U.S. Army Corps of Engineers
Charleston District

APPENDIX J

CHARLESTON HARBOR POST 45

CHARLESTON, SOUTH CAROLINA

Section 103 Sediment Evaluation

May 2015

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SEP 08 2014

Mr. Bret Walters, Chief
Planning and Environmental Branch
U.S. Army Corps of Engineers
Charleston District
69A Hagood Ave.
Charleston, South Carolina 29403-5107

Dear Mr. Walters:

This letter is in response to your request of April 10, 2014, for concurrence on the proposed disposal of maintenance dredged material from the Charleston Harbor Federal Navigation Project (FNP) and new work from the proposed deepening of this project (Post45), into the Charleston Ocean Dredged Material Disposal Site (ODMDS).

Pursuant to Section 103(c) of the Marine Protection, Research, and Sanctuaries Act, as amended (MPRSA), concurrence from the Environmental Protection Agency is based upon compliance with the criteria, conditions and restrictions established pursuant to MPRSA Sections 102(a) [environmental criteria] and 102(c) [disposal site designation and management]. Based upon our review of the MPRSA Section 103 Evaluation and Testing report, we concur that the proposed dredged material meets the criteria for ocean disposal, as proposed.

This concurrence includes both maintenance material and new work material (upon Congressional authorization of Post45) from the Charleston Harbor FNP as outlined in the Section 103 Evaluation Report (Evaluation) submitted for review. Proposed dredged material from maintenance of the FNP is estimated to be approximately 1.36 million cubic yards (annual average) including advanced maintenance and allowable overdepth. Project depth in the Entrance Channel is -47 feet with 2 feet of advance maintenance and 2 feet of allowable overdepth. Project depth in the remaining portions of the FNP is -45 feet with 2 feet of advance maintenance and 2 feet of allowable overdepth. As described in the Evaluation, specified areas in the FNP occasionally receive up to 6 feet of advanced maintenance and 2 feet of allowable overdepth. New work associated with Post45 is estimated to add an additional 43.0 million cubic yards of material. As currently defined, Post45 project depths are -54 feet in the Entrance Channel, -52 feet throughout the Lower Harbor to the new Naval Base terminal, and -48 feet in the Upper Harbor. Advanced maintenance and allowable overdepth figures are expected to remain unchanged. The Anchorage Basin has an authorized depth of -35 feet and Shem Creek Channel is dredged to -12 feet.

Dredging of maintenance and new work material both are anticipated to involve mechanical and hydraulic methods, depending upon where the work occurs. The outer portion of the Entrance Channel (seaward of Station 450+00) met the criteria by fulfilling the requirements of the Exclusionary Criteria, 40 CFR §227.13b(3). Subsequently, disposal of any material from this portion of the FNP can only occur within the portions of the ODMDS represented by comparison boring stations. The following table specifies maximum load volumes and type of dredge to be used, if any, based upon compliance with the criteria through the STFATE model results.

DESCRIPTION	Maximum Load Volume	Dredge Type
Entrance Channel – from 0+00 to 450+00 – Exclusionary Criteria	No restriction	No restriction
Entrance Channel 1	13,500	Hydraulic
Entrance Channel 2	13,500	Hydraulic
Mount Pleasant Range	No restriction	No restriction
Rebellion Reach, Bennis Reach, & Horse Reach	9,000	Mechanical
Hog Island Reach	9,000	Mechanical
Drum Island Reach, Meyers Bend, & Drum Island Reach Widener	9,000	Mechanical
Wando River Lower Reach	9,000	Mechanical
Wando River Upper Reach & Wando River Turning Basin	9,000	Mechanical
Daniel Island Reach	9,000	No Restriction
Daniel Island Bend, Clouter Creek Reach, & Clouter Creek Reach Widener	9,000	No Restriction
Navy Yard Reach & North Charleston Reach	9,000	No Restriction
Port Terminal Reach, Filbin Creek Reach, & Ordnance Reach	9,000	No Restriction
Ordnance Reach Turning Basin & Ordnance Reach Turning Basin Widener	9,000	No Restriction
Bennis Reach Widener	9,000	Mechanical
Hog Island Reach Widener	9,000	Mechanical
Wando River Turning Basin Widener	9,000	Mechanical
Daniel Island Reach Widener	9,000	No Restriction
Wando River Lower Reach Widener	No Restriction	No Restriction
North Charleston Reach & Filbin Creek Reach Wideners	9,000	No Restriction
Anchorage Basin	9,000	Mechanical
Shem Creek	9,000	No Restriction

Due to the known issues with capacity for Post45 Improvements at the Charleston ODMDS, efforts are underway to expand the boundaries of the site. Because the estimated 43 million cubic yards of new work from Post45 Improvements would exceed the current site's capacity, we are conditioning our concurrence of that material on the completion of the site expansion. As with all concurrences provided by this office, our concurrence on the disposal of this material is contingent upon compliance with all specifications and conditions of the Charleston ODMDS Site Management and Monitoring Plan (Plan). As specified in the Plan, verification of the suitability of the dredged material for ocean disposal by the U.S. Army Corps of Engineers and

the EPA is valid for a 3-year period. Accordingly, the EPA's concurrence of the proposed disposal is effective for three years from the date of this letter.

If you have any questions concerning this letter, please contact me at (404) 562-9345, or have a member of your staff contact Mr. Gary Collins at (404) 562-9395.

Sincerely,

James D. Giattina
Director
Water Protection Division

US Army Corps of Engineers®

CHARLESTON DISTRICT
SOUTH ATLANTIC DIVISION

SECTION 103 EVALUATION OF DREDGED MATERIAL PROPOSED FOR OCEAN DISPOSAL CHARLESTON HARBOR CHARLESTON, SOUTH CAROLINA

MARCH 2014

CHARLESTON HARBOR NAVIGATION IMPROVEMENT PROJECT (POST 45)
CHARLESTON, SOUTH CAROLINA
EVALUATION PURSUANT TO SECTION 103
MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT OF 1972, AS AMENDED
MARCH 2014

1. PURPOSE

The U.S. Environmental Protection Agency's (EPA) Ocean Dumping Regulations and Criteria (40CFR 220-228) require in Part 225 that applications and authorizations for Dredged Material Permits under Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, as amended, for transportation of dredged material for the purpose of dumping it in ocean waters will be evaluated by the U.S. Army Corps of Engineers in accordance with criteria set forth in Part 227. Additionally, a Memorandum of Understanding between the USACE and the USEPA on Ocean Dredged Material Disposal requires that re-evaluation of routine maintenance dredged sediments occur on a periodic basis in order to document the continued suitability of dredged material for ocean disposal.

Charleston Harbor Dredging and Ocean Dredged Material Disposal - Scope of the Section 103 Evaluation: This Section 103 Evaluation addresses the Charleston Harbor Navigation Improvement Project (Post 45) and future maintenance of Charleston Harbor (CWIS -02980) Federal Navigation Project. This Section 103 Evaluation addresses the transportation for ocean disposal of dredged material from any authorized portion of the Charleston Harbor federal navigation channel, either maintenance or new work (implementation of improvements) – extending from the Entrance Channel to the Upper Harbor.

2. CHARLESTON HARBOR FEDERAL NAVIGATION PROJECT - DREDGING PROJECT / DREDGING UNIT DESCRIPTIONS

Description of Charleston ODMDS: The ocean disposal of dredged material will occur at the Charleston ODMDS. Disposal will occur within the 4-square mile Disposal Zone defined by the following corner coordinates (using the NAD 83 datum):

32.65663^0 N, 79.75716^0 W 32.64257^0 N, 79.72733^0 W
32.61733^0 N, 79.74381^0 W 32.63142^0 N, 79.77367^0 W

The disposal of dredged material will be performed in accordance with the Charleston ODMDS, Site Management Monitoring Plan (SMMP) dated November 2005 (USACE, 2005a). The current site was designated by EPA pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended, as suitable ocean disposal of dredged material in the Federal Register [66 CFR 51628]. The average depth of the site is 11 meters.

Location: The Charleston Harbor Federal Navigation Channel is located in Charleston Harbor, South Carolina, which lies approximately midway along the South Carolina coastline. It is approximately 140 statute miles southwest of the entrance to Cape Fear River, North Carolina and 75 statute miles northeast of the Savannah River.

The harbor covers an area of approximately 14 square miles and is formed by the confluence of the Ashley, Cooper, and Wando Rivers. The City of Charleston is located to the west of the harbor, James and Morris Island to the south, Mt. Pleasant and Sullivan's Island to the north and the Atlantic Ocean to the east. The majority of upland areas around Charleston Harbor are composed of residential, commercial, and industrial development. Docking and maintenance facilities of the harbor are concentrated along the west shore of the Cooper River extending from Battery Point of the peninsular city to the mouth of Goose Creek.

The Cooper River has its origin at the confluence of its East and West Branches (locally termed "The Tee") from which it flows 32 miles southward to its outlet in Charleston Harbor. The east and west branches of the Cooper River extend some 20 miles inland in a northward direction to Ferguson Swamp.

The Ashley River originates in the coastal plain and flows into the western part of Charleston Harbor. Areas of the river are bordered by historic plantations, but a large portion of the Ashley River Basin is now occupied by residential and commercial development.

The Wando River originates in the coastal plain and flows into the eastern part of Charleston Harbor. Portions of the lower Wando River are bordered by marsh which changes to woodland in the upper reaches of the river. Development along the Wando River has increased over the years with the completion of the interstate highway system. Currently, residences and subdivisions are present along stretches of the river as well as a shipyard and the State Port Authority's Wando River Terminal.

Type of Facility: All work is a part of the federally-authorized Charleston Federal Navigation Project. The Charleston port district's ranking as a global trading port is consistently in the top ten nationally in container traffic and cargo value. In 2009, the Charleston port district was ranked ninth (out of 200 deep-draft ports) in cargo value, and ninth (out of 80 container ports) in container traffic.

Dredging within the Charleston Harbor project is required to provide unrestricted navigation for ocean-going vessels calling upon the Port of Charleston.

Purpose of the Proposed Dredging: The purpose of the proposed dredging is navigation efficiency and safety.

Existing Conditions and Depth(s): The existing Federal navigational project includes a 17-mile long, 47-foot deep, 800-foot wide entrance channel extending from the 47-foot ocean contour to the entrance of the harbor between Sullivan's Island and Morris Island. The 800-foot wide channel is flanked on either side by 100-foot wide wings at a depth of 42 feet. At the entrance to the harbor, the channel transitions to a depth of 45 feet with a varying width of 500 feet to 900 feet and extends approximately 15.5 miles up the Cooper River to the South Carolina State Ports Authority (SCSPA) North Charleston Terminal. An additional 2.08 mile long, 45-foot deep, 400-foot wide channel extends up the Wando River to the SCSPA Wando Welch Terminal. In addition to SCSPA, there are several other private terminals operating in Charleston Harbor.

The mean and spring tidal ranges in the entrance channel are 5.1 feet and 5.9 feet, respectively.

The depths vary widely due to shoaling and other natural processes. Rapid shoaling occurs in certain reaches: Lower Town Creek Reach (and Turning Basin), Drum Island Reach, Wando River Turning Basin, Shipyard River, Daniel Island Reach, Ordnance Reach, and Ordnance Reach Turning Basin. Other reaches shoal less rapidly.

The sediment in the Charleston Harbor reaches where maintenance dredging occurs are predominately fine-grained sediments except for entrance channel materials which are expected to contain more sand. Future maintenance dredging quantities for Charleston Harbor are expected to be similar to those recorded during the last approximately 15 years. A post improvement shoaling analysis has not yet been completed.

Maintenance Dredging: The anticipated average annual maintenance dredging needs from the Charleston Harbor federal navigation channels are approximately 2,200,000 cubic yards. About 1,360,000 cubic yards of this total currently goes to the ODMDS; however, since this anaylsis covers the entire harbor more material may be go to the ODMDS in the future. The Charleston Harbor channel is presently maintained to -45 feet (47 feet for the ocean entrance channel) below MLLW.

Allowable Advance Maintenance Dredging and Overdepth Dredging: Most of the Charleston Harbor project is presently maintained to a project depth of 45 feet plus 2 feet of advanced maintenance and up to 2 feet of allowable (paid) overdepth. However, due to higher shoaling rates, portions of the following reaches are maintained to either 45 feet plus 4 feet of advance maintenance and 2 feet of allowable overdepth (45+4+2) or 45 feet plus 6 feet of advance maintenance and 2 feet of allowable overdepth (45+6+2): Ordnance Reach and Ordnance Reach Turning Basin, Lower Wando River, Wando Turning Basin, and Lower Town Creek Reach (45+4+2), and Drum Island Reach (45+6+2). The additional advance maintenance enables Charleston Harbor to be maintained on 12-18 month frequency.

Dredging Methods: Maintenance dredging is typically performed by a combination mechanical excavating and hopper dredging in the Lower Harbor and Entrance Channel and by pipeline dredge in the Upper Harbor.

New Work (Charleston Harbor Improvements): Based on the Section 905(b) (WRDA 86) Analysis, Charleston Harbor Navigation Improvement Project, Charleston, South Carolina, dated July 2010, a study to analyze and evaluate improvements to Charleston Harbor is proceeding. Preliminary data suggests that there are additional National Economic Development (NED) benefits associated with Harbor modifications. Objectives of the feasibility study are to:

- Investigate and analyze existing vessel size and movement information to determine impacts, if any, caused by the current 45-foot channel depth.
- Investigate and analyze future vessel size and draft projection data over the expected life of the project to forecast additional channel depth requirements up to and including depths of -54 feet MLLW (Entrance Channel); -52 feet (Lower Harbor) and -48 feet (Upper Harbor). The array of alternatives that may be examined in the feasibility study would likely include navigational improvements to some or all of the channels in Charleston Harbor, including (1) deepening channel(s), (2) widening channel(s), (3)

adjusting existing channel alignments/bend easing, and (4) widening and/or lengthening turning basins.

During the feasibility phase, Charleston Harbor will be evaluated to identify the extent to which the array of alternatives will be applied to each reach of the Federal Navigation Channel. Problems and opportunities pertinent to each reach will be identified and investigated. A matrix of reach specific alternative plans will be developed and evaluated to produce a recommended plan for improvements to Charleston Harbor. This process will include the appropriate level of engineering, economic, and environmental analyses to identify all possible benefits and impacts associated with the projected navigational improvements.

The feasibility study is often referred to as Charleston Post 45 study. Shipping trends in Charleston show adherence to projections for considerable growth in ship size, in all three dimensions, draft, beam, and length. As economies of scale and improved vessel technologies have driven ship sizes larger, the world's port infrastructure must be rapidly expanded in channel depths and widths and terminal capacity to accommodate larger ships. The number of ports able to handle larger vessels around the world is growing, and, most importantly, the Panama Canal is currently expanding lock capacity to handle ships of 25% greater draft (up to 50 ft), 52% greater beam (up to 160 feet), and 30% greater length (up to 1250 feet). Ships have been under construction for several years to be ready for the new canal capacity when the new Panama Canal locks open in 2015.

Additional channel depth would allow current and future shippers to more fully utilize larger class vessels and would reduce anticipated future congestion. For the purposes of the feasibility level study deepening the existing inner harbor to depths of up to 52 feet will be investigated (including 2 additional feet in the Ocean entrance channel). A project depth of up to 48 feet is being evaluated for the upper harbor. The benefits and costs of these alternatives will be fully evaluated in the Feasibility Study.

Depths: The Charleston Harbor Improvements (New Work) consists of a maximum of a -54 feet below MLLW; 52-foot deep lower harbor up to the new Naval Base terminal; and a 48-foot deep upper harbor (everything above the new Naval Base terminal).

Allowable Advance Maintenance and Overdepth Dredging: Harbor deepening (improvements) are being evaluated using + 2 feet of advanced maintenance and + 2 feet of allowable overdepth.

Dredging Methods: Dredging methods for harbor deepening have not been fully vetted however methods similar to maintenance (hopper, mechanical and pipeline) will be used except for those areas where geotechnical properties of the material dictate specific methods be used.

Charleston Harbor Improvements (Post 45) – Combined Maintenance and New Work: While maintenance and harbor improvements (new work) dredging are discussed separately above, the implementation of the Charleston Harbor Improvements and Harbor maintenance will likely proceed together. Maintenance material and new work material will likely be dredged together however a maintenance only contract cycles may occur because the port must remain functional during the implementation of the harbor improvements which will take several years to complete.

Dredging Units: The 1991 Green Book (Section 8.2.3) and the SERIM recommended that proposed areas to be dredged be subdivided into project segments or dredging units (DU) for sampling. Each DU is expected to have relatively consistent characteristics. Dredged material from each DU, if warranted, could be managed in different manners during dredging and disposal to limit environmental impact. DUs are selected based on historical data, sediment characteristics, geographic configuration, depth of cut, equipment limitations, known or suspected contaminant concentrations, etc.

The SERIM discusses four possible rankings have been developed for dredging units: exclusionary, low, moderate, or high. In that order, these ranks represent a scale of increasing potential for significant concentrations of contaminants of concern (COCs) and/or adverse biological effects.

- **Exclusionary** - Material that has been shown to meet the exclusionary criteria in 40 CFR §227.13(b): (1) The material is predominately sand and is found in areas of high current or wave energy, or (2) The material is substantially the same as the substrate at the ODMDS and the dredging site is far removed from known existing and historical sources of pollution.
- **Low** - (1) Available data indicate low concentrations of COCs and/or no significant response in biological tests; (2) Locations with higher percentages of finer-grained sediments and organic material but few sources of potential contamination; (3) Typical locations include adjacent entrance channels, rural marinas, navigable side sloughs, and small community berthing facilities.
- **Moderate** - (1) Available data indicate moderate concentrations of COCs in sediments in a range known to cause adverse response in biological tests; (2) Locations where sediments are subject to several sources of contamination, or where existing or historical use of the site has the potential to cause sediment contamination; (3) Typical locations include urban marinas, fueling and ship-berthing facilities; areas downstream of major sewer or stormwater outfalls; and medium-sized urban areas with limited shoreline industrial development.
- **High** - Available data indicate high concentrations of COCs in sediments and/or significant adverse responses.

The Exclusionary, Low, and Moderate rankings are believed most applicable to Charleston Post 45 channel sediments. Portions of the Entrance Channel are beyond the Charleston ODMDS therefore, exclusionary is believed applicable to these areas. Previous 103 evaluations of the Charleston Lower harbor have indicated that the material is acceptable for ocean disposal. Thus the Lower Harbor material is believed to have low ranking. Material from the Charleston Upper Harbor has not previously been tested pursuant to Section 103. However other sediment testing has occurred.

Due to the urban and industrial proximity, a moderate ranking is believed appropriate for the Charleston Upper Harbor. These rankings were considered in the formulation of Dredging Units (DUs).

Exhibits 2-1 and 2-2 provide dredging quantity estimates and the formulation of the Dredging Units (DUs). The quantity estimates were based on current condition surveys and include both maintenance and new work (channel improvements). The quantity estimates include the maximum project depth being considered with advance maintenance, and maximum allowable overdepth dredging. As shown in Exhibit 2-1 about 55 percent of the estimated dredge quantities lie within the categories of advance maintenance (proposed project depth + 2 ft) and allowable overdepth (+2 ft).

Each DU represented a definable reach or segment of the Charleston Harbor. With the exception of the entrance channel, the Dredging Units were relatively short, usually less than 1 mile long. Except for the DUs with large dredge volumes (greater than 5 million cubic yards), each DU was represented by one composite sediment sample of 3 to 6 sub-samples each. The large volume DUs were represented by 2 composite samples each (10 composites).

The Charleston Harbor Improvement (Post 45) Feasibility Study also includes evaluation of wideners and channel modifications. Most of the channel “wideners” which are new work dredging areas were characterized as a separate DUs.

The channel sediments tested included both maintenance (accumulated since the last annual dredging event) and new work (never previously dredged). The maintenance and new work material were combined and treated as a single sample for a location as the maintenance and new work material would likely be dredged together during project implementation. As discussed previously, the channel wideners are all new work. Vibratory core methods were used for sampling all channel sediments.

Exhibit 2-1. Charleston Harbor Improvement (Post 45) expected dredge quantities. Based on current condition surveys and include maintenance and new work material.

Reach	*Area (sq ft)*	*Project Depth (ft)*	*Volume to Project Depth*	*Volume of Adv. Maint. 2 ft. Overdepth*	*Volume of Allowable 2 ft. Overdepth*
Fort Sumter Reach and Entrance Channel	90,153,827	54	13,306,974	6,968,752	7,208,341
Mount Pleasant Reach Entrance Channel	3,580,013	54	430,386	279,551	294,604
Mount Pleasant Reach	3,837,132	52	40,556	47,429	63,507
Rebellion Reach	5,005,995	52	360,266	366,013	396,496
Bennis Reach	4,677,647	52	405,582	378,147	414,611
Horse Reach	2,241,001	52	89,155	108,914	158,616
Hog Island Reach	7,042,934	52	633,670	475,390	559,259
Drum Island Reach	3,643,066	52	248,825	237,674	281,490
Wando River Lower Reach	3,525,613	52	464,447	307,649	329,429
Wando River Upper Reach	2,816,370	52	300,684	214,919	227,745
Wando River Turning Basin	1,711,210	52	220,128	149,539	155,966
Myers Bend Reach	2,892,914	52	244,953	219,384	237,978
Anchorage Basin	11,424,100	35	837,700	459,830	645,060
Shem Creek	1,417,350	12	83,800	N/A	70,950
Daniel Island Reach	6,271,772	52	728,548	521,462	551,600
Daniel Island Bend	2,115,222	48	73,283	28,961	58,565
Clouter Creek Reach	4,093,619	48	30,135	136,593	294,045
Navy Yard Reach	3,674,217	48	40,691	116,099	276,694
North Charleston Reach	2,640,011	48	28,458	51,889	192,268
Filbin Creek Reach	2,467,359	48	10,692	33,481	132,121
Port Terminal Reach	2,194,986	48	40,951	43,346	135,138
Ordnance Reach	1,168,281	48	59,389	49,441	63,169
Ordnance Reach Turning Basin	1,423,446	48	217,015	87,563	105,101
VOLUME TOTALS (Not including Anchorage Basin & Shem Creek)	**Entrance Channel:**		13,737,360	7,248,303	7,502,945
	Lower Harbor:		3,008,266	2,505,058	2,825,097
	Upper Harbor:		1,229,162	1,068,834	1,808,701
	PROJECT TOTAL:		**40,933,727**		

Exhibit 2-2. Dredging Units and Sediment Sampling Scheme.

Proposed Sample Locations		Dredge Volume (cu yds) Proj Depth +2+2	Sample ID	No. Composite Samples	No. Sub-Samples
DU	Entrance Channel	54' and 52'			
--	Charleston Entrance Channel – MPRSA Section 103 Exclusionary Criteria Section	10,201,300	--	0	0
1	Charleston Entrance Channel 1	17,282,770	CHEC112	2	10
2	Charleston Entrance Channel 2		CHEC212		
3	Mount Pleasant Range	1,156,033	MTPL12	1	5
	Lower Harbor	52'			
4	Rebellion Reach, Bennis Reach, & Horse Reach	2,677,800	REHR12	1	6
5	Hog Island Reach	1,668,319	HG1S12	1	5
6	Drum Island Reach, Meyers Bend, & Drum Island Reach Widener	1,722,216	DRMY12	1	5
7	Wando River Lower Reach	1,101,525	WLR12	1	5
8	Wando River Upper Reach & Wando River Turning Basin	1,268,980	WUTB12	1	5
14	Bennis Reach Widener	622,016	BENW12	1	6
15	Hog Island Reach Widener	636,617	HGIW12	1	5
16	Wando River Turning Basin Widener	2,483,782	WRTB12	1	5
18	Wando River Lower Reach Widener	523,742	WLRW12	1	5
	Upper Harbor	52' and 48'			
9	Daniel Island Reach	1,801,610	DANI12	1	5
10	Daniel Island Bend, Clouter Creek Reach, & Clouter Creek Reach Widener	814,773	CCRK12	1	5
11	Navy Yard Reach & North Charleston Reach	706,098	NYNC12	1	5
12	Port Terminal Reach, Filbin Creek Reach, & Ordnance Reach	567,728	PTFC12	1	5
13	Ordnance Reach Turning Basin & Ordnance Reach Turning Basin Widener	1,660,735	ORDT12	1	5
17	Daniel Island Reach Widener	527,341	DANW12	1	3
19	North Charleston Reach & Filbin Creek Reach Wideners	566,571	NCW12	1	5
	Anchorage Basin	35'			
20	Anchorage Basin	1,942,590	ABMA12	1	5
	Shem Creek	12'			
21	Shem Creek	154,750	SHCR12	1	5

Other Required Samples			
Reference and Site Water	Sample Name	No. Composite Samples	No. Sub-Samples
Charleston Reference (RS-CH-A)	RS-CH-A	1	5
Site Water – Entrance Channel	ECSW12	1	--
Site Water–Lower Harbor (Hog Island Reach)	HISW12	1	--
Site Water–Upper Harbor (N Charleston Reach)	NCSW12	1	--

Charleston Harbor sediment samples for chemical and biological evaluations were collected October 20 through November 19, 2012. Exhibit 2-3 indicates the numbers of samples and subsamples collected. The results are discussed in U.S. Army Corps of Engineers (2013) Final Report, Charleston Harbor Navigation Improvement Project (Post 45) MPRSA Section 103 Sediment Testing and Analysis, Charleston, South Carolina, December 2013.

Exhibit 2-3. Sediment and water samples collected.

TOTAL NUMBER OF SAMPLES		No. Composite Samples	No. Sub-Samples
	Vibra core samples	21	105
	Grab samples	1	5
	Site Water samples	3	--

Summaries of the compositing scheme and sample nomenclature are provided in Exhibit 2-2. Summaries of the analytes of interest and the bioassay test species are provided in Exhibit 2-4.

The sediment in Charleston Harbor reaches where maintenance dredging occurs are predominately fine-grained sediments except for entrance channel materials, which are expected to contain more sand and soft limestone rock. Future maintenance dredging quantities for Charleston Harbor are expected to be similar to those recorded during the last approximately 15 years. However, a post-improvement shoaling analysis has not yet been finalized. Table 6-1 in the Charleston Harbor Navigation Improvement (Post 45) Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) (USACE 2013b) summarizes expected dredged material quantities for the Charleston Harbor Post-45 Deepening Project.

Charleston Harbor sediment samples for chemical and biological evaluations were collected from October 20 through November 19, 2012 (Locations shown in Appendix A). The results are discussed in U.S. Army Corps of Engineers. 2013. Final Report, Charleston Harbor Navigation Improvement Project (Post 45) Dredging MPRSA Section 103 Sediment Testing and Analysis, Charleston, South Carolina, December 2013.

Exhibit 2-4. Summary of Laboratory Analysis and Bioassay Test Species

SEDIMENT PHYSICAL ANALYSES (all subsamples and composite samples): • Hydrometer grain size • Total solids/water content • Specific gravity • Atterberg Limits (composite samples only)
SEDIMENT CHEMICAL ANALYSES (composite samples only): • Metals • Ammonia • Total petroleum hydrocarbons (TPH) • Organotins • Total organic carbon (TOC) • Polynuclear aromatic hydrocarbons (PAHs) • Organochlorine pesticides • Polychlorinated biphenyl (PCB) congeners • PCB Aroclors • Polybrominated diphenyl ethers (PBDEs) • Dioxins
ELUTRIATES AND SITE WATER ANALYSES: • Metals • Ammonia (as total nitrogen) • PAHs • Organochlorine pesticides
TISSUE CHEMICAL ANALYSES: Bioaccumulation test organism tissues for selected contaminants of concern. • Lipids • Metals (all samples) • Polynuclear Aromatic Hydrocarbons (PAHs) (all samples) • Dioxins (selected samples) • Organotins (selected samples) • PBDEs (sample WLR12)
BIOASSAY AND BIOACCUMULATION TESTS (composite samples only): **Water Column (Suspended Particulate Phase)** toxicity tests using three species: 1. Fish: *Menidia beryllina* (inland silverside) (96-hour test duration) 2. Mysid crustacean: *Americamysis bahia* (opossum shrimp)(96-hour duration) 3. Bivalve mollusk: larval *Mytilus galloprovincialis* (Mediterranean mussel)(48-hour test duration) **Whole Sediment (Solid Phase) Bioassay** 10-day toxicity tests using two species: 1. Infaunal amphipod crustacean: *Ampelisca abdita* 2. Epifaunal polychaete worm: *Neanthes arenaceodentata* **Whole Sediment Bioaccumulation Potential** 28-day exposure tests using two species: 1. Infaunal polychaete worm: *Neanthes virens* (sand worm) 2. Bivalve mollusk: *Macoma nasuta* (bent-nose clam)

3.0 ENVIRONMENTAL DOCUMENTS ADDRESSING CHARLESTON HARBOR CHANNEL DREDGING

The following environmental documents address aspects of the Charleston Harbor dredging program. Two dredged material disposal alternatives are addressed in detail: the ODMDS and Upland Confined Disposal. Three dredging methods are discussed: hopper, bucket and barge, and hydraulic pipeline.

US Army Corps of Engineers, Charleston District. 1996. Final Feasibility Report with Environmental Assessment, Charleston Harbor Deepening and Widening Study, Charleston, South Carolina.

US Army Corps of Engineers. 2005a. Charleston Ocean Dredged Material Disposal Site. Site Management and Monitoring Plan. Charleston District, South Atlantic Division. November 2005.

US Army Corps of Engineers, Charleston District. 2009. Final Environmental Assessment: Advanced Maintenance Dredging, Charleston Harbor, Charleston, SC, August 2009.

US Army Corps of Engineers, Charleston District. 2009. Dredged Material Management Plan, Preliminary Assessment, Charleston Harbor, Charleston, South Carolina.

Other environmental documents may have addressed actions in Charleston Lower Harbor but these are the principal and current documents addressing the harbor maintenance.

4.0 SECTION 103 OCEAN DISPOSAL CRITERIA COMPLIANCE EVALUATION

Part 227 Criteria for the Evaluation of Permit Applications for Ocean Dumping of Materials

4.1 Subpart A - General

Part 227.1 Applicability

The proposed transportation of this dredged material for disposal in ocean waters was evaluated to ensure that the proposal would not unreasonably degrade or endanger human health, welfare, or amenities or the marine environment, ecological systems, or economic potentialities. In making this determination, the criteria established by the Administrator, EPA, pursuant to Section 102(a) of the Marine Protection, Research, and Sanctuaries Act of 1972, as amended, were applied. In addition, navigation, economic, and industrial development, and

foreign and domestic commerce of the United States, and the availability of other alternatives were considered in determining the need to dispose of the dredged material in ocean waters.

Part 227.2 Materials Which Satisfy The Environmental Impact Criteria of Subpart B

The material proposed for ocean dumping satisfies the environmental impact criteria set forth in Subpart B. The information to follow supports that determination. In addition, the information to follow indicates that there is a need for ocean dumping in accordance with Subpart C; there are no unacceptable adverse effects on aesthetic, recreational, or economic values in accordance with the criteria set forth in Subpart D; and, there are no unacceptable adverse effects on other uses of the ocean as determined in accordance with criteria established in Subpart E.

Part 227.3 Materials Which Do Not Satisfy the Environmental Impact Criteria of Subpart B

Not applicable. The material proposed for ocean dumping satisfies the environmental impact criteria of Subpart B.

4.2 Subpart B - Environmental Impact

Part 227.4 Criteria for Evaluating Environmental Impact

The applicable prohibitions, limitations, and conditions set forth in Part 227.4 have been reviewed and satisfied. The information summarized in this Evaluation supports this determination. The proposed transportation of this dredged material for disposing of it in ocean waters was evaluated to determine that the proposal would not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. In making this determination, the criteria established by the Administrator, EPA, pursuant to Section 102(a) of the Marine Protection, Research, and Sanctuaries Act of 1972, as amended, were applied.

Part 227.5 Prohibited Materials

The dredged material proposed for ocean dumping is not known to include prohibited materials such as:

- High-level radioactive waste;
- Material used for radiological, chemical, or biological warfare;
- Materials whose composition and properties have been insufficiently described to enable application of 40 CFR Part 227 Subpart B;

- Inert synthetic or natural materials which may float or remain in suspension so as to materially interfere with fishing, navigation, or other use of the ocean;
- Medical waste as prohibited by Section 102(a) of MPRSA.

Part 227.6 Constituents Prohibited as Other Than Trace Materials

Charleston Harbor channel sediments proposed for ocean disposal, associated with both maintenance dredging and new work (improvement) materials as described previously, have been evaluated to determine acceptability for ocean disposal in accordance with EPA's Ocean Dumping Regulations and Criteria using methods described in Evaluation of Dredged Material Proposed for Ocean Disposal Testing Manual (EPA/USACE, February 1991) and the Southeast Regional Implementation Manual Requirements and Procedures for Evaluation of the Ocean Disposal of Dredged Material in Southeastern Atlantic and Gulf Coastal Waters (SERIM) (EPA/USACE, 2008). The evaluation included **Water Column** (Part 227.6(c)(1) and 227.27(a)), **Suspended Particulate Phase** (Part 227.6(c)(2) and 227.27(b), and **Benthic** (Part 227.6(c)(2) and 227.27(b)) determinations.

Based on the sediment evaluations conducted, the Charleston Harbor dredged materials do not contain prohibited constituents including the following as other than trace contaminants: organohalogen compounds, mercury and mercury compounds, cadmium and cadmium compounds, oil and grease, and known carcinogens, mutagens, and teratogens.

4.2.1 Tier I - Evaluation of Existing Information

The following environmental documents address aspects of the Charleston Harbor dredging program. These documents indicate the environmental acceptability of dredging and dredged material disposal methods for the proposed Charleston Harbor maintenance and improvements.

USACE. *Results of Bioassay Evaluation of Charleston Harbor Sediments, C1-C13*. April 1979.

SC State Ports Authority. *Results of Bioassay Evaluations of Sediments from the Wando River*. April 1979.

USACE. *Results of Bioassay Evaluation of Charleston Harbor Sediments, C14-C17*. April 1979.

USACE. *Chemical Analyses of Sediment from Five Locations in Charleston Harbor and Tissues Exposed to the Sediment*. August 1988.

SC State Ports Authority. *Results of Bioassay Evaluations on Sediments from the Wando Port Terminal Expansion Project.* April 1991.

USACE. *Ecological Evaluation of Proposed Dredged Material from Charleston Harbor.* October 1996.

USACE. *Ecological Evaluation of Proposed Dredged Material from the Charleston Harbor Entrance Channel.* October 1997.

USACE. *Charleston District Report, Charleston Harbor Navigation Project: Lower Town Creek/Cooper River Section 103 Testing and Evaluation.* December 2004.

USACE. *Section 103 Evaluation of Dredged Material Proposed for Ocean Disposal, Charleston Lower Harbor and Entrance Channel, Charleston, South Carolina.* September 2010.

Charleston Harbor sediments were sampled and chemically tested in 1994 and 1996, and results are discussed in the following documents:

Sediment Borings and Sampling Charleston Harbor, Cooper River, Charleston, South Carolina. October 1994.

Sediment Boring and Sediment Testing, Daniel Island Turning Basin, Charleston Harbor, South Carolina. February 1996.

