16 U.S.C. § 470 et seq., and the Archaeological and Historic Preservation Act, 16 U.S.C. § 469 et seq., which applies to the preservation of any historical or archaeological structures found at the site;
- Criteria and standards for the National Pollutant Discharge Elimination System and Toxic Pollutant Effluent Standards, as regulated under 40 CFR Part 129, and Water Quality Standards, as regulated under 40 CFR Part 13.1;
- RCRA Criteria for Classification of Solid Waste Disposal Facilities Practices, as regulated under 40 CFR Part 257.3-1 through 3-4 (EPA, 1995); and
- No state ARARs were identified in the ROD (EPA, 1995).



## **ATTACHMENT 2**

### **List of Principal Documents**

- Decision Summary, Southern Shipbuilding Corporation Superfund Site, Record of Decision, July 1995
- Southern Shipbuilding Corporation Site, Slidell, Louisiana, Engineering Evaluation/Cost Analysis, March 1995, Volume 1
- Southern Shipbuilding Corporation Site, Slidell, Louisiana, Engineering Evaluation/Cost Analysis, March 1995, Volume 2
- Southern Shipbuilding Corporation, RI/FS Draft Work Plan, August 29, 1995
- Final Report, Southern Shipbuilding Field Investigation and Ecological Risk Assessment, Slidell, Louisiana, March 1996
- Removal Support (EPA) Report, Part 2 - Operable Unit 2, Southern Shipbuilding Corporation, Slidell, St. Tammany Parish, Louisiana, December 3, 1996
- Removal Assessment Report For Southern Shipbuilding Corporation Site, Slidell, St. Tammany Parish, Louisiana, December 16, 1996
- Southern Shipbuilding Corporation Site, Slidell, Louisiana, Remedial Investigation Operable Unit 2, August 1996, Volume 1
- Southern Shipbuilding Corporation Site, Slidell, Louisiana, Remedial Investigation Operable Unit 2, August 1996, Volume 2
- Final Feasibility Study Report Operable Unit 2, Southern Shipbuilding Corporation Site, Slidell, St. Tammany Parish, Louisiana, September 1996
- Southern Shipbuilding Corporation Superfund Site, Record of Decision, September 1997
- Aerial Photographic Analysis, Bayou Bonfouca and Southern Shipbuilding Corporation Sites, Slidell, Louisiana, February 1998
- First Five-Year Review Report for Southern Shipbuilding Corporation, Slidell, St. Tammany Parish, Louisiana, September 2000
- Second Five-Year Review Report for Southern Shipbuilding Corporation, Slidell, St. Tammany Parish, Louisiana, September 2005

**Eleventh Annual Inspection of the Southern Shipbuilding Corporation Superfund Site,  
Slidell, St. Tammany Parish, Louisiana. 2008**

## **ATTACHMENT 3**

### **Interview Record Forms**

Slidell, LA citizen Carl Helwig Interview Form

Palm Lakes Homeowners President Johnnie Verrette

Slidell City Councilman Lionel Hicks- District A

Fire Chief and Mayor-elect Freddy Drennan

SSC Site owner Steven Siegler Interview Form

<b>Five-Year Review Record</b> Southern Shipbuilding Slidell, Louisiana		<b>Interviewee:</b> Carl Helwig <b>Affiliation:</b> Former President of disbanded group SWAMP <b>Phone:</b> 985-641-2599 <b>Fax:</b>		
<b>Site Name</b>	<b>EPA ID No.</b>	<b>Date of Interview</b>		<b>Interview Method</b>
Southern Shipbuilding Corporation Superfund Site	LAD008149015	4/13/2010		Individual Phone Interview
<b>Interview Contacts</b>	<b>Organization</b>	<b>Phone</b>	<b>Email</b>	<b>Address</b>
John Templeton	USACE MVN	(504) 862-1021	John.A.Templeton@usace.army.mil	7400 Leake Ave, New Orleans, LA 70118
<b>Purpose of the Five-Year Review</b>				
The purpose of the five-year review is to evaluate the implementation and performance of the remedy, to confirm that human health and the environment continue to be protected by the actions performed. The third five-year review for the Southern Shipbuilding Corporation Superfund site focuses on the addressing contamination within OU1 and consolidation and capping of contaminated soils and Ash at the site for excavation and incineration. Future land use at the site is not yet decided, and future land use may potentially affect the remedy. The remedy was based on future land use of light industrial in accordance with City of Slidell zoning requirements, without intrusive activities within the area of the cap.				
<b>Interview Questions</b>				
1. What is your overall impression of the project?				
<b>Response:</b> At the inception of the remediation his group fought against the incineration location. Helwig stated that due to the disagreement less material was incinerated. Helwig stated that overall it was a clean and straightford cleanup operation.				
2. What effects have site operations had on the surrounding community?				
<b>Response:</b> Helwig is unaware of any community impacts other than the need for the cleanup for future redevelopment. Helwig is unaware of any health problems in the community related to the site				
3. Are you aware of any community concerns regarding the site or its operation and administration?				
<b>Response:</b> Helwig is not aware of any community concerns nor any specific recommendations for redevelopment.				
4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details.				
<b>Response:</b> Helwig reads the paper and is unaware of any incidents regarding the property.				
5. Do you feel well informed about the site's activities and progress?				
<b>Response:</b> Helwig noted the relative inactivity at the site so reported there was nothing to be aware of since the last Five-Year Review				
6. Do you have any comments, suggestions, or recommendations regarding the site's management or operations? Authorities? If so, please provide details.				
<b>Response:</b> Nothing to add				
7. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?				
<b>Response:</b> Nothing to add				
8. Are you aware of any other groups or individuals who would be interested in the contributing to the Five Year Review or has general concerns for the site?				
<b>Response:</b> Helwig is unaware of any groups or individuals who would be interested				