Numerous sediment sampling activities have taken place for permit actions in the Charleston Harbor Area (not Section 103 Permits) including (but not limited to):

- Allied Terminals 1998 (Ports-Permit)
- Metal Trades 1997 (Ports-Permit)
- Pier Sierra Metal Trades 1997 (Ports-Permit)
- Albemarle Point DA 1997 (Ports-Permit)
- Maybank 2000 (Ports-Permit)
- Naval Complex 1999 (Ports-Permit) Detyens Shipyard 1997 (Ports-Permit)
- Union Pier 2003 (Ports-Permit)
- Shipyard Creek 1999 (Ports-Permit)
- Texaco 1999 (Ports-Permit)
- Naval Weapons Station 1998 (Ports-Permit)
- Pier Quebec 2012 (FLETC-Permit)
- Pier Papa 2011 (USCG Permit)
- Tradd Street Pier 2011
- MSDDC 2011 (Permit)

The previously listed reports contain results of chemical and, in some cases, biological (bioassay and bioaccumulation) analyses performed in accordance with the testing guidance applicable when the tests were performed. EPA previously concurred that Section 103 (Lower Harbor and Entrance Channel) test results (USACE 2010) indicated that dredge material from the Charleston Harbor federal navigation project was acceptable for ocean disposal. An exception was reported in the 1994 sediment testing report which indicated that one site in Shipyard Creek would not be acceptable for ocean disposal.

Additionally, SERIM requires a description be provided of any events that have occurred since the last sampling or dredging event that might influence sediment chemistry or bioassay results and which must include the query results from the U.S. Coast Guard Pollution Incident Reporting System. Since January 1, 2009, 360 incidents in the Charleston Harbor Federal Navigation Project vicinity were reported in the U.S. Coast Guard Incident Reporting System. These were mostly minor oil and fuel spills and similar insignificant events. This information is provided in greater detail as Appendix B.

4.2.2 Sediment Testing Results

Exclusionary Criteria – 40 CFR §227.13b

The exclusionary criteria apply to materials which meet any of the following three criteria (Part 227.13b), and may be considered environmentally acceptable for ocean dumping without further testing:

- The dredged material is comprised predominantly of sand, gravel, rock, or any other naturally occurring bottom material with grain sizes larger than silt, and the material is found in areas of high current or wave energy.
- Dredged material is for beach nourishment or restoration and is comprised predominantly of sand, gravel, or shell with particle sized comparable with material on the receiving beaches.
- The material proposed for placement is substantially the same as the substrate at the proposed disposal site and the site from which the material proposed for disposal is far removed from known existing and historical sources of pollution as to provide reasonable assurance that such material has not been contaminated by such pollution.

Based on the physical characteristics described in the above information and in Exhibit 4-1, the Charleston Harbor dredged materials sampled in 2012 do not meet the exclusion criteria of part 227.13(b) and must, therefore, be tested in accordance with part 227.13(c). However, Entrance Channel sediments seaward of Station 450+00 (6.3 nm offshore of the end of the jetties) do meet the exclusion criteria.

Entrance Channel Exclusion Criteria Portion: A review of Entrance Channel borings was conducted. Borings from 1988, 1989, 1990, 1998, and 1999 were available. More than 125 borings have been conducted; however, all were not reviewed for this analysis. Based on a review of these borings, the more inshore portions of the channel generally contain grey fine grained silty or muddy sands or silts and clays. Deeper beneath these sediments, mixtures of clay, fine sand, and calcareous limestone occurs at varying depths. At approximately Station

Exhibit 4-1. Grain Size Distribution for Composited and Reference Samples

Location	Sample ID	Grain Size Distribution[1] (percent by weight)				
		Gravel	Sand	Silt	Clay	USCS[2]
Reference	RS-CH-A	0	93.7	1.6	4.7	SP-SM
Upper Harbor and Wideners	DANW12	0	40.4	28.3	31.3	CH
	DANI12	0	50.6	13.3	36.1	SC
	NCW12	0	50.1	19.4	30.5	SM
	CCRK12	0.3	52.2	18.3	29.2	SC
	NYNC12	0	34	32.3	33.7	CH
	PTFC12	0	32.2	29.4	38.4	CH
	ORDT12	0.2	55.7	12.1	32	SC
Lower Harbor and Wideners	REHR12	1.7	68.9	12.7	16.7	SC
	BENW12	1	70.5	11.8	16.7	SC
	HGIS12	1	62.4	12.4	24.2	SC
	HGIW12	0.3	74.7	5.2	19.8	SC
	DRMY12	0	31	23.6	45.4	CH
	WUTB12	0.4	24.3	33.8	41.5	MH
	WRTB12	0.1	59.2	18.9	21.8	SC
	WLR12	2.4	55	18.3	24.3	SC
	WLRW12	1	69.9	13.2	15.9	SC
Anchorage Basin	ABMA12	0	54.3	21.3	24.4	SC
Shem Creek	SHCR12	0	35.6	26.2	38.2	CH
Entrance Channel	CHEC12-1	4.5	45.2	22.1	28.2	CH
	CHEC12-2	2.8	64.7	16	16.5	SC
	MTPL12	0.5	70.9	7.8	20.8	SC

[1] Particle sizes: gravel ≥4.750 mm, sand = 0.075–4.749 mm, silt & clay <0.075 mm.
[2] CH = Clay of high plasticity, elastic silt; MH = Silt of high plasticity, elastic silt; SC = Clayey sand; SM = Silty sand; SP = Poorly-graded sand

Source: Exhibit 3-1 of USACE 2013a.

450+00, (between navigation buoy's 12 and 10) the surface material becomes more of a thin poorly graded fine to medium sand sandy thin veneer over the clay, sandy, shell calcareous mixture. The clay, sand, shell, calcareous mixture again occurs at varying depths and in some cases is resistant to collection by vibracore. Station 450+00 is approximately 32,500 feet (6.3

miles) offshore of the end of the Charleston jetties or 45,000 feet from the inshore end of the Fort Sumter Range (8.5 miles). This review implies that inshore of 450+00 the sediments are generally finer and more subject to harbor influences than those seaward – sandy sediments. Additionally the dredging records 2003 to 2010 indicate that the major shoaling areas are inshore of station 300+00 (buoys 13 and 14). The ODMDS is adjacent to the channel from about station 300+00 out. Seaward of about 450+00, the sediments are likely nearshore ocean sediments; likely similar to those of the adjacent ODMDS. They are distant from known sources of pollution. These sediments are believed to be consistent with exclusion (3) above.

Inshore of Station 450+00 beginning at station 400+00 samples were taken for section 103 evaluation. Ten sub-samples (for two composite samples) were taken between station 400+00 and the end of the Fort Sumter Range (40,000 feet channel length - 7.6 miles).

Water Column Determinations – 40 CFR §227.6(c)(1) and 227.27(a)

Evaluation of the liquid phase – Water Quality Criteria

Analytical results for elutriates generated from 21 project sediment samples along with site water samples taken from the upper harbor (UHSW12), at lower harbor (LHSW12), at the entrance channel (ECSW12), and at the Charleston Reference area (RS-CH-A) were compared to the CMC. The elutriates and waters were analyzed for the following analytes:

Metals
Ammonia, TPH, and TOC
Organotins
PAHs
Pesticides
PCBs and Aroclors
PBDEs
Dioxins and Furans

No analyte concentration for elutriate or water samples was greater than the CMC. Because all elutriates were below the CMC, no dilution would be required to achieve compliance with the Water Quality Criteria (WQC).

Liquid - Suspended Particulate and Elutriate Phase Bioassays

Liquid phase (elutriate) bioassays were performed to determine the potential impact on test organisms of dissolved and suspended contaminants in sediments collected from the Charleston Harbor area. Organisms for these tests included the mysid crustacean *Americamysis bahia* (opossum shrimp), the atherinoid fish *Menidia beryllina* (inland silverside), and larvae of the bivalve mollusk *Mytilus galloprovincialis* (Mediterranean mussel). Dunnett's test was used

where appropriate to provide statistical comparisons between the control treatment and the test treatments. The test data are summarized below.

Americamysis bahia. The test was conducted under three salinity regimes dependent on sample location. The 100% elutriate treatments with lowest mean survival (4% and 10%) were samples DRMY12 and SHCR12, respectively. Mean percent survival in the 100% elutriate treatments was significantly different than the respective controls treatments for samples DRMY12, ABMA12, and SHCR12. The estimated LC_{50} values were >100% for all treatments.

Menidia beryllina. The test was conducted under three salinity regimes dependent on sample location. Mean percent survival in the 100% elutriate treatment of all 21 samples ranged from 51% to >100%. The 100% elutriate treatment with the lowest mean survival (0%) were samples ABMA12, SHCR12, and DRMY12. Samples where survival was significantly less than the control samples were DANI12, DANW12, NCW12, CCRK12, PTFC12, ORDT12, REHR12, DRMY12, WUTB12, ABMA12, SHCR12, and CHEC12-1. The estimated LC_{50} values ranged from 49.8% (ABMA12) to >100% (15 of the 21 samples).

Mytilus galloprovincialis. The 100% elutriate treatments of all samples, except for WLRW12 and MTPL12, were statistically different than the control samples. The estimated EC_{50} values for the standard treatments ranged from 17.5% to >100%. Ammonia concentrations in the bulk sediment were sufficiently elevated to predict ammonia-related impacts in the elutriate tests using the larval mussels. Based on the ammonia observations, elutriates were prepared with ammonia-reduced sediments for 20 of the 21 project samples and were tested concurrently with the standard elutriate preparations. Normal development and survivorship greatly increased in all of the ammonia-reduced treatments. Mean survivorships in all of the ammonia-reduced 100% elutriate treatments were not significantly different than that of the control samples. The estimated EC_{50} values were greater than 100% for all samples following ammonia reduction. Observed toxicity in all test treatments was ameliorated by the ammonia-reduction procedures.

ADDAMS – STFATE Model

To determine dilutions after discharge of dredged material, an application of the ADDAMS STFATE MODEL: SHORT-TERM FATE OF DREDGED MATERIAL FROM SPLIT HULL BARGE OR HOPPER was run for all Charleston Harbor sediment (DUs 1 through 21). This model simulates disposal from a split hull barge or hopper.

Based on analytical results for elutriates, all of which were either below the CMC or were reported as non-detects below the laboratory's MDLs and MRLs, no samples were selected for modeling Tier II—Water Quality Criteria.

Results across the three test species of *Americamysis bahia*, *Menidia beryllina*, and *Mytilus galloprovincialis* show that the LC_{50} or EC_{50} was significantly different from the control sample in 18 of the 21 project samples tested. Two of the project samples, WLRW2 and MTPL12, were not statistically significantly different from the control sample and in accordance with section 3.3.1 of the SERIM do not require modeling to meet disposal criteria.

Based on the LC_{50} and EC_{50} results, 26 applications (runs) of the model are presented in this report for Section 103 Regulatory Analysis for Ocean Water, Tier III, Short-Term Fate of Dredged Material from Split Hull Barge or Hopper/Toxicity Run and Multiple Bin Hopper/Toxicity. Results for the water column tests are summarized in Exhibit 4-2.

The sediment physical characteristics for project samples were used to calculate the volumetric fractions. Other inputs for the ADDAMS model were taken from Appendix G of the SERIM. The application factor (AF) used for the four project samples modeled was 0.01 for *A. bahia* and *M. beryllina*. The AF used for *M. galloprovincialis* was 0.05. The use of the revised AF of 0.05 for *M. galloprovincialis* was due to the use of ammonia amelioration techniques prior to running the water column tests. The results from the ammonia-reduced tests indicated that all toxicity was due to ammonia in the *M. galloprovincialis* larval development. Dredge units in the lower harbor, including site ABMA12, will be dredged by a mechanical clamshell dredge. All dredge units were tested at 9,000 cubic yards. Dredge material in Shem Creek will likely be dredged using a mechanical clamshell dredge, although a hydraulic dredge may also be used. Due to the limited size and depth of the work area, smaller dredges were used to model the dredging in this area. The barge inputs allow for either a 3,300-cubic-yard mechanical dredge or 3,600-cubic-yard hydraulic dredge. This area was also modeled using a 9,000-cubic-yard mechanical dredge; the model meets the disposal criteria for the full 9,000 cubic yards. Data inputs utilized in the STFATE module are further described in Charleston Harbor Navigation Improvement Project (Post 45) Dredging MPRSA Section 103 Sediment Testing and Analysis, Charleston, South Carolina, December 2013.

Results of the initial mixing simulations after 4 hours of mixing (specified for water column evaluation) and the maximum concentration found outside the disposal area for each dredging

Exhibit 4-2. Water Column Bioassay Results Summary

DU Location	Treatment	Endpoint Result (%)			
		Americamysis bahia LC_{50}	*Menidia beryllina* LC_{50}	*Mytilus galloprovincialis* EC_{50}	
		Standard Method*	Standard Method*	Standard Method*	Ammonia Reduced
Upper Harbor and Wideners	DANI12	>100	**>100**	**57**	>100
	DANW12	>100	**>100**	**42**	>100
	NYNC12	>100	>100	**69.6**	>100
	NCW12	>100	**>100**	**67.9**	>100
	CCRK12	>100	**>100**	**68.8**	>100
	PTFC12	>100	**>100**	**63.1**	>100
	ORDT12	>100	**94.8**	**35.2**	>100
Lower Harbor and Wideners	REHR12	>100	**>100**	**55.3**	>100
	BENW12	>100	>100	**73.1**	>100
	HGIS12	>100	>100	**>100**	>100
	HGIW12	>100	>100	**67.8**	>100
	DRMY12	**71.3**	**51.6**	**22**	>100
	WUTB12	>100	**75**	**29.9**	>100
	WRTB12	>100	>100	**56.3**	>100
	WLR12	>100	>100	**92.3**	>100
	WLRW12	>100	>100	>100	>100
Anchorage Basin	ABMA12	**>100**	**49.8**	**20**	>100
Shem Creek	SHCR12	**73.6**	**51**	**17.5**	>100
Entrance Channel	CHEC12-1	>100	**75.8**	**29.5**	>100
	CHEC12-2	>100	>100	**51.2**	>100
	MTPL12	>100	>100	>100	Not tested

*Method follows guidance in SERIM.
Bold = Mean percent survival in the 100% elutriate preparations was significantly different than the control.

unit are summarized in accordance with Section 7.4 of the SERIM and are shown in Exhibit 4-3. The location of the maximum concentration is shown as X Location and Z Location. All samples may be disposed in the center of the disposal area using a mechanical or hydraulic cutter/hopper dredge as indicated with each dredge unit.

Exhibit 4-3. Four-Hour Criteria and Disposal Boundary Criteria after Initial Mixing (Disposal at Center of Disposal Site)

Depth, Feet	Four-Hour Criteria after Initial Mixing		Disposal Site Boundary Criteria	
	% Max Conc. Above Background on Grid	Dilution on Grid ($D_{a\text{-}tox}$)	Max Conc. Outside Disposal Area	Dilution ($D_{a\text{-}tox}$)
Sample	ORDT12 Mechanical Dredge @ 9,000 Cubic Yards			
0	3.01E-08	>100,000	0	N/A
18	2.74E-02	3649	0	N/A
27	1.48E-01	675	0	N/A
36	2.01E-02	4974	0	N/A
LPC not violated during disposal simulations. Value for STFATE 0.95				
Sample	ORDT12 Hydraulic Dredge @ 9,000 Cubic Yards			
0	1.80E-07	>100,000	0	N/A
18	9.81E-02	1018	0	N/A
26	4.81E-01	207	0	N/A
36	6.50E-02	1537	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	PTFC12 Mechanical Dredge @ 9,000 Cubic Yards			
0	6.10E-08	>100,000	0	N/A
18	2.60E-02	3845	0	N/A
26	1.21E-01	825	0	N/A
36	1.64E-02	6097	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	PTFC12 Hydraulic Dredge @ 9,000 Cubic Yards			
0	1.63E-07	>100,000	0	N/A
18	1.01E-01	989	0	N/A
26	5.10E-01	195	0	N/A
36	6.91E-02	1446	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	NYNC Mechanical Dredge @ 9,000 Cubic Yards			
0	6.10E-08	>100,000	0	N/A
18	2.60E-02	3845	0	N/A
26	1.21E-01	825	0	N/A
36	1.64E-02	6097	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				

Depth, Feet	Four-Hour Criteria after Initial Mixing		Disposal Site Boundary Criteria	
	% Max Conc. Above Background on Grid	Dilution on Grid ($D_{a\text{-}tox}$)	Max Conc. Outside Disposal Area	Dilution ($D_{a\text{-}tox}$)
Sample	NYNC Hydraulic Dredge @ 9,000 Cubic Yards			
0	1.68E-07	>100,000	0	N/A
18	1.00E-01	999	0	N/A
26	5.01E-01	199	0	N/A
36	6.78E-02	1474	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	CCRK Mechanical Dredge @ 9,000 Cubic Yards			
0	6.10E-08	>100,000	0	N/A
18	2.60E-02	3845	0	N/A
26	1.21E-01	825	0	N/A
36	1.64E-02	6097	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	CCRK Hydraulic Dredge @ 9,000 Cubic Yards			
0	2.66E-07	>100,000	0	N/A
18	5.09E-02	1964	0	N/A
26	2.05E-01	487	0	N/A
36	2.78E-02	3596	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	DANW12 Mechanical Dredge @ 9,000 Cubic Yards			
0	7.54E-08	>100,000	0	N/A
18	5.43E-02	1841	0	N/A
27	3.80E-01	262	0	N/A
36	2.81E-01	355	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	DANW12 Hydraulic Dredge @ 9,000 Cubic Yards			
0	1.65E-07	>100,000	0	N/A
18	1.01E-01	989	0	N/A
26	5.09E-01	195	0	N/A
36	6.88E-02	1452	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	DANI12 Mechanical Dredge @ 9,000 Cubic Yards			
0	6.10E-08	>100,000	0	N/A
18	2.60E-02	3845	0	N/A
26	1.21E-01	825	0	N/A
36	1.64E-02	6097	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				

Depth, Feet	Four-Hour Criteria after Initial Mixing		Disposal Site Boundary Criteria	
	% Max Conc. Above Background on Grid	Dilution on Grid ($D_{a\text{-}tox}$)	Max Conc. Outside Disposal Area	Dilution ($D_{a\text{-}tox}$)
Sample	DANI12 Hydraulic Dredge @ 9,000 Cubic Yards			
0	1.80E-07	>100,000	0	N/A
18	9.76E-02	1024	0	N/A
26	4.78E-01	208	0	N/A
36	6.47E-02	1545	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	NCW12 Mechanical Dredge @ 9,000 Cubic Yards			
0	6.10E-08	>100,000	0	N/A
18	2.60E-02	3845	0	N/A
26	1.21E-01	825	0	N/A
36	1.64E-02	6097	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	NCW12 Hydraulic Dredge @ 9,000 Cubic Yards			
0	1.81E-07	>100,000	0	N/A
18	9.77E-02	1023	0	N/A
26	4.78E-01	208	0	N/A
36	6.47E-02	1545	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	REHR12 Mechanical Dredge @ 9,000 Cubic Yards			
0	6.10E-08	>100,000	0	N/A
18	2.60E-02	3845	0	N/A
26	1.21E-01	825	0	N/A
36	1.64E-02	6097	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	HGIW12 Mechanical Dredge @ 9,000 Cubic Yards			
0	5.78E-08	>100,000	0	N/A
18	4.27E-02	2341	0	N/A
27	2.22E-01	449	0	N/A
36	3.00E-02	3332	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	HGIS12 Mechanical Dredge @ 9,000 Cubic Yards			
0	3.52E-08	>100,000	0	N/A
18	3.05E-02	3278	0	N/A
27	1.64E-01	609	0	N/A
36	2.21E-02	4524	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				

Depth, Feet	Four-Hour Criteria after Initial Mixing		Disposal Site Boundary Criteria	
	% Max Conc. Above Background on Grid	Dilution on Grid ($D_{a\text{-}tox}$)	Max Conc. Outside Disposal Area	Dilution ($D_{a\text{-}tox}$)
Sample	DRMY12 Mechanical Dredge @ 9,000 Cubic Yards			
0	4.54E-08	>100,000	0	N/A
18	3.78E-02	2645	0	N/A
27	2.01E-01	497	0	N/A
36	2.72E-02	3675	0	N/A
LPC not violated during disposal simulations. Value for STFATE 0.516				
Sample	WLR12 Mechanical Dredge @ 9,000 Cubic Yards			
0	2.39E-08	>100,000	0	N/A
18	2.30E-02	4347	0	N/A
27	1.26E-01	793	0	N/A
36	1.70E-02	5881	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	WUTB12 Mechanical Dredge @ 9,000 Cubic Yards			
0	4.13E-08	>100,000	0	N/A
18	3.58E-02	2792	0	N/A
27	1.92E-01	520	0	N/A
36	2.60E-02	3845	0	N/A
LPC not violated during disposal simulations. Value for STFATE 0.750				
Sample	BENW12 Mechanical Dredge @ 9,000 Cubic Yards			
0	6.10E-08	>100,000	0	N/A
18	2.60E-02	3845	0	N/A
26	1.21E-01	825	0	N/A
36	1.64E-02	6097	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	WRTB12 Mechanical Dredge @ 9,000 Cubic Yards			
0	2.87E-02	3483	0	N/A
18 (=max)	1.12E-01	892	0	N/A
36	1.52E-02	6578	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
Sample	ABMA12 Mechanical Dredge @ 9,000 Cubic Yards			
0	7.17E-08	>100,000	0	N/A
18	5.15E-02	1941	0	N/A
27	2.66E-01	375	0	N/A
36	3.61E-02	2769	0	N/A
LPC not violated during disposal simulations. Value for STFATE 0.498				

Depth, Feet	Four-Hour Criteria after Initial Mixing		Disposal Site Boundary Criteria	
	% Max Conc. Above Background on Grid	Dilution on Grid ($D_{a\text{-}tox}$)	Max Conc. Outside Disposal Area	Dilution ($D_{a\text{-}tox}$)
Sample	SHCR12 Mechanical Dredge @ 3,300 Cubic Yards			
0	9.65E-10	>100,000	0	N/A
18	1.00E-02	9999	0	N/A
27	8.82E-02	1133	0	N/A
36	1.19E-02	8402	0	N/A
LPC not violated during disposal simulations. Value for STFATE 0.510				
Sample	SHCR12 Hydraulic Dredge @ 3,600 Cubic Yards			
0	1.19E-09	>100,000	0	N/A
18	2.25E-02	4443	0	N/A
27	2.23E-01	447	0	N/A
36	3.01E-02	3321	0	N/A
LPC not violated during disposal simulations. Value for STFATE 0.510				
Sample	CHEC12-1 Hopper/Hydraulic Dredge @ 13,500 Cubic Yards			
0	1.41E-06	>100,000	0	N/A
18	1.78E-01	561	0	N/A
26	6.64E-01	150	0	N/A
36	8.99E-02	1111	0	N/A
LPC not violated during disposal simulations. Value for STFATE 0.758				
Sample	CHEC12-2 Hopper/Hydraulic Dredge @ 13,500 Cubic Yards			
0	1.69E-06	>100,000	0	N/A
18	1.63E-01	612	0	N/A
27	5.80E-01	171	0	N/A
36	7.84E-02	1275	0	N/A
LPC not violated during disposal simulations. Value for STFATE 1.00				
MTPL12, WLRW12				
No modeling required for these samples. The results were not statistically significantly different from the control sample.				

Source: Exhibit 5-8 of USACE 2013a

All samples may be disposed at the center of the ODMDS. All upper harbor and lower harbor dredge material may be disposed up to a total of 9,000 cubic yards for each disposal trip. All entrance channel dredge material may be disposed up to a total of 13,500 cubic yards for each disposal trip.

Based on these STFATE model results and liquid (suspended phase) bioassay results, ocean disposal of the tested sediments will not exceed the limiting permissible concentration (LPC) and complies with Part 227.6(c)(2) and 227.27(b) provided the indicated disposal zone operational constraint are applied.

Benthic Determinations– 40 CFR §227.6(c)(3) and 227.27(b)

Whole sediment (solid phase) bioassays and benthic bioavailability evaluations were performed to determine compliance with Parts 227.6(c)(3) and 227.27(b). These evaluations used the results of two specific types of tests on the solid phase of the material, one focusing on the acute (10-day) toxicity of the material, and the other focusing on the potential for the material to cause significant adverse effects due to bioaccumulation. The benthic determinations were performed using appropriate sensitive marine organisms according to procedures approved by USEPA and USACE.

On day 28 of the bioaccumulation potential tests, the sediment was sieved to remove live specimens of *Neanthes virens* and *Macoma nasuta*. The surviving animals were placed in clean flow-through aquaria to depurate their gastrointestinal tracts over a 24-hour period. Soft tissue was separated from the hard valves (shells) of *M. nasuta*. Whole animal tissue (minus the valves of *M. nasuta*) was then placed into certified-clean glass sample jars, frozen, and sent to ALS Environmental, in Kelso, Washington, for chemical analysis.

Based on the sediment chemistry results, tissue samples were analyzed for the parameters and contaminants listed below and in Exhibit 4-4. This tissue analysis list was coordinated between EPA Region 4 and USACE-Charleston District.

Metals

Sediment chemistry results indicated that most analyzed metals were detected in concentrations greater than the method reporting limit (MRL) in all sediment samples, with the exception of mercury. Mercury was detected in concentrations greater than the MRL in several lower harbor stations (HGIW12, DRMY12, WUTB12, WRTB12), the anchorage basin (ABMA12), Shem Creek (SHCR12), and the entrance channel samples (CHEC12-1, CHEC12-2, and MTPL12). Based on these results, along with guidance from Section 6.2.2 of the SERIM and input from USACE and EPA, tissues from all project composite samples, the reference sample RS-CH-A, and pre-exposure tissues were analyzed for all 13 metals.

Exhibit 4-4. Summary of Bioaccumulation Tissue Analysis

		Tissue Contaminant of Concern						
Location	**Sample ID**	**Metals**	**PAHs**	**Dioxins**	**PBDE**	**Organotins**	**PCBs**	**Pesticides**
Reference	RS-CH-A	x	x	x		x		
Upper Harbor and Wideners	DANW12	x	x	x				
	DANI12	x	x					
	NCW12	x	x			x		
	CCRK12	x	x	x				
	UH12*	x	x			x		
	ORDT12	x	x	x				
Lower Harbor and Wideners	REHR12	x	x	x				
	BENW12	x	x					
	HGIS12	x	x					
	HGIW12	x	x	x				
	DRMY12	x	x					
	WUTB12	x	x	x		x		
	WRTB12	x	x					
	WLR12	x	x	x	x	x		
	WLRW12	x	x	x				
Anchorage Basin	ABMA12	x	x	x				
Shem Creek	SHCR12	x	x			x		
Entrance Channel	CHEC12-1	x	x	x				
	CHEC12-2	x	x					
	MTPL12	x	x					

Note: *UH12 is a composite of NYNC12 and PTFC12 test organism tissues.

<u>Polynuclear Aromatic Hydrocarbons (PAHs)</u>

Several samples had PAHs detected above the MRL. All but one of the upper harbor/widener samples had between six and ten PAHs detected in concentrations greater than the MRL. All but two of the lower harbor/widener samples had between three and ten PAHs detected in concentrations greater than the MRL. The anchorage basin sample (ABMA12) had nine PAHs

detected in concentrations greater than the MRL. Shem Creek (SHCR12) had 12 PAHs detected greater than the MRL. Entrance channel samples CHEC12-1 and CHEC12-2 had between three and eight PAHs detected in concentrations above the MRL. Sediment samples DANW12, REHR12, BENW12, and MTPL12 and the reference sample (RS-CH-A) had PAHs detected above the MRL. Based on these results and guidance from the SERIM, the full suite of PAHs was analyzed for all project tissues, reference tissues, and pre-exposure tissues.

Dioxins

Seven dioxin congeners, 10 furan congeners, and eight groups of total congener compounds were tested in the project samples. Two dioxin congeners (1,2,3,4,5,6,7,8-HpCDD and OCDD) were detected above the MRL in all samples except RS-CH-A. Dioxin congener 1,2,3,7,8,9-HxCDD was detected above the MRL in several samples. With the exception of OCDF in sample SHCR12, no furan congeners were detected above the MRL in any sample. Total TCDD, total PeCDD, total HxCDD, and total HpCDD were detected above the MRL in most of the samples.

The ten sediment samples with the highest (i.e., worst-case) theoretical bioaccumulation potential (TBP) were proposed for actual tissue analysis and comparison with the reference tissues. These samples included the reference (RS-CHA), upper harbor/wideners (CCRK12, DANW12, and ORDT12), lower harbor/wideners (WLRW12, WLR12, WUTB12, HGIW12, and REHR12), anchorage basin (ABMA12) and the entrance channel (CHEC12-1). These stations were distributed widely through the harbor. The rationale for not analyzing all the samples was if samples with higher TBPs do not have significant bioaccumulation then it is assumed that samples with lower TBP will not have significant bioaccumulation either.

Organotins

Tri-n-butyltin was detected in concentrations greater than the MRL in three of the upper harbor/widener samples including NYNC12, NCW12, and PTFC12. Tri-n-butyltin was detected in concentrations greater than the MRL in two of the lower harbor/widener samples including WUTB12 and WLR12. No other samples had concentrations of organotins greater than the MRL. Therefore, tissues from these five project samples and the reference (RS-CH-A) were analyzed for organotins.

PBDEs

Four samples (DANW12, NYNC12, PTFC12, and BENW12) had PBDE 209 concentration greater than the MRL. Sample WLR12 had concentrations of PBDE 47, PBDE 99, PBDE 100,

and PBDE 153 greater than MRL. Since WLR12 had the most detected PBDE congeners of any sample, the tissues from this sample and the reference sample were analyzed for PBDEs.

Pesticides

None of the pesticides tested were detected above the MRL in any sediment sample. Tissues were not analyzed for pesticides.

PCBs

Of the 26 PCB congeners and seven aroclors tested, none were detected above the MRL in any sediment sample. Tissues were not analyzed for pesticides.

Solid Phase Toxicity Evaluations

Benthic phase bioassay testing of the material must show that toxicity in the dredged material is not statistically greater than in the reference sediment, or does not exceed mortality in the reference by more than 10% (20% for the amphipod). Ten-day toxicity tests were conducted on project materials using polychaetes (*Neanthes arenaceodentata*) and amphipods (*Ampelisca abdita*), which are appropriate, sensitive, benthic marine organisms.

Ampelisca abdita Mean survival within the *A. abdita* solid phase test ranged from 84% to 95% (see Exhibit 4-5). Survival within all samples was not statistically different than that of the reference. Mean percent survival in all treatments was within 20% of that of the reference, indicating that the test treatments met the limiting permissible concentration (LPC) for benthic toxicity as defined in the Green Book. The acceptability criterion of ≥80% survivorship was met for all samples.

Neanthes arenaceodentata Mean survival within the *N. arenaceodentata* solid phase test ranged from 90% to 100% (see Exhibit 4-5). Survival within all samples was not statistically different than that of the reference. Mean percent survival in all treatments was within 10% of the reference (100%).

These results show that the solid phase of the material does not cause significant mortality and meets the solid phase toxicity criteria of §227.6(c)(3) and 227.27(b).

Benthic Bioavailability (Bioaccumulation) Evaluations The potential for bioaccumulation of contaminants in the Charleston Harbor sediments was evaluated through 28-day solid phase

Exhibit 4-5. Summary of *A. abdita* and *N. arenaceodentata* Solid Phase Toxicity

		Ampelisca abida % Survival	*Neanthes arenaceodentata* % Survival
Control and Reference	Control	92/93*	100/94*
	RS-CH12-A	91/86*	98/98*
Upper Harbor and Wideners	DANI12	94	100
	DANW12	86	98
	NCW12	94	100
	CCRK12	94	100
	NYNC12	90	98
	PTFC12	94	98
	ORDT12	88	98
Lower Harbor and Wideners	REHR12	89	100
	BENW12	85	92
	HGIS12	91	92
	HGIW12	84	100
	DRMY12	87	100
	WUTB12	84	98
	WRTB12	88	100
	WLR12	89	96
	WLRW12	91	94
Anchorage Basin	ABMA12	95	98
Shem Creek	SHCR12	86	100
Entrance Channel	CHEC12-1	89	92
	CHEC12-2	91	90
	MTPL12	82	92

Source: Tables 22-23 of USACE 2013a
Note: * tests were run in 2 batches. Control and reference was run twice with the 1st / 2nd run reported

tests using *Neanthes virens* (sand worm) and *Macoma nasuta* (bent-nose clam). These species are considered to be good representatives of the phylogenetically diverse base of the marine food chain. The tissue analyte list is described in Exhibit 4-4. As discussed previously, the list of target analytes or contaminants of concern, in tissues, was determined after review of sediment analyses and following coordination with EPA, Region 4.

The US EPA/USACE Evaluation of Dredged Material Proposed for Ocean Disposal (Green Book - Testing Manual) dated February 1991 and describes a process for evaluating bioaccumulation potential using comparative analysis of test sediment bioaccumulation to FDA Action Limits (presently, FDA 2011), reference sediment bioaccumulation, and eight additional factors for assessing the significance of bioaccumulation.

Comparisons to Reference Sediment Bioaccumulation

All project and reference tissue samples have five replicates, and pre-exposure tissues have three replicates. The mean of results of each set of replicates was calculated and compared to the mean of the reference tissue. Mean values of analyte concentrations were calculated as follows:

- For non-detects/U-flagged data, the method detection limit (MDL) was used in all statistical calculations.
- For J-flagged and non-flagged data, the result was used in all statistical calculations.

Mean tissue results for wet weight PAHs were adjusted by multiplying the mean value with the analyte-specific steady state factor. In cases where the mean concentration (or mean adjusted concentration) of an analyte in *N. virens* or *M. nasuta* tissue was found to exceed that of the reference tissue and at least two of the five replicate samples had detected levels of the contaminant (greater than the MRL), a statistical comparison was made using ANOVA and Dunnett's multiple comparisons procedures. The biostatistical software program ToxCalc v5.0.32 (Tidepool Scientific LLC) was used to check for normality and homogeneity of variance. If the distribution was determined to be non-normal or the variances unequal, the data were transformed and the distribution and variances were re-evaluated. If either of these assumptions was not met and a suitable transformation was not found, the data were analyzed using Steel's Many One Rank Test. If no mean tissue contaminant concentration (or mean adjusted concentration) was found to be statistically significantly greater than that of the reference tissue, then no additional analysis was necessary to demonstrate compliance with the LPC (Green Book).

Concentrations of contaminants in tissues of organisms exposed for 28 days to project sediments were compared to concentrations in tissues of organisms exposed for 28 days to reference sediment. The incidences of statistically significant bioaccumulation for each organism resulting from these exposures are described in Exhibits 4-6a through 4-6d.

Exhibit 4-6. Summary of results of bioaccumulation evaluations. Samples with tissue concentrations statistically exceeding the reference following 28 day exposures to test sediments.

Exhibit 4-6a. Summary of mean wet weight metal results for *Neanthes virens* tissue that are statistically greater than the reference tissues.

DU Location	Sample ID	Mean Concentrations (mg/L)						
		Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium
Upper Harbor and Wideners	DANI12			***2.558***			0.257	
	DANW12			***2.288***			0.119	
	NCW12			***2.296***			0.335	
	CCRK12			***2.314***			0.220	
	UH12*			***2.238***			0.245	
	ORDT12			***2.426***			0.104	
Lower Harbor and Wideners	REHR12		0.1114	***2.376***			0.151	
	BENW12		0.0907			0.0228	0.289	
	HGIS12		0.119				0.295	
	HGIW12		0.0918				0.146	
	DRMY12		0.0947				0.166	
	WUTB12						0.209	
	WRTB12						0.160	
	WLR12		0.0969				0.349	
	WLRW12						0.274	
Anchorage Basin	ABMA12				***0.111***			
Shem Creek	SHCR12						0.135	
Entrance Channel	CHEC12-1	0.0396	0.0928				0.133	
	CHEC12-2	0.0401	0.0966				0.164	0.33
	MTPL12	0.0397	0.0926				0.255	
Reference	RS-CH-A	0.0350	0.081	1.72	0.0788	0.0179	0.114	0.28
Pre-exposure	Pre-exposure	0.0284	0.100	1.12	0.0748	0.0168	0.163	0.27
FDA Action Level - polychaetes		3	12	x	1.5	1	70	X
EET- Ecological Effects Threshold – polychaetes		27.8	10.0	0.4	0.1	0.3	2.2	14.2
SABB - South Atlantic Bight Background-polychaetes		0.26-1.8	2.8-7.1	2.5-3.5	0.36-0.60	0.02-0.05	1.6-3.5	1.2-1.9

*UH12 is a composite of NYNC12 and PTFC12

x = No FDA action level or ecological effects threshold for polychaetes published for this parameter.

Entries = The mean concentration in project tissues is statistically (significantly) greater than reference tissues

No entry = tissue concentration was not statistically > reference tissue.

Italicized Values = Indicate significantly different results that are greater than the EET (SERIM Appendix H)

Exhibit 4-6b. Summary of mean wet weight metal results for *Macoma nasuta* tissue statistically greater than the reference (see notes for Exhibit 4-6a).

DU Location	Sample ID	Mean Concentrations (mg/L)												
		Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Upper Harbor and Wideners	DANI12			0.0052	0.0399	0.621	***2.840***		0.0157	0.552	0.43			
	DANW12			0.0074	0.0414	0.755	***2.608***	***0.2113***	0.0156	0.504	0.46		0.0037	
	NCW12	0.0439		0.0055	0.0446	0.574	***2.694***	***0.1379***	0.0165	0.500	0.46			
	CCRK12			0.0065	0.0484	0.712	***2.740***	***0.1856***	0.0152	0.574	0.43			
	UH12*	0.0173		0.0051		0.526	***2.670***		0.0157	0.503	0.41			
	ORDT12			0.0071		0.607	***2.714***	***0.2117***	0.0148	0.414	0.46			
Lower Harbor and Wideners	REHR12			0.0068	0.0433	0.533	***2.608***	***0.1994***	0.0168	0.515	0.42		0.0056	17.1
	BENW12	0.0203	6.012	0.0050	0.0477	0.684		***0.1798***		0.669	0.46		0.0076	
	HGIS12	0.0189	6.092	0.0049	0.0399	0.548		***0.1747***		0.549	0.45			
	HGIW12		6.396	0.0098	0.0397	0.690		***0.2782***		0.587	0.54	0.062	0.0063	
	DRMY12		6.044	0.0066		0.490		***0.2148***		0.478	0.47			
	WUTB12	0.0183	5.378	0.0054	0.0400	0.504		***0.1895***		0.552	0.49			
	WRTB12		6.102	0.0060		0.525		***0.2275***		0.485	0.49			
	WLR12	0.0251	6.054	0.0041	0.0375	0.528		***0.1574***		0.539	0.47			
	WLRW12	0.0207	6.626	0.0042	0.0422	0.485		***0.1651***		0.548	0.49	0.071		
Anchorage Basin	ABMA12		4.40	0.0052	0.0472	0.432	***2.60***	***0.274***		0.456	0.42	0.0454		***21.3***
Shem Creek	SHCR12	0.0303	6.522	0.0075	0.0378	0.484		***0.2576***		0.439	0.47	0.063		
Entrance Channel	CHEC12-1		6.590	0.0087	0.0383	0.594		***0.2457***		0.543	0.49	0.065		
	CHEC12-2	0.0200	5.904	0.0053	0.0707	0.690		***0.1475***		0.643	0.49		0.0090	
	MTPL12	0.0231	5.668	0.0039	0.0535	0.512				0.490	0.43		0.0067	
Reference	RS-CH-A	0.0148	4.13	0.0014	0.0338	0.253	2.21	0.113	0.0117	0.296	0.38	0.0373	0.00056	17.4
Pre-Exposure	Pre-exposure	0.0164	4.94	0.0007	0.0409	0.189	3.12	0.166	0.0125	0.379	0.44	0.0469	0.00044	18.9
FDA Action Level: Bivalves		x	86	x	4	13	x	1.7	1	80	x	X	x	x
Ecological Effects Threshold: Bivalves		x	12.6	x	1.0	6.3	0.2	0.1	0.3	2.2	14.2	1.0	0.3	11.6
South Atl. Bight Background: Bivalves		<0.16	4.4-8.6	<0.19	0.68-2.7	0.4-4.6	1.2-2.9	0.05-0.77	<0.02	0.9-3.7	0.70-1.4	<0.96	<0.10	10-20

Exhibit 4-6c. Summary of mean adjusted wet weight PAH results for *Macoma nasuta* tissues that were statistically greater than reference tissues.

DU Location	Sample ID	Mean Adjusted Concentration (µg/kg)[1]				
		Fluoranthene	Naphthalene	Pyrene	Total HMW PAHs	Total PAHs
Upper Harbor and Wideners	DANI12		**3.3**			
	DANW12					
	NCW12					
	CCRK12					
	UH12*					
	ORDT12	**6.4**			**15**	**25**
Lower Harbor and Wideners	REHR12					
	BENW12					
	HGIS12					
	HGIW12					
	DRMY12	**6.8**			**15**	**24**
	WUTB12	**5.7**			**21**	**55**
	WRTB12	**5.7**			**13**	**22**
	WLR12					
	WLRW12					
Anchorage Basin	ABMA12	**7.0**		**6.1**	**18**	**29**
Shem Creek	SHCR12	**11**		**11**	**27**	**41**
Entrance Channel	CHEC12-1					
	CHEC12-2					
	MTPL12					
Reference	RS-CH-A	2.6	0.72	1.8	6.5	14
Pre-exposure	Pre-Exposure	5.0	0.70	2.6	10	18
FDA Action Level: Bivalves		x	x	x	x	x
Ecological Effects Threshold: Bivalves		8.8	x	x	x	40000
South Atl. Bight Background: Bivalves		<20	<20	<20	60.0	170

*UH12 is a composite of NYNC12 and PTFC12

x = No Ecological Effects Threshold for bivalves published for this parameter.

Entries = The mean concentration in project tissues is statistically (significantly) greater than reference tissues

No entry = tissue concentration was not statistically > reference tissue.

Exhibit 4-6d. Summary of mean wet weight of PBDE, Organotins, and Dioxin/Furan in *M. nasuta* and *N. virens* tissues statistically greater than reference tissues.

DU Location	Sample ID	Mean Concentration					
		PBDE (µg/kg)		Organotins (µg/kg)		Dioxins/Furans (ng/kg)	
		N. virens	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*
Upper Harbor and Wideners	DANI12	--	--	--	--	--	--
	DANW12	--	--	-	--	NS>REF	NS>REF
	NCW12	--	--	NS>REF	NS>REF	--	--
	CCRK12	--	--	--	-	NS>REF	NS>REF
	UH12*	--	--	NS>REF	NS>REF	--	--
	ORDT12	--	--	--	--	NS>REF	NS>REF
Lower Harbor and Wideners	REHR12	--	--	--	--	NS>REF	NS>REF
	BENW12	--	--	--	--	--	--
	HGIS12	--	--	--	--	--	--
	HGIW12	--	--	--	--	NS>REF	NS>REF
	DRMY12	--	--	--	--	--	--
	WUTB12	--	--	NS>REF	NS>REF	NS>REF	Total TEQ -2.88 OCDD – 61.0 Total Hexa-Furans – 4.58 Total Hepta-Furans – 8.03
	WRTB12	--	--	-	-	--	--
	WLR12	PBDE47 1.3	PBDE99 0.31	NS>REF	NS>REF	NS>REF	NS>REF
	WLRW12	-	--	-	-	--	--
Anchorage Basin	ABMA12	-	--	-	-	Total Tetra Furans – 3.78	Total TEQ- 1.97
Shem Creek	SHCR12	-	--	NS>REF	NS>REF	--	--
Entrance Channel	CHEC12-1	-	--	-	-	NS>REF	Total TEQ – 3.09 Total Tetra Dioxins – 1.39 Total Hexa Dioxins – 9.04
	CHEC12-2	--	--	--	--	--	--
	MTPL12	--	--	--	--	--	--
Reference	RS-CH-A	PBDE47 >MRL	PBDE99 >MRL	0.68*	1.1*	TEQ – 0.833	TEQ – 0.48
Pre-exposure	Pre-Exposure	PBDE47 >MRL	PBDE99 >MRL	0.41*	0.25*	TEQ – 0.912	TEQ – 0.39
Ecological Effects Threshold		X	x	52.4 (Tri-BT)	111.4 (Tri-BT)	X	X
South Atl. Bight Background		X	x	x	x	3.01	2.36 – 2.58

*UH12 is a composite of NYNC12 and PTFC12

x = No Ecological Effects Threshold for bivalves published for this parameter.

Entries = The mean concentration in project tissues is statistically (significantly) greater than reference tissues

NS>REF = tissue concentration was not statistically > reference tissue.

* Total organotins as Sn. Analysis of organotins also included n- di- and tri-butyltin cations.

- No analysis this analyte/sample

Comparisons with Food and Drug Administration (FDA) Action Levels for Poisonous or Deleterious Substances in Fish and Shellfish for Human Food

Concentrations of tested metals, PAHs, PBDEs, organotins, and dioxins in test organisms exposed to Charleston Harbor sediments did not exceed FDA Action Limits (see Exhibits 4-6a through 4-6d).

Additional Bioaccumulation Evaluation Factors

Paragraph 6.3 of the 1991 Testing Manual provides factors to assess LPC compliance. Based on the following evaluation, using those factors, the Charleston Harbor sediments meet the LPC for bioaccumulation Parts 227.27(b) and 227.13(c)(3).

Number of species and number of contaminants for which bioaccumulation was important (statistically greater than reference)

Both test species, *Macoma nasuta* and *Neanthes virens,* had statistically significant bioaccumulation (see Exhibits 4-6a through 4-6d). Of the 20 test samples (one bioaccumulation test was a composite of two test samples all had contaminants exceeding the reference. All test tissue samples were analyzed for metals and PAHs but only selected samples were tested for organotins, PBDE, and dioxins and furans.

For the polychaete tests, analytical results from tested dredged material tissue statistically exceeding reference exposures included the metals Cd (3 of 20 samples), Cr (9 samples), Ni (18 samples), Se (1 sample), Cu (7 samples), Hg (1 sample), and Pb (1 sample) for select samples. PBDE 47 was the only PBDE congener and total tetra furan the only dioxin/furan congener that statistically exceeding reference exposure in the polychatets. No PAHs were detected in concentrations greater than the MRL in any of the 20 polychaete tissue test samples.

In the bivalve tests, analytical results from tested dredged material tissue statistically exceeding reference exposures included the metals, As (13 of 20 samples) , Be (19 samples), Cd (15 samples), Cr (19 samples), Pb (17 samples), Ni (20 samples), Se (20 samples), Ag (4 samples), Sb (10 samples), Tl (6 samples), Cu (7 samples), Hg (7 samples), and Zn (1 sample). PAHs statistically exceeding reference exposures included fluoranthene (6 of 20 samples), naphthalene (1 sample), pyrene (1 sample), total PAHs (6 samples), and total HMW PAHs (6 samples). PBDE 99 was the only PBDE congener exceeding reference exposure (PBDEs were tested in one sample only). For the dioxin/furans the TEQ, 3 of 10 test tissues analyzed

statistically exceeded the reference. The dioxin/furan congeners, OCDD, total tetra-dioxins, total hexa-furans, and total hepta-furans statistically exceeded the reference in one sample each.

Magnitude by which bioaccumulation in test sediments exceed reference

The magnitude (percent increase) by which each station's bioaccumulation exceeded the reference material for each organism is given in Exhibits 4-7 and 4-8:

Exhibit 4-7. Relative magnitude (ratio) by which test tissues exceed reference tissues for samples which statistically exceeded reference. Ratio of the test treatment relative to the reference. Values in the ratio were concentrations in wet weights.

		Bioaccumulation									
		Metals		PAH		PBDE		Organotins		Dioxins	
DU	Sample ID	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*
1	CHEC12-1	Cd/1.13 Cr/1.15 Ni/1.17	As/1.59 Be/6.37 Cd/1.13 Cr/2.35 **Pb**/2.18 Ni/1.83 Se/1.31 Ag/1.73	NS>REF	NS>REF	--	--	--	--	NS>REF	TEQ/7.05 Total Tetra-dioxins/5.91 Total Hexa-dioxins/38.47
2	CHEC12-2	Cd/1.14 Cr/1.20 Ni/1.44 Se/1.19	Sb/1.35 As/1.43 Be/3.93 Cd/2.09 Cr/2.73 **Pb**/1.31 Ni/2.17 Se/1.29 Tl/16.12	NS>REF	NS>REF	--	--	--	--	--	--
3	MTPL12	Cd/1.13 Cr/1.15 Ni/2.24	Sb/1.55 As/1.37 Cd/1.58 Cr/2.03 Ni/1.65 Se/1.15 Tl/12.09	NS>REF	NS>REF	--	--	--	--	--	--
4	REHR12	Cr/1.38 **Cu**/1.38 Ni/1.33	Be/5.00 Cd/1.28 Cr/2.11 **Cu**/1.18 **Pb**/1.77 Hg/1.44 Ni/1.74 Se/1.12 Tl/10.00	NS>REF	NS>REF	--	--	--	--	NS>REF	NS>REF
5	HGIS12	Cr/1.47 Ni/2.59	Sb/1.27 As/1.47 Be/3.57 Cd/1.18 Cr/2.17 **Pb**/1.55 Ni/1.85 Se/1.20	NS>REF	NS>REF	--	--	--	--	--	--

DU	Sample ID	Bioaccumulation									
		Metals		PAH		PBDE		Organotins		Dioxins	
		N. virens	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*
6	DRMY12	Cr/1.17 Ni/1.46	As/1.46 Be/4.85 Cr/1.97 Pb/1.90 Ni/1.61 Se/1.25	NS>REF	Fluoranthene/2.64 Total PAHs/1.77 Total HMW PAHs/2.28	--	--	--	--	--	--
7	WLR12	Cr/1.20 Ni/3.07	Sb/1.70 As/1.46 Be/3.04 Cd/1.11 Cr/2.09 Pb/1.40 Ni/1.82 Se/1.24	NS>REF	NS>REF	PBDE 47	PBDE 99	NS>REF	NS>REF	NS>REF	NS>REF
8	WUTB12	Ni/1.83	Sb/1.23 As/1.30 Be/3.99 Cd/1.18 Cr/1.99 Pb/1.68 Ni/1.86 Se/1.30	NS>REF	Fluoranthene/2.21 Total PAHs/4.00 Total HMW PAHs/3.21	--	--	NS>REF	NS>REF	NS>REF	TEQ/6.58 OCDD/3.96 Total Hexa-Furans/50.6 Total Hepta-Furans/13.38
14	BENW12	Cr/1.12 Ni/2.54 Hg/1.27	Sb/1.37 As/1.45 Be/3.65 Cd/1.41 Cr/2.71 Pb/1.59 Ni/2.26 Se/1.21 Tl/13.60	NS>REF	NS>REF	--	--	--	--	--	--
15	HGIW12	Cr/1.14 Ni/1.28	As/1.45 Be/3.65 Cd/1.41 Cr/2.71 Pb/2.47 Ni/1.98 Se/1.42 Ag/1.66 Tl/11.26	NS>REF	NS>REF	--	--	--	--	NS>REF	NS>REF
16	WRTB12	Ni/1.41	As/1.48 Be/4.41 Cr/2.08 Pb/2.02 Ni/1.64 Se/1.29	NS>REF	Fluoranthene/2.21 Total PAHs/1.59 Total HMW PAHs/1.94	--	--	--	--	--	--
18	WLRW12	Ni/2.40	Sb/1.69 As/1.46 Be/3.04 Cd/1.11 Cr/2.09 Pb/1.40 Ni/1.82 Se/1.24 Ag/1.90	NS>REF	NS>REF	--	--	--	--	NS>REF	NS>REF
20	ABMA12	Pb/1.40	As/1.07 Be/3.82 Cd/1.40 Cr/1.71 Cu/1.09 Pb/2.43 Ni/1.54 Se/1.11 Zn/1.22	NS>REF	Fluoranthene/2.69 Pyrene/3.39 Total PAHs/2.07 Total HMW PAHs/2.77	--	--	--	--	Total Tetra Furan/2.95	TEQ/4.50

DU	Sample ID	Bioaccumulation									
		Metals		PAH		PBDE		Organotins		Dioxins	
		N. virens	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*	*N. virens*	*M. nasuta*
21	SHCR12	Ni/1.19	Sb/2.04 As/1.58 Be/5.50 Cr/1.92 **Pb**/2.28 Ni/1.48 Se/1.25 Ag/1.70	NS>REF	Fluoranthene/4.23 Pyrene/6.11 Total PAHs/2.93 Total HMW PAHs/4.15	--	--	NS>REF	NS>REF	--	--
9	DANI12	**Cu**/1.49 Ni/1.83	Be/3.84 Cd/1.18 Cr/2.46 **Cu**/1.29 Hg/1.34 Ni/1.86 Se/1.13	NS>REF	Naphthlene/4.58	--	--	--	--	--	--
10	CCRK12	**Cu**/1.35 Ni/1.93	Be/4.75 Cd/1.43 Cr/2.81 **Cu**/1.24 **Pb**/1.65 Hg/1.30 Ni/1.94 Se/1.14	NS>REF	NS>REF	--	--	--	--	NS>REF	NS>REF
11 /12	UH12*	**Cu**/1.30 Ni/2.15	Sb/1.17 Be/3.74 Cr/2.08 **Cu**/1.21 Hg/1.34 Ni/1.70 Se/1.08	NS>REF	NS>REF	--	--	NS>REF	NS>REF	--	--
13	ORDT12	**Cu**/141	Be/5.21 Cr/2.40 **Cu**/1.23 **Pb**/1.88 Hg/1.27 Ni/1.40 Se/1.23	NS>REF	Fluoranthene/2.46 Total PAH/1.78 Total HMW PAHs/2.31	--	--	--	--	NS>REF	NS>REF
17	DANW12	**Cu**/1.33 Ni/1.05	Be/5.41 Cd/1.22 Cr/2.99 **Cu**/1.18 **Pb**/1.87 Hg/1.34 Ni/1.70 Se/1.21 Tl/6.73	NS>REF	NS>REF	--	--	--	--	NS>REF	NS>REF
19	NCW12	**Cu**/1.33 Ni/2.94	Sb/2.96 Be/4.01 Cd/1.32 Cr/2.27 **Cu**/1.22 **Pb**/1.22 Hg/1.41 Ni/1.69 Se/1.21	NS>REF	NS>REF	--	--	NS>REF	NS>REF	--	--

Notes: - Entry - concentration in tissues statistically > than reference
NS>REF means not statistically greater than the reference.
analyte > EET and/or SABB South Atlantic Bight Background concentration
- analyte not tested in this sample
* UH12 is a composite of PTFC12 and NYNC12

Exhibit 4-8. Average relative magnitude (ratio) by which test sediment exceeds reference for sediments which statistically exceeded reference.

Metals - Ratio of Test to Reference Concentrations				
Metal Analyte	*N virens*		*M nasuta*	
	n =	Avg Ratio	n =	Avg Ratio
Antimony	na	na	10	1.68
Arsenic	na	na	13	1.43
Beryllium	na	na	19	4.30
Cadmium	3	1.13	15	1.34
Chromium	9	1.22	20	2.24
Copper	7	1.37	8	1.21
Lead	1	1.40	16	1.83
Nickel	18	1.88	20	1.78
Selenium	1	1.19	20	1.22
Mercury	1	1.27	7	1.35
Thallium	na	na	6	11.63
Silver	na	na	4	1.75
Zinc	na	na	1	1.22
PAHs - Ratio of Test to Reference Concentrations				
PAH Analyte	*N virens*		*M nasuta*	
	n =	Avg Ratio	n =	Avg Ratio
Fluoranthene	na	na	6	2.74
Naphthalene	na	na	1	4.58
Pyrene	na	na	2	4.75
Total HMW PAHs	na	na	6	2.78
Total PAHs	na	na	6	2.36
Dioxin/Furans - Ratio of Test to Reference Concentrations				
Dioxin Analyte	*N virens*		*M nasuta*	
	n =	Avg Ratio	n =	Avg Ratio
TEQ	na	na	3	2.74
OCDD	na	na	1	3.96
Total Tetra Dioxins	na	na	1	5.91
Total Hexa-Dioxins	na	na	1	38.47
Total Tetra Furans	1	2.95	na	na
Total Hepta-Furans	na	na	1	13.38
Total Hexa Furans	na	na	1	50.6

na – not applicable – no test tissue statistically exceeded reference for this analyte.
n = number of tissues (out of 20 tests) exceeding the reference for a specific analyte

Average concentrations in tissue

The average tissue concentrations and Ecological Non-Specific Effects Threshold (EET) from the SERIM Appendix H for contaminants exceeding reference (metals reported in mg/kg, wet weight; all others in µg/kg) are given in Exhibits 4-6a through 4-6d. Where copper and lead concentrations exceeded the EETs, (in specific samples and organisms) the reference and pre-

exposure tissue concentrations also exceeded the EETs. Zinc in bivalves exposed to Anchorage Basin test sediments exceeded the EET and the reference and pre-exposure tissues did not.

Phylogenetic diversity of the species in which bioaccumulation for the dredged material statistically exceeds bioaccumulation from the reference material

The species tested were *Macoma nasuta and Neanthes virens*. These species were recommended in the 1991 Green Book and the 2008 SERIM. These organisms satisfy the requirements that a burrowing polychaete and a deposit feeding bivalve mollusk be tested. The test organisms are important in the region ecologically, represent species that provide adequate biomass for analysis, and are detritus feeders, which ingest sediments.

Propensity for the contaminants with statistically significant bioaccumulation to biomagnify within the aquatic food webs

Metals and PAHs were the most common analytes exhibiting statistically greater concentrations in test organisms compared to reference organisms. Dioxins and furans were also statistically greater in a few stations as compared to reference.

Many metals show a potential for trophic transfer via uptake from food, but not in sufficient quantities to result in biomagnification. Those metals which show a propensity to biomagnify include arsenic, methylmercury, and perhaps inorganic mercury (Suedel et al., 1994)(USEPA 2000). Specifically, even for copper, lead, and zinc which was found statistically greater than the reference and greater than the Ecological Non-Specific Effects Threshold (EET in Appendix H of SERIM) in several samples, there is little evidence in the literature to support the general occurrence of biomagnification in these constituents (USEPA 2000).

To date, most studies on the biomagnification of PAHs show a tendency toward reverse profiling, suggesting that higher trophic level organisms may actual be metabolizing these compounds (USEPA 2000).

All groups of dioxin-like compounds are persistent in the environment. Patterns of bioaccumulation of the dioxins and furans congeners in aquatic invertebrates, fish, and birds are diverse, and mechanisms controlling all of the observed patterns are not fully explained by the literature. The biokinetics and bioaccumulation of these compounds in marine organisms are not well known. The propensity for biomagnification of these dioxin-like compounds is, therefore, not fully understood.

Bioaccumulation Summary

The bioaccumulation potential of contaminants was evaluated through 28-day solid phase tests using *Macoma nasuta* and *Neanthes virens*. The bioaccumulation potential was evaluated two ways. First the concentrations in the tissues exposed to test treatments were statistically compared to tissues exposed to a reference. Significant differences occurred between the test and reference exposed tissues. Secondly, the magnitude and number of contaminants observed in the test tissues were assessed using available FDA Action Limits, Ecological Non-Specific Effects Thresholds or the EPA Region 4 background tissue concentrations. Based on these evaluations, the dredged material meets the LPC for bioaccumulation and complies with the bioaccumulation aspects of the benthic criteria of Part 227.13(c)(3).

Part 227.7 Limits Established for Specific Wastes of Waste Constituents

The dredged materials to be ocean dumped are not known to contain the following types of wastes:

- Liquid wastes constituents immiscible or slightly soluble in seawater;
- Radioactive materials;
- Wastes containing living organisms that would endanger human health, or that of domestic animals, fish, shellfish and wildlife;
- Wastes that are highly acidic or alkaline;
- Wastes containing biodegradable constituents or constituents which consume oxygen after allowance for initial mixing.

Part 227.8 Limitations on the Disposal Rates of Toxic Wastes

No toxic wastes will be dumped exceeding the limiting permissible concentration LPC as defined in 40 CFR Part 227.27.

Part 227.9 Limitations on Quantities of Waste Materials

Part 227.9 provides that substances that may cause damage to the ocean environment due to the quantities in which they are dumped, or which may seriously reduce amenities, may be dumped only when the quantities to be dumped at a single time and place are controlled to prevent long-term damage to the environment or amenities.

The proposed dredged material would not result in long-term damage to amenities or the environment due to the quantities proposed to be dumped. The Charleston ODMDS has been evaluated and determined to be suitable for ocean disposal of dredged material. The ocean

dumping of dredged material will be in accordance with the Charleston ODMDS Site Monitoring and Management Plan (SMMP). It is therefore concluded that the proposed ocean dumping of Charleston Harbor dredged materials would not cause long-term damage to the marine environment or to amenities.

Part 227.10 Hazards to Fishing, Navigation, Shorelines, or Beaches

Part 227.10 provides that the disposal site and conditions resulting from dredged material disposal must not unacceptably interfere with fishing or navigation and not unacceptably endanger shorelines and beaches. Use of the Charleston ODMDS will be managed to address mounding. The dredged material will be distributed over sufficient area to prevent mounding from being a hazard to navigation. The site provides ample capacity for dredged material disposal (USACE 2005, USACE 2009a). The disposal area appears on NOAA NOS navigation charts.

The proposed ocean disposal will not cause unacceptable interference with fishing or produce unacceptable conditions on shorelines or beaches. The material proposed for ocean disposal is predominately fine-grained material and as such is not suitable for direct placement on shorelines as beachfill material.

Part 227.11 Containerized Wastes

No containerized wastes are to be dumped.

Part 227.12 Insoluble Wastes

The dredged material proposed for ocean dumping consists of naturally occurring sediment materials. These materials are compatible with the ocean environment of the Charleston ODMDS. The majority of materials to be disposed of are fine-grained material. Sediment chemistry testing, bioassays, bioaccumulation testing, and STFATE (ADDAMS) modeling indicates that these materials would be rapidly dispersed or deposited without damage to marine life (e.g., benthic, demersal, or pelagic).

Part 227.13 Dredged Materials

Charleston Harbor dredged materials proposed for ocean dumping have been evaluated in accordance with EPA's Ocean Dumping Regulations and Criteria (40 CFR 220-229) using techniques described in Evaluation of Dredged Material Proposed for Ocean Disposal (Testing Manual/Green Book), February 1991 and the Southeast Regional Implementation Manual

Requirements and Procedures for Evaluation of the Ocean Disposal of Dredged Material in Southeastern Atlantic and Gulf Coast Waters (EPA and USACE 2008). The sampling design was closely coordinated with EPA, Region 4 and included bulk sediment analyses, bioassays, and bioaccumulation evaluations. The results of these sediment evaluations are reported in Charleston Harbor Navigation Improvement Project (Post 45) Dredging MPRSA Section 103 Sediment Testing and Analysis, Charleston, South Carolina, December 2013. The test results indicate that the dredged materials taken from Charleston Harbor are acceptable for ocean disposal under Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, as amended.

Subpart C - Need for Ocean Dumping

Part 227.14 Criteria for Evaluating the Need for Ocean Dumping and Alternatives for Ocean Dumping

A determination of the need for the proposed ocean dumping was made on the guidelines specified in 40 CFR Part 227 Subpart C. A DMMP Preliminary Assessment and Environmental Assessment from (USACE 2009a, 2009b) both discuss the need for ocean disposal and any available alternatives. This information is cited above in section 4.0 of this report. Ocean disposal is the most cost-effective, and the only long-term disposal solution for material from the lower reaches and entrance channel of Charleston Harbor.

Part 227.15 Factors Considered in Determination of Need for Ocean Dumping

a. Degree of treatment useful and feasible for the waste to be ocean dumped: No treatment for the dredged material to be ocean dumped is needed, nor is it feasible. The dredged material is naturally occurring material deposited from riverine sedimentation.

b. Raw materials and manufacturing or other processes resulting in waste: Not applicable.

c. Other feasible alternatives:

1. Landfill (diked upland disposal) – Although confined disposal does occur in Charleston Harbor, the sites do not have enough capacity to manage all the material from Charleston Harbor. Disposal on land is a limited resource and must be properly managed. No other long term dredged material disposal option is available.
2. Beachfill – The Charleston Lower Harbor and Entrance Channel material are fine-grained sediments, and are unacceptable for use as beachfill.
3. Well Injection – Not applicable
4. Incineration – Not applicable

5. Spread material over the open ground – Not applicable
6. Recycling of material for reuse – The large volumes of fine-grained materials produced each year and the high water content make significant reuse expensive and unlikely.
7. Additional biological, chemical, or physical treatment of intermediate or final waste – Not applicable
8. Storage – The temporary storage of dredged materials for later beneficial use is not feasible due to the large annual volumes. No economic or environmental advantages are obtained with storage.

d. Irreversible or irretrievable consequences of the use of alternatives to ocean dumping: No environmentally acceptable or economically feasible alternatives to ocean dumping are available. Existing confined upland disposal is very limited due to capacity constraints and currently, acceptable lands do not exist for the creation of new confined disposal sites. Creation of new upland disposal sites would dedicate large upland areas for that use. This would alter a large expanse of valuable wetland habitat in an area of Charleston where there is extensive upland development.

Part 227.16 Basis For Determination of Need for Ocean Dumping

The previous section addresses this determination. Additionally, there are no practical improvements which can be made in process technology or overall waste treatment to reduce the adverse impacts of the waste on the total environment. There are also no practicable alternative locations and methods of disposal or recycling available which have less environmental impact or potential risk to other parts of the environment than ocean dumping.

Subpart D. Impact of the Proposed Dumping on Aesthetic, Recreational, and Economic Values

Part 227.17 Basis for Determination

The impact of the proposed dumping on aesthetic, recreational, and economic values of the ocean environment were evaluated according to factors in 40 CFR Part 227 Subpart D. Ocean disposal will occur at the Charleston ODMDS. The impacts of use of this ocean disposal of dredge material site are addressed in Final Environmental Assessment: Additional Advanced Maintenance, Charleston Harbor, South Carolina, August 2009. The results of the sediment evaluations are provided in Charleston Harbor Navigation Improvement Project (Post 45) Dredging MPRSA Section 103 Sediment Testing and Analysis, Charleston, South Carolina, December 2013.

Part 227.18 Factors Considered

The following factors were considered in the assessment of the impacts of the proposed ocean dumping on aesthetic, recreational, and economic values of the marine environment.

a. Nature and extent of present and potential recreational and commercial use of areas which may be affected by the proposed dumping: The proposed ocean dumping will not effect present or potential recreational or commercial uses of the marine environment.

b. Existing water quality, and nature and extent of disposal activities, in areas which might be affected by the proposed dumping: The disposal of dredged material will locally and temporarily increase water column turbidity. The suspended sediment material is expected to quickly settle to the bottom following release from the dredge. This temporary increase in turbidity is not expected to have adverse impacts on aesthetic, recreational, and economic values of the marine environment including ocean waters, inshore waters, beaches, and shorelines.

c. Applicable water quality standards: Applicable water quality standards in the ocean disposal area will not be contravened. See the Water Column Determinations above.

d. Visible characteristics of the materials which could result in unacceptable aesthetic nuisance in recreational areas: See response to Part 227.18 (b).

e. Presence in the material of pathogenic organisms which may cause a public health hazard either directly or through contamination of fisheries or shellfisheries: Pathogenic organisms are not known to occur in Charleston Harbor dredged materials.

f. Presence in the material of toxic chemical constituents released in volumes which may affect humans directly: The dredged materials proposed for ocean dumping do not contain chemical constituents which could be released in volumes that may adversely affect humans.

g. Presence in the material of chemical constituents which may be bioaccumulated or persistent and may have adverse effect on humans directly or through food chain interactions: Testing in accordance with the 1991 Testing Manual indicates that these sediments meet the criteria established in EPA's Ocean Dumping Regulations and Criteria for environmental acceptability for ocean dumping.

h. Presence in the material of any constituents which might significantly affect living marine resources of recreational or commercial value: The materials proposed for ocean dumping are naturally occurring sedimentary materials which are similar to the materials which occur in the disposal site. Constituents which might adversely affect living marine resources are not known to be present in quantities which would harm marine resources.

Part 227.19 Assessment of Impact

The proposed ocean disposal of dredged material is not expected to have significant adverse impacts on recreational use, and values of ocean waters, inshore waters, beaches, and shorelines. The proposed ocean dumping is not expected to adversely affect recreational and commercial values of living marine resources. The impacts of the ocean dumping to aesthetic resources of the marine environment, including ocean waters, inshore waters, beaches, and shorelines, will be minor and insignificant. The disposal of dredged material will locally and temporarily increase water column turbidity. Disposal models indicate that the dredged material will quickly settle to the bottom following release from the dredge. The material to be ocean dumped does not contain chemical constituents or known pathogenic organisms that would be released in volumes which may affect humans or marine resources of recreational or commercial value either directly or through food chain interactions. Previous disposal of Charleston Harbor dredged materials within the Charleston ODMDS have not resulted in unacceptable impacts to the marine environment.

Subpart E Impact of the Proposed Dumping on Other Uses of the Ocean

Part 227.20 Basis for Determination

An evaluation was made of the impact of the proposed dumping on long-term impacts on other uses of the ocean in accordance with criteria established in 40 CFR Part 227 Subpart E. The other uses defined in this section are specific uses of the ocean rather than overall aesthetic, recreational, and economic values discussed in Subpart D.

Part 227.21 Uses Considered

	Use	Expected Impact
a.	Commercial fishing in open ocean areas	None
b.	Commercial fishing in coastal areas	None
c.	Commercial fishing in estuarine areas	None
d.	Recreational fishing in open ocean areas	None
e.	Recreational fishing in coastal areas	None
f.	Recreational fishing in estuarine areas	None
g.	Recreational use of shoreline and beaches	None
h.	Commercial navigation	None
i.	Recreational navigation	None
j.	Actual or anticipated exploitation of living marine resources	None
k.	Actual or anticipated exploitation of non-living marine resources	None
l.	Scientific research and study	None

Part 227.22 Assessment of Impact

The proposed ocean dumping of dredged material is not expected to have significant adverse impacts on other uses of the ocean, considering both temporary and long-term effects. Based on the above review, the dredged material meets the criteria for acceptability established in 40 CFR Part 227, provided all material is handled in accordance with the approved Charleston ODMDS SMMP.

5.0 OVERALL CONCLUSION AND FINDING

Based on this review and the results of testing of sediments proposed for dredging and ocean disposal, the material meets the criteria for acceptability established in 40 CFR Part 227. This review deals specifically with maintenance of the existing Charleston Harbor Federal Navigation Project and the Charleston Harbor Navigation Improvement Project (Post 45). This Section 103 Evaluation addresses the transportation for ocean disposal of dredged material from any authorized portion of Charleston Harbor federal navigation channel, either maintenance or new work (navigation improvements) – extending from the entrance channel, upstream to the Port Terminal in the Cooper River. Disposal would be in the Charleston ODMDS. The project construction contract specifications will contain conditions to insure disposal is in compliance with the current Charleston ODMDS Site Management and Monitoring Plan (SMMP).