<b>Five-Year Review Record</b> Southern Shipbuilding Slidell, Louisiana		<b>Interviewee: Johnnie Verrette</b> <b>Affiliation: Palm Lake Homeowners/President</b> <b>Phone: 985-643-8231</b> <b>Fax:</b>		
<b>Site Name</b>	<b>EPA ID No.</b>	<b>Date of Interview</b>		<b>Interview Method</b>
Southern Shipbuilding Corporation Superfund Site	LAD008149015	4/14/2010		Individual Phone Interview
<b>Interview Contacts</b>	<b>Organization</b>	<b>Phone</b>	<b>Email</b>	<b>Address</b>
John Templeton	USACE MVN	(504) 862-1021	John.A.Templeton@usace.army.mil	7400 Leake Ave, New Orleans, LA 70118
<b>Purpose of the Five-Year Review</b>				
The purpose of the five-year review is to evaluate the implementation and performance of the remedy, to confirm that human health and the environment continue to be protected by the actions performed. The third five-year review for the Southern Shipbuilding Corporation Superfund site focuses on the addressing contamination within OU1 and consolidation and capping of contaminated soils and Ash at the site for excavation and incineration. Future land use at the site is not yet decided, and future land use may potentially affect the remedy. The remedy was based on future land use of light industrial in accordance with City of Slidell zoning requirements, without intrusive activities within the area of the cap.				
<b>Interview Questions</b>				
1. What is your overall impression of the project?				
<b>Response:</b> Recalls the intensity of the of the beginning of the project but feels that overall the clean up was done well and was appropriate				
2. What effects have site operations had on the surrounding community?				
<b>Response:</b> Verrette remembers the interest during the beginning and through the project actions but since she feels that interest has dwindled				
3. Are you aware of any community concerns regarding the site or its operation and administration?				
<b>Response:</b> Unaware of any concerns.				
4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details.				
<b>Response:</b> Unaware of anything				
5. Do you feel well informed about the site's activities and progress?				
<b>Response:</b> Verrette is very concerned about not being made aware of site activities; however, notes that there has not been much activity in the past few years. She stresses the need for community involvement when <u>actions are taken on site or plan to be taken on site.</u>				
6. Do you have any comments, suggestions, or recommendations regarding the site's management or operations? Authorities? If so, please provide details.				
<b>Response:</b> She would like to see the area be converted into a park and not redeveloped.				
7. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?				
<b>Response:</b> Would like the site become a park				
8. Are you aware of any other groups or individuals who would be interested in the contributing to the Five Year Review or has general concerns for the site?				
<b>Response:</b> Verrette is unaware of any groups in the area that would like to contribute to the Five-Year Review however, she is going to pass on contact information to all those in the area who would like to be involved.				

<b>Five-Year Review Record</b> Southern Shipbuilding Slidell, Louisiana		<b>Interviewee: Councilman Lionel Hicks</b> <b>Affiliation: Slidell Councilman District A</b> <b>Phone: 985-646-4307</b> <b>Fax:</b>		
<b>Site Name</b>	<b>EPA ID No.</b>	<b>Date of Interview</b>		<b>Interview Method</b>
Southern Shipbuilding Corporation Superfund Site	LAD008149015	5/26/2010		phone
<b>Interview Contacts</b>	<b>Organization</b>	<b>Phone</b>	<b>Email</b>	<b>Address</b>
John Templeton	USACE MVN	(504) 862-1021	John.A.Templeton@usace.army.mil	7400 Leake Ave, New Orleans, LA 70118
<b>Purpose of the Five-Year Review</b>				
The purpose of the five-year review is to evaluate the implementation and performance of the remedy, to confirm that human health and the environment continue to be protected by the actions performed. The third five-year review for the Southern Shipbuilding Corporation Superfund site focuses on the addressing contamination within OU1 and consolidation and capping of contaminated soils and Ash at the site for excavation and incineration. Future land use at the site is not yet decided, and future land use may potentially affect the remedy. The remedy was based on future land use of light industrial in accordance with City of Slidell zoning requirements, without intrusive activities within the area of the cap.				
<b>Interview Questions</b>				
1. What is your overall impression of the project?				
<b>Response: good.</b> Obviously much cleaner, no complaints, Councilman Hicks and friends in the general area who have also expressed positive feedback in regards to site management				
2. What effects have site operations had on the surrounding community?				
<b>Response:</b> Councilman has seen development in the general area after the site was cleaned up which he attributes to the actual clean up abating site fears				
3. Are you aware of any community concerns regarding the site or its operation and administration?				
<b>Response:</b> unaware of any concerns, however; always talk of integrating the site into Slidells economic development plan				
4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details.				
<b>Response:</b> unaware of any incidents				
5. Do you feel well informed about the site's activities and progress?				
<b>Response:</b> feels well informed				
6. Do you have any comments, suggestions, or recommendations regarding the site's management or operations? Authorities? If so, please provide details.				
<b>Response:</b> expresses interest in developing area for economic development				
7. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?				
<b>Response:</b> economic development				
8. Are you aware of any other groups or individuals who would be interested in the contributing to the Five Year Review or has general concerns for the site?				
<b>Response:</b> Councilman at Large Cusimano, Police Chief Freddy Drennan, and Councilman Crockett (Crockett and Cuismano were contact with no response)				