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Figures

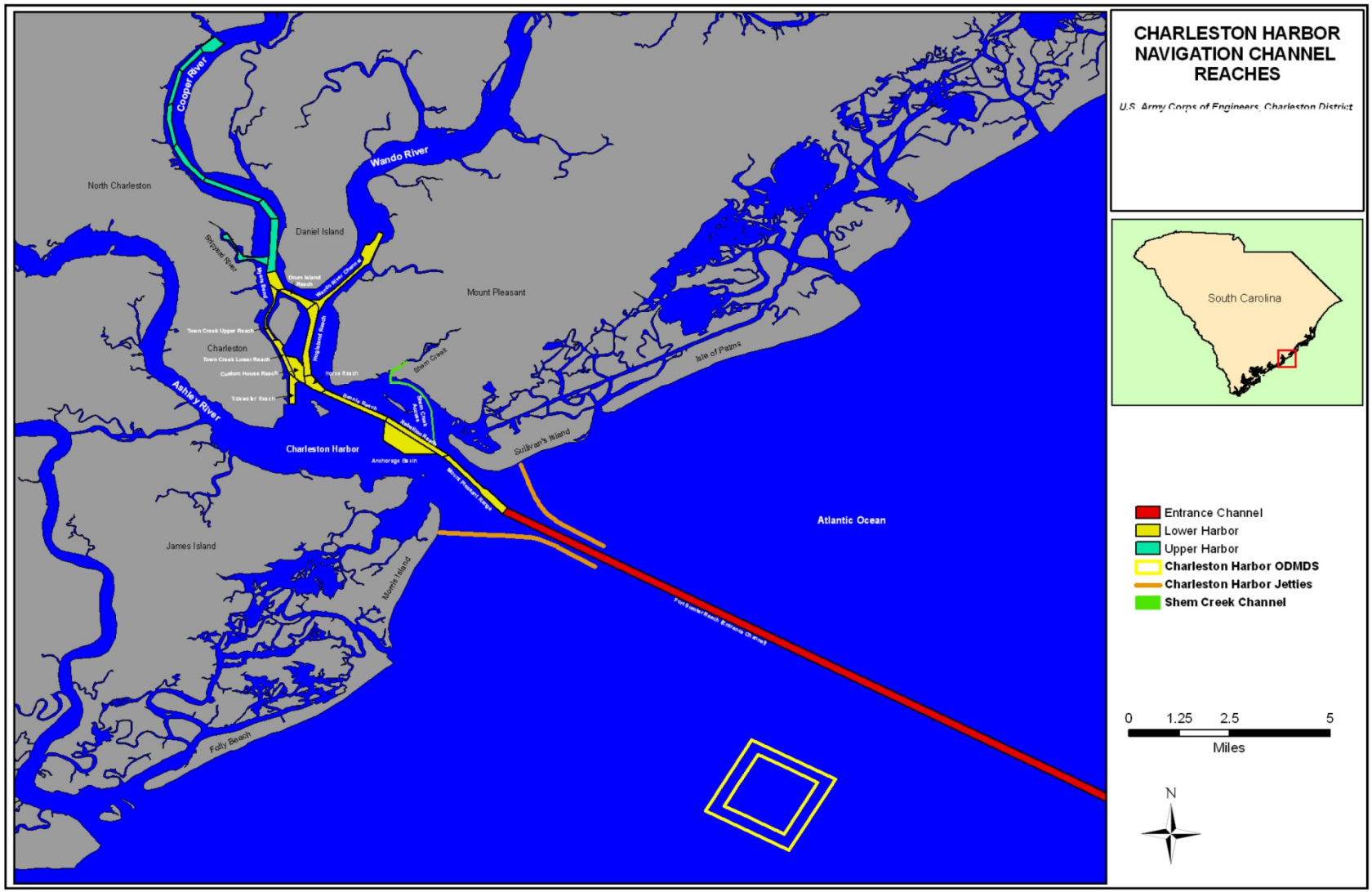


Figure 1: Charleston Harbor Navigation Channel Reaches and ODMDS

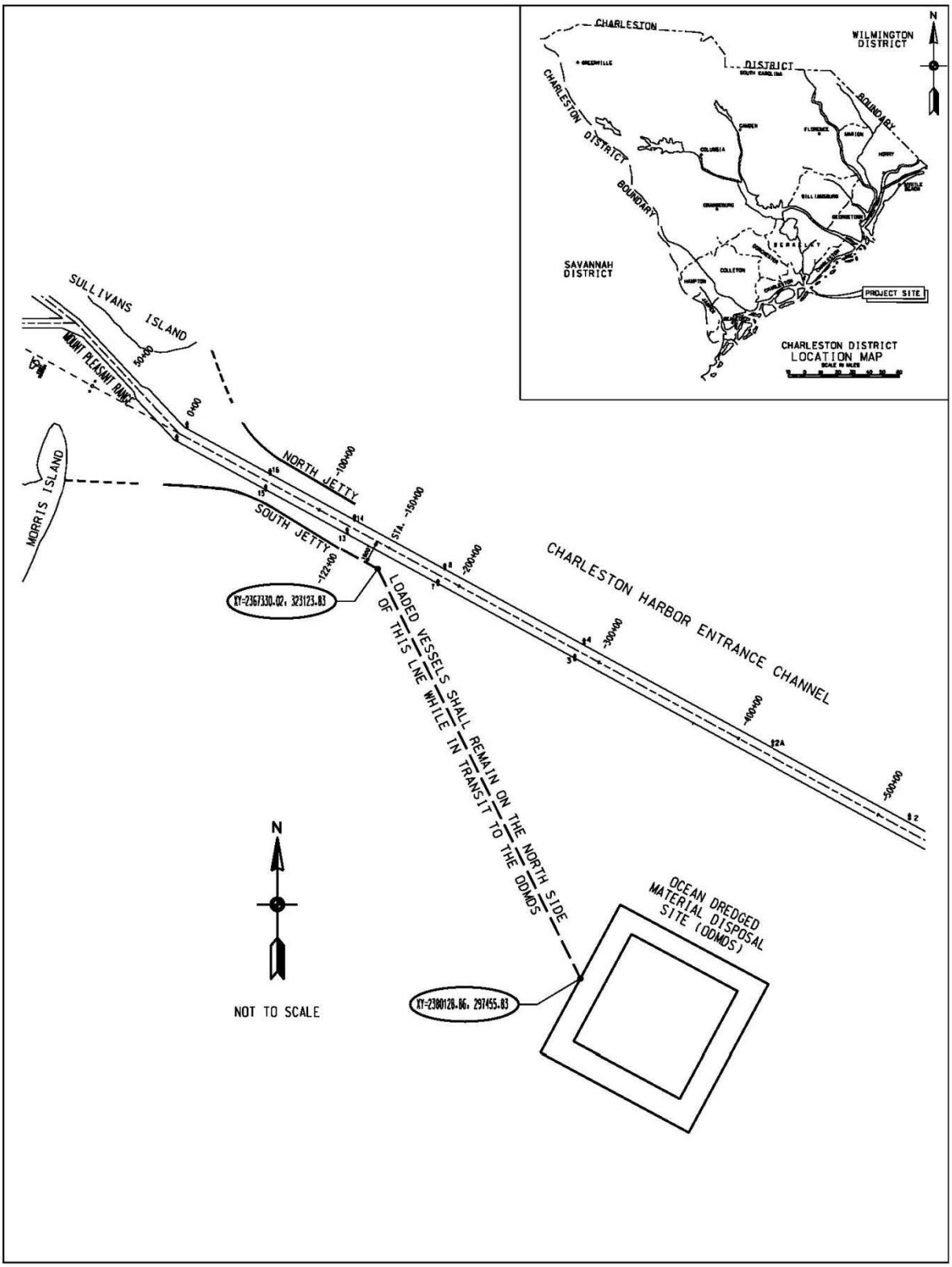
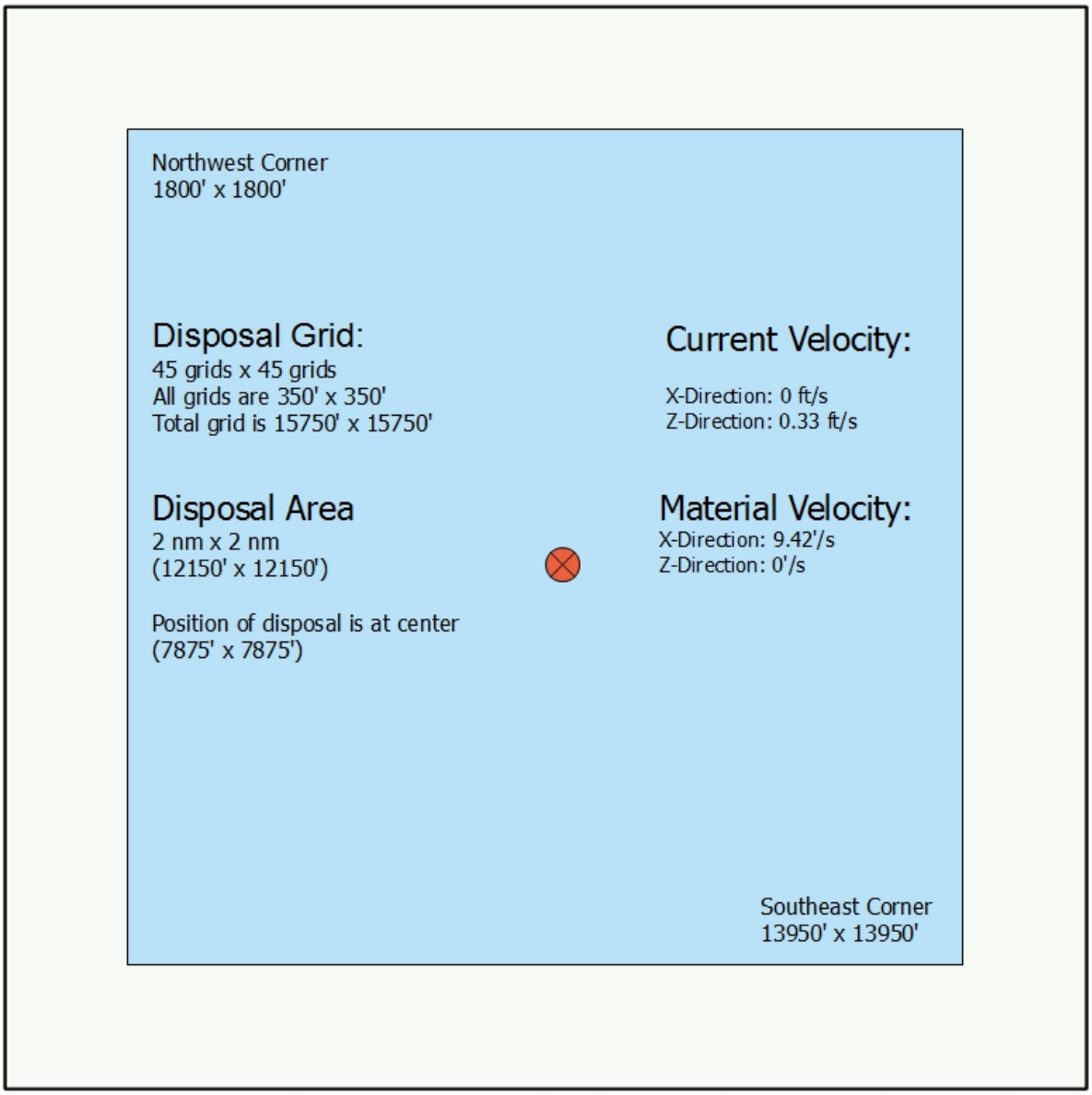


Figure 2: Location of Charleston ODMDS

Charleston ODMDS Disposal Map

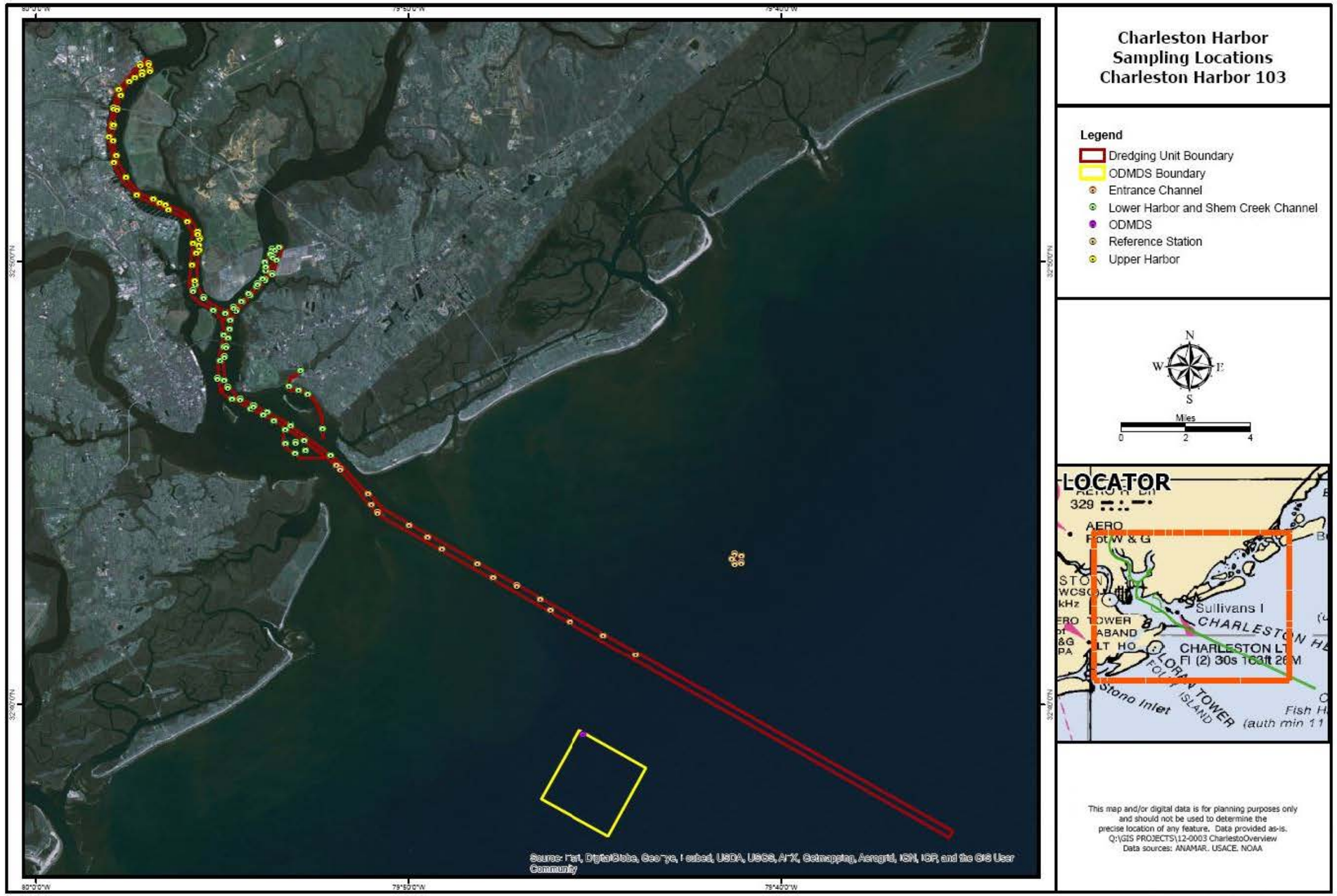


All samples may be disposed at center of the ODMDS. All upper harbor and lower harbor dredge material may be disposed up to a total of 9,000 cubic yards for each disposal trip. All entrance channel dredge material may be disposed up to a total of 13,500 cubic yards for each disposal trip.

Figure 3: Charleston ODMDS Disposal Map

Appendices

Appendix A: Charleston Harbor Sampling Locations



Appendix B: Events Possibly Influencing Charleston Harbor Federal Navigation Project Sediment Chemistry or Bioassay Results
Source: http://www.nrc.uscg.mil/foia.html

View Report	Materials Page	NRC Report #	Type of Call	Date/Time Received	Description Of Incident	Type Of Incident	Incident Cause	Incident Date/Time	Location
893856	893856	893856	INCIDENT	1/2/2009 16:58	CALLER IS REPORTING A RELEASE OF CRUDE OIL. THE OIL APPEARED TO BE FROM RESIDUE OF A PREVIOUS OIL SPILL WHICH WAS TRAPPED UNDER THE VESSEL. THE MATERIAL WENT ONTO A DRY DOCK DURING MAINTENANCE WHEN WORKERS NOTICED THE HEAVY OIL. NO WATERWAYS WERE AFFECTED BUT BOOMS WERE DEPLOYED AS A SAFETY MEASURE.	AIRCRAFT	OTHER	1/2/2009 15:30	1670 DRY DOCK AVE
894584	894584	894584	INCIDENT	1/12/2009 9:27	CALLER IS REPORTING AN UNKNOWN SHEEN (BELIEVED TO BE MOTOR OIL) AT PATRIOT'S POINT IN THE COOPER RIVER.	FIXED	UNKNOWN	1/12/2009 9:00	UNKNOWN SHEEN INCIDENT IN THE COOPER RIVER
894587	894587	894587	INCIDENT	1/12/2009 9:34	CALLER IS REPORTING AN UNKNOWN SHEEN IN WANDO RIVER.	FIXED	UNKNOWN	1/12/2009 9:35	PATRIOT'S MARINA
895400	895400	895400	INCIDENT	1/21/2009 11:52	THE CALLER REPORTED THAT A SMALL LEAK WAS DISCOVERED ON A FUEL OIL FACILITY LINE. THE CAUSE IS STILL BEING INVESTIGATED.	FIXED	UNKNOWN	1/21/2009 11:35	1500 GREENLEAF ST
895913	895913	895913	INCIDENT	1/26/2009 17:55	CALLER IS REPORTING AN UNKNOWN SHEEN SIGHTING. EXACT SOURCE OF THE SHEEN IS UNKNOWN AT THIS TIME. CALLER WAS NOTIFIED OF THE SHEEN DISCOVERY AT 1745 EST.	FIXED	UNKNOWN	1/26/2009 17:45	ON THE COOPER RIVER, IN CHARLESTON HARBOR COLUMBUS ST. TERMINAL #2
896747	896747	896747	DRILL	2/6/2009 10:53	///THIS IS A DRILL///100 GALLONS OF DIESEL FUEL WAS RELEASED ON THE USCG SECTOR CHARLESTON PIER FROM A REFUELING TANK WHEN A GOVERNMENT VEHICLE STRUCK THE REFUELING STATION.	FIXED	OPERATOR ERROR	2/6/2009 10:40	USCG SECTOR CHARLESTON PIER 196 TRADD STREET
896820	896820	896820	INCIDENT	2/7/2009 5:31	CALLER IS REPORTING A POTENTIAL RELEASE OF METHANOL, METHYL MERCAPTAN, HYDROGEN SULFIDE TO THE FLARE DUE TO A POWER OUTAGE. CALLER IS UNSURE IF THERE HAS BEEN A RELEASE, BUT IS IN ROUTE TO INVESTIGATE THE INCIDENT.	FIXED	EQUIPMENT FAILURE	2/7/2009 5:16	5600 VIRGINIA AVE.
896820	896820	896820	INCIDENT	2/7/2009 5:31	CALLER IS REPORTING A POTENTIAL RELEASE OF METHANOL, METHYL MERCAPTAN, HYDROGEN SULFIDE TO THE FLARE DUE TO A POWER OUTAGE. CALLER IS UNSURE IF THERE HAS BEEN A RELEASE, BUT IS IN ROUTE TO INVESTIGATE THE INCIDENT.	FIXED	EQUIPMENT FAILURE	2/7/2009 5:16	5600 VIRGINIA AVE.
896820	896820	896820	INCIDENT	2/7/2009 5:31	CALLER IS REPORTING A POTENTIAL RELEASE OF METHANOL, METHYL MERCAPTAN, HYDROGEN SULFIDE TO THE FLARE DUE TO A POWER OUTAGE. CALLER IS UNSURE IF THERE HAS BEEN A RELEASE, BUT IS IN ROUTE TO INVESTIGATE THE INCIDENT.	FIXED	EQUIPMENT FAILURE	2/7/2009 5:16	5600 VIRGINIA AVE.
897323	897323	897323	INCIDENT	2/12/2009 15:46	A PAD-MOUNTED TRANSFORMER WAS DISCOVERED LEAKING OIL.	FIXED	EQUIPMENT FAILURE	2/12/2009 15:30	3482 MOUNTAIN BROOK AVE
897323	897323	897323	INCIDENT	2/12/2009 15:46	A PAD-MOUNTED TRANSFORMER WAS DISCOVERED LEAKING OIL.	FIXED	EQUIPMENT FAILURE	2/12/2009 15:30	3482 MOUNTAIN BROOK AVE
897833	897833	897833	INCIDENT	2/18/2009 11:16	THE CALLER IS REPORTING THAT THEY WERE WORKING ON A VESSEL IN DRYDOCK AND A DISCHARGE OF 15 GALLONS OF AN UNKNOWN FUEL WAS DISCOVERED. THE FUEL DISCHARGED ONTO THE DRYDOCK AREA.	FIXED	UNKNOWN	2/18/2009 10:45	DRYDOCK 2 DETYENS SHIP YARDS 1670 DRYDOCK AVE

View Report	Materials Page	NRC Report #	Type of Call	Date/Time Received	Description Of Incident	Type Of Incident	Incident Cause	Incident Date/Time	Location
897918	897918	897918	INCIDENT	2/19/2009 8:06	THE CALLER REPORTED THAT THERE IS A SHEEN IN THE WATER. SOURCE IS UNKNOWN AT THIS TIME	FIXED	UNKNOWN	2/19/2009 7:30	COOPER RIVER, PIER P CHARLESTON NAVAL COMPLEX
898139	898139	898139	INCIDENT	2/21/2009 17:24	CALLER IS REPORTING A RELEASE OF ASPHALT FROM A TRANSFER PIPELINE DUE TO AN UNKNOWN PRESSURE BUILD UP WHICH BLEW OUT THE PIPELINE GAGE CAUSING A RUPTURE. THE RELEASE WENT ONTO THE DOCK AND INTO THE RIVER. THE ESTIMATED RELEASE IS ANYWHERE FROM 20 TO 40 GALLONS.	FIXED	EQUIPMENT FAILURE	2/21/2009 16:50	1801 MILFORD STREET DOCK NO.1 SHIPYARD RIVER CREEK
898345	898345	898345	INCIDENT	2/24/2009 13:12	THE CALLER IS REPORTING THAT THE DOT FOUND 1 ABANDONED 55 GAL DRUM ON THE SIDE OF THE ROAD ON I-526 TOWARDS SAVANNAH, RIGHT BEFORE THE ASHLEY RIVER. THE MATERIAL IS UNKNOWN. THE DRUM HAS BEEN FOUND ONLY 5FT AWAY FROM A DRAINAGE DITCH THAT IS APPROX. 500 YARDS AWAY FROM THE ASHLEY RIVER, CHARLESTON SC.	FIXED	UNKNOWN	2/23/2009 16:30	1-526 SOUTH END OF ASHLEY RIVER
899012	899012	899012	INCIDENT	3/4/2009 10:27	THE CALLER IS REPORTING A POTENTIAL RELEASE OF CHROMATED COPPER ARSENATE FROM A 20 FOOT BOX CONTAINER LOCATED AT THE PORT OF CHARLESTON. THE CALLER STATED THERE IS A SMALL STAIN ON THE ASPHALT, BUT THEY CANNOT CONFIRM THIS IS FROM THE CONTAINER INVOLVED. A RESPONSE CONTRACTOR IS EN ROUTE.	FIXED	EQUIPMENT FAILURE	3/4/2009 10:20	WANDO TERMINAL AT THE PORT OF CHARLESTON
899118	899118	899118	INCIDENT	3/5/2009 10:59	CALLER IS REPORTING AN UNKNOWN MATERIAL LEAKING FROM ONE CONTAINER TO ANOTHER CONTAINER DUE TO UNKNOWN CAUSES.	FIXED	UNKNOWN	3/5/2009 10:50	WANDO TERMINAL COOPER RIVER
899253	899253	899253	INCIDENT	3/6/2009 15:15	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	FIXED	UNKNOWN	3/6/2009 15:10	UNKNOWN SHEEN INCIDENT 17 LOCKWOOD DRIVE
899617	899617	899617	INCIDENT	3/11/2009 8:24	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED IN THE COOPER RIVER FROM UNKNOWN SOURCES.	FIXED	UNKNOWN	3/11/2009 8:20	UNKNOWN SHEEN INCIDENT 1670 DRYDOCK AVE COOPER RIVER
899749	899749	899749	INCIDENT	3/12/2009 11:49	THERE IS A CONTAINER LEAKING AN UNKNOWN MATERIAL ON THE DECK CONTAINER VESSEL THE OOCL BUSAN. THE VESSEL IS CURRENTLY EN ROUTE TO NORTH CHARLESTON SOUTH CAROLINA FROM NORFOLK VIRGINIA.	FIXED	UNKNOWN	3/12/2009 9:00	NORTH CHARLESTON TERMINAL
900684	900684	900684	INCIDENT	3/23/2009 12:31	CALLER IS REPORTING THAT FLAMMABLE LIQUID NOS RELEASED FROM A TANK DUE TO A MAN WEIGHT COVER GASKET MISSING.	FIXED	OTHER	3/23/2009 10:30	MILE POST: SC7- 2200 RICH ST.
900696	900696	900696	INCIDENT	3/23/2009 14:06	CALLER STATED A DOCKHAND DISCOVERED A WET PATCH OF DIESEL FUEL NEAR THE FUEL TANK AT THEIR FACILITY. THIS WAS LOCATED IN THE PARKING LOT FROM AN UNKNOWN ORIGIN.	FIXED	UNKNOWN	3/22/2009 20:00	20 PATRIOT'S POINT ROAD
901457	901457	901457	DRILL	3/31/2009 15:27	///THIS IS A DRILL///CALLER REPORTED THAT WHILE TRANSFERRING FUEL BETWEEN TANKS AT PIER UNIFORM, A TANK HAD AN AIR POCKET IN IT, AND THE FUEL VENT BAG DIDN'T CONTAIN ALL THE FUEL, LEADING TO A SPILL OF DIESEL FUEL INTO THE COOPER RIVER.///THS IS A DRILL///	FIXED	EQUIPMENT FAILURE	3/31/2009 14:15	BUOY 50
901608	901608	901608	DRILL	4/2/2009 10:05	///DRILL REPORT///NO 2 DIESEL FUEL DISCHARGED FROM A MEGADOCK INTO THE ASHLEY RIVER DUE TO VESSEL OVER FILLING.	FIXED	OPERATOR ERROR	4/2/2009 10:00	17 LOCKWOOD DR
901632	901632	901632	INCIDENT	4/2/2009 13:01	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED ON THE COOPER RIVER.	FIXED	UNKNOWN	4/2/2009 12:00	UNKNOWN SHEEN INCIDENT 1670 DRY DOCK AVE COOPER RIVER

View Report	Materials Page	NRC Report #	Type of Call	Date/Time Received	Description Of Incident	Type Of Incident	Incident Cause	Incident Date/Time	Location
903147	903147	903147	INCIDENT	4/19/2009 12:13	THE CALLER IS REPORTING THAT DURING FUELING, THE BOAT WAS OVERFILLED AND 3 GALLONS OF DIESEL FUEL SPILLED INTO THE ASHLEY RIVER.	FIXED	OPERATOR ERROR	4/19/2009 12:10	17 LOCKWOOD DR
903348	903348	903348	INCIDENT	4/21/2009 13:37	CALLER IS REPORTING THAT A CONTAINER (FREIGHT OF ALL KINDS) IS LEAKING MATERIAL ONTO THE ROAD. MATERIAL THAT IS POSSIBLY LEAKING IS COATING SOLUTIONS (7 PALLETS, CLASS 3 HAZMAT MATERIAL).	FIXED	EQUIPMENT FAILURE	4/21/2009 12:30	COLUMBUS STREET TERMINAL 1 IMMIGRATION STREET
903579	903579	903579	INCIDENT	4/23/2009 14:35	CALLER IS REPORTING AN UNKNOWN SHEEN SIGHTING. THE EXACT SOURCE IS UNKNOWN.	FIXED	UNKNOWN	4/23/2009 14:20	DOCK NUMBERS C-3, C-5, C-9 20 PATRIOT'S POINT ROAD
903775	903775	903775	INCIDENT	4/25/2009 15:56	SMALL PLANE CRASH IN ICW NEAR THE BEN SAWYER BRIDGE AND PITT ST. IN MT PLEASANT, SC	FIXED	UNKNOWN	4/25/2009 14:38	INTRACOASTAL WATERWAY MT PLEASANT, SC
904680	904680	904680	INCIDENT	5/5/2009 15:04	CALLER REPORTED A VESSEL WAS CLEANING THEIR BILGE PUMPS AND SPILLED SOME MATERIALS INTO THE WATER.	FIXED	OPERATOR ERROR	5/5/2009 13:39	DEYTON SHIPYARD OLD NAVY BASE
904681	904681	904681	INCIDENT	5/5/2009 15:08	CALLER IS REPORTING A DISCHARGE OF AN UNKNOWN OIL FROM THE HULL ON THE VESSEL DUE TO AN UNKNOWN CAUSE AT THIS TIME. TIME OF INCIDENT: 1340 CDT.	FIXED	UNKNOWN	5/5/2009 13:40	OLD NAVY SHIP YARD, DRY DOCK #1
904908	904908	904908	INCIDENT	5/7/2009 16:41	CALLER IS REPORTING A STORAGE CONTAINER IS LEAKING MOTOR OIL ON TO THE GROUND DUE TO UNKNOWN CAUSES.	FIXED	EQUIPMENT FAILURE	5/7/2009 15:00	4350 GOER DRIVE
905167	905167	905167	INCIDENT	5/10/2009 10:56	THE CALLER IS REPORTING AN UNKNOWN SHEEN DUE TO UNKNOWN CAUSES IN ADAMS CREEK.	FIXED	UNKNOWN	5/10/2009 10:30	UNKNOWN SHEEN INCIDENT 6970 MAYBANK HWY
905368	905368	905368	INCIDENT	5/12/2009 11:16	CALLER IS REPORTING AN UNKNOWN SHEEN JUST OFF THE INTERCOASTAL WATERWAY FROM AN UNKNOWN SOURCE.	FIXED	UNKNOWN	5/12/2009 11:15	UNKNOWN SHEEN INCIDENT/NEAR ISLE OF PALMS MARINA
906006	906006	906006	INCIDENT	5/19/2009 7:52	CALLER IS REPORTING A RELEASE OF DIESEL FUEL FROM AN OVERTURNED BUCKET ON A BOAT. CALLER STATED OWNER ACCIDENTALLY KNOCKED OVER A BUCKET THAT CONTAINED OIL ABSORBENT PADS INTO THE WATER WHICH CAUSED A SHEEN.	FIXED	OPERATOR ERROR	5/19/2009 7:45	17 LOCKWOOD DR
906638	906638	906638	INCIDENT	5/26/2009 6:18	CALLER STATED DUE TO A POSSIBLE BAD CHECK VALVE THERE WAS A SPILL OF MATERIALS FROM A SURGE TANK AT THE WASTE WATER TREATMENT SYSTEM AT THE FACILITY.	FIXED	EQUIPMENT FAILURE	5/26/2009 6:00	2151 KING STREET EXT.
908298	908298	908298	INCIDENT	6/11/2009 15:36	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED IN THE ASHLEY RIVER AT THE CHARLESTON, SOUTH CAROLINA USCG SMALL BOAT STATION.	FIXED	UNKNOWN	6/11/2009 15:30	UNKNOWN SHEEN INCIDENT 196 TRADD STREET ASHLEY RIVER
908495	908495	908495	INCIDENT	6/13/2009 20:05	CALLER REPORTED AN UNKNOWN SHEEN COMING FROM AN UNKNOWN SOURCE.	FIXED	UNKNOWN	6/13/2009 20:00	BRISTOL MARINA LOCKWOOD BLVD

View Report	Materials Page	NRC Report #	Type of Call	Date/Time Received	Description Of Incident	Type Of Incident	Incident Cause	Incident Date/Time	Location
908511	908511	908511	INCIDENT	6/14/2009 8:51	A COMBINATION TRUCK WITHOUT THE TRAILER FLIPPED OVER SPILLING APPROXIMATELY 50-100 GAL. OF DIESEL FUEL ON OLD JACKSONBOROUGH RD.	FIXED	TRANSPORT ACCIDENT	6/13/2009 23:15	OLD JACKSONBOROUGH RD. 6170 OLD JACKSONBOROUGH RD.
910013	910013	910013	INCIDENT	6/28/2009 13:24	CALLER IS REPORTING AN UNKNOWN SHEEN BULLS BAY FROM AN UNKNOWN SOURCE.	FIXED	UNKNOWN	6/28/2009 13:15	UNKNOWN SHEEN INCIDENT
910082	910082	910082	DRILL	6/29/2009 11:52	////DRILL////CALLER IS REPORTING THAT THE TUG ELIZABETH TURECAMO WAS INVOLVED IN AN ALLISION WITH A BUOY RUPTURING A FUEL TANK. THIS RESULTED IN THE DISCHARGE OF DIESEL FUEL INTO THE COOPER RIVER.////DRILL////	FIXED	OPERATOR ERROR	6/29/2009 11:30	RANGE A OF THE COOPER RIVER
910421	910421	910421	INCIDENT	7/2/2009 7:22	CALLER STATED WHILE TAKING ON FUEL A VALVE ON THE CUTTER OAK WAS OPEN DUE TO UNKNOWN CAUSES AND DISCHARGED NO. 2 DIESEL FUEL INTO THE COOPER RIVER.	FIXED	UNKNOWN	7/2/2009 7:15	PIER P 1050 REGISTAR ST.
910629	910629	910629	INCIDENT	7/4/2009 14:11	CALLER IS REPORTING AN UNKNOWN SHEEN SUSPECTED TO BE DIESEL IN THE MARINA.	FIXED	UNKNOWN	7/4/2009 13:45	UNKNOWN SHEEN INCIDENT 17 LOCKWOOD DR
910681	910681	910681	INCIDENT	7/5/2009 13:35	CALLER STATED THE M/V HAILEY MARIE WAS DISCHARGING OIL FORM ITS BILGE INTO THE WATER DUE TO UNKNOWN CAUSES.	FIXED	UNKNOWN	7/5/2009 13:15	FAULEY CREEK AT COSBY'S SEAFOOD
911771	911771	911771	INCIDENT	7/16/2009 12:48	THE CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	FIXED	UNKNOWN	7/16/2009 12:37	UNKNOWN SHEEN INCIDENT 20 PATRIOT'S POINT ROAD
911823	911823	911823	INCIDENT	7/17/2009 2:03	CALLER IS REPORTING THAT THE SUSPECTED RESPONSIBLE PARTY WAS USING A GENERATOR WITH A HOSE GOING UNDER THE BUILDING AND ANOTHER HOSE FROM THE GENERATOR INTO THE STORM DRAIN. THE CALLER IS REPORTING THAT RAW SEWAGE IS BEING PUMPED FROM THE BUILDING INTO THE STORM DRAIN.	FIXED	DUMPING	7/17/2009 1:45	EAST BAY AND CUMBERLAND STREET 209 EAST BAY STREET
912446	912446	912446	INCIDENT	7/23/2009 9:45	CALLER IS REPORTING AN UNKNOWN SHEEN IN THE WATER FROM AN UNKNOWN SOURCE.	FIXED	UNKNOWN	7/23/2009 9:40	UNKNOWN SHEEN INCIDENT///CHARLESTON CITY MARINA 17 LOCKWOOD DR
912709	912709	912709	INCIDENT	7/25/2009 12:56	CALLER REPORTING AN INDIVIDUALS VESSELS HAS STRUCK A CSX DRAWBRIDGE OVER THE ASHLEY RIVER. THIS HAS CAUSED AN UNDETERMINED AMOUNT OF DAMAGE AT THIS TIME. THIS HAS CAUSED A BLOCKAGE OF MOVEMENT ON THE LINE.	FIXED	UNKNOWN	7/25/2009 11:40	MILE POST: 8393 (DRAYTON HALL)
912984	912984	912984	INCIDENT	7/28/2009 11:05	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED ON THE INTERCOASTAL WATERWAY.	FIXED	UNKNOWN	7/28/2009 10:50	UNKNOWN SHEEN INCIDENT ISLE OF PLAMS MARINA INTERCOASTAL WATERWAY
913351	913351	913351	INCIDENT	7/31/2009 11:50	THE CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE	FIXED	UNKNOWN	7/31/2009 11:49	UNKNOWN SHEEN INCIDENT 17 LOCKWOOD DRIVE E AND F DOCK
915383	915383	915383	INCIDENT	8/19/2009 13:07	CALLER IS REPORTING A SPILL OF DIESEL FUEL FROM A TRACTOR TRAILER TANK DUE TO THE DRIVER HITTING A MANHOLE COVER. CALLER STATES THE MAN HOLE COVER WAS NOT SEEN.	FIXED	OTHER	8/19/2009 12:00	PORT AUTHORITY

View Report	Materials Page	NRC Report #	Type of Call	Date/Time Received	Description Of Incident	Type Of Incident	Incident Cause	Incident Date/Time	Location
915702	915702	915702	INCIDENT	8/22/2009 15:53	CALLER IS REPORTING A DISCHARGE OF DIESEL FUEL FROM THE FUEL DISPENSER DUE TO A MECHANICAL FAILURE IN THE PUMP.	MOBILE	EQUIPMENT FAILURE	8/22/2009 3:30	56 ASHLEY POINT DRIVE
916443	916443	916443	INCIDENT	8/30/2009 19:42	CALLER REPORTING VENDORS FROM A CAR SHOW DUMPED USED COOKING OIL INTO TRASH CANS IN THE PARKING LOT. THIS HAS CAUSED THE OIL TO SPILL IN MULTIPLE AREAS.	MOBILE	DUMPING	8/30/2009 7:30	NORTH CHARLESTON COLISEUM
916839	916839	916839	INCIDENT	9/3/2009 16:00	CALLER IS REPORTING A SHEEN OF DIESEL FUEL IN THE MARINA THAT SEEMS HEAVIEST IN THE VICINITY OF THE SUSPECT VESSEL.	MOBILE	UNKNOWN	9/3/2009 15:45	SAILBOAT INDIGO WW DOCK AT DOCK NEXT TO OFFICE
917002	917002	917002	INCIDENT	9/5/2009 14:37	F/V ANNE GRACE REPORTED SINKING IVO BUOY 22 OF CHARLESTON HARBOR ENTRANCE.	MOBILE	VESSEL SINKING	9/5/2009 14:33	BUOY 22 CHARLESTON HARBOR
917384	917384	917384	INCIDENT	9/10/2009 3:50	CALLER IS REPORTING THAT NUMBER 6 OIL DISCHARGED FROM HOSE DUE TO AN INCORRECT BLANK AS THE HOSE WAS BEING LIFTED FROM THE BARGE RESIDUAL OIL LEAKED. CALLER STATED THAT IT IS UNDETERMINED IF ANY OF THE MATERIAL DISCHARGED INTO THE WATER.	MOBILE	OPERATOR ERROR	9/10/2009 3:30	PIER Z- DENTYENS SHIP YARD
918697	918697	918697	INCIDENT	9/24/2009 9:23	CALLER IS REPORTING A 1/2 GALLON OF DIESEL DISCHARGED FROM A SKID TANK ON THE BACK OF A TUG INTO THE COOPA RIVER DUE TO OVERFLOW.	MOBILE	OPERATOR ERROR	9/24/2009 9:06	COOPA RIVER KINDER MORGAN N. CHARLESTON
918962	918962	918962	INCIDENT	9/26/2009 16:52	CALLER IS REPORTING THAT A PILE DRIVER VESSEL WAS DISCHARGING IN AN UNKNOWN OIL INTO WAPPOO CREEK DUE TO UNKNOWN CAUSES.	MOBILE	UNKNOWN	9/26/2009 15:00	WAPPOO CREEK EDGEWATER PARK
919086	919086	919086	INCIDENT	9/28/2009 14:37	CALLER IS REPORTING THAT A TRACTOR TRAILER TRUCK LOST CONTROL AND STRUCK A CONCRETE BARRIER WHICH RUPTURED ONE OF THE SADDLE TANKS AND DISCHARGED DIESEL FUEL ONTO THE ROADWAY AND INTO A MARSHY AREA.	MOBILE	TRANSPORT ACCIDENT	9/28/2009 8:00	INTERSTATE 526 NEAR VIRGINIA AVE EXIT
919096	919096	919096	DRILL	9/28/2009 15:42	//DRILL// CALLER STATED THAT THE VESSEL LOST THE STARBOARD DRIVE AND HIT THE PIER AND PUNCTURED TANK RELEASING DIESEL FUEL INTO THE WATER. //DRILL//	MOBILE	EQUIPMENT FAILURE	9/28/2009 15:30	PIER U NAVY BASE
919482	919482	919482	INCIDENT	10/2/2009 7:11	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED AT THE MARINA INSIDE OF THE MEGA DOCK FROM UNKNOWN SOURCES.	MOBILE	UNKNOWN	10/2/2009 7:00	UNKNOWN SHEEN INCIDENT 17 LOCKWOOD DR ASHLEY RIVER
919995	919995	919995	DRILL	10/8/2009 9:10	///DRILL REPORT///BETWEEN 10,000 AND 14,000 GALLONS OF DIESEL FUEL DISCHARGED FROM A PUNCTURED PIPELINE, 11000 REACHED THE COOPER RIVER. THE PUNCTURE WAS THE RESULT OF A CONTRACTOR HITTING IT WHILE EXCAVATING.	MOBILE	OPERATOR ERROR	10/8/2009 9:00	5165 VIRGINIA AVE
920790	920790	920790	INCIDENT	10/16/2009 11:59	OIL WAS OBSERVED LEAKING OUT OF A DOCK CONNECTOR. THE LINE WAS TRACED BACK AND ADDITIONAL OIL WAS SEEN IN A STAINLESS STEEL RESERVOIR AND ALONG THE PIER.	MOBILE	EQUIPMENT FAILURE	10/16/2009 11:30	FUEL DOCK 20 PATRIOT'S POINT ROAD
920975	920975	920975	INCIDENT	10/19/2009 8:57	CALLER STATED DIESEL FUEL RELEASED FROM AN ARMORED TRUCK ONTO THE GROUND AND INTO A MARSH AREA, WHEN THE DRY SHAFT BROKE AND PIERCED THE TANK.	MOBILE	TRANSPORT ACCIDENT	10/19/2009 8:35	STONO BRIDGE ON HWY 700

View Report	Materials Page	NRC Report #	Type of Call	Date/Time Received	Description Of Incident	Type Of Incident	Incident Cause	Incident Date/Time	Location
920999	920999	920999	INCIDENT	10/19/2009 13:06	CALLER STATED THEY WERE TRANSFERRING BUNKERS TO THE SHIP AND DURING THE TRANSFER THE SHIP HAD A DISCHARGE DUE TO UNKNOWN CAUSE. THE BARGE IS NOT DISCHARGING OIL AND THE OPERATION WAS SHUT DOWN.	MOBILE	UNKNOWN	10/19/2009 13:00	ANCHORAGE A CHARLESTON HARBOR
921000	921000	921000	INCIDENT	10/19/2009 13:08	CALLER IS REPORTING A DISCHARGE OF BUNKER OIL FROM A FUEL TANK VENT PIPE ONBOARD A VESSEL DUE TO AN OVERFLOW DURING A BUNKERING OPERATION. CALLER DOES NOT KNOW WHAT CAUSED THE OVERFLOW AT THIS TIME. CALLER DESCRIBED THE VESSEL AS A "BULK CARGO VESSEL".	MOBILE	EQUIPMENT FAILURE	10/19/2009 16:50	INNER HARBOR
921080	921080	921080	INCIDENT	10/20/2009 10:27	CALLER STATED A 30-40 FOOT WIDE UNKNOWN SHEEN WAS DISCOVERED IN THE CHARLESTON HARBOR.	MOBILE	UNKNOWN	10/20/2009 10:09	UNKNOWN SHEEN INCIDENT CHARLESTON HARBOR BUOY 25
921437	921437	921437	INCIDENT	10/23/2009 12:42	CALLER STATED WHILE FISHING HE NOTICED A PLEASURE CRAFT CARRYING THREE WOMEN AND ONE MALE SUBJECT THAT STRUCK ANOTHER PLEASURE CRAFT THAT IS IN DRY DOCK.	MOBILE	OTHER	10/23/2009 12:15	INTERCOASTAL WATERWAY WAPPOO LANDING WAPPOO CUT
921629	921629	921629	INCIDENT	10/26/2009 0:31	CALLER IS REPORTING A RELEASE OF CRESOL ONTO THE GROUND FROM A LEAK IN A FLANGE AT THE RAIL CAR UNLOADING STATION.	MOBILE	EQUIPMENT FAILURE	10/25/2009 23:40	2151 KING STREET
921648	921648	921648	INCIDENT	10/26/2009 10:26	CALLER STATED HE DISCOVERED OIL DRUMS TURNED UPSIDE DOWN BEHIND THE FACILITY AND THE GRASS IS ALSO DEAD. CALLER STATED IT APPEARED THAT THE MATERIAL IS WASHED DOWN THE DRAINAGE ON THE FACILITY WHEN IT RAINS.	MOBILE	DUMPING	10/20/2009 12:00	BEHIND MOTORCYCLE SHOP DORCHESTER RD
921652	921652	921652	INCIDENT	10/26/2009 11:32	CALLER STATED THAT A VESSEL WAS TAKING ON WATER AND THE VESSEL PUMPED OUT THE WATER AND WHEN THEY PUMPED OUT THE WATER IN THE BILGES THERE WAS FUEL IN THE WATER AS WELL. CALLER STATED THE RESPONSIBLE PARTY PUT DAWN LIQUID SOAP ON THE SPILLED MATERIAL IN THE WATER.	MOBILE	OTHER	10/26/2009 11:00	F DOCK 2408 MAYBANK HWY
921853	921853	921853	INCIDENT	10/28/2009 5:52	CALLER IS REPORTING THAT DIESEL IS DISCHARGING FROM A LOCOMOTIVE DUE TO A FUEL TANK PUNCTURE. IT APPEARS THAT THE LOCOMOTIVE WENT OVER A BROKEN RAIL IN THE FLORENCE RAILYARD. THE DISTANCE BETWEEN THE FLORENCE RAILYARD TO CHARLESTON IS 100 MILES. THE AMOUNT RELEASED IS UNKNOWN BUT SPECULATION THAT 2000 GALLONS HAS BEEN DISCHARGED.	MOBILE	EQUIPMENT FAILURE	10/28/2009 3:12	FLORENCE SC-CHARLESTON SC, 100 MILES
922125	922125	922125	INCIDENT	10/30/2009 12:13	CALLER STATED WHILE INDIVIDUALS WERE TRANSFERRING FUEL AND INTERNALLY POLISHING THE FUEL AT THE SAME TIME, THE FUEL FOAMED UP AND DISCHARGED INTO ASHLEY RIVER.	MOBILE	OPERATOR ERROR	10/30/2009 12:00	SLIP CW11 17 LOCKWOOD DR
922216	922216	922216	INCIDENT	10/31/2009 13:41	CALLER IS REPORTING A DISCHARGE OF DIESEL, FROM THE MARINA FUEL PUMP STATION, CAUSED DURING THE FUELING OF A VESSEL. CAUSE FOR THE DISCHARGE IS UNKNOWN.	MOBILE	UNKNOWN	10/31/2009 13:30	CITY DOCKS PUMP #3, NEAR RED MARKER 4 17 LOCKWOOD DR
922366	922366	922366	INCIDENT	11/2/2009 15:17	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	MOBILE	UNKNOWN	11/2/2009 15:10	UNKNOWN SHEEN INCIDENT 33 LOCKWOOD DRIVE
923307	923307	923307	DRILL	11/12/2009 14:40	///DRILL REPORT/// REPORT OF A RELEASE OF MATERIAL FROM A RECOVERY TANK DUE TO OVERFILL OF THE TANK.	MOBILE	OPERATOR ERROR	11/12/2009 14:40	CHARLESTON AIR FORCE BASE BUILDING 684
923734	923734	923734	INCIDENT	11/16/2009 13:33	A VESSEL REPORTED TO CG SECTOR CHARLESTON OF A SHEEN IN THE BOAT BASIN AT THE RIPLEY LIGHT MARINA ON THE ASHLEY RIVER.	PIPELINE	UNKNOWN	11/16/2009 13:15	UNKNOWN SHEEN RIPLEY LIGHT MARINA 95 RIPLEY POINTE DR

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924436	924436	924436	INCIDENT	11/24/2009 10:43	CALLER STATED DIRTY BILGE WATER WAS RELEASED INTO THE ASHLEY RIVER FROM THE M/V WILLO-BEE DUE TO UNKNOWN CAUSES.	PIPELINE	UNKNOWN	11/24/2009 10:30	ON THE MEGA DOCK PILING 1060 17 LOCKWOOD DR
925026	925026	925026	INCIDENT	12/2/2009 10:31	CALLER IS REPORTING A LARGE OILY SHEEN IN ELLIS CREEK (JAMES ISLAND CREEK) THAT MAY BE POSSIBLY COMING FROM A BARGE IN THE AREA.	PIPELINE	UNKNOWN	12/2/2009 9:00	1500 YARDS BEFORE THE FALLEY OAKS BRIDGE ON THE DOWN WATER SIDE 688 ELLIS OAK DRIVE
925323	925323	925323	INCIDENT	12/5/2009 9:04	CALLER IS REPORTING AN UNKNOWN SHEEN COMING FROM CHARLESTON HARBOR INTO THE ASHLEY RIVER.	PIPELINE	UNKNOWN	12/5/2009 8:30	UNKNOWN SHEEN INCIDENT 33 LOCKWOOD DRIVE
926903	926903	926903	INCIDENT	12/22/2009 14:26	CALLER IS REPORTING AN OUTBOUND CONTAINER HITCHED TO A TRACTOR TRAILER TRUCK AT THE STATE PORT THAT IS LEAKING MATERIAL. CALLER STATED THE MATERIAL DID GIVE RADIO ACTIVE READING OF NATURAL POTASSIUM 40 BUT THERE ARE NO PLACARDS ON THE CONTAINER. MATERIAL IS LEAKING ONTO ASPHALT.	RAILROAD	UNKNOWN	12/22/2009 13:48	SOUTH CAROLINA STATE PORT REMOUNT RD
927660	927660	927660	INCIDENT	1/4/2010 11:11	CALLER STATED A POLE MOUNTED TRANSFORMER RUPTURED AND RELEASED APPROXIMATELY 10 GALLONS OF NON PCB OIL ONTO THE SOIL AND INTO A NEARBY DITCH CONTAINING WATER. CALLER STATED THE INCIDENT OCCURRED AT 0855.	RAILROAD	EQUIPMENT FAILURE	1/4/2010 10:55	ON DANIELS ISLAND 1088 ST. THOMAS ISLAND DRIVE
928543	928543	928543	INCIDENT	1/14/2010 8:47	CALLER STATED A TUG BOAT WAS FUELING, WHEN THE STARBOARD AFT TANK BURPED AND DISCHARGED AND UNKNOWN AMOUNT OF DIESEL FUEL ONTO THE VESSEL AND INTO THE WATER. CALLER STATED THERE IS NO VISIBLE SHEEN ON THE WATER AT THIS TIME.	RAILROAD	OTHER	1/14/2010 8:40	KINDER MORGAN TERMINAL 1500 GREENLEAF STREET
930441	930441	930441	INCIDENT	2/3/2010 15:20	CALLER IS REPORTING A DISCHARGE OF 15 GALLONS OF DIESEL INTO THE WATER FROM AN UNKNOWN SOURCE DUE TO UNKNOWN CAUSES.	RAILROAD	OTHER	2/3/2010 12:30	ASHLEY RIVER AT WESTMORELAND BRIDGE
930590	930590	930590	INCIDENT	2/5/2010 12:42	THE CALLER IS REPORTING THAT AN UNDERGROUND STORAGE TANK WAS OVERFILLED CAUSING A DISCHARGE OF 145 GALLONS OF DIESEL FUEL ONTO THE GROUND AND INTO STORM WATER DITCHES AND DRAINS.	RAILROAD	OPERATOR ERROR	2/4/2010 11:30	1362 MCMILLIAN AVE.
930619	930619	930619	INCIDENT	2/5/2010 16:35	CALLER STATED THAT LESS GALLON GEAR OIL CAME OUT OF THE REDUCTION GEAR BOX AND INTO THE WATER DUE TO UNKNOWN CAUSES.	RAILROAD	UNKNOWN	2/5/2010 16:15	PIER U CHARLESTON NAVY SHIPYARD
930722	930722	930722	INCIDENT	2/7/2010 18:42	CALLER REPORTING THAT A SPILL OCCURRED INSIDE THE SHIP FROM A LEAKING CONTAINER. CAUSE WAS UNKNOWN. NO WATERWAYS IMPACTED.	RAILROAD	UNKNOWN	2/7/2010 16:36	WANDO WELCH #1
930784	930784	930784	DRILL	2/8/2010 14:24	///THIS IS A DRILL///CALLER IS REPORTING A SPILL DIESEL FUEL FROM A STORAGE TANK'S FUEL LINE DUE TO A RUPTURE IN THE LINE.///THIS IS A DRILL///	RAILROAD	EQUIPMENT FAILURE	2/8/2010 14:15	CHARLESTON CITY MARINA 17 LOCK WOOD DRIVE
930869	930869	930869	INCIDENT	2/9/2010 13:46	CALLER IS REPORTING AN UNKNOWN SHEEN DUE TO UNKNOWN CAUSES.	RAILROAD	UNKNOWN	2/9/2010 13:20	DETYENS SHIPYARDS 1670 DRY DOCK AVE G AND H PIER
931099	931099	931099	INCIDENT	2/12/2010 8:34	CALLER STATED THERE IS AN UNKNOWN SHEEN ON THE COOPER RIVER AT THE COOPER MARINA. CALLER STATED THE SHEEN IS COMING FROM UPRIVER.	RAILROAD	UNKNOWN	2/12/2010 7:30	UNKNOWN SHEEN INCIDENT COOPER MARINA 1010 JUNEAU AVENUE COOPER RIVER

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931117	931117	931117	INCIDENT	2/12/2010 10:59	CALLER REPORTED A SMALL DRIP ON A HYDRAULIC LINE ON A DREDGE.	RAILROAD	EQUIPMENT FAILURE	2/12/2010 7:00	1100 JUNEAU AVE
931119	931119	931119	INCIDENT	2/12/2010 11:11	THE CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE IN THE ASHLEY RIVER.	RAILROAD	UNKNOWN	2/12/2010 11:00	UNKNOWN SHEEN INCIDENT 17 LOCKWOOD DR
931430	931430	931430	INCIDENT	2/16/2010 19:13	CALLER REPORTED THAT A DISCHARGE HOSE ON A MANIFOLD HAD SPRUNG A HAIRLINE LEAK SPILLING 10 DROPS OF DIESEL ONTO THE DECK OF VESSEL. NO WATERWAYS WERE IMPACTED.	RAILROAD	EQUIPMENT FAILURE	2/16/2010 16:30	KINDER MORGAN NORTH// MARATHON DOCK 5150 VIRGINIA AVE
931756	931756	931756	INCIDENT	2/20/2010 10:29	A LIGHT-TO-MEDIUM SHEEN WAS DISCOVERED IN THE VICINITY OF THE MARINA. THE SHEEN IS NOT EMANATING ANY ODOR OR FUMES, AND IS SUSPECTED TO BE HYDRAULIC OIL. THERE IS A DREDGE NORTH OF THE SHEEN, BUT IT HAS NOT BEEN DETERMINED TO BE THE SOURCE.	RAILROAD	UNKNOWN	2/20/2010 10:15	UNKNOWN SHEEN INCIDENT 1010 JUNEAU AVE
931841	931841	931841	INCIDENT	2/21/2010 19:51	CALLER STATED THAT A SEWER MAIN IS RELEASING RAW SEWAGE THAT IS BUBBLING UP FROM THE GROUND. THE SEWER MAIN IS BURIED FOUR FEET UNDERGROUND IN AN EASEMENT ON THE CHARLESTON AIR FORCE BASE. THE CALLER STATED THAT THE LINE IS RELEASING 2000-3000 GALLONS PER MINUTE. IT IS FLOODING THE GROUND, RUNNING ACROSS ROADS AND ENTERING STORM DRAINS THAT LEAD TO THE ASHLEY RIVER.	RAILROAD	EQUIPMENT FAILURE	2/21/2010 16:00	NORTH CHARLESTON SEWER DISTRICT EASEMENT TOUHEY AVE
931904	931904	931904	INCIDENT	2/22/2010 12:51	CALLER IS REPORTING AN UNKNOWN SHEEN SIGHTING. EXACT SOURCE OF THE SHEEN IS UNKNOWN AT THIS TIME.	RAILROAD	UNKNOWN	2/22/2010 12:50	COOPER RIVER, AT THE COLUMBUS STREET TERMINAL
932078	932078	932078	INCIDENT	2/23/2010 14:52	CALLER STATED THAT A HYDRAULIC HOSE LEAKED AND DISCHARGED 10 TO 15 GALLONS OF HYDRAULIC OIL INTO THE WELL OF A DREDGE VESSEL.	RAILROAD	EQUIPMENT FAILURE	2/23/2010 14:45	COOPER RIVER 4000 YARDS NORTH OF SHIPYARD CREEK
932629	932629	932629	INCIDENT	3/1/2010 8:05	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE. CALLER STATES THE SHEEN IS BETWEEN RIVER MILE 485-487 ON THE ICW. CALLER ALSO STATES THE COLOR OF THE IS RAINBOWISH AND BROWNISH AND FOAMING IN SPOTS. CALLER STATES HE BELIEVES THE MATERIAL IS DIESEL FUEL.	RAILROAD	UNKNOWN	3/1/2010 7:15	UNKNOWN SHEEN INCIDENT ICW RIVER MILE 487
933436	933436	933436	DRILL	3/9/2010 15:08	///THIS IS A DRILL///CALLER STATED THAT THE TUG ELIZABETH DISCHARGED 10 GALLONS OF DIESEL FUEL FROM THE #9 TANK DUE TO TANK OVERFLOW.///THIS IS A DRILL///	RAILROAD	EQUIPMENT FAILURE	3/9/2010 14:50	NORTH CHARLESTON TERMINAL
933595	933595	933595	INCIDENT	3/11/2010 9:20	CALLER STATED DUE TO A EQUIPMENT FAILURE THERE WAS A LEAK OF HYDRAULIC OIL. CALLER STATED THE SPILL CAME FROM A HYDRAULIC LINE WHICH POWERS A HATCH. THE SPILLED HYDRAULIC OIL WAS THEN WASHED INTO THE WATER BY THE HEAVY RAIN IN THE AREA. CALLER STATED NO SHEEN SIGHTED AT THIS TIME.	RAILROAD	EQUIPMENT FAILURE	3/11/2010 9:00	CHARLESTON HARBOR SHIPYARD CREEK/COOPER RIVER KINDER MORGAN DOCK
933601	933601	933601	INCIDENT	3/11/2010 9:55	CALLER STATED DUE TO A HOSE RUPTURE ON THE VESSEL THERE WAS A SPILL OF HYDRAULIC OIL. THE SPILL WAS CONTAINED TO THE DECK BUT DUE TO HEAVY RAIN THE SPILL DID REACH THE WATER. NO SHEEN REPORTED.	RAILROAD	EQUIPMENT FAILURE	3/11/2010 7:25	COOPER RIVER INTERMORGAN TERMINAL 2 SHIPYARD
934569	934569	934569	INCIDENT	3/20/2010 9:34	CALLER REPORTED AN UNKNOWN SHEEN COMING FROM AN UNKNOWN SOURCE.	RAILROAD	UNKNOWN	3/20/2010 8:20	NORTH CHARLESTON CONTAINER TERMINAL COOPER RIVER
934620	934620	934620	INCIDENT	3/20/2010 21:48	REPORT OF AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	RAILROAD	UNKNOWN	3/20/2010 21:30	UNKNOWN SHEEN INCIDENT NORTH CHARLESTON TERMINAL 1000 REMOUNT RD

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935145	935145	935145	INCIDENT	3/25/2010 18:13	CALLER STATED THAT A LEAKING FOOT VALVE ON A TANK IS RELEASING MALEIC ANHYDRIDE INTO A CONTAINMENT DIKE. APPROXIMATELY 10000-20000 POUNDS OF LIQUID HAVE ESCAPED INTO THE CONTAINMENT AREA. CALLER ESTIMATED THAT ABOUT 50 POUNDS OF THE MATERIAL HAD EVAPORATED TO THE AIR. THE RELEASE CONTINUES. CALLER STATED THAT THERE ARE NO EFFECTS OUTSIDE OF THE FACILITY. HE ALSO STATED THAT NO WATERWAYS ARE AFFECTED.	RAILROAD	UNKNOWN	3/25/2010 17:15	CHEMICAL PLANT 5598 VIRGINIA AVE.
935421	935421	935421	INCIDENT	3/29/2010 11:29	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE. CALLER STATES THE MATERIAL MIGHT BE DIESEL FUEL. CALLER HAD LIMITED INFORMATION ABOUT THE INCIDENT.	RAILROAD	UNKNOWN	3/29/2010 11:19	UNKNOWN SHEEN INCIDENT ISLE PALM MARINA
935473	935473	935473	INCIDENT	3/29/2010 16:01	CALLER STATED THAT A BUSINESS IS STORING SCRAP METAL IN THEIR PARKING LOT INCLUDING AUTO AND MACHINERY PARTS THAT HAVE OIL ON THEM. WHEN IT RAINS, THE OIL IS WASHED INTO STORM DRAINS THAT HE BELIEVES LEAD TO EITHER THE ASHLEY OR COOPER RIVERS AND ON TO THE OCEAN.	RAILROAD	OTHER	3/29/2010 12:00	TRANSFER SITE 1553 KING ST. EXTENSION
936464	936464	936464	INCIDENT	4/8/2010 9:08	CALLER REPORTED AN UNKNOWN SHEEN COMING FROM AN UNKNOWN SOURCE.	RAILROAD	UNKNOWN	4/8/2010 9:00	DETYENS SHIPYARD
936579	936579	936579	INCIDENT	4/9/2010 10:39	A CONTAINER ON A SHIP LEAKED A SMALL AMOUNT OF CLASS 3 HAZARDOUS CARGO.	RAILROAD	UNKNOWN	4/9/2010 7:00	COLUMBUS ST TERMINAL
937053	937053	937053	INCIDENT	4/14/2010 15:27	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	RAILROAD	UNKNOWN	4/14/2010 15:25	UNKNOWN SHEEN INCIDENT 1670 DRYDOCK AVE DRYDOCK SHIPYARD
937069	937069	937069	INCIDENT	4/14/2010 18:36	CALLER STATED THAT THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF AMMONIA FROM A SAFETY VALVE AT A FACILITY. THE CAUSE IS UNDER INVESTIGATION.	RAILROAD NON-RELEASE	UNKNOWN	4/14/2010 18:15	NONE 2151 KING STREET
937259	937259	937259	INCIDENT	4/16/2010 15:05	CALLER IS REPORTING A SHEEN CREATED WHEN UNKNOWN OIL CAME OUT OF THE EXHAUST OF A LIFEBOAT THAT WAS IN THE WATER FOR ENGINE TESTING.	RAILROAD NON-RELEASE	EQUIPMENT FAILURE	4/16/2010 14:30	DETYENS SHIP YARD PIER F
937626	937626	937626	INCIDENT	4/20/2010 15:27	CALLER STATED THAT WHILE OPERATING THE ANCHOR WINDLASS, A HYDRAULIC HOSE LEAKED DISCHARGING 40 LITERS OF HYDRAULIC OIL. APPROXIMATELY 5 LITERS ENTERED THE WATER.	RAILROAD NON-RELEASE	EQUIPMENT FAILURE	4/20/2010 15:18	DETYENS SHIPYARD
939097	939097	939097	INCIDENT	5/4/2010 14:18	VESSEL WAS FUELING AND SPILLED APPROXIMATELY 2-3 GALLONS OF DIESEL. AN ATTEMPT TO RECOVER AS MUCH AS POSSIBLE WAS MADE BUT THERE IS RESIDUAL FUEL CREATING A LARGE RAINBOW SHEEN.	RAILROAD NON-RELEASE	OTHER	5/4/2010 13:45	FUEL DOCK AT MARINA 33 LOCKWOOD DR
939848	939848	939848	INCIDENT	5/11/2010 13:25	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED IN THE ASHLEY RIVER.	RAILROAD NON-RELEASE	UNKNOWN	5/11/2010 13:15	UNKNOWN SHEEN INCIDENT 17 LOCKWOOD DR ASHLEY RIVER
939868	939868	939868	INCIDENT	5/11/2010 15:26	CALLER IS REPORTING A RELEASE OF NATURAL GAS FROM A .5 INCH BLACK PLASTIC LINE DUE TO THIRD PARTY ACCIDENTAL DAMAGE WHILE SOLDERING A WATER SERVICE LINE. CALLER STATES THE HOUSE AND THE LINE CAUGHT ON FIRE AS A RESULT OF THE INCIDENT.	RAILROAD NON-RELEASE	OPERATOR ERROR	5/11/2010 12:05	RESIDENTIAL HOME 101 SPRING ST.
940583	940583	940583	INCIDENT	5/17/2010 23:42	RECEIVED REPORT OF A STRONG ODOR OF A FUEL SMELL COMING FROM SOMEWHERE AROUND THE CHARLESTON CITY MARINA. THE MARINA REPORTED THAT THEY HAD SEARCHED THE MARINA AND BELIEVE THE SOURCE IS SOMEWHERE OUTSIDE THE MARINA.	RAILROAD NON-RELEASE	UNKNOWN	5/17/2010 22:17	CHARLESTON CITY MARINA 17 LOCKWOOD DR CHARLESTON

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941285	941285	941285	INCIDENT	5/22/2010 19:44	CALLER IS REPORTING A SHEEN ON THE WATER THAT HAS BEEN ON THE WATER FOR ABOUT 2 WEEKS. THE SHEEN IS ONLY NOTICEABLE WHEN THE TIDE IS OUTGOING. THE SIZE IS DESCRIBED AS THE WHOLE RIVER.	RAILROAD NON-RELEASE	UNKNOWN	5/12/2010 12:00	CREEK BEHIND ADDRESS GIVEN 229 NORRIS AVE
941724	941724	941724	INCIDENT	5/26/2010 14:17	CALLER STATED THAT THERE WAS A RELEASE OF 55 GALLONS OF PROTEIN FOAM FOR FIRE FIGHTING PURPOSES, THE CAUSE WAS DUE TO AN ACCIDENTAL RELEASE.	STORAGE TANK	OPERATOR ERROR	5/26/2010 13:00	NONE 7270 CROSS COUNTY RD
942283	942283	942283	INCIDENT	5/31/2010 9:05	CALLER STATED A TRACTOR TRUCK COLLIDED WITH THE SIDE OF THE SCALE WHEN DRIVING OFF OF THE SCALE. THIS RESULTED IN A SPILL OF 50-60 GALLONS OF DIESEL FROM THE SADDLE TANK OF THE TRUCK. CALLER IS CONCERN THAT THE SPILL COULD REACH THE STORM DRAIN DUE TO POSSIBILITY OF RAIN.	STORAGE TANK	TRANSPORT ACCIDENT	5/31/2010 6:19	1801 MILFORD STREET
942793	942793	942793	INCIDENT	6/4/2010 12:11	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED IN THE HARBOR FROM UNKNOWN SOURCES.	STORAGE TANK	UNKNOWN	6/4/2010 12:00	UNKNOWN SHEEN INCIDENT 95 RIPLEY POINT DR.
943246	943246	943246	INCIDENT	6/8/2010 13:16	CALLER IS MAKING A REPORT INVOLVING AN UNKNOWN SOURCE UNDERWATER THAT POSSIBLY EXPLODED AND CAUSED A MUD PLUME. CALLER STATES THERE WAS A REPORT THE EXPLOSION CREATED A SPRAY OF WATER ABOUT 12 FEET IN THE AIR AND A RIPPLE EFFECT. CALLER ALSO STATES THERE IS NO EVIDENCE OF A MATERIAL RELEASE AT THIS TIME. THE LOCATION OF THE EXPLOSION OCCURRED JUST OFF OF A MOTOR YACHT WHILE THEY WERE CLEANING DOWN THE BOAT. THE INCIDENT ALSO SHOOK THE DOCK OFFICE.	STORAGE TANK	EXPLOSION	6/8/2010 13:10	IN THE ASHLEY RIVER 17 LOCKWOOD DRIVE
943666	943666	943666	INCIDENT	6/11/2010 13:42	CALLER STATED WHILE LOADING MATERIALS ONTO THE CRUISE VESSEL SOME OF THE BOXES FELL INTO THE PORT OF CHARLESTON. THE BOXES CONTAINED BREAD THAT THE CREW AND PASSENGERS NORMALLY CONSUME FOR LUNCH.	STORAGE TANK	OTHER	6/11/2010 13:00	PORT OF CHARLESTON CRUISE SHIP DOCK
944007	944007	944007	INCIDENT	6/14/2010 14:56	CALLER REPORTED A PRESSURE RELIEF NIPPLE ON A DIESEL LINE AT THE DOCK FAILED AND SPRAYED MATERIALS INTO THE CONTAINMENT AREA AND INTO THE RIVER.	STORAGE TANK	EQUIPMENT FAILURE	6/14/2010 14:40	1500 GREENLEAF ST
944129	944129	944129	INCIDENT	6/15/2010 13:01	CALLER STATED THAT THERE WAS A RELEASE OF ONE GALLON OF HYDRAULIC OIL FROM A SHIP. THE CAUSE WAS DUE TO A FAILED HOSE ON THE HYDRAULICS.	STORAGE TANK	EQUIPMENT FAILURE	6/15/2010 12:38	COLUMBUS STREET WARF NONE
944482	944482	944482	INCIDENT	6/17/2010 20:22	CALLER IS REPORTING PICKING UP AN OIL LINE ON HIS VESSEL AND FISHING EQUIPMENT WHILE OFFSHORE. CALLER REPORTS THAT HE WAS ABOUT 68 MILES OFFSHORE CHARLESTON, SC. THIS WAS DISCOVERED WHEN HE RETURNED TO PORT. CALLER REPORTS THAT THERE WERE TWO LARGE VESSELS THAT PASSED BY HIM DURING THE DAY THAT MAY HAVE BEEN THE SOURCE.	STORAGE TANK	UNKNOWN	6/17/2010 19:50	ATLANTIC OCEAN
944807	944807	944807	INCIDENT	6/20/2010 18:59	CALLER STATED THAT THERE IS AN UNKNOWN SHEEN ON THE WATER, WITH A STRONG ODOR OF GASOLINE, THE CAUSE IS UNKNOWN.	STORAGE TANK	UNKNOWN	6/20/2010 18:45	STONO RIVER JUST SOUTH OF ELLIOTTS CUT. NONE
945190	945190	945190	INCIDENT	6/23/2010 16:13	THE CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE, HOWEVER IT IS SUSPECTED TO BE FROM A NEARBY MARINA.	STORAGE TANK	UNKNOWN	6/23/2010 16:00	UNKNOWN SHEEN INCIDENT SECTOR CHARLESTON 196 TRADD ST
946050	946050	946050	DRILL	6/30/2010 11:58	///DRILL/// RETURNING TO COMPANY DOCK AND HIT A SUBMERGED DREDGE PIPE LINE CRACKED THE PORT SIDE #2 FUEL TANK RELEASING AN UNKNOWN AMOUNT ULTRA LOW SULFUR DIESEL INTO THE WATER. THE TANK HOLDS 1500 GALLONS. SOUNDINGS ARE BEING DONE NOW. ///DRILL///	STORAGE TANK	OTHER	6/30/2010 11:50	COOPER RIVER DANIEL ISLAND REACH
946297	946297	946297	INCIDENT	7/2/2010 4:37	A CAR STRUCK A TRAIN AT A GRADE CROSSING. NO REPORTS OF INJURIES OR FATALITIES HAVE BEEN RECEIVED AT THIS TIME.	STORAGE TANK	TRESPASSER	7/2/2010 3:59	DISCHER ST.