<b>Five-Year Review Record</b> Southern Shipbuilding Slidell, Louisiana		<b>Interviewee: Police Chief Freddy Drennan</b> <b>Affiliation: Police Chief</b> <b>Phone: 985-643-3131</b> <b>Fax:</b>		
<b>Site Name</b>	<b>EPA ID No.</b>	<b>Date of Interview</b>		<b>Interview Method</b>
Southern Shipbuilding Corporation Superfund Site	LAD008149015	5/26/2010		phone
<b>Interview Contacts</b>		<b>Organization</b>	<b>Phone</b>	<b>Email</b>
John Templeton		USACE MVN	(504) 862-1021	John.A. Templeton @usace.army.mil
<b>Purpose of the Five-Year Review</b>				
The purpose of the five-year review is to evaluate the implementation and performance of the remedy, to confirm that human health and the environment continue to be protected by the actions performed. The third five-year review for the Southern Shipbuilding Corporation Superfund site focuses on the addressing contamination within OU1 and consolidation and capping of contaminated soils and Ash at the site for excavation and incineration. Future land use at the site is not yet decided, and future land use may potentially affect the remedy. The remedy was based on future land use of light industrial in accordance with City of Slidell zoning requirements, without intrusive activities within the area of the cap.				
<b>Interview Questions</b>				
1. What is your overall impression of the project?				
<b>Response:</b> Police Chief Drennan was unaware of site specific but was aware it was a site that had been cleaned up				
2. What effects have site operations had on the surrounding community?				
<b>Response:</b> unaware of any community effects				
3. Are you aware of any community concerns regarding the site or its operation and administration?				
<b>Response:</b> unaware of any concerns				
4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please provide details.				
<b>Response:</b> unaware of any incidents				
5. Do you feel well informed about the site's activities and progress?				
<b>Response:</b> no				
6. Do you have any comments, suggestions, or recommendations regarding the site's management or operations? Authorities? If so, please provide details.				
<b>Response:</b> expresses interest in developing area for economic development				
7. Do you have any comments, suggestions, or recommendations regarding the site's management or operation?				
<b>Response:</b> economic development				
8. Are you aware of any other groups or individuals who would be interested in the contributing to the Five Year Review or has general concerns for the site?				
<b>Response:</b> Tim Mathison (985) 646-4396 no comments but would like to be made aware of completed report				

<b>Five-Year Review Record</b> Southern Shipbuilding Slidell, Louisiana		Interviewee: Steve Siegler Affiliation: Property Owner Phone: 866-887-0852 ext. 709 Fax:		
<b>Site Name</b>	<b>EPA ID No.</b>	<b>Date of Interview</b>		<b>Interview Method</b>
Southern Shipbuilding Corporation Superfund Site	LAD008149015	April 26, 2010		
<b>Interview Contacts</b>	<b>Organization</b>	<b>Phone</b>	<b>Email</b>	<b>Address</b>
John Templeton	USACE MVN	(504) 862-1021	John.A.Templeton @usace.army.mil	7400 Leake Ave, New Orleans, LA 70118
<b>Purpose of the Five-Year Review</b>				
The purpose of the five-year review is to evaluate the implementation and performance of the remedy, to confirm that human health and the environment continue to be protected by the actions performed. The third five-year review for the Southern Shipbuilding Corporation Superfund site focuses on addressing contamination within OU1 and consolidation and capping of contaminated soils and Ash at the site for excavation and incineration. Future land use at the site is not yet decided, and future land use may potentially affect the remedy. The remedy was based on future land use of light industrial in accordance with City of Slidell zoning requirements, without intrusive activities within the area of the cap.				
<b>Interview Questions</b>				
1. What is your overall impression of the project?  <b>Response: See below.</b>				
2. Is the remedy functioning as expected? How well is the remedy performing?  <b>Response: See below.</b>				
3. Are you aware of any ongoing community concerns regarding the site or its administration?  <b>Response: See below.</b>				
4. Is there a continuous on-site O&M presence? If so, please describe staff and activities. If there is not a continuous on-site presence, describe staff and frequency of site inspections and activities.  <b>Response: See below.</b>				
5. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy? Please describe changes and impacts.  <b>Response: See below.</b>				
6. What is the status and effectiveness of the institutional controls (IC) at your site?  <b>Response: See below.</b>				
7. Are you willing to implement the necessary institutional controls, in order to move your proposed redevelopment plans forward?  <b>Response: See below.</b>				