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946512	946512	946512	INCIDENT	7/4/2010 7:22	CALLER REPORTED A SMELL OF DIESEL IN THE MARINA AND FOUND A SHEEN COMING FROM A PRIVATE VESSEL. THERE WAS A FAULTY FUEL LINE THAT CAUSED THE SPILL.	STORAGE TANK	EQUIPMENT FAILURE	7/4/2010 7:00	SLIP 6 2408 MAYBANK HIGHWAY
948274	948274	948274	INCIDENT	7/20/2010 5:40	CALLER IS REPORTING THAT ANHYDROUS AMMONIA VAPORS ARE RELEASING FROM A REFRIGERATION SYSTEM DUE TO UNKNOWN CAUSES. THERE IS NO OFF SITE IMPACT AT THIS TIME.	STORAGE TANK	UNKNOWN	7/20/2010 5:35	2151 KING STREET
948393	948393	948393	INCIDENT	7/21/2010 7:36	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	STORAGE TANK	UNKNOWN	7/21/2010 7:10	UNKNOWN SHEEN INCIDENT PIER D DETYON'S SHIP YARD
948486	948486	948486	INCIDENT	7/21/2010 20:07	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	STORAGE TANK	UNKNOWN	7/21/2010 19:40	UNKNOWN SHEEN INCIDENT ASHLEY RIVER / FROM BUOY R5 TO CHARLESTON CITY MARINA
948599	948599	948599	INCIDENT	7/22/2010 20:29	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	STORAGE TANK	UNKNOWN	7/22/2010 20:20	UNKNOWN SHEEN INCIDENT ASHLEY MARINA 33 LOCKWOOD
948928	948928	948928	INCIDENT	7/26/2010 16:36	AFTER A HEAVY RAINSTORM, A SHEEN WAS OBSERVED IN THE WATER. IT IS SUSPECTED THAT THE SOURCE OF THE SHEEN IS RESIDUAL OIL THAT ADHERED TO THE VESSEL DURING DEEPWATER HORIZON RESPONSE OPERATIONS.	STORAGE TANK	OTHER	7/26/2010 16:25	PIER P; NAVAL BASE CHARLESTON
949147	949147	949147	INCIDENT	7/28/2010 11:04	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	STORAGE TANK	UNKNOWN	7/28/2010 9:45	UNKNOWN SHEEN INCIDENT SHEM CREEK MOUTH OF CHARLESTON HARBOR
950850	950850	950850	INCIDENT	8/13/2010 13:12	CALLER IS REPORTING A SHEEN COMING FROM THEIR VESSEL DUE TO RESIDUAL OIL COMING FROM THE SEA CHEST ON THEIR VESSEL. CALLER REPORTS THAT THIS IS OIL LEFT OVER DUE TO DEEPWATER HORIZON OPERATIONS IN THE GULF.	STORAGE TANK	OTHER	8/13/2010 12:55	1050 REGISTAR ST.
951619	951619	951619	INCIDENT	8/20/2010 18:56	CALLER REPORTED THAT POWDERED LIME CAME OUT OF A SILO ONTO THE GROUND. NO WATERWAYS INVOLVED.	STORAGE TANK	OTHER	8/20/2010 16:15	BULK LIQUID STORAGE FACILITY 1500 GREENLEAF ST.
951916	951916	951916	INCIDENT	8/24/2010 8:45	CALLER STATED A PLEASURE CRAFT DOCKED AT THE MARINA HAS SUNK AND THE VESSEL IS SPILLING MATERIALS INTO THE COPPER RIVER MARINA.	STORAGE TANK	VESSEL SINKING	8/24/2010 8:10	COPPER RIVER MARINA 1010 JUNEAU AVENUE SLIP: A31 COOPER RIVER
952627	952627	952627	DRILL	8/31/2010 11:34	///THIS IS A DRILL///CALLER REPORTED A BURP FROM THE VENT PIPE THAT SPILLED SOME DIESEL FUEL INTO THE WATER.	STORAGE TANK	OTHER	8/31/2010 11:15	COOPER RIVER
952729	952729	952729	INCIDENT	9/1/2010 0:07	CALLER IS REPORTING THAT 10-20 GALLONS OF NUMBER 6 OIL DISCHARGED FROM A CARGO HOSE THAT WAS EXTENDED ACROSS THE RAIL AND ONTO THE DECK. THIS OCCURRED WHEN THE HOSE DISCONNECTED AND SNAPPED BACK TO THE DOCK RELEASING THE PRODUCT INTO COOPER RIVER.	UNKNOWN SHEEN	EQUIPMENT FAILURE	8/31/2010 23:35	NORTH TERMINAL DOCK 5150 VIRGINIA AVE
952731	952731	952731	INCIDENT	9/1/2010 0:28	CALLER IS REPORTING THAT #6 OIL DISCHARGED FROM THE HOSE WHILE DISCONNECTING.	UNKNOWN SHEEN	EQUIPMENT FAILURE	8/31/2010 23:05	HESS DOCK

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952879	952879	952879	INCIDENT	9/2/2010 12:29	THE CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE IN THE CHARLESTON RIVER.	UNKNOWN SHEEN	UNKNOWN	9/2/2010 12:00	UNKNOWN SHEEN INCIDENT DRYDOCK RD FUEL NAVY BASE
953164	953164	953164	INCIDENT	9/5/2010 15:13	CALLER IS REPORTING A CYLINDER WAS FLOATING IN THE COOPER RIVER. CAUSES OF THIS INCIDENT IS UNKNOWN WITH NO MATERIAL RELEASE.	UNKNOWN SHEEN	UNKNOWN	9/5/2010 12:00	COOPER RIVER/ TOWN CREEK 50 IMMERGRATION ST.
953262	953262	953262	INCIDENT	9/7/2010 9:19	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED ON THE ATLANTIC OCEAN. THE SHEEN IS DESCRIBED AS ORANGE AND BROWN IN COLOR AND LONG AS THE EYE COULD SEE ON THE ATLANTIC OCEAN COME TOWARD THE SHORE.	UNKNOWN SHEEN	UNKNOWN	9/5/2010 11:30	UNKNOWN SHEEN INCIDENT EDISTO 60 REEF ATLANTIC OCEAN
953391	953391	953391	INCIDENT	9/8/2010 11:53	THE CALLER IS REPORTING THAT A VESSEL WAS FUELING AND THEY OVERFILLED THEIR TANK. THIS RESULTED IN A DISCHARGE OF 3 GALLONS OF DIESEL FUEL INTO THE ASHLEY RIVER	UNKNOWN SHEEN	OPERATOR ERROR	9/8/2010 11:40	17 LOCKWOOD DR
953780	953780	953780	INCIDENT	9/12/2010 11:50	CALLER IS REPORTING A SAMPLE BAG FROM A BUNKERING OPERATION ON A VESSEL WAS PUNCTURED AND SPRAYED MATERIAL ON THE BARGE AND INTO THE WATER.	UNKNOWN SHEEN	EQUIPMENT FAILURE	9/12/2010 11:40	WANDO RIVER WANDO TERMINAL 1500 GREENLY ST
954068	954068	954068	DRILL	9/15/2010 9:39	***THIS IS A DRILL*** CALLER IS REPORTING THAT WHILE DOING A TRANSFER OF LUBE OIL FROM A TOTE ON THE PIER TO THE VESSEL THE TRANSFER HOSE RUPTURED ON THE VESSEL SIDE OF THE TRANSFER.	UNKNOWN SHEEN	EQUIPMENT FAILURE	9/15/2010 9:30	THOMPSON AVE PIER U COMPANY DOCKS
954198	954198	954198	INCIDENT	9/16/2010 9:09	CALLER STATED DUE TO AIR IN THE LINE THERE WAS A SPILL OF MATERIALS FROM A BUNKER BARGE WHILE DRAINING THE HOSE. CALLER STATED SOME OF THE MATERIALS SPILLED INTO THE COOPER RIVER AND ONTO THE VESSEL.	UNKNOWN SHEEN	OTHER	9/16/2010 8:50	VEYTEN SHIPYARD COOPER RIVER
954692	954692	954692	DRILL	9/21/2010 9:56	///THIS IS A DRILL/// CALLER REPORTED WHILE DRIVING OVER A BRIDGE A TRUCK FLIPPED OVER CAUSING A 7 INCH GASH IN THE TANK SPILLING 1 THOUSAND GALLONS OF MATERIALS INTO THE WATER.	UNKNOWN SHEEN	UNKNOWN	9/21/2010 8:00	LIMEHOUSE BRIDGE 1050 REGISTER ST
955067	955067	955067	INCIDENT	9/24/2010 18:04	THE CALLER IS REPORTING DIESEL THAT IS DISCHARGING FROM A BELOW GROUND STORAGE TANK. THE CAUSE WAS UNKNOWN. THE CALLER STATED THE DISCHARGE HAS BEEN SECURED. NO WATERWAYS WERE REPORTED AS BEING IMPACTED.	UNKNOWN SHEEN	UNKNOWN	9/24/2010 17:49	CHARLESTON CITY MARINA 17 LOCKWOOD DR
955681	955681	955681	INCIDENT	9/30/2010 18:39	THE CALLER IS REPORTING AN UNKNOWN SHEEN THAT WAS DISCOVERED AT THE USCG STATION. THE SHEEN EXTENDS ACROSS THE ASHLEY RIVER AND HAS A STRONG ODOR OF FUEL OIL.	UNKNOWN SHEEN	UNKNOWN	9/30/2010 18:20	UNKNOWN SHEEN INCIDENT USCG-SBS CHARLESTON
956752	956752	956752	INCIDENT	10/12/2010 14:49	CALLER REPORTED A TRACTOR TRAILER/CAR ACCIDENT RESULTING IN A LEAKING SADDLE TANK DISCHARGING DIESEL FUEL ONTO AN ISLAND UNDER A BRIDGE.	UNKNOWN SHEEN	TRANSPORT ACCIDENT	10/12/2010 14:40	ON DON HOLT BRIDGE (I-526)
956874	956874	956874	INCIDENT	10/13/2010 14:09	CALLER STATED DUE TO A MOTOR VEHICLE ACCIDENT THERE HAS BEEN A SPILL OF GASOLINE FROM A PASSENGER CAR INTO A ROADSIDE DITCH. CALLER STATED THREE PEOPLE WERE INJURED AND TRANSPORTED TO THE HOSPITAL DUE TO THIS INCIDENT.	UNKNOWN SHEEN	TRANSPORT ACCIDENT	10/13/2010 13:15	LIBERIA ROAD AND MAYBANK HWY
957128	957128	957128	INCIDENT	10/15/2010 22:57	CALLER IS REPORTING AN UNKNOWN SHEEN DUE TO AN UNKNOWN CAUSE. CALLER STATED THERE IS A STRONG ODOR OF DIESEL FUEL.	UNKNOWN SHEEN	UNKNOWN	10/15/2010 19:30	RIPLEY LIGHT MARINA 56 ASHLY PIONT DR

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957142	957142	957142	INCIDENT	10/16/2010 9:11	CALLER STATED A WHITE SUV WAS DRIVEN INTO ASHLEY RIVER BY A FEMALE SUBJECT WHO IS IN THE CUSTODY OF THE NORTH CHARLESTON POLICE. CALLER STATED NO SHEEN OR SPILL REPORTED AT THIS TIME JUST A POTENTIAL FOR A SPILL FROM THE VEHICLE.	UNKNOWN SHEEN	UNKNOWN	10/16/2010 8:54	ASHLEY RIVER RIVERS EDGE MARINA THOMAS JUNIOR BOAT LAND
957142	957142	957142	INCIDENT	10/16/2010 9:11	CALLER STATED A WHITE SUV WAS DRIVEN INTO ASHLEY RIVER BY A FEMALE SUBJECT WHO IS IN THE CUSTODY OF THE NORTH CHARLESTON POLICE. CALLER STATED NO SHEEN OR SPILL REPORTED AT THIS TIME JUST A POTENTIAL FOR A SPILL FROM THE VEHICLE.	UNKNOWN SHEEN	UNKNOWN	10/16/2010 8:54	ASHLEY RIVER RIVERS EDGE MARINA THOMAS JUNIOR BOAT LAND
957142	957142	957142	INCIDENT	10/16/2010 9:11	CALLER STATED A WHITE SUV WAS DRIVEN INTO ASHLEY RIVER BY A FEMALE SUBJECT WHO IS IN THE CUSTODY OF THE NORTH CHARLESTON POLICE. CALLER STATED NO SHEEN OR SPILL REPORTED AT THIS TIME JUST A POTENTIAL FOR A SPILL FROM THE VEHICLE.	UNKNOWN SHEEN	UNKNOWN	10/16/2010 8:54	ASHLEY RIVER RIVERS EDGE MARINA THOMAS JUNIOR BOAT LAND
959921	959921	959921	INCIDENT	11/15/2010 18:21	CALLER IS REPORTING THERE IS A SHEEN AT THE MARINA FROM AN UNKNOWN SOURCE.	UNKNOWN SHEEN	UNKNOWN	11/15/2010 17:45	ASHLEY MARINA 33 ROCKWOOD DR
960060	960060	960060	INCIDENT	11/17/2010 9:09	THE CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE WITH A VERY STRONG DIESEL ODOR. THIS INCIDENT WAS REPORTED TWO DAYS AGO WITH NRC REPORT # 959921. THE SHEEN WENT AWAY YESTERDAY, HOWEVER, IT CAME BACK AND IS WORSE THAT BEFORE.	UNKNOWN SHEEN	UNKNOWN	11/17/2010 9:00	UNKNOWN SHEEN INCIDENT 33 LOCKWOOD DR
960313	960313	960313	INCIDENT	11/19/2010 13:44	ONE QUART OF DIESEL FUEL WAS SPILLED INTO THE COOPER RIVER, THIS OCCURRED WHILE PUMPING OUT OIL OF A HOSE.	UNKNOWN SHEEN	OTHER	11/19/2010 13:17	DENTON SHIP YARD 1670 DRYDOCK AVE
960780	960780	960780	INCIDENT	11/26/2010 13:07	A GARBAGE COMPACTOR HYDRAULIC LINE BROKE AND DISCHARGED 8-12 GALLONS OF HYDRAULIC OIL. MOST OF THE MATERIAL ENTERED A STORM DRAIN.	UNKNOWN SHEEN	EQUIPMENT FAILURE	11/26/2010 12:00	HOSPITAL 109 BEE ST.
961298	961298	961298	INCIDENT	12/3/2010 9:28	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE IN THE COOPER RIVER.	UNKNOWN SHEEN	UNKNOWN	12/3/2010 8:40	UNKNOWN SHEEN INCIDENT 1670 DRY DOCK AVE
961840	961840	961840	INCIDENT	12/9/2010 17:59	REPORT OF AN UNKNOWN SHEEN, OPERATOR BELIEVED TO HAVE SPOTTED A SHEEN ON THE WATER BEFORE SUNSET.	UNKNOWN SHEEN	UNKNOWN	12/9/2010 17:40	UNKNOWN SHEEN INCIDENT, SHIPYARD CREEK, ENTIRE CREEK 1801 MILFORD ST
962209	962209	962209	DRILL	12/14/2010 13:20	/// DRILL/// /// DRILL//// CALLER IS REPORTING A SPILL OF HYDRAULIC OIL FROM AN UNKNOWN SOURCE. /// DRILL/// /// DRILL///.	UNKNOWN SHEEN	UNKNOWN	12/14/2010 13:15	UNKNOWN SHEEN INCIDENT PIER H DENTON SHIPYARD
962289	962289	962289	DRILL	12/15/2010 11:00	//////THIS IS A DRILL//////// CALLER IS REPORTING A DISCHARGE OF #6 OIL FROM OVERFILLED TANKS ONBOARD THE VESSEL (CARGO SHIP) DUE TO AN EQUIPMENT FAILURE. CALLER DOES NOT KNOW WHO THE VESSEL BELONGS TO AT THIS TIME. ///////THIS IS A DRILL//////////	UNKNOWN SHEEN	EQUIPMENT FAILURE	12/15/2010 8:51	COOPER RIVER, CHARLESTON HARBOR
962373	962373	962373	INCIDENT	12/16/2010 7:38	CALLER IS REPORTING A SHEEN ON THE WATER. THERE IS A TRANSFER OPERATION OF A FERTILIZER PRODUCT ON THE CONVEYOR BELT FROM A VESSEL TO THE WAREHOUSE THAT HAS TO BE SPRAYED WITH A DUST SUPPRESSANT. THE BASE OF THE PRODUCT CONTAINS A SMALL AMOUNT OF PETROLEUM PRODUCT. THE SHEEN IS VERY LIGHT. THE OPERATION HAS BEEN HALTED UNTIL THE VESSEL CAN BE BOOMED OFF.	UNKNOWN SHEEN	OTHER	12/16/2010 7:25	1801 MILFORD STREET
962462	962462	962462	INCIDENT	12/16/2010 17:46	TWO LOCOMOTIVES SUFFERED COOLING SYSTEM FAILURE, RESULTING IN A DISCHARGE OF OIL. THE SUMPS FILLED UP WITH COOLING FLUID AND DISPLACED THE OIL.	UNKNOWN SHEEN	UNKNOWN	12/16/2010 17:30	2700 BENNETT YARD ROAD

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962498	962498	962498	INCIDENT	12/17/2010 10:05	THE CALLER IS REPORTING THAT DURING A FUEL TRANSFER, A VALVE WAS LEFT OPEN. THIS RESULTED IN A DISCHARGE OF 20 GALLONS OF NUMBER 2 DIESEL INTO THE COOPER RIVER.	UNKNOWN SHEEN	OPERATOR ERROR	12/17/2010 9:55	COOPER RIVER 5165 VIRGINA AVE
962537	962537	962537	INCIDENT	12/17/2010 14:18	CALLER STATES THAT THERE IS A UNKNOWN SHEEN FROM AN UNKNOWN SOURCE IN THE RIVER.	UNKNOWN SHEEN	UNKNOWN	12/17/2010 13:45	UNKNOWN SHEEN INCIDENT 4950 VIRGINIA AVE
963223	963223	963223	DRILL	12/28/2010 13:32	///THIS IS A DRILL///CALLER REPORTED A TUG WAS RETURNING FROM A JOB AND PUNCTURED A FUEL TANK. THE CAPTAIN HAD A HEART ATTACK AND AS HE FELL OVER HE HIT THE STARBOARD CONTROL WHICH SPUN THE VESSEL 180 DEGREES.	UNKNOWN SHEEN	EQUIPMENT FAILURE	12/28/2010 13:22	BUOY 49 DRUM ISLAND REACH COOPER RIVER
963896	963896	963896	INCIDENT	1/6/2011 11:53	CALLER IS REPORTING AN UNKNOWN SHEEN SIGHTING. EXACT SOURCE OF THE SHEEN IS UNKNOWN AT THIS TIME.	UNKNOWN SHEEN	UNKNOWN	1/6/2011 11:30	COOPER RIVER, NEXT TO DEYTENS SHIP YARD 1670 DRY DOCK AVE #236
963901	963901	963901	INCIDENT	1/6/2011 12:03	CALLER IS REPORTING AN UNKNOWN SHEEN SIGHTING. EXACT SOURCE OF THE SHEEN IS UNKNOWN AT THIS TIME.	UNKNOWN SHEEN	UNKNOWN	1/6/2011 11:48	COOPER RIVER, EAST OF DRY DOCK 5, PIER H & G 1670 DRY DOCK AVE
964234	964234	964234	INCIDENT	1/11/2011 9:23	CALLER STATED THAT A BARGE IS PUMPING OILY WATER INTO THE WATAMULA SOUND.	UNKNOWN SHEEN	DUMPING	1/11/2011 9:20	WATAMULA SOUND
964442	964442	964442	INCIDENT	1/13/2011 10:03	CALLER STATED THERE IS A STAIN OF HEAVY FUEL ON THE SIDE OF THE OF THEIR CONTAINER VESSEL DUE TO A CRACK IN THE HULL. NO SPILL TO WATER REPORTED.	UNKNOWN SHEEN	OTHER	1/13/2011 9:40	THE CHARLESTON, SC ANCHORAGE
965506	965506	965506	INCIDENT	1/24/2011 7:27	CALLER REPORTED THAT A 45 GALLON DRUM WITH UNKNOWN CONTENTS WAS DISCOVERED WASHED UP ON THE BEACH FROM AN UNKNOWN SOURCE.	UNKNOWN SHEEN	UNKNOWN	1/24/2011 6:57	SULLIVAN'S ISLAND AT STATION 2275
965913	965913	965913	INCIDENT	1/28/2011 8:30	CALLER STATED DUE TO EQUIPMENT FAILURE ON A TRASH COMPACTOR THERE WAS A SPILL OF HYDRAULIC OIL. CALLER STATED SOME OF THE SPILL REACHED THE STORM DRAIN WHICH GOES TO THE CHARLESTON HARBOR.	UNKNOWN SHEEN	EQUIPMENT FAILURE	1/28/2011 7:30	109 BEE ST.
966121	966121	966121	INCIDENT	1/31/2011 8:21	CALLER STATED THERE IS A SHEEN IN SHIPYARD CREEK DUE TO A MATERIALS WASHING OFF OF A BARGE INTO THE WATER.	UNKNOWN SHEEN	UNKNOWN	1/31/2011 8:10	1801 MILFORD STREET SHIPYARD CREEK
966236	966236	966236	DRILL	2/1/2011 11:04	***THIS IS A DRILL*** CALLER IS REPORTING DIESEL COMING FROM THE BILGE ON A VESSEL. THE RELEASE IS NOT SECURED. NO HULL NUMBERS OR REGISTRATION NUMBERS VISIBLE ON THE VESSEL.	UNKNOWN SHEEN	UNKNOWN	2/1/2011 9:00	DANIEL ISLAND MARINA OUTSIDE OF DOCK A
967313	967313	967313	INCIDENT	2/12/2011 20:21	CALLER STATED THAT THERE WAS A RELEASE OF 5 GALLONS OF DIESEL FUEL FROM A FUEL TANK THAT HAD A LEAK.	UNKNOWN SHEEN	EQUIPMENT FAILURE	2/12/2011 19:00	OFF MEADING STREET AND HYBRT NONE
967784	967784	967784	INCIDENT	2/17/2011 17:13	CALLER STATED THAT THERE WAS A RELEASE OF 3 GALLONS OF HYDRAULIC OIL FROM A VIBRATING HAMMER ON A BARGE, A PART OF THE HOSE WAS UNDER WATER AND THERE WAS A FITTING THAT WAS LEAKING. AT LOW TIDE THE BARGE WAS RESTING IN THE MUD, THE TIDE HAS COME BACK IN AND THE BARGE IS FLOATING AGAIN.	UNKNOWN SHEEN	EQUIPMENT FAILURE	2/17/2011 15:30	INSIDE THE MARINA AGAINST THE SEAWALL. 2079 AUSTIN AVE

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969294	969294	969294	INCIDENT	3/6/2011 3:41	CALLER IS REPORTING A RELEASE OF OF LUBE OIL FROM LOCOMOTIVE (CSXT1117) DUE TO AN OVERFILLED SUMP.	UNKNOWN SHEEN	OTHER	3/6/2011 3:00	BENNET YARD MILE POST A388 DIVISION FLORENCE
969947	969947	969947	DRILL	3/13/2011 11:15	///DRILL REPORT//// CALLER IS REPORTING A SHEEN ON THE COOPER RIVER FROM AN UNKNOWN SOURCE.	UNKNOWN SHEEN	UNKNOWN	3/13/2011 9:30	UNKNOWN SHEEN INCIDENT
970206	970206	970206	INCIDENT	3/16/2011 9:07	CALLER STATES THAT THE CAPTAIN OF THE VESSEL REPORTED A CONTAINER LEAKING DIEPHYLSULPHATE UN #1594, ONTO THE DECK OF THE VESSEL.	UNKNOWN SHEEN	UNKNOWN	3/16/2011 8:40	WANDO FACILITY CONTAINER TERMINAL
970332	970332	970332	DRILL	3/17/2011 12:15	///THIS IS A DRILL/// CALLER STATES THAT A VESSEL HAD A RELEASE OF NO. 6 OIL INTO THE WATER DURING A TRANSFER. ///THIS IS A DRILL///	UNKNOWN SHEEN	EQUIPMENT FAILURE	3/17/2011 12:15	ANCHORAGE A CHARLESTON HARBOR
971310	971310	971310	DRILL	3/28/2011 10:07	////THIS IS A DRILL////CALLER STATED DUE TO A LEAKING PIPE THERE WAS A SPILL OF TWO GALLONS OF LUBE OIL ON A TUB BOAT.///DRILL////	UNKNOWN SHEEN	EQUIPMENT FAILURE	3/28/2011 9:55	OLD CHARLESTON NAVY BASE PIER U COOPER RIVER
971914	971914	971914	INCIDENT	4/4/2011 9:18	CALLER IS REPORTING A DISCHARGE OF OILY WATER FROM THE CUTTER DUE TO IMPROPER VALVE ALIGNMENT FROM UNKNOWN CAUSES.	UNKNOWN SHEEN	UNKNOWN	4/4/2011 8:00	PIER P 1050 REGISTAR ST
973315	973315	973315	INCIDENT	4/18/2011 14:18	CALLER IS REPORTING AN UNKNOWN SHEEN SIGHTING. EXACT SOURCE OF THE SHEEN IS UNKNOWN AT THIS TIME.	UNKNOWN SHEEN	UNKNOWN	4/18/2011 14:02	ICW 498 BULLS ISLAND RD.
973405	973405	973405	INCIDENT	4/19/2011 10:46	CALLER IS REPORTING A POTENTIAL DISCHARGE OF DIESEL FUEL FROM A SUNKEN BARGE. CALLER WAS TOLD BY THE POLICE DEPT. THAT POSSIBLY VANDALISM CAUSED THE VESSEL TO SINK.	UNKNOWN SHEEN	VESSEL SINKING	4/19/2011 10:35	DANIEL ISLAND PENINSULA, CHARLESTON HARBOR
973912	973912	973912	INCIDENT	4/25/2011 7:51	CALLER STATED DUE TO A PIN HOLE LEAK IN A 55 GALLONS STEEL DRUM THERE WAS A SPILL OF FORMALDEHYDE AT A STORAGE UNIT ONTO THE GROUND.	UNKNOWN SHEEN	EQUIPMENT FAILURE	4/23/2011 16:30	PALMETO STORAGE OF CHARLESTON 2544 ASHLEY RIVER ROAD
976324	976324	976324	INCIDENT	5/14/2011 20:23	CALLER STATED THAT THERE WAS A RELEASE OF 1 PINT OF LUBE OIL FROM A LOCOMOTIVE DOWN THE SIDE BUT NOT ONTO THE TRACKS OR THE BALLAST, THE CAUSE WAS DUE TO EQUIPMENT FAILURE, THE INCIDENT HAPPENED AT THE RAIL YARD.	UNKNOWN SHEEN	EQUIPMENT FAILURE	5/14/2011 8:30	MILE POST SE7 NONE
976471	976471	976471	INCIDENT	5/16/2011 16:24	THE CALLER STATED THERE WAS A BLACK-SOOTY MATERIAL IN THE WATER NEAR A PAPERMILL. THE CALLER STATED THAT THE WATER HAD A CHEMICAL ODOR.	UNKNOWN SHEEN	UNKNOWN	5/15/2011 17:00	UNKNOWN SHEEN INCIDENT/ COOPER RIVER NEAR THE 526 BRIDGE VIRGINIA ST
977743	977743	977743	INCIDENT	5/29/2011 19:11	THE CALLER IS REPORTING AN UNKNOWN SHEEN WITH A STRONG DIESEL ODOR.	UNKNOWN SHEEN	UNKNOWN	5/29/2011 18:00	UNKNOWN SHEEN INCIDENT LOCKWOOD DRIVE
977900	977900	977900	INCIDENT	5/31/2011 16:16	CALLER IS REPORTING A RELEASE OF SODIUM HYPOCHLORITE FROM AN INTERMEDIATE BULK CONTAINER (IBC) DUE TO A SLOW LEAK IN THE OUTLET FITTING.	UNKNOWN SHEEN	EQUIPMENT FAILURE	5/31/2011 14:00	DISTRIBUTION FACILITY 4200 AZALEA DR.

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978962	978962	978962	INCIDENT	6/7/2011 19:32	CALLER REPORTED AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE. HE BELIEVES IT IS GASOLINE.	UNKNOWN SHEEN	UNKNOWN	6/7/2011 19:30	UNKNOWN SHEEN INCIDENT-SHEM CREEK IN FRONT OF WATERS EDGE RESTAURANT
979535	979535	979535	INCIDENT	6/13/2011 15:31	CALLER IS REPORTING A DISCHARGE OF HYDRAULIC OIL FROM A FRONT END LOADER DUE TO A BROKEN HYDRAULIC HOSE.	UNKNOWN SHEEN	EQUIPMENT FAILURE	6/13/2011 15:00	VETERANS TERMINAL PIER Z
980758	980758	980758	INCIDENT	6/25/2011 10:53	REPORT OF A VEHICLE DRIVEN INTO THE WATER THAT CREATED A SHEEN CONSISTING OF 1 GALLON OF GASOLINE. VEHICLE HAS BEEN REMOVED FROM WATER AND SHEEN HAS DISSIPATED.	UNKNOWN SHEEN	OTHER	6/25/2011 9:42	ASHLEY RIVER MARINA N 32-50.15 W 080-01.3
980865	980865	980865	INCIDENT	6/27/2011 1:22	CALLER IS REPORTING A POTENTIAL RELEASE DUE TO A VESSEL THAT IS SUBMERGED AND TAKING ON WATER AT THE MARINA.	UNKNOWN SHEEN	VESSEL SINKING	6/27/2011 0:30	A15 DOCK 24 PATRIOTS POINT RD
980872	980872	980872	INCIDENT	6/27/2011 6:12	////UPDATE TO REPORT # 980865///// CALLER IS REPORTING THAT AN UNKNOWN OIL HAS DISCHARGED FROM A SUNKEN VESSEL DUE TO UNKNOWN CAUSES.	UNKNOWN SHEEN	VESSEL SINKING	6/27/2011 6:06	24 PATRIOTS POINT BLVD
981361	981361	981361	INCIDENT	6/30/2011 19:11	CALLER IS REPORTING A SHEEN OF UNKNOWN ORIGIN.	UNKNOWN SHEEN	UNKNOWN	6/30/2011 19:00	UNKNOWN SHEEN INCIDENT - ASHLEY RIVER 17 LOCKWOOD DR
982110	982110	982110	INCIDENT	7/8/2011 19:14	CALLER STATED THAT THERE WAS A RELEASE OF AN UNKNOWN PRODUCT, THE FIRE DEPARTMENT IS ONSCENE AND INVESTIGATING THE INCIDENT.	UNKNOWN SHEEN	UNKNOWN	7/8/2011 19:00	10 EXCHANGE STREET AND PRIOLEAU BESIDE CAROLINA RESTRAUNT NONE
982486	982486	982486	INCIDENT	7/12/2011 21:07	CALLER IS REPORTING VIA THIRD PARTY OF A STRONG ODOR OF DIESEL FUEL FROM AN UNKNOWN VESSEL IN THE MARINA. THERE IS ALSO A SHEEN ON THE ASHLEY RIVER.	UNKNOWN SHEEN	UNKNOWN	7/12/2011 20:41	IN THE VICINITY OF ASHLEY MARINA ON THE NORTH EAST EDGE
982608	982608	982608	INCIDENT	7/13/2011 21:18	CALLER IS REPORTING A SHEEN OF DIESEL OIL IN THE WATER FROM AN UNKNOWN SOURCE UP STREAM.	UNKNOWN SHEEN	UNKNOWN	7/13/2011 21:00	BRISTOL MARINA AT THE INTERSECTION OF C AND MAIN DOCKS
983411	983411	983411	INCIDENT	7/21/2011 13:28	CALLER IS REPORTING AN UNKNOWN WHITE SUBSTANCE IN THE WATER, THIS WAS OBSERVED WHILE ON FINAL APPROACH INTO CHARLESTON AIRPORT.	UNKNOWN SHEEN	UNKNOWN	7/21/2011 11:20	UNKNOWN SHEEN INCIDENT / CHARLESTON HARBOR NEAR NE TIP OF DRUM ISLAND
983412	983412	983412	INCIDENT	7/21/2011 13:15	A MIX OF COOKING OIL AND WATER WAS BEING DRAINED FROM CONTAINMENT TANK TO A TANKER AND THE HOSE CAME LOOSE. THE NEIGHBORS NOTED THE RELEASE AND CALLED SOUTHEAST BIODIESEL	UNKNOWN SHEEN	OPERATOR ERROR	7/21/2011 10:00	1005 KINSER AVENUE
983998	983998	983998	INCIDENT	7/27/2011 9:41	CALLER IS REPORTING A CRANE TIPPED OVER AND IS SPILLING DIESEL FUEL INTO THE RIVER.	UNKNOWN SHEEN	UNKNOWN	7/27/2011 7:54	1670 DRYDOCK AVE
984401	984401	984401	INCIDENT	7/30/2011 23:56	PSCC REPORTS P05230 STRUCK A VEHICLE AT MP A 378.8 RED BANK RD (DOT# 631974A), NO INJURIES TO CREW, INITIAL REPORT IS ONE OCCUPANT WAS EJECTED FROM VEHICLE AND LIFE LIFTED TO LOCAL HOSPITAL.	UNKNOWN SHEEN	UNKNOWN	7/30/2011 23:23	CHARLESTON, SC