8. Are there any local community expectations or concerns about future land use/redevelopment at the site? <b>Response: See below.</b>
9. Have there been opportunities to optimize O&M, or sampling efforts? Please describe changes and resultant or desired cost savings or improved efficiency. <b>Response: See below.</b>
10. Do you have any comments, suggestions, or recommendations regarding the project? <b>Response: See below.</b>
11. Are you aware of any community groups, environmental groups, or individuals who should be contact to contribute further to this Five-Year Review effort? <b>Response: See below.</b>

Interview Questions and Responses:

1. What is your overall impression of the project?

**Response:**

a) 'Remove any threat to public health and safety'

But for USEPA's "piss-poor site investigation work" (John Dugdale, USEPA) and gross negligence which resulted in its failure to identify and remedy the then small-confined-isolated piles of debris in OU1 which contained traces of asbestos-cloth which it then allowed to be spread throughout OU2, we respectfully submit that our "overall impression of the project" is that it is incomplete and will remain so until such time as USEPA completes its stated remedy for this situation by placing, at its sole cost and expense, two (2) feet after compaction of clean dirt throughout the entire site.

b) 'Put this site back into commerce'

But for a request in 2009 by USEPA Reuse Coordinator to allow a model airplane enthusiast to fly his RC model airplane on the site, at our risk and expense, we are not aware of any (*emphasis added*) reuse initiative or efforts of any kind by USEPA in the 12+ years since the ROD was issued to help put this site back into commerce. To this end, we respectfully submit that our "overall impression of the project" is one of object-failure by USEPA to fulfill its mandate to put this site back into commerce, and a tremendous loss of opportunity for USEPA to work with the land owner to "turn this site into the model for reuse which all other such sites across the country should be judged" (John Dugdale, USEPA).

2. Is the remedy functioning as expected? How well is the remedy performing?

Response: We believe that the remedy is functioning as expected and performing consistent with the ROD.

3. Are you aware of any ongoing community concerns regarding the site or its administration?

Response: No.

4. Is there a continuous on-site O&M presence? If so, please describe staff and activities. If there is not a continuous on-site presence, describe staff and frequency of site inspections and activities.

Response: Yes. The site is well maintained daily by on-site personnel. Regular bush hogging, grounds keeping and other maintenance.

5. Have there been any significant changes in the O&M requirements, maintenance schedules, or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy? Please describe changes and impacts.

Response: No.

6. What is the status and effectiveness of the institutional controls (IC) at your site?

Response: We maintain regular effective IC mentioned in the ROD.

7. Are you willing to implement the necessary institutional controls, in order to move your proposed redevelopment plans forward?

Response: We are willing to visit the necessity for IC mentioned in the ROD as part of any redevelopment.

8. Are there any local community expectations or concerns about future land use/redevelopment at the site?

Response: Perhaps.

9. Have there been opportunities to optimize O&M, or sampling efforts? Please describe changes and resultant or desired cost savings or improved efficiency.

Response: I do not understand the question.

10. Do you have any comments, suggestions, or recommendations regarding the project?

Response: Yes.

1. We respectfully petition USEPA, consistent with the ROD, to place two feet after compaction of clean dirt throughout the site to remedy its gross negligence in connection with its spreading of asbestos throughout the site.

2. We respectfully petition USEPA to become a willing partner and take an active---substantive role in the reuse of the site.

11. Are you aware of any community groups, environmental groups, or individuals who should be contact to contribute further to this Five-Year Review effort?

Response: No.

## ATTACHMENT 4

### Newspaper Advertisement



US Army Corps  
of Engineers  
New Orleans District

# Building Strong®

The U.S. Army Corps of Engineers, New Orleans District, is performing the US Environmental Protection Agency's Third Five-Year Review of the Southern Shipbuilding Corporation Superfund Site. The review shall be completed no later than September 30, 2010.

The Superfund site is located at 999 Canulette Rd., Slidell, LA 70459. In 1992, EPA, LDEQ, and USACE began remediation of site contaminants to remove principal health threats and threats to the surrounding environment. In 1997 the remedies; waste incineration, off-site disposal and clay capping, were found to be protective of human health and the environment. The site was removed from the National Priorities List in 1998. To ensure continual protection, the site is inspected annually with a Five-Year Review every five years. Future land redevelopment is expected in accordance with EPA regulations.

Public participation is encouraged in completing this Five-Year Review. Please submit any comments/concerns/suggestions in regards to the Five-Year Review, the Superfund Site and possible redevelopment no later than June 17, 2010.