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985063	985063	985063	INCIDENT	8/5/2011 15:53	CALLER STATED THAT THERE IS A SHEEN THAT HAS BEEN SIGHTED ON THE PORT SIDE OF THE VESSEL, THE OIL CAME FROM A CONTRACTORS TANK ONBOARD THE SHIP AT THE SHIPYARD.	UNKNOWN SHEEN	OTHER	8/5/2011 15:30	UNKNOWN SHEEN INCIDENT 1670 DRYDOCK AVE NO CHARLESTON SC
985254	985254	985254	INCIDENT	8/8/2011 9:53	CALLER REPORTED THAT THEY WERE TRANSFERRING JP-5 AND BURPED ABOUT 5 GALLONS ON DECK OF VESSEL.	UNKNOWN SHEEN	OPERATOR ERROR	8/8/2011 9:00	PIER P ETC CHARLESTON
985860	985860	985860	INCIDENT	8/13/2011 18:19	CALLER STATED THAT THERE WAS A RELEASE OF 1 CUP OF HYDRAULIC FLUID FROM A HYDRAULIC HOSE THAT RUPTURED FROM THE STERN OF THE VESSEL. THE SHIP IS DUE BACK IN PORT ON THE 23RD OF NOVEMBER, IF THE VESSEL IS ON SCHEDULE.	UNKNOWN SHEEN	EQUIPMENT FAILURE	8/5/2011 20:23	OFF THE COAST OF AFRICA SEE LAT AND LONG
986097	986097	986097	INCIDENT	8/16/2011 10:02	CALLER REPORTED WHILE TRANSFERRING LUBE OIL FROM A PIER TO A TUG THERE WAS A SPILL FROM THE HOSE DUE TO A BAD CONNECTION.	UNKNOWN SHEEN	OPERATOR ERROR	8/16/2011 9:53	2075 THOMPSON AVE
986614	986614	986614	INCIDENT	8/20/2011 14:04	CALLER IS REPORTING THAT WHILE FUELING THE BOAT HE HAD A SPILL OF DIESEL INTO THE BILGE AND THE FUEL WAS PUMPED OVERBOARD.	UNKNOWN SHEEN	EQUIPMENT FAILURE	8/20/2011 13:30	24 PATRIOT'S POINT ROAD
986710	986710	986710	INCIDENT	8/21/2011 20:19	THE CALLER STATED THAT A VESSEL IS PUMPING DIESEL OVERBOARD DUE TO THE AUTOMATIC BILGE COMING ON. YESTERDAY THE SAME VESSEL HAD A SPILL WHILE FUELING AND HAD BEEN REPORTED TO THE NRC (REPORT NUMBER UNKNOWN).	UNKNOWN SHEEN	UNKNOWN	8/21/2011 16:30	SLIP B44 24 PATRIOTS PT RD
986749	986749	986749	INCIDENT	8/22/2011 11:15	CALLER IS REPORTING AN UNKNOWN SHEEN SIGHTING. EXACT SOURCE OF THE SHEEN IS UNKNOWN AT THIS TIME.	UNKNOWN SHEEN	UNKNOWN	8/22/2011 11:00	RIPLEY COVE (CHANNEL), NEARBY THE ADDRESS LOCATION 95 RIPLEY POINT DR.
990004	990004	990004	INCIDENT	9/18/2011 14:54	CALLER IS REPORTING A DISCHARGE OF ULTRA LOW SULFUR DIESEL OIL FROM A PUMP STACK ON A VESSEL DUE TO UNKNOWN CAUSES.	UNKNOWN SHEEN	UNKNOWN	9/18/2011 14:40	HESS TERMINAL
990438	990438	990438	INCIDENT	9/22/2011 8:38	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF PROPANE FROM A TANK LOCATED ON THE PROPERTY OF A LOCAL BUSINESS.	UNKNOWN SHEEN	UNKNOWN	9/21/2011 12:00	4315 PIGGLY WIGGLY DR.
990687	990687	990687	INCIDENT	9/24/2011 13:15	CALLER STATED DUE TO EQUIPMENT FAILURE THERE WAS A SPILL OF MATERIALS FROM THE VESSEL.	UNKNOWN SHEEN	EQUIPMENT FAILURE	9/24/2011 13:00	FEDERAL LAW ENFORCEMENT TRAIN CENTER PIER P COOPER RIVER
991483	991483	991483	INCIDENT	10/3/2011 8:15	CALLER IS REPORTING A TANK CAR THAT IS LEAKING PETROLEUM LUBRICATING OIL ONTO THE GROUND AND THE SIDE OF THE CAR.	UNKNOWN SHEEN	UNKNOWN	10/3/2011 7:47	IN THE RAILYARD 2700 BENNETT YARD RD.
991914	991914	991914	INCIDENT	10/7/2011 16:07	CALLER STATED THAT THERE WAS A RELEASE OF 10 TONS OF ORE FROM A HOPPER CAR, DUE TO A DERAILMENT THAT HAPPENED IN THE RAIL YARD, THERE WERE A TOTAL OF THREE CARS DERAILED, THERE WERE NO INJURIES AND NO FATALITIES AND NO FIRES.	UNKNOWN SHEEN	DERAILMENT	10/5/2011 7:30	COSGROVE YARD 2200 RICH STREET
993023	993023	993023	INCIDENT	10/19/2011 12:46	CALLER IS REPORTING A TANK CAR THAT IS LEAKING CORROSIVE MATERIAL (AMINOETHYLPIPERAZINE) QUANTITY IS 2 QUARTS. MATERIAL HAS NOT DRIPPED ON TO THE BALLAST AT THIS TIME.	UNKNOWN SHEEN	UNKNOWN	10/19/2011 12:20	COSGROVE YARD 1090 MILL RD

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993285	993285	993285	INCIDENT	10/22/2011 9:34	**0750 HOURS ON 22OCT2011, CSXT 550 WAS FOUND TO HAVE A BLOWN POWER ASSEMBLY (BLOWN PISTON), THE SUMP AND ECOLOGY TANK HAVE CONTAINED MOST OF THE LUBE OIL, APPROXIMATELY 2 GALLONS HAS DRIPPED ONTO THE BALLAST	UNKNOWN SHEEN	EQUIPMENT FAILURE	10/22/2011 7:50	BENNETT YARD, YARD TRACK HO-4 2700 BENNETT YARD ROAD
993510	993510	993510	INCIDENT	10/25/2011 10:16	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE.	UNKNOWN SHEEN	UNKNOWN	10/25/2011 9:50	UNKNOWN SHEEN INCIDENT 196 CONCORD STREET
993516	993516	993516	INCIDENT	10/25/2011 10:47	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED NEXT TO A CRUISE SHIP.	UNKNOWN SHEEN	UNKNOWN	10/25/2011 9:45	UNKNOWN SHEEN INCIDENT UNION PIER CRUISE TERMINAL ATLANTIC OCEAN
993807	993807	993807	INCIDENT	10/27/2011 18:13	THE RESPONSIBLE PARTY'S 15FT HYDASPORT VSL SUNK IN THE ENTRANCE TO THE NORTH INTRACOASTAL WATERWAY IN CHARLESTON HARBOR OUTSIDE THE NAVIGABLE WATERWAY WITH APPROX 5-10 GALLONS OF FUEL ON BOARD. THE RP IS HIRING COMMERCIAL ASSISTANCE TO REMOVE THE VESSEL	UNKNOWN SHEEN	VESSEL SINKING	10/27/2011 16:59	ENTRANCE TO NORTH INTRACOASTAL WATERWAY CHARLESTON HARBOR
995400	995400	995400	INCIDENT	11/13/2011 19:49	CALLER STATES THAT A PIPELINE RUPTURED ON THE DOCK RELEASING AN UNKNOWN AMOUNT OF DIESEL INTO THE WATER.	UNKNOWN SHEEN	UNKNOWN	11/13/2011 19:45	DOCK 4 1500 GREENLEAF STREET
995568	995568	995568	INCIDENT	11/15/2011 10:49	CALLER STATED THAT A CONSTRUCTION COMPANY SPILLED DIESEL FUEL FROM A STORAGE TANK WHEN IT DROPPED ONTO THE DOCK. THERE WAS AN UNKNOWN AMOUNT OF DIESEL FUEL THAT ENTERED INTO THE WATER.	UNKNOWN SHEEN	UNKNOWN	11/15/2011 9:15	TC DOCK AT THE NAVAL WEAPONS STATION (JOINT BASE CHARLESTON)
995652	995652	995652	INCIDENT	11/16/2011 8:48	CALLER REPORTED A SHEEN OFF THE STERN OF THE VESSEL. SOURCE UNKNOWN AT THIS TIME.	UNKNOWN SHEEN	UNKNOWN	11/16/2011 8:00	UNION PIER
995659	995659	995659	INCIDENT	11/16/2011 9:12	CALLER IS REPORTING AN UNKNOWN SHEEN IN THE COOPER RIVER. CALLER STATED IT IS UNKNOWN AT THIS TIME THE SOURCE OF THE SHEEN.	UNKNOWN SHEEN	UNKNOWN	11/16/2011 8:30	UNKNOWN SHEEN INCIDENT SEE LAT & LONG
996382	996382	996382	INCIDENT	11/23/2011 15:28	THE CALLER REPORTED THAT A TRACK-HOE HAD SLIPPED INTO A MARSH YESTERDAY AT 15:00 AND A SHEEN WAS OBSERVED TODAY IN THE WATER AT 14:00.	UNKNOWN SHEEN	OPERATOR ERROR	11/23/2011 14:00	MARSH AREA 4370 AZALEA DR.
996525	996525	996525	INCIDENT	11/27/2011 8:39	CALLER STATED THERE WAS A SPILL OF GEAR OIL FROM THEIR VESSEL DUE TO MAINTENANCE WORK THAT WAS BEING DONE. THE SPILL OCCURRED OVERNIGHT AND WAS DISCOVERED IN THE MORNING IN THE COOPER RIVER.	UNKNOWN SHEEN	OTHER	11/27/2011 8:00	FEDERAL LAW ENFORCEMENT TRAINING CENTER 1050 REGISTAR ST. COOPER RIVER PIER P
997185	997185	997185	INCIDENT	12/5/2011 10:52	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE AT THE MARINA.	UNKNOWN SHEEN	UNKNOWN	12/5/2011 9:45	UNKNOWN SHEEN INCIDENT 17 LOCKWOOD DR
998297	998297	998297	DRILL	12/16/2011 11:38	//// DRILL//// CALLER IS REPORTING A SPILL OF ULTRA-LOW SULFUR DIESEL FUEL FROM A TOWING VESSEL ANN MORAN DUE TO EQUIPMENT FAILURE./// DRILL///	UNKNOWN SHEEN	EQUIPMENT FAILURE	12/16/2011 11:30	2075 THOMPSON AVE
998786	998786	998786	INCIDENT	12/22/2011 11:05	CALLER IS REPORTING A DISCHARGE OF LUBE OIL FROM A LOCOMOTIVE (#NS5243) DUE TO A MECHANICAL FAILURE. CALLER STATES THE LOCOMOTIVE WAS NOT PART OF A TRAIN.	UNKNOWN SHEEN	EQUIPMENT FAILURE	12/21/2011 20:00	7 MILE RAIL YARD, MILEPOST: SC7 200 RICH ST.

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1000199	1000199	1000199	INCIDENT	1/12/2012 10:34	CALLER STATES THAT TWO LOCOMOTIVES RELEASED APPROXIMATELY 1 CUP EACH OF LUBE OIL FROM THE ENGINE SUMP ONTO THE BALLAST DUE TO AN UNKNOWN CAUSE.	VESSEL	UNKNOWN	1/12/2012 10:17	MILEPOST: SC7 SUBDIVISION: PIEDMONT CHARLESTON YARD
1000685	1000685	1000685	INCIDENT	1/18/2012 16:56	CALLER STATED THAT THERE IS A COMPANY THAT IS POURING USED ENGINE OIL ONTO THE GROUND, THERE ARE ALSO OIL CONTAINERS THAT ARE OVERFLOWING ONTO THE GROUND FOR SEVERAL YEARS. CALLER ALSO STATED THAT IT HAS RAINED IN THE AREA AND THE OIL IS GETTING INTO THE SOIL, NO ADDITIONAL INFORMATION.	VESSEL	OTHER	1/18/2012 10:00	4509 SAVANNAH HWY UNIT #5
1000744	1000744	1000744	INCIDENT	1/19/2012 14:30	CALLER STATED THAT THEY RECEIVED A REPORT OF AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE FROM A VESSEL AT THE PROVIDED COORDINATES.	VESSEL	UNKNOWN	1/19/2012 13:55	UNKNOWN SHEEN INCIDENT LAT/LONG
1000841	1000841	1000841	DRILL	1/20/2012 13:37	/////THIS IS A DRILL///// CALLER IS REPORTING A RELEASE FROM A HOSE DURING FUELING OF A TUG ON THE SHORE SIDE./////THIS IS A DRILL/////	VESSEL	EQUIPMENT FAILURE	1/20/2012 13:30	KINDER MORGAN BERTH 4 TERMINAL // COOPER RIVER
1001166	1001166	1001166	INCIDENT	1/24/2012 15:46	CALLER STATED THAT A PIECE OF CRANE EQUIPMENT'S (REACH STACKER) HYDRAULIC LINE BURST AND DISCHARGED 25-50 GALLONS OF HYDRAULIC OIL INTO A DRY DITCH.	VESSEL	EQUIPMENT FAILURE	1/24/2012 14:15	IN THE INTERMODAL RAIL YARD 4201 MEETING STREET
1001313	1001313	1001313	INCIDENT	1/26/2012 9:21	CALLER IS REPORTING A SHEEN IN THE WATER FROM DIESEL FUEL LEAKING FROM A WELD AROUND A PIPE.	VESSEL	EQUIPMENT FAILURE	1/26/2012 7:55	PIER PAPA
1003974	1003974	1003974	INCIDENT	2/26/2012 1:53	CALLER REPORTED THAT AN ENGINEER STARTED A LOCOMOTIVE AND NOTICE THAT DIESEL WAS DISCHARGING ONTO THE BALLAST. SOURCE OF THE DISCHARGE IS UNKNOWN AT THIS TIME.	VESSEL	EQUIPMENT FAILURE	2/26/2012 1:29	2700 BENNETT YARD RD
1004051	1004051	1004051	INCIDENT	2/27/2012 6:49	CALLER STATED THERE WAS A SPILL OF MATERIALS FROM A TANKER CAR IN A RAIL YARD DUE TO UNKNOWN CAUSES.	VESSEL	UNKNOWN	2/27/2012 5:30	NORTH CHARLESTON RAILYARD 2700 BENNETT YARD ROAD
1005177	1005177	1005177	DRILL	3/8/2012 19:27	///THIS IS A DRILL/// CALLER STATES THAT THE VESSEL OPERATOR TRIPPED AND STRUCK A CONTROL CAUSING THE TUG BOAT TO SPIN AND COLLIDE WITH THE CONTAINER TERMINAL. THE STARBOARD TANK WAS PUNCTURED AND RELEASED 2500 GALLONS OF ULTRA LOW SULFUR DIESEL INTO THE WATER.	VESSEL	OPERATOR ERROR	3/8/2012 19:22	WANDO WELCH TERMINAL, WANDO RIVER
1005219	1005219	1005219	INCIDENT	3/9/2012 10:57	CALLER IS REPORTING AN UNKNOWN SHEEN IN THE ASHLEY RIVER FROM AN UNKNOWN SOURCE.	VESSEL	UNKNOWN	3/9/2012 10:50	ASHLEY RIVER 17 LOCKWOOD DR
1005617	1005617	1005617	DRILL	3/13/2012 14:20	///THIS IS A DRILL/// CALLER STATED DUE TO EQUIPMENT FAILURE THERE WAS A SPILL OF LUBE OIL FROM A TUG BOAT ON THE COOPER RIVER.///DRILL//	VESSEL	EQUIPMENT FAILURE	3/13/2012 14:15	COOPER RIVER BUOY MARKER 49
1006437	1006437	1006437	INCIDENT	3/21/2012 13:42	CALLER STATED AN UNKNOWN SHEEN WAS DISCOVERED AT THE MARINA ON THE ASHLEY RIVER.	VESSEL	UNKNOWN	3/21/2012 13:20	UNKNOWN SHEEN INCIDENT 33 LOCKWOOD DR ASHLEY RIVER
1007366	1007366	1007366	INCIDENT	3/30/2012 19:08	CALLER STATED THAT A HYDRAULIC LINE RUPTURED ON THE STERN RAMP, DISCHARGING APPROXIMATELY A QUART OF HYRDRAULIC FLUID INTO THE COOPER RIVER.	VESSEL	EQUIPMENT FAILURE	3/30/2012 18:42	NAVAL WEAPONS STATION WARF A

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1007442	1007442	1007442	INCIDENT	3/31/2012 18:09	CALLER STATED THAT THERE WAS A DISCHARGE OF 4 GALLONS OF GASOLINE FROM A FUEL DOCK AT A MARINA, THE CAUSE IS UNKNOWN.	VESSEL	UNKNOWN	3/31/2012 17:15	2408 MAY BANK HW
1007659	1007659	1007659	INCIDENT	4/3/2012 9:28	CALLER IS REPORTING AN UNKNOWN SHEEN IN RIPLEY COVE FROM AN UNKNOWN SOURCE.	VESSEL	UNKNOWN	4/3/2012 9:00	UNKNOWN SHEEN INCIDENT 95 RIPLEY POINT DR.
1007660	1007660	1007660	INCIDENT	4/3/2012 9:33	CALLER IS REPORTING A REDDISH DIESEL SMELLING SHEEN THAT IS TAKING UP ABOUT HALF OF THE MARINA AREA OR MORE. THE SOURCE IS UNKNOWN.	VESSEL	UNKNOWN	4/3/2012 9:15	UNKNOWN SHEEN INCIDENT RILEY LIGHT MARINA CHARLESTON HARBOR
1007756	1007756	1007756	DRILL	4/4/2012 9:57	***DRILL ONLY*** CALLER IS REPORTING A RELEASE OF 2,000 BARRELS OF #6 OIL TO THE WATER DUE TO AN UNKNOWN CAUSE.	VESSEL	UNKNOWN	4/4/2012 9:20	5150 VIRGINIA AVENUE
1007866	1007866	1007866	DRILL	4/5/2012 11:07	///THIS IS A DRILL///CALLER REPORTED A TANK CAR IN A YARD IS LEAKING A GALLON EVERY HALF HOUR DUE TO UNKNOWN REASONS.	VESSEL	UNKNOWN	4/5/2012 10:45	MP SC7.0
1008770	1008770	1008770	INCIDENT	4/16/2012 11:36	CALLER IS REPORTING THAT WHILE RETURNING ON HIS SEA RAY 370 AN EXPLOSION OCCURRED IN THE ENGINE COMPARTMENT AND SMOKE BILLOWED OUT OF THE ENGINE BAY. CALLER CAME TO IDLE AND SHUT DOWN THE ENGINES. CALLER THEN CALLED MAYDAY ON RADIO FOR COAST GUARD REGARDING A FIRE ON THE VESSEL. ANCHORS COULD NOT BE LOOSEN DUE TO POWER SHUT DOWN. A GOOD SAMARITAN TOOK CAPTAIN OF THE VESSEL AND PASSENGERS OFF THE BOAT. THE VESSEL CAUGHT ON FIRE THROUGH THE ENGINE COMPARTMENT AND BURNED FOR ABOUT AN HOUR AND SANK. ON SATURDAY 14TH APRIL A SALVAGE COMPANY RECOVERED THE VESSEL. NO SHEEN WAS REPORTED OR NOTICED ON THE WATER.	VESSEL	VESSEL SINKING	4/12/2012 17:00	UNDER THE ARTHUR RAVENEL BRIDGE CHARLESTON HARBOR
1009322	1009322	1009322	INCIDENT	4/21/2012 16:50	CALLER STATED THAT THERE WAS A RELEASE OF 2 GALLONS OF DIESEL FUEL FROM A VESSEL THAT WAS OVER FILLED AT THE PUMP STATION.	VESSEL	OPERATOR ERROR	4/21/2012 16:44	17 LOCKWOOD DR
1009352	1009352	1009352	INCIDENT	4/22/2012 9:32	CALLER IS REPORTING AN UNKNOWN SHEEN IN THE COOPER RIVER FROM AN UNKNOWN SOURCE.	VESSEL	UNKNOWN	4/22/2012 9:15	COOPER RIVER AT BERTH ONE
1011650	1011650	1011650	INCIDENT	5/16/2012 7:57	REPORT OF A DISCHARGE OF DIESEL FROM AN ON-SITE FUEL LINE ON TO A SIDE WALK AND IN TO THE WATER.	VESSEL	EQUIPMENT FAILURE	5/16/2012 7:45	17 LOCKWOOD DR
1012540	1012540	1012540	INCIDENT	5/24/2012 15:44	CALLER IS REPORTING A BROKEN HOSE SPILLED GASOLINE INTO THE WATER.	VESSEL	EQUIPMENT FAILURE	5/24/2012 15:30	56 ASHLEY POINT DRIVE
1014024	1014024	1014024	INCIDENT	6/9/2012 10:32	DURING UNLOADING ISO CONTAINERS OF P4, SOME P4 WAS CONTAINED IN THE PIPING RESULTING IN A FIRE. LOCAL FIRE DEPARTMENT RESPONDED, THERE WAS A CLOUD OF VAPORS THAT WENT TO THE NW BEYOND THE PROPERTY. FIRE LASTED FOR APPROXIMATELY 3 MINUTES.	VESSEL	OTHER	6/9/2012 10:15	2151 KING ST EXT
1014030	1014030	1014030	INCIDENT	6/9/2012 10:55	CALLER REPORTED A CONTAINER THAT LEAKED MATERIALS CAUSING A FIRE.	VESSEL	EQUIPMENT FAILURE	6/9/2012 10:07	2161 KINGS ST EXT
1014438	1014438	1014438	INCIDENT	6/13/2012 12:10	CALLER IS REPORTING AN UNKNOWN SHEEN IN THE CHARLESTON JETTIES FROM AN UNKNOWN SOURCE.	VESSEL	UNKNOWN	6/13/2012 11:56	UNKNOWN SHEEN INCIDENT

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1014469	1014469	1014469	INCIDENT	6/13/2012 14:37	CALLER IS REPORTING A DISCHARGE OF ONE PINT OF DIESEL FUEL FROM A BALL VALVE IN A FUEL LINE AT A MARINA, THE CAUSE WAS DUE TO FUEL IN THE FUEL LINE RETURNING TO THE SUMP BOX, CALLER ALSO STATED THAT THE TIDE AT THE MARINA SHIFTED.	VESSEL	UNKNOWN	6/13/2012 14:35	17 LOCKWOOD DR
1014647	1014647	1014647	INCIDENT	6/15/2012 8:28	CALLER REPORTED A LOCOMOTIVE SPILLED 5 GALLONS OF ENGINE OIL ONTO THE BALLAST DUE TO A MECHANICAL FAILURE.	VESSEL	EQUIPMENT FAILURE	6/15/2012 7:00	SC3
1014736	1014736	1014736	INCIDENT	6/15/2012 20:21	CALLER IS REPORTING AN UNKNOWN SHEEN FROM AN UNKNOWN SOURCE IN CHARLESTON HARBOR.	VESSEL	UNKNOWN	6/15/2012 20:09	UNKNOWN SHEEN INCIDENT ACROSS FROM FORT SUMTER HOTEL KING ST MURRAY BLVD
1015113	1015113	1015113	INCIDENT	6/20/2012 10:37	CALLER REPORTED AN UNKNOWN SHEEN COMING FROM AN UNKNOWN SOURCE.	VESSEL	UNKNOWN	6/19/2012 15:30	MORRIS ISLAND LIGHT HOUSE JOHNS ISLAND
1015891	1015891	1015891	DRILL	6/27/2012 12:02	////////THIS IS A DRILL////////// CALLER IS REPORTING A DISCHARGE OF LUBE OIL FROM A TUB BOAT DUE TO A HOSE MALFUNCTION.	VESSEL	EQUIPMENT FAILURE	6/27/2012 11:57	COOPER RIVER, PIER U, ON THE OLD NAVY BASE
1016175	1016175	1016175	DRILL	6/29/2012 12:49	****THIS IS A DRILL**** TUG DIANE MORAN RETURNED TO DOCK, LOST POWER TO PORT SIDE Z DRIVE AND STRUCK ANOTHER TUG, CAPE MAY. THE TUG CAPE MAY FUEL TANK WAS DAMAGED RESULTING IN A RELEASE.	VESSEL	EQUIPMENT FAILURE	6/29/2012 12:45	2075 THOMPSON AVE
1016450	1016450	1016450	INCIDENT	7/2/2012 9:11	CALLER STATED THERE WAS A GRADE CROSSING INCIDENT INVOLVING A PASSENGER TRAIN AND PASSENGER VEHICLE. CALLER STATED THERE WAS ONE FATALITY INSIDE OF THE PASSENGER VEHICLE.	VESSEL	TRANSPORT ACCIDENT	7/2/2012 5:53	MAYBELLINE ROAD M/P: A383.4 S/D: HANAHAN
1017392	1017392	1017392	INCIDENT	7/11/2012 10:34	CALLER IS REPORTING THAT A PINT OF PAINT SPLATTERED INTO THE WATER WHEN A ONE GALLON CAN WAS BROUGHT ON BOARD AND FELL ONTO THE DECK POPPING OPEN.	VESSEL	OTHER	7/11/2012 10:25	DETYENS SHIPYARD PIER G
1017425	1017425	1017425	INCIDENT	7/11/2012 14:05	HEAVY WINDS BLEW RAIN WATER OUT OF A DOCK'S CONTAINMENT AND A SHEEN WAS CREATED ON THE WATER. THE CONTAINMENT HAS AN AUTOMATIC PUMP TO EMPTY THE CONTAINMENT PAN, BUT THE PUMP COULD NOT KEEP UP WITH THE AMOUNT OF RAIN THAT WAS FALLING.	VESSEL	NATURAL PHENOMENON	7/11/2012 13:50	1500 GREEN LEAF ST
1017437	1017437	1017437	INCIDENT	7/11/2012 14:42	*****WEB REPORT**** DOCK OFFICE RECEIVED A REPORT OF DIESEL FUEL IN THE MARINA. LARGE PATCH OF FUEL ON THE WATER AROUND H-DOCK IN THE MARINA.	VESSEL	UNKNOWN	7/11/2012 14:20	UNKNOWN SHEEN 33 LOCKWOOD DRIVE
1017534	1017534	1017534	INCIDENT	7/12/2012 13:51	CALLER IS REPORTING AN UNKNOWN SHEEN ON THE WATER.	VESSEL	UNKNOWN	7/12/2012 13:40	UNKNOWN SHEEN INCIDENT 95 RIPLEY POINT DR.
1017608	1017608	1017608	DRILL	7/13/2012 10:05	///DRILL DRILL DRILL/// CALLER IS REPORTING A DISCHARGE OF MOTOR OIL INTO A RETENTION POND. CALLER STATED THAT A TANK RUPTURED, LEADING TO THE DISCHARGE. IT IS UNKNOWN AT THIS TIME WHAT CAUSED THE RUPTURE. CALLER STATED THAT A TRUCK RAN INTO THE RETENTION WALL CAUSING THE MATERIAL TO DISCHARGE FROM THE CONTAINMENT AREA INTO THE POND. ///DRILL DRILL DRILL///	VESSEL	OTHER	7/13/2012 9:43	1445 GREENLEAF ST.
1017779	1017779	1017779	INCIDENT	7/14/2012 21:28	CALLER STATED THERE IS A SPILL OF MATERIALS FROM A SAILBOAT AT A MARINA ON THE INTRACOASTAL WATERWAY. THE CAUSE OF THE SPILL IS UNKNOWN AT THIS TIME.	VESSEL	UNKNOWN	7/14/2012 21:00	MORGAN CREEK MARINA ICW

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1018088	1018088	1018088	INCIDENT	7/17/2012 21:15	THE CALLER IS REPORTING A MYSTERY SHEEN IN THE COOPER RIVER.	VESSEL	UNKNOWN	7/17/2012 20:45	BETWEEN PIER C& D 1670 DRYDOCK AVE.
1019028	1019028	1019028	INCIDENT	7/26/2012 12:24	CALLER STATED HYDRAULIC OIL RELEASED FROM THE CONTROLLABLE PITCH PROPELLER OF THE CUTTER GALLATIN INTO THE COOPER RIVER. THIS HAS BEEN OCCURRING FOR THE PAST 10 DAYS INFREQUENTLY.	VESSEL	EQUIPMENT FAILURE	7/26/2012 10:00	PIER P 1050 REGISTER STREET
1020482	1020482	1020482	INCIDENT	8/9/2012 11:25	***WEB REPORT*** THE VESSEL, NANCY FOSTER, WAS MOORED STARBOARD SIDE TO PIER "P" AT THE FEDERAL LAW ENFORCEMENT TRAINING CENTER IN NORTH CHARLESTON, SC. A FUELING BARGE WAS TIED ALONGSIDE ON THE PORT SIDE. WHILE TAKING ON FUEL FROM THE BARGE, A MISSING GASKET IN THE CAM LOCK CONNECTION CAUSED DIESEL FUEL TO SPRAY ON DECK. OPERATIONS CEASED IMMEDIATELY. ABSORBANT BOOMS AND ABSORBANT PADS WERE USED TO CLEAN THE SPILL ON DECK. APPROXIMATE TOTAL SPILL: 2-3 CUPS ON DECK. LESS THAN ONE OUNCE SPRAYED INTO THE WATER LEAVING A SMALL SHEEN. AN ABSORBANT BOOM WAS PLACED DOWN-CURRENT BETWEEN BARGE AND SHIP AS A PRECAUTION. SPILL CONTAINED 20 MINUTES AFTER INCIDENT.	VESSEL	EQUIPMENT FAILURE	8/9/2012 8:26	PIER PAPA, NORTH FACE OF PIER, FLETC, NORTH CHARLESTON, SC 2000 BAINBRIDGE AVE
1021412	1021412	1021412	INCIDENT	8/17/2012 22:26	CALLER REPORTED A LEAKING CONTAINER ABOARD A VESSEL	VESSEL	EQUIPMENT FAILURE	8/17/2012 17:00	1000 REMOUNT RD
1022415	1022415	1022415	INCIDENT	8/28/2012 10:34	CALLER STATED THAT THERE IS A UNKNOWN AMOUNT OF DIESEL DISCHARGED IN THE ASHLEY RIVER.	VESSEL	UNKNOWN	8/28/2012 9:35	ASHLEY MARINA 33 LOCKWOOD DRIVE
1022694	1022694	1022694	INCIDENT	8/30/2012 16:05	ON 08/30/12 AT 1526 HOURS, MANAGER OF ENVIRONMENTAL FIELD SERVICES, REPORTED A ONE FOOT DIAMETER OIL SHEEN FROM STORM WATER OUTFALL #001 AROUND MP ACN 388.63 ON THE CHARLESTON SUBDIVISION. THIS IS LOCATED AT 2700 BENNETT YARD ROAD IN NORTH CHARLESTON, SC. ENVIRONMENTAL CONDITIONS WERE REPORTED AS OVERCAST, HOT AND HUMID, AND HAD HEAVY RAIN OVER THE PAST FEW DAYS WHICH STOPPED EARLY MORNING TODAY. CRISIS COMMUNICATIONS COMMUNICATIONS MANAGER, WAS NOTIFIED AND WILL HAVE HEPACO RESPOND FOR CLEANUP.	VESSEL	UNKNOWN	8/30/2012 15:26	BENNETT YARD 2700 BENNETT YARD ROAD
1023336	1023336	1023336	INCIDENT	9/5/2012 8:29	CALLER IS REPORTING THAT THE CITY IS SPRAYING WATER SEALER ONTO THE DECK OF THE WHARF. THE MATERIAL IS GOING INTO THE WATER. THEY ARE NEARLY DONE AT THE DOCK AREA, BUT THEY WILL ALSO BE SPRAYING THE BRIDGE. CALLER STATED THEY ARE WEARING MASKS AND THE MATERIAL IS AN OIL BASED HAZARDOUS MATERIAL.	VESSEL	OTHER	9/5/2012 8:00	ADGERS WHARF DOWNTOWN
1023651	1023651	1023651	DRILL	9/7/2012 12:33	///DRILL REPORT/// CALLER STATED THAT A BARGE RAN AGROUND IN THE COOPER RIVER AT THE DANIEL ISLAND DEN. THERE WAS A RELEASE OF NO. 6 OIL AND DIESEL FUEL TO THE WATER.	VESSEL	OTHER	9/7/2012 12:10	COOPER RIVER AT THE DANIEL ISLAND DEN
1023651	1023651	1023651	DRILL	9/7/2012 12:33	///DRILL REPORT/// CALLER STATED THAT A BARGE RAN AGROUND IN THE COOPER RIVER AT THE DANIEL ISLAND DEN. THERE WAS A RELEASE OF NO. 6 OIL AND DIESEL FUEL TO THE WATER.	VESSEL	OTHER	9/7/2012 12:10	COOPER RIVER AT THE DANIEL ISLAND DEN
1024473	1024473	1024473	INCIDENT	9/14/2012 18:31	CALLER STATED THAT THEY RECEIVED A NOTIFICATION OF AN UNKNOWN AMOUNT OF SUSPECTED DIESEL OIL DISCHARGED INTO THE ASHLEY RIVER. CALLER STATED THAT THE REPORTING SOURCE STATED THE SHEEN IS THROUGHOUT THE WATERWAY.	VESSEL	UNKNOWN	9/14/2012 18:25	BETWEEN WAPPOO CREEK AND LIMEHOUSE BRIDGE ASHLEY RIVER
1024675	1024675	1024675	INCIDENT	9/17/2012 11:14	///WEB REPORT/// LOCATED A 2' X 1', 3" THICK TAR BALL ON KIAWAH ISLAND.	VESSEL	UNKNOWN	9/17/2012 11:00	UNKNOWN SHEEN 21 BEACH STREET
1025046	1025046	1025046	DRILL	9/20/2012 14:59	///THIS IS A DRILL/// CALLER STATED THAT THEY WERE TRANSFERRING FUEL AND THE HOSE HAD A PINPRICK IN IT AND DISCHARGED APPROXIMATELY 3 GALLONS OF DIESEL FUEL INTO THE COOPER RIVER.///THIS IS A DRILL///	VESSEL	EQUIPMENT FAILURE	9/20/2012 14:10	COOPER RIVER MARATHON OIL DOCK
1025175	1025175	1025175	INCIDENT	9/21/2012 16:41	CALLER IS REPORTING A RELEASE OF FREON FROM AN APARTMENT COMPLEX THAT HAS A LEAKING AIR CONDITIONER. CALLER STATED THAT EVERY TWO WEEKS FREON IS ADDED TO THE SYSTEM.	VESSEL	UNKNOWN	9/21/2012 16:45	7910 CROSSROADS DRIVE APT 9K