Contact: John Templeton (504) 862-1021 [john.a.templeton@usace.army.mil](mailto:john.a.templeton@usace.army.mil)

Learn more at [www.nolaenvironmental.gov](http://www.nolaenvironmental.gov)

## ATTACHMENT 5

### Community Outreach Letter

#### Recipients:

L. Landon Cusimano	(Councilman at Large)
Kim Harbison	(Councilwoman at Large)
Lionel Hicks	(Councilman District A)
Richard S. Hursey, Jr.	(Councilman District B)
Warren Crockett	(Councilman District C)
Joe Fraught	(Councilman District D)
Raymond H. Canada	(Councilman District E)
Jim Devereux	(Councilman District F)
Bill Borchert	(Councilman District G)
Freddy Drennan	(Chief of Police)
Ben Morris	(Mayor of Slidell)
Larry Hess	(Fire Chief)
Randy Clement	(Planning Director)
Donna O'Dell	(City Engineer)
Robert F. Dunbar	(Chief of Staff)
Johnnie Verrette	(Palm Lake Homeowners)



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

May 12, 2010

L. Landon Cusimano  
Councilman at Large  
PO BOX 828  
Slidell, LA 70459

Dear Councilman L. Landon Cusimano:

The United States Army Corps of Engineers (USACE), New Orleans District, will be conducting a Five-Year Review of the Southern Shipbuilding Superfund Site on behalf of the United States Environmental Protection Agency (EPA). I am writing to inform you and Slidell community members of the Five-Year Review. Under section 121 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), CERCLA § 121 requires USACE to be conducting an assessment to determine and document the site conditions. The assessment will identify any remedies undertaken to protect human health and the environment near the site.

The Southern Shipbuilding Corporation Superfund Site is located at 999 Canulette Rd., Slidell, Louisiana 70459. In 1992, the Louisiana Department of Environmental Quality, USACE and EPA have been working to address the contamination of various chemicals of concern found to exist at the project site. From 1995 to 2005, remediation actions were taken to remediate the site. Wastes found at the site were incinerated, soils were excavated and waste containers were removed. The residual ash from the incineration of the waste was capped with two ft of clay. Environmental sampling following Hurricane Katrina showed the site with appreciable damage from the storm. There have been annual inspections of the site since 1998. Future inspections will continue until the site is approved by EPA as Ready for Reuse (RfR) and redeveloped according to the RfR approved plans.

Findings of the most recent Five-Year review, dated Sept. 2005 can be found at [www.nolaenvi.com](http://www.nolaenvi.com)

An important component of a Five-Year Review is Community Involvement. Residents, official neighborhood organizations are encouraged to submit any comments/concerns/suggestions concerning the Southern Shipbuilding Corporation Superfund Site to be included within the Third Five-Year Review. Feedback of the site or suggested future use should be submitted by June 17, 2010.

If you have any questions or concerns, please contact me. Thank you for your support.

Sincerely,

John Templeton

## ATTACHMENT 6

### Site Photographs



Photo 1: General view of cap area facing northeast from southwest end of OU. (June 3, 2010)

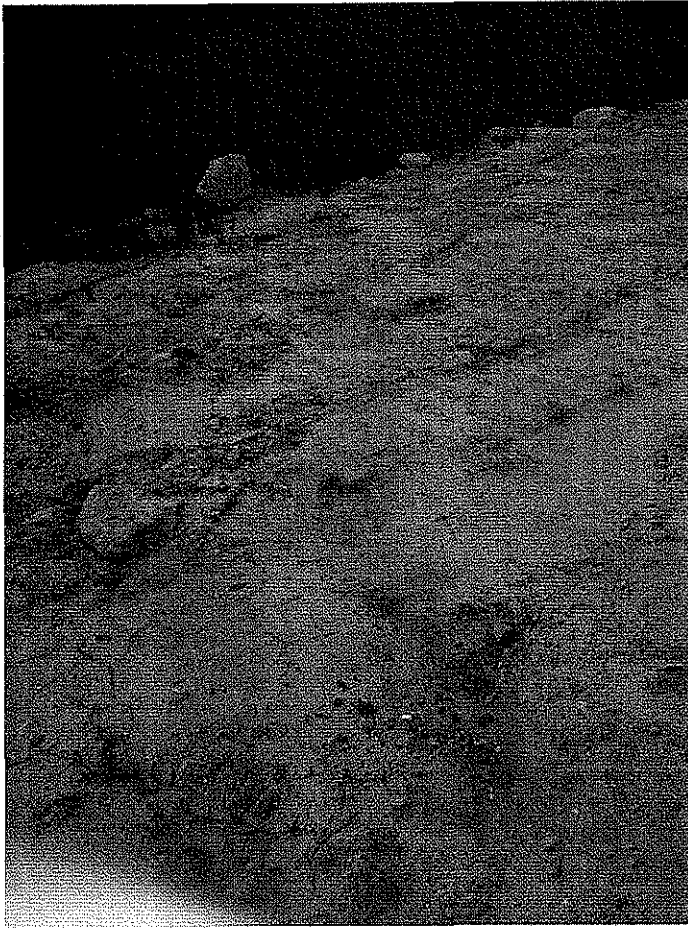


Photo 2: Area of previous minor erosion showing backfill of clay materials in OUI. Shows lack of vegetation needed to prevent future erosion. (June 3, 2010)



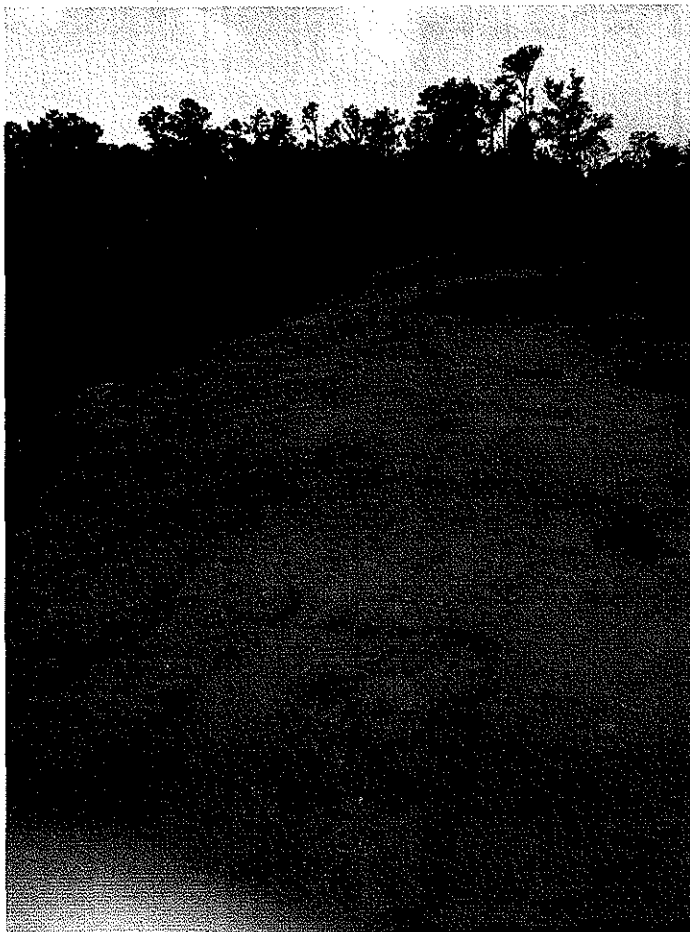


Photo 3: View of erosion control stretch facing southwest on eastern portion of OU1.  
(June 3, 2010)

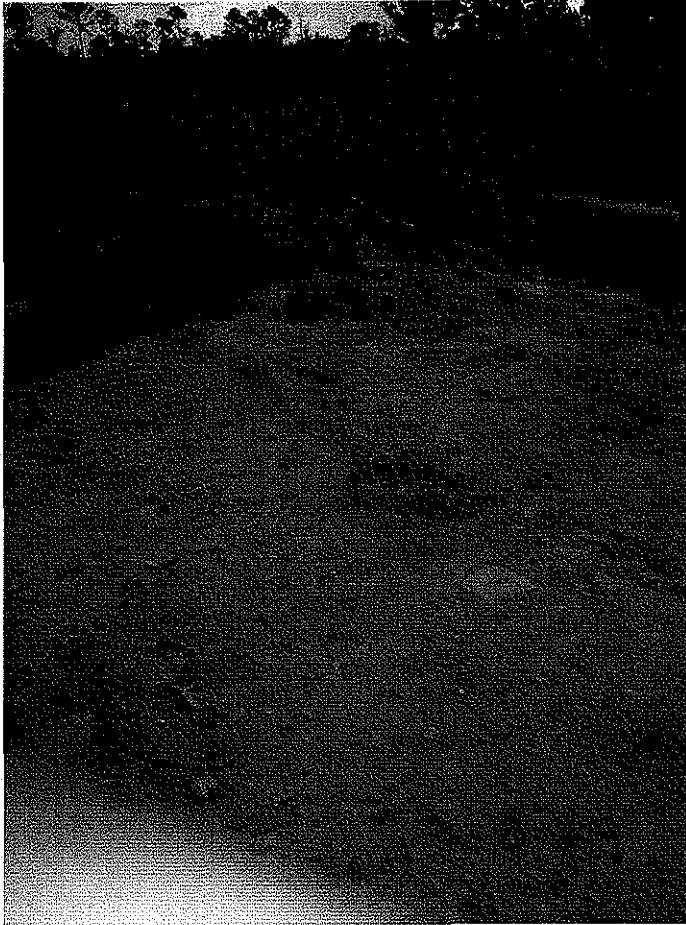


Photo 4: Continuation of same erosion control area of OUI facing northeast. (June 3, 2010)

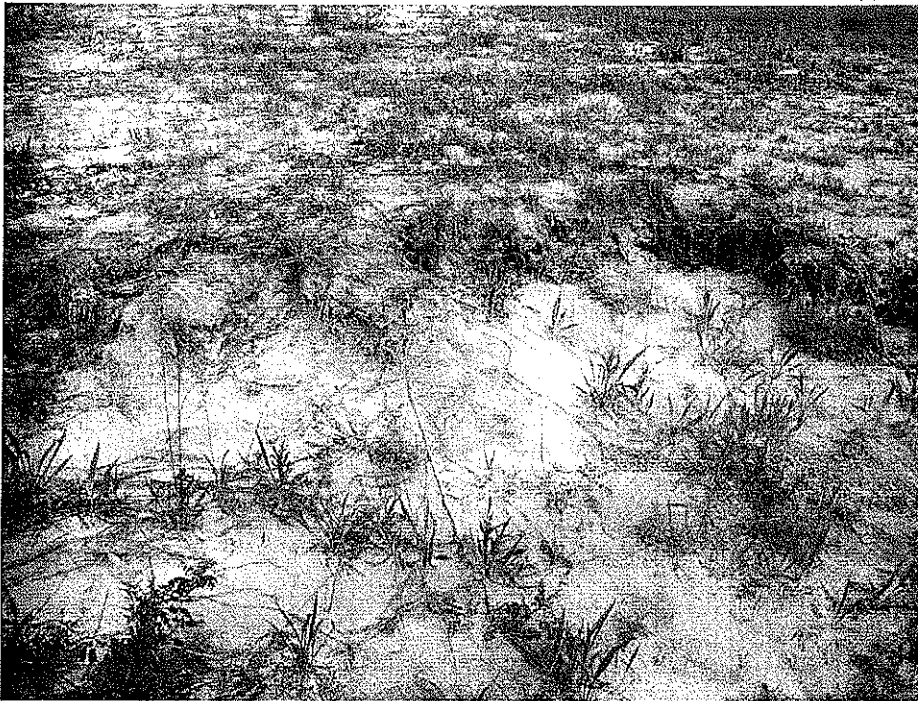


Photo 5: Signs of minor erosion in northern area of OUI. (June 3, 2010)

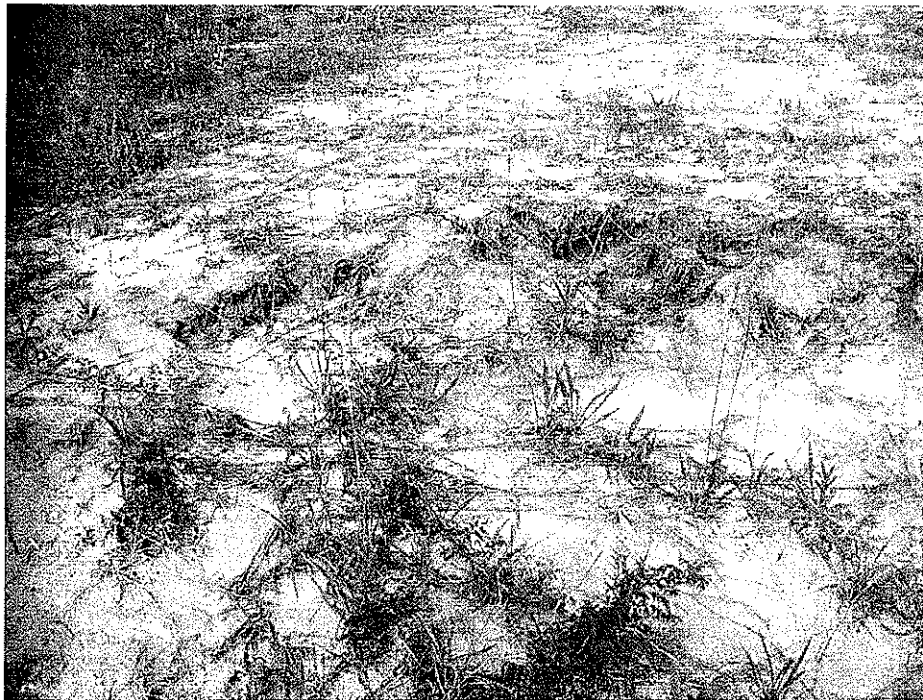


Photo 6. View of same minor erosion area shown in photo 5 in OUI. (June 3, 2010)

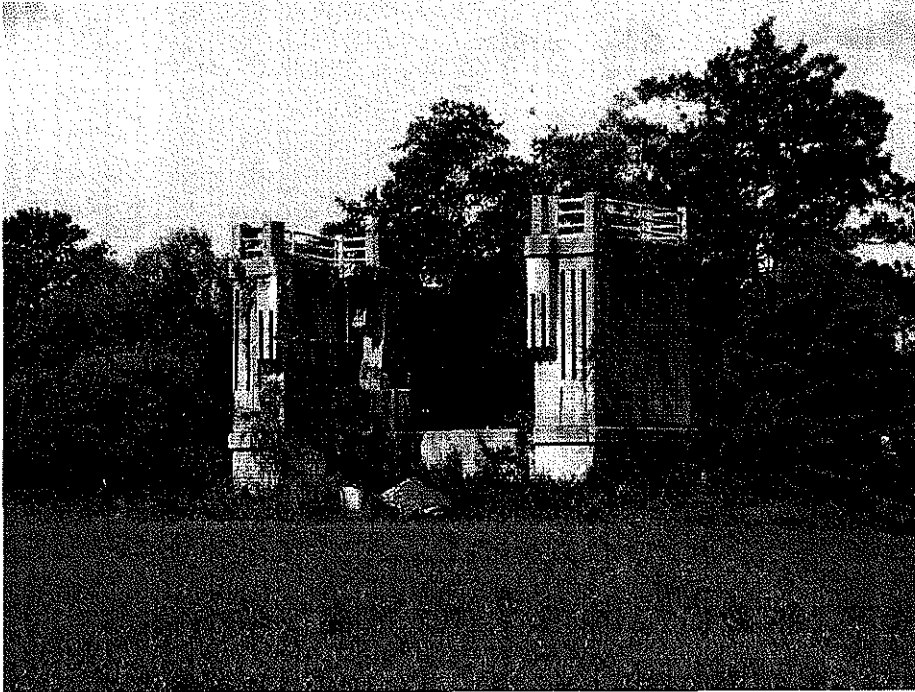


Photo 7: Structure located at southwestern end of OU1. (June 3, 2010)

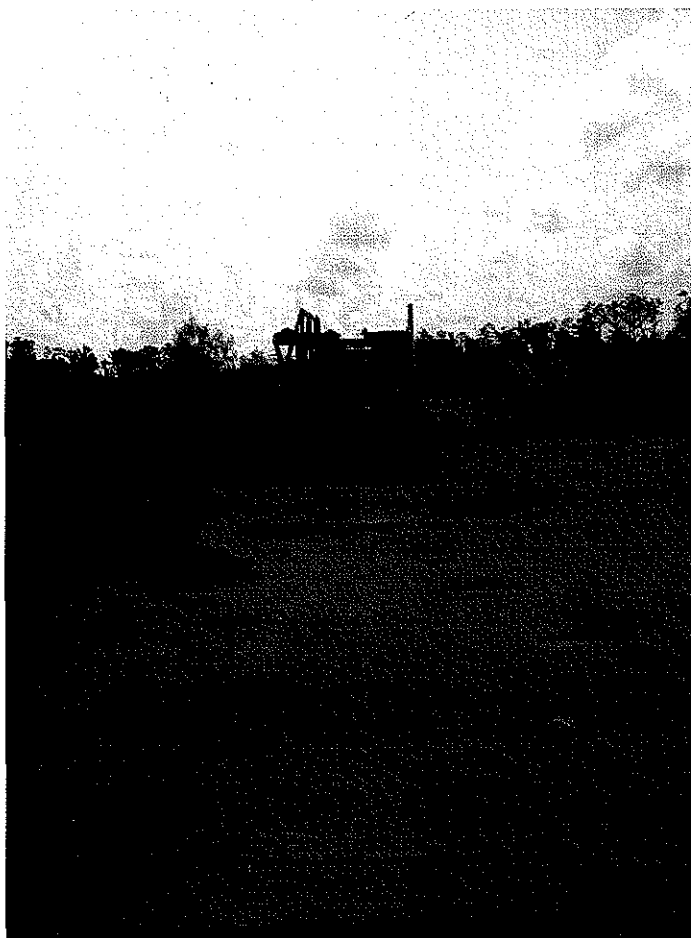


Photo 8: Concrete slab and old construction debris in OU2. (June 3, 2010)

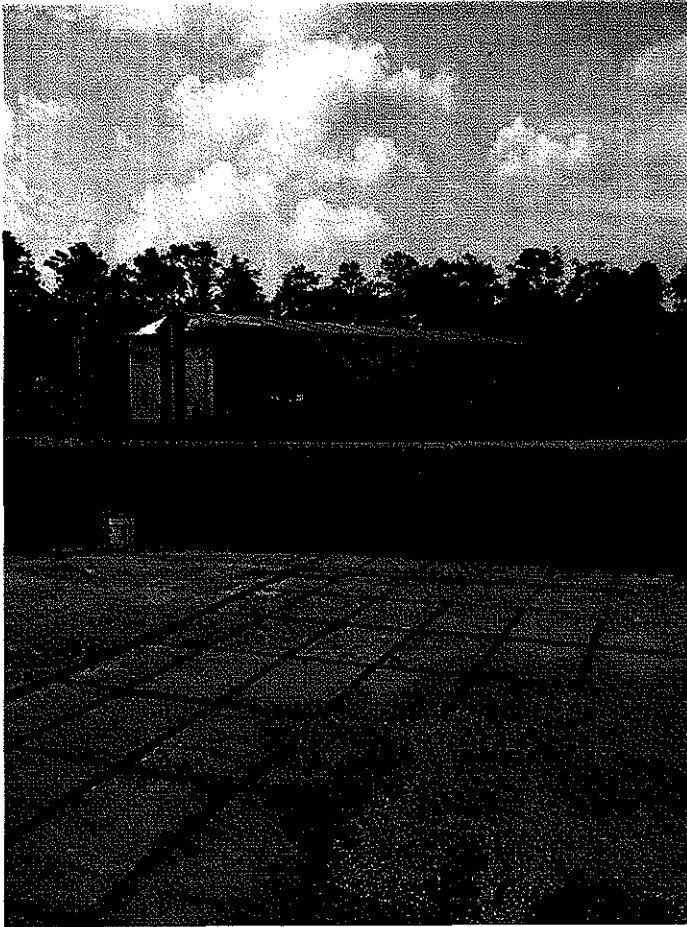


Photo 9: View of maintenance shop and equipment on OU2. (June 3, 2010)