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1025940	1025940	1025940	INCIDENT	9/29/2012 13:05	CALLER IS REPORTING AN UNKNOWN SHEEN IN THE HARBOR	VESSEL	UNKNOWN	9/29/2012 13:00	JUST OFF FORT SUMTER
1025956	1025956	1025956	INCIDENT	9/29/2012 16:09	CALLER IS REPORTING AN UNKNOWN SHEEN ON THE WATER IN THE HARBOR, THE CAUSE IS UNKNOWN.	VESSEL	UNKNOWN	9/29/2012 15:30	HARBORAGE MARINA
1025999	1025999	1025999	INCIDENT	9/30/2012 9:47	CALLER STATED THERE IS AN UNKNOWN SHEEN IN THE ASHLEY RIVER. CALLER STATED THE SPILL HAS A PETROLEUM ODOR.	VESSEL	UNKNOWN	9/30/2012 8:00	UNKNOWN SHEEN INCIDENT ASHLEY RIVER HIGHWAY 17 BRIDGE
1026201	1026201	1026201	INCIDENT	10/2/2012 11:59	CALLER STATED THAT THEY HAVE A SINGLE LOCOMOTIVE THAT DISCHARGED APPROXIMATELY 50 GALLONS OF LUBE OIL ONTO THE BALLAST. CALLER STATED THE CAUSE IS UNDER INVESTIGATION.	VESSEL	UNKNOWN	10/2/2012 11:00	KINDER MORGAN INDUSTRIAL PARK 5165 VIRGINIA AVE MILEPOST RPX3
1027278	1027278	1027278	INCIDENT	10/14/2012 12:52	CALLER IS MAKING A REPORT INVOLVING A 300 FOOT SECTION OF BULK HEAD THAT COLLAPSED POSSIBLY DUE TO THE WEIGHT OF THE CARGO BEHIND THE BULK HEAD. CALLER SUSPECTS AN EXCAVATOR, A BOBCAT AND A GENERATOR FELL INTO THE WATER BUT THERE HAS NOT BEEN ANY EVIDENCE OF A MATERIAL RELEASE AT THIS TIME.	VESSEL	OTHER	10/14/2012 10:00	VETERANS TERMINAL 1150 NORTH POINT DR.
1027278	1027278	1027278	INCIDENT	10/14/2012 12:52	CALLER IS MAKING A REPORT INVOLVING A 300 FOOT SECTION OF BULK HEAD THAT COLLAPSED POSSIBLY DUE TO THE WEIGHT OF THE CARGO BEHIND THE BULK HEAD. CALLER SUSPECTS AN EXCAVATOR, A BOBCAT AND A GENERATOR FELL INTO THE WATER BUT THERE HAS NOT BEEN ANY EVIDENCE OF A MATERIAL RELEASE AT THIS TIME.	VESSEL	OTHER	10/14/2012 10:00	VETERANS TERMINAL 1150 NORTH POINT DR.
1028178	1028178	1028178	DRILL	10/24/2012 10:27	///THIS IS A DRILL///CALLER STATED DUE TO A STRESS CRACK TO A WELDED JOINT ON A FUEL TANK ON A TUG BOAT THERE WAS A SPILL OF 40 GALLONS OF MATERIALS INTO THE COOPER RIVER. ////DRILL///	VESSEL	EQUIPMENT FAILURE	10/24/2012 10:15	COOPER RIVER NORTH CHARLESTON CONTAINER TERMINAL BERTH 1
1030917	1030917	1030917	INCIDENT	11/17/2012 14:36	CALLER STATED THAT THERE IS A BARGE THAT IS AT THE END OF B DOCK AND IS LEAKING DIESEL FUEL.	VESSEL	UNKNOWN	11/17/2012 2:00	2408 MAYBANK HWY
1030939	1030939	1030939	INCIDENT	11/17/2012 17:42	CALLER STATED THAT THERE IS A SUSPECTED LEAK OF ETHANOL FROM A TANK, CALLER STATED THAT THEY CANNOT SEE ANY PRODUCT FROM THE TANK BUT THEY CAN SMELL IT. CALLER STATED THAT AN LEL METER HAS BEEN USED NEAR THE TANK AND RECEIVED A READING OF 3 PERCENT.	VESSEL	UNKNOWN	11/17/2012 17:00	TANK NUMBER 65 1500 GREENLEAF STREET
1031155	1031155	1031155	INCIDENT	11/20/2012 11:53	CALLER STATED THERE WAS A SPILL OF MATERIALS FROM EQUIPMENT ON A PIER DUE TO EQUIPMENT FAILURE.	VESSEL	EQUIPMENT FAILURE	11/20/2012 10:30	PIERSIDE STREET PIER J COOPER RIVER
1031709	1031709	1031709	INCIDENT	11/27/2012 17:50	***WEB REPORT*** ON 11/27/12 AT 1721 HOURS, YARDMASTER, REPORTED AN UNKNOWN AMOUNT OF DIESEL FUEL LEAKED ONTO THE GROUND FROM THE SIDE GLASSES ON LOCOMOTIVE CSXT 8453 AT MP A 390 ON THE CHARLESTON SUBDIVISION. THIS WAS LOCATED INSIDE THE BENNETT YARD IN CHARLESTON, SC.	VESSEL	EQUIPMENT FAILURE	11/27/2012 17:27	CHARLESTON
1032013	1032013	1032013	INCIDENT	12/1/2012 12:15	CALLER IS REPORTING THAT THERE WAS LOSS TO PUMP PRIME CAUSING A SPILL OF 750-1000 GALLONS OF SEWAGE TO THE MARSH. THERE ARE SHELLFISH BEDS IN THE VICINITY. IT IS UNKNOWN IF THAT AREA HAS BEEN AFFECTED.	VESSEL	EQUIPMENT FAILURE	12/1/2012 9:45	OLD CHARLESTON ROAD AND CHISOLM
1032409	1032409	1032409	INCIDENT	12/5/2012 16:46	CALLER IS REPORTING A DISCHARGE OF 5 GALLONS OF MOTOR OIL FROM A DREDGE THAT WAS BEING WORKED ON, THE CAUSE WAS DUE TO AN HYDRAULIC OIL COOLER THAT WAS NOT ASSEMBLED CORRECTLY.	VESSEL	EQUIPMENT FAILURE	12/5/2012 16:00	1670 DRYDOCK RD

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1032801	1032801	1032801	DRILL	12/10/2012 1:31	///DRILL///MONTHLY NOTIFICATION DRILL IAW COMSCINST 5090.1C SECTION 5-2(2) SHIP IS CURRENTLY IN REPAIR STATUS AT DETYEN'S SHIPYARD, CHARLESTON SC. THIS NOTIFICATION DRILL IS NOT DONE IN TANDEM WITH OTHER DRILLS/TRAINING. ///DRILL///	VESSEL	OTHER	12/10/2012 0:01	CHARLESTON, SOUTH CAROLINA DETYENS SHIPYARD 1670 DRYDOCK AVE. NORTH CHARLESTON
1036773	1036773	1036773	INCIDENT	1/28/2013 8:43	***WEB REPORT*** A TRACTOR TRAILER HAD AN ACCIDENT AND SPILLED 30-40 GAL OF DIESEL INTO THE MARSH. THE SPILL IS CONTAINED AND LEAK CONTROLLED.	VESSEL	OTHER	1/28/2013 8:22	MARK CLARK EXPRESS WAY AND VIRGINIA AVE INTERSECTION IN CHARLESTON SC. N/A
1036788	1036788	1036788	INCIDENT	1/28/2013 10:20	CALLER STATED DIESEL FUEL RELEASED FROM A TRACTOR TRAILER ONTO THE HIGHWAY AND MARSH AREA. THIS WAS DUE TO AN A MULTI VEHICLE ACCIDENT.	VESSEL	OTHER	1/28/2013 8:00	HWY 526 EAST BOUND, MM 20
1038365	1038365	1038365	INCIDENT	2/13/2013 10:58	***WEB REPORT*** VEHICLE LEAKED APPROXIMATELY 1.5-2 GALLONS OF ANTIFREEZE ON OUR PROPERTY. BY THE TIME THE VA STAFF HAD RESPONDED IT WAS NOTED THAT THE LEAK HAD REACHED A DRAIN TO THE SANITARY SEWER.	VESSEL	EQUIPMENT FAILURE	2/13/2013 10:30	109 BEE STREET. FRONT OF HOSPITAL AT OUR DROP-OFF LOCATION. 109 BEE STREET
1038733	1038733	1038733	INCIDENT	2/17/2013 12:36	***WEB REPORT*** ON 2/17/13 AT 0855 HOURS, DIRECTOR TRAIN OPERATIONS, ADVISED TERMINAL MANAGER, REPORTED AT 0730 HOURS TRAIN Y39016 DERAILED CARS GATX 60723 (EMPTY, ELEVATED TEMPERATURE) AND GATX 64494 (EMPTY, XYLENES) AT MP A 390 ON THE CHARLESTON SUBDIVISION. THIS WAS LOCATED AT 2700 BENNETT YARD RD / CHARLESTON YARD IN NORTH CHARLESTON, SC. CALLER STATED CARS WERE UP RIGHT AND IN LINE, NO INJURIES, NO LEAKS OR SMELLS REPORTED. THIS WAS NOT AFFECTING THE MAIN LINE OR TRAIN OPERATIONS. UPDATE: AT 0906 HOURS, MECHANICAL DESK, REPORTED TRAIN Y39016 DERAILED FOUR CARS AND SIDESWIPED A CUT CAR. UPDATE: AT 1020 HOURS, MECHANICAL, REPORTED A SECOND CAR UTLX 671318 (EMPTY, XYLENES), WAS SIDE SWIPED AS A RESULT OF THIS INCIDENT. THE DAMAGES WERE ESTIMATED AT $119,400. UPDATE: AT 1220 HOURS, NEW DAMAGES ESTIMATED AT $148,900.	VESSEL	DERAILMENT	2/17/2013 7:30	CHARLESTON YARD 2700 BENNETT YARD RD
1039230	1039230	1039230	INCIDENT	2/23/2013 14:13	CALLER IS REPORTING AN UNKNOWN SHEEN	VESSEL	UNKNOWN	2/23/2013 13:30	UNKNOWN SHEEN INCIDENT 480 PARKDALE DRIVE
1039249	1039249	1039249	INCIDENT	2/23/2013 18:47	A COAL CAR IN THE CHARLESTON YARD SUFFERED A BOTTOM DOOR FAILURE.	VESSEL	EQUIPMENT FAILURE	2/23/2013 18:30	CHARLESTON RAIL YARD
1042166	1042166	1042166	DRILL	3/26/2013 17:18	///DRILL DRILL DRILL/// CALLER REPORTED THAT 1 GALLON OF LUBE OIL WAS DISCHARGED INTO THE WATER DUE TO A LOOSE CONNECTION ON THE VESSEL. ///DRILL DRILL DRILL///	VESSEL	OPERATOR ERROR	3/26/2013 17:00	2075 THOMPSON AVE
1043030	1043030	1043030	DRILL	4/5/2013 10:54	////DRILL REPORT//// CALLER STATED THAT THERE WAS A DISCHARGE OF 50 GALLONS OF DIESEL FUEL FROM A HOSE ON THE FACILITY SIDE WHILE DOING A TRANSFER WITH A VESSEL. THE CAUSE IS UNDER INVESTIGATION. ////DRILL REPORT////	VESSEL	OTHER	4/5/2013 10:30	////DRILL REPORT/// 1003 EAST EONTAGUE AVE
1043878	1043878	1043878	INCIDENT	4/14/2013 2:15	CALLER REPORTED A PATROL BOAT FROM ANOTHER SQUADRON RAN AGROUND INTO THE JETTY OF THE CHARLESTON SC HARBOR, BY BUOY 17	VESSEL	VESSEL SINKING	4/13/2013 21:13	JETTY OF THE CHARLESTON SC HARBOR, BY BUOY 17
1043894	1043894	1043894	INCIDENT	4/14/2013 12:28	THE CALLER IS REPORTING A DISCHARGE OF GASOLINE AND ENGINE OIL INTO THE WANDO RIVER. THE CALLER STATED THAT A PLEASURE CRAFT STRUCK AN UNKNOWN OBJECT (POSSIBLY SUBMERGED PYLON) IN THE RIVER WHICH LED TO THE DISCHARGE OF FLUIDS. NO INJURIES WERE REPORTED AT THIS TIME. THE CALLER STATED THE VESSEL IS NOT TAKING ON WATER AT THIS TIME.	VESSEL	OTHER	4/14/2013 11:45	WANDO RIVER- APPROXIMATELY 1 MILE NORTH OF THE CHARLESTON HARBOR ENTRANCE
1043894	1043894	1043894	INCIDENT	4/14/2013 12:28	THE CALLER IS REPORTING A DISCHARGE OF GASOLINE AND ENGINE OIL INTO THE WANDO RIVER. THE CALLER STATED THAT A PLEASURE CRAFT STRUCK AN UNKNOWN OBJECT (POSSIBLY SUBMERGED PYLON) IN THE RIVER WHICH LED TO THE DISCHARGE OF FLUIDS. NO INJURIES WERE REPORTED AT THIS TIME. THE CALLER STATED THE VESSEL IS NOT TAKING ON WATER AT THIS TIME.	VESSEL	OTHER	4/14/2013 11:45	WANDO RIVER- APPROXIMATELY 1 MILE NORTH OF THE CHARLESTON HARBOR ENTRANCE

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1044087	1044087	1044087	INCIDENT	4/16/2013 9:05	CALLER STATED THAT A BARGE WITH AN EXCAVATOR SANK AND THERE IS A SHEEN ON THE WATER. THERE IS A BOOM AROUND THE BARGE BUT AN OIL SLICK IS IN WATER. CALLER STATED THE BARGE STARTED TAKING ON WATER ABOUT 2 WEEKS AGO.	VESSEL	VESSEL SINKING	4/16/2013 9:00	NEAR BOWENS ISLAND RESTAURANT 1871 BOWENS ISLAND ROAD
1044087	1044087	1044087	INCIDENT	4/16/2013 9:05	CALLER STATED THAT A BARGE WITH AN EXCAVATOR SANK AND THERE IS A SHEEN ON THE WATER. THERE IS A BOOM AROUND THE BARGE BUT AN OIL SLICK IS IN WATER. CALLER STATED THE BARGE STARTED TAKING ON WATER ABOUT 2 WEEKS AGO.	VESSEL	VESSEL SINKING	4/16/2013 9:00	NEAR BOWENS ISLAND RESTAURANT 1871 BOWENS ISLAND ROAD
1044087	1044087	1044087	INCIDENT	4/16/2013 9:05	CALLER STATED THAT A BARGE WITH AN EXCAVATOR SANK AND THERE IS A SHEEN ON THE WATER. THERE IS A BOOM AROUND THE BARGE BUT AN OIL SLICK IS IN WATER. CALLER STATED THE BARGE STARTED TAKING ON WATER ABOUT 2 WEEKS AGO.	VESSEL	VESSEL SINKING	4/16/2013 9:00	NEAR BOWENS ISLAND RESTAURANT 1871 BOWENS ISLAND ROAD
1044465	1044465	1044465	INCIDENT	4/19/2013 11:55	CALLER STATED THAT THEY WERE TESTING A STERN DOOR AND WHILE OPERATING, A LEAK WAS NOTICED AND SOME DRIPS WERE GOING INTO THE WATER FROM THE VESSEL. APPROXIMATELY 12 OUNCES OF HYDRAULIC OIL WAS DISCHARGED INTO THE WATER.	VESSEL	EQUIPMENT FAILURE	4/19/2013 11:00	COOPER RIVER BERTH T THOMPSON AVE
1044598	1044598	1044598	INCIDENT	4/20/2013 22:58	A PEDESTRIAN TRESPASSER WAS STRUCK AND INJURED BY A TRAIN.	VESSEL	TRESPASSER	4/20/2013 21:52	MILEPOST A387 ON THE CSX CHARLESTON SUBDIVISION
1044599	1044599	1044599	INCIDENT	4/20/2013 23:03	CALLER REPORTED A TRESPASSER STRUCK BY A TRAIN. ONE INJURY. AT 2250 HOURS THE TRAIN WAS RELEASED FOR NORMAL OPERATIONS.	VESSEL	TRESPASSER	4/20/2013 21:53	MP A387.8 RIVERS AVE
1045151	1045151	1045151	INCIDENT	4/26/2013 9:56	***WEB REPORT*** SCHOOL BUS ON THE RAVANELLE BRIDGE IN CHARLESTON CAUGHT FIRE AND THERE IS POTENTIAL FOR DIESEL OR OIL SPILL THAT COULD EFFECT COOPER RIVER.	VESSEL	OTHER	4/26/2013 9:33	RAVANELLE BRIDGE CHARLESTON, SC RAVANELLE BRIDGE
1045151	1045151	1045151	INCIDENT	4/26/2013 9:56	***WEB REPORT*** SCHOOL BUS ON THE RAVANELLE BRIDGE IN CHARLESTON CAUGHT FIRE AND THERE IS POTENTIAL FOR DIESEL OR OIL SPILL THAT COULD EFFECT COOPER RIVER.	VESSEL	OTHER	4/26/2013 9:33	RAVANELLE BRIDGE CHARLESTON, SC RAVANELLE BRIDGE
1045237	1045237	1045237	INCIDENT	4/26/2013 19:49	CALLER STATED THAT THERE WAS A RELEASE OF 12 OUNCES OF HYDRAULIC OIL FROM A VESSEL. THE CAUSE WAS DUE TO OPERATIONAL TEST OF THE OFFSHORE STERN DOOR. THE CREW NOTICED A SHEEN ON THE WATER, THE SOURCE OF THE LEAK WAS AT THE TOP OF THE STERN DOOR.	VESSEL	EQUIPMENT FAILURE	4/19/2013 11:00	BERTH T 2075 THOMPSON AVE
1046048	1046048	1046048	INCIDENT	5/4/2013 18:03	CALLER STATED THAT THERE IS A DISCHARGE OF OIL THAT IS ONGOING FROM A LOCOMOTIVE, THE CAUSE IS UNKNOWN, CALLER ALSO STATED THAT THE INCIDENT HAPPENED IN THE RAIL AND DOES NOT AFFECT ANY OF THE MAIN LINES.	VESSEL	UNKNOWN	5/4/2013 17:52	RAIL YARD 2700 BENNETT RD
1046282	1046282	1046282	DRILL	5/7/2013 11:24	[WEB REPORT]///DRILL DRILL DRILL/// DRILL SCENARIO: INADVERTENT DISCHARGE OF 1000 GALLONS OF DFM WHILE BUNKERING USING ALONGSIDE FUEL BARGE.	VESSEL	EQUIPMENT FAILURE	5/7/2013 9:30	1670 DRY DOCK AVE
1046977	1046977	1046977	INCIDENT	5/13/2013 15:11	THE CALLER IS REPORTING A DISCHARGE OF HYDRAULIC FLUID ONTO THE DECK, WITH A PONTENTIAL TO REACH THE WATER (SHIPYARD CREEK). THE CALLER STATED IT IS UNKNOWN AT THIS TIME WHAT CAUSED THE SPILL, IT IS BELIEVED THAT A LINE THAT GOES TO THE UNLOADING BUCKET ON A SHIP IS THE SOURCE.	VESSEL	UNKNOWN	5/13/2013 15:06	KINDER MORGAN MILFORD ST. DOCK2
1047137	1047137	1047137	INCIDENT	5/14/2013 17:52	A BOAT WAS OVERFILLED WITH DIESEL FUEL CAUSING A LARGE SHEEN IN THE MARINA.	VESSEL	OPERATOR ERROR	5/14/2013 17:40	ASHLEY MARINA THE HARBORAGE 33 LOCKWOOD DR

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1047872	1047872	1047872	INCIDENT	5/21/2013 15:12	THE CALLER IS REPORTING AN UNKNOWN SHEEN SIGHTED ON THE COOPER RIVER. THE CALLER STATED THAT THE SOURCE IS UNKNOWN AT THIS TIME.	VESSEL	UNKNOWN	5/21/2013 15:00	UNKNOWN SHEEN INCIDENT 1801 MILFORD STREET
1048247	1048247	1048247	INCIDENT	5/24/2013 20:05	****WEB REPORT**** A TANK TRUCK WAS BEING LOADED WITH USED WASH WATER. DUE TO A MECHANICAL FAILURE APPROXIMATELY 300 GALLONS OF THIS WATER WAS SPILLED ON THE GROUND. THE SPILLED WATER MADE ITS WAY ONTO AN ADJACENT CONCRETE YARD. APPROXIMATELY 50 GALLONS OF THE SPILLED WATER OVERFLOWED THROUGH A BOUNDARY FENCE TO AN ADJACENT PROPERTY LOCATED TO THE SOUTH. SITE MANAGERS ON THE ADJACENT SITE SAW THE FLOW OF WATER AND PREVENTED IT FROM ENTERING THE STORM DRAINAGE SYSTEM. A VACUUM TANKER TRUCK WAS DEPLOYED TO COLLECT THE WATER THAT HAD POOLED ON THE GROUND. THERE WAS NO OIL IN THE WATER. THE FIRE SERVICE, SC DHEC AND THE US COAST GUARD WERE NOTIFIED AND ATTENDED THE SCENE. THE WATER REMAINING ON BOARD THE DAMAGED TANK TRUCK WAS REMOVED. US COAST GUARD TOOK SAMPLES FOR COMPARISON WITH RECORDED DATA RELATING TO THE CHARACTER OF THE WASTE WATER. THE WATER IS OIL-FREE BUT HAS ELEVATED BOD BECAUSE OF THE PRESENCE OF SOAPS.	VESSEL	OTHER	5/24/2013 13:10	AT BIODIESEL MANUFACTURING PLANT, IN THE AREA DESIGNATED FOR LOADING TRUCKS. 1005 KINZER STREET
1048673	1048673	1048673	INCIDENT	5/29/2013 16:26	A RAIL CAR HAD A RELEASE OF WATER AND LPG GAS MIXTURE TO THE BALLAST AFTER A CLEANOUT.	VESSEL	OTHER	5/29/2013 15:45	IN RAIL YARD 2200 RICH ST
1049017	1049017	1049017	INCIDENT	6/2/2013 10:28	LOCOMOTIVE CSXT 2714 HAS LEAKED APPROXIMATELY 1 GALLON OF OIL ONTO THE GROUND. ***THIS IS A WEB REPORT***	VESSEL	EQUIPMENT FAILURE	6/2/2013 9:53	NORTH CHARELSTON
1049114	1049114	1049114	INCIDENT	6/3/2013 11:23	CALLER STATED DUE TO THE DIRTY OIL PAN OVERFLOW THERE WAS A SPILL OF WASTE OIL FROM A VESSEL ON THE COOPER RIVER.	VESSEL	UNKNOWN	6/3/2013 10:20	FLETC-FEDERAL LAW ENFORCEMENT TRAINNING CENTER PIER P COOPER RIVER
1049787	1049787	1049787	INCIDENT	6/9/2013 12:13	THE CALLER IS REPORTING AN UNKNOWN SHEEN AT THE SMALL BOAT PIER.	VESSEL	UNKNOWN	6/9/2013 11:40	UNKNOWN SHEEN INCIDENT 196 TRADD ST
1049871	1049871	1049871	INCIDENT	6/10/2013 11:46	***WEB REPORT*** RP ADVISED CSXT 2714 LEAKED APPROXIMATELY 3 GALLONS OF LUBE OIL ON THE GROUND IN THE BENNETT YARD. THE LEAK IS COMING FROM THE AIR BOX DUE TO AN OVERFLOW IN THE ECOLOGY TANK.	VESSEL	EQUIPMENT FAILURE	6/10/2013 11:29	NORTH CHARLESTON
1049973	1049973	1049973	INCIDENT	6/11/2013 8:13	CALLER REPORTED THAT A VESSEL SANK ON THE PROPERTY. THE VESSEL IS CURRENTLY DISCHARGING OIL INTO THE WATER.	VESSEL	VESSEL SINKING	6/10/2013 11:00	2024 WATTOO HALL ROAD
1050160	1050160	1050160	INCIDENT	6/12/2013 11:24	CALLER IS REPORTING OILY WATER COMING FROM THE OIL WATER HOLDING TANK THAT OVERFLOWED. IT IS BEING REDIRECTED TO SECURE THE OVERFLOW.	VESSEL	OTHER	6/12/2013 11:00	PIER P FED LAW ENFORCEMENT TRAINING CENTER
1050246	1050246	1050246	INCIDENT	6/12/2013 23:43	***WEB REPORT*** AMTRAK TRAIN P09812 CREW REQUESTED POLICE FOR A BELLIGERENT PASSENGER.	VESSEL	DISORDERLY PASSENGER	6/12/2013 22:51	MILEPOST: A 387.2
1050461	1050461	1050461	INCIDENT	6/14/2013 16:28	CALLER IS REPORTING WHILE AN OFFICER WAS DOING A BOARDING ON A VESSEL A DISCHARGE OF MATERIAL FROM A LEAKING FUEL TANK AND SHEENING AROUND A VESSEL WAS DISCOVERED.	VESSEL	EQUIPMENT FAILURE	6/14/2013 16:00	CITY MARINA
1050766	1050766	1050766	INCIDENT	6/18/2013 0:37	***WEB REPORT*** ON 06/17/13 AT 2227 HOURS, CHARLESTON CITY POLICE DEPARTMENT AND FIRE DEPARTMENT, REPORTED VEHICLE ON THE TRACKS AT MP A 388 ON CHARLESTON SUBDIVISION. THIS IS LOCATED AT KING STREET IN NORTH CHARLESTON SC. FA TRAIN DISPATCHER NOTIFIED VIA AVTEC AND ADVISED THIS IS NOT A MAIN LINE AND NO MAIN LINE TRAFFIC AFFECTED. THIS IS AN AMTRAK LINE. UPDATE AT 2338 HOURS, CHARLESTON CITY POLICE DEPARTMENT AND FIRE DEPARTMENT, ADVISED THE VEHICLE HAS BEEN REMOVED. FA TRAIN DISPATCHER NOTIFIED.	VESSEL	OTHER	6/17/2013 22:27	MP A 388 KING STREET

View Report	Materials Page	NRC Report #	Type of Call	Date/Time Received	Description Of Incident	Type Of Incident	Incident Cause	Incident Date/Time	Location
1051516	1051516	1051516	INCIDENT	6/24/2013 12:51	WHILE FUELING THE VESSEL LADY VICTORIA, FUEL DISCHARGED FROM THE VENT AND INTO THE WATER.	VESSEL	UNKNOWN	6/24/2013 12:45	MEGA DOCK 17 LOCKWOOD DR
1051783	1051783	1051783	DRILL	6/26/2013 14:14	////DRILL REPORT//// CALLER STATED THAT THERE WAS A DISCHARGE OF 5 GALLONS OF MIXED BILGE WASTE FROM A VESSEL, THE CAUSE WAS DUE TO A LEAKY HOSE. ////DRILL REPORT////	VESSEL	EQUIPMENT FAILURE	6/26/2013 14:00	2075 THOMPSON AVE
1051818	1051818	1051818	INCIDENT	6/26/2013 18:35	THE VESSEL'S STARBOARD SIDE BOAT DAVIT WAS REMOVED FROM THE VESSEL. HYDRAULIC OIL FROM THE DAVIT DISCHARGED ONTO THE DECK. RAIN WASHED SOME OF THE OIL OVERBOARD.	VESSEL	OTHER	6/26/2013 18:00	1050 REGISTER ST
1051934	1051934	1051934	INCIDENT	6/27/2013 15:01	CALLER IS REPORTING THAT DURING A HEAVY STORM THE NEIGHBORING ROOF CAME OFF AND A 5 GALLON BUCKET OF ROOFING TAR WENT INTO THE COOPER RIVER.	VESSEL	NATURAL PHENOMENON	6/27/2013 14:30	PIER J AND K OLD NAVAL YARD ON COOPER RIVER 1064 PIERSIDE STREET
1052458	1052458	1052458	INCIDENT	7/1/2013 23:57	THE CALLER IS MAKING NOTIFICATION OF AN INTERRUPTION TO TRAIN TRAFFIC (PASSENGER ROUTE). THE CALLER STATED THAT LOCAL POLICE ACTIVITY IN THE AREA LED TO THE INTERRUPTION, IT IS BELIEVED THE POLICE ARE LOOKING FOR A SUBJECT IN THE AREA.	VESSEL	OTHER	7/1/2013 23:01	MP A 385.7 SD: CHARLESTON
1052575	1052575	1052575	INCIDENT	7/2/2013 19:54	CALLER IS REPORTING A SPILL OF LUBRICATING OIL FROM A LOCOMOTIVE DUE TO MECHANICAL FAILURE.	VESSEL	EQUIPMENT FAILURE	7/2/2013 17:30	COSGROVE YARD / MILEPOST: RBX3
1053589	1053589	1053589	INCIDENT	7/12/2013 11:34	CALLER IS REPORTING AN UNKNOWN SHEEN AT A MARINA.	VESSEL	UNKNOWN	7/12/2013 11:05	UNKNOWN SHEEN INCIDENT 1010 JUNEAU
1055158	1055158	1055158	INCIDENT	7/26/2013 10:53	CALLER IS REPORTING THAT THE COMPANY IS DUMPING ISO CYANATE AND RESIN ONTO THE GROUND AT A WAREHOUSE AND AT DIFFERENT JOB SITES. THE MATERIAL IS LEFT IN OPEN BARRELS AND WHEN THE BARRELS FILL WITH WATER THEY ARE DUMPED ONTO THE GROUND.	VESSEL	DUMPING	5/26/2013 12:00	454 JESSEN
1055158	1055158	1055158	INCIDENT	7/26/2013 10:53	CALLER IS REPORTING THAT THE COMPANY IS DUMPING ISO CYANATE AND RESIN ONTO THE GROUND AT A WAREHOUSE AND AT DIFFERENT JOB SITES. THE MATERIAL IS LEFT IN OPEN BARRELS AND WHEN THE BARRELS FILL WITH WATER THEY ARE DUMPED ONTO THE GROUND.	VESSEL	DUMPING	5/26/2013 12:00	454 JESSEN
1055188	1055188	1055188	INCIDENT	7/26/2013 14:21	***WEB REPORT*** ON 07/26/13 AT 1347 HOURS ENVIRONMENTAL SERVICES REPORTED GENERAL FOREMAN AT THE BENNETT YARD IN CHARLESTON, SOUTH CAROLINA ADVISED HIM OF A DIESEL FUEL SPILL ON THE GROUND. THIS WAS LOCATED AT 2700 BENNETT YARD RD AT MILEPOST A 389 ON THE CHARLESTON SUBDIVISION. WHILE MOVING A COMPRESSOR IN THE YARD, IT DROPPED AND SPILLED APPROXIMATELY 20 GALLONS OF DIESEL FUEL ON THE GROUND. THERE ARE NO WATERWAYS AFFECTED. HEPACO CONTRACTORS WERE RESPONDING TO CONDUCT THE CLEAN UP. CHARLESTON POLICE & FIRE DEPARTMENTS WERE NOTIFIED.	VESSEL	OTHER	7/26/2013 13:47	2700 BENNETT YARD RD
1057865	1057865	1057865	INCIDENT	8/22/2013 8:09	CALLER STATED THAT A VESSEL CAUGHT FIRE ON A BOAT LAUNCH DUE TO UNKNOWN CAUSES. THERE IS FUEL IN THE WATER.	VESSEL	UNKNOWN	8/22/2013 7:25	RIVER EDGE MARINA 4354 BRIDGEVIEW DR.
1058313	1058313	1058313	INCIDENT	8/27/2013 8:38	CALLER STATED AN OVERTURNED PICK-UP TRUCK WAS DISCOVERED IN A MARSH AREA ON THE PROPERTY OF A PRIVATE RESIDENCE. NO SPILL REPORTED AT THIS TIME.	VESSEL	UNKNOWN	8/27/2013 8:00	ON THE LAST LOT ON RIGHT AT THE DEAD END MUTUAL DRIVE IN THE MARSH
1058313	1058313	1058313	INCIDENT	8/27/2013 8:38	CALLER STATED AN OVERTURNED PICK-UP TRUCK WAS DISCOVERED IN A MARSH AREA ON THE PROPERTY OF A PRIVATE RESIDENCE. NO SPILL REPORTED AT THIS TIME.	VESSEL	UNKNOWN	8/27/2013 8:00	ON THE LAST LOT ON RIGHT AT THE DEAD END MUTUAL DRIVE IN THE MARSH

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1060416	1060416	1060416	INCIDENT	9/17/2013 11:08	CALLER STATED THERE WAS A RELEASE OF ETHANOL FROM A SINGLE TANK RAIL CAR IN A RAIL YARD DUE TO POSSIBLE VENTING.	VESSEL	OTHER	9/17/2013 10:45	COSGROVE YARD MP: SC7 SD: PIEDMONT
1060503	1060503	1060503	INCIDENT	9/18/2013 2:44	CALLER REPORTED A FUEL SPILL WHILE REFUELING A LOCOMOTIVE.	VESSEL	EQUIPMENT FAILURE	9/18/2013 2:04	MP A388.57
1061068	1061068	1061068	INCIDENT	9/24/2013 9:54	CALLER IS REPORTING THAT 100-200 GALLONS OF AN UNKNOWN MATERIAL WAS RELEASED ONTO THE ROADWAY AND THEN INTO A DRY ROADSIDE DITCH WHEN A TRUCK HIT A BRIDGE ABUTMENT CAUSING THE TANK ON THE FLATBED TO FALL AND RELEASE THE MATERIAL. AFTER THE ACCIDENT THE TRUCK DROVE OFF.	VESSEL	OPERATOR ERROR	9/24/2013 5:20	HWY 7 AND I 26 UNDER THE I 26 BRIDGE
1061181	1061181	1061181	DRILL	9/25/2013 7:56	///THIS IS A DRILL/// CALLER STATED THERE WAS A SPILL OF DIESEL FROM A TUG BOAT DUE TO A BURP IN THE LINE . THIS OCCURRED WHILE TRANSFERRING FUEL. ///DRILL///	VESSEL	OTHER	9/25/2013 7:50	COOPER RIVER ABOVE BUOY 49
1061476	1061476	1061476	INCIDENT	9/27/2013 16:56	THE CALLER IS REPORTING A DISCHARGE OF DIESEL FUEL INTO THE ASHLEY RIVER. THE CALLER STATED THAT A DIESEL SHEEN WAS WITNESSED NEAR A BARGE THAT IS MOORED IN THE AREA.	VESSEL	OTHER	9/27/2013 16:00	SEAGATE COMMUNITY PIER
1061633	1061633	1061633	DRILL	9/30/2013 10:20	///THIS IS A DRILL/// CALLER STATED THAT THEY WERE TRANSFERRING FUEL AND THEY SHUT OFF THE TRANSFER AND THE SERVICE CONTAINMENT BAG FILLED UP CAUSING A DISCHARGE ON THE DECK. ///THIS IS A DRILL///	VESSEL	OTHER	9/30/2013 10:15	COOPER RIVER BUOY 49
1061972	1061972	1061972	INCIDENT	10/3/2013 10:57	CALLER STATED 20 GALLONS OF LUBE OIL RELEASED FROM A LOCOMOTIVE ONTO THE BALLAST. THIS WAS DUE TO MECHANICAL PROBLEMS.	VESSEL	EQUIPMENT FAILURE	10/3/2013 10:34	1500 GREEN LEAF ST.
1061995	1061995	1061995	INCIDENT	10/3/2013 13:11	CALLER IS REPORTING A RELEASE OF APPROXIMATELY 15 GALLONS OF MOTOR OIL. 10 STAYED ON THE PIER AND THE REMAINDER WENT INTO THE CHARLESTON HARBOR. THIS IS DUE TO A BROKEN PIPE ON THE OIL FILTER ON A VESSEL ENGINE THAT IS SITTING UNUSED ON A PIER.	VESSEL	OPERATOR ERROR	10/3/2013 12:45	DENTON SHIPYARD PIER H
1062043	1062043	1062043	INCIDENT	10/3/2013 23:55	CALLER REPORTED THAT A LOCOMOTIVE DISCHARGED AN UNKNOWN AMOUNT OF LUBE OIL ONTO THE BALLAST.	VESSEL	EQUIPMENT FAILURE	10/3/2013 23:08	1500 GREEN LEAF ROAD
1062589	1062589	1062589	INCIDENT	10/10/2013 11:01	CALLER STATED DURING VBST TRAINING ON HOW TO USE THE RAD DETECTOR, POTASSIUM CYANIDE WAS DETECTED IN A CONTAINER ON THE GROUND.	VESSEL	OTHER	10/10/2013 10:51	NORTH CHARLESTON TERMINAL
1066873	1066873	1066873	INCIDENT	11/26/2013 10:16	CALLER REPORTED A VESSEL A DRIFT WITH NO ONE ON BOARD. BLUE HULL W/WHITE STRIPE SAILING VESSEL.	VESSEL	OTHER	11/26/2013 10:15	17 LOCKWOOD DR
1066883	1066883	1066883	INCIDENT	11/26/2013 11:22	CALLER REPORTED A SHEEN IN A DITCH COMING FROM AN ADJOINING FACILITY.	VESSEL	UNKNOWN	11/26/2013 11:12	ADJACENT TO LOCATION. 1801 MILFORD ST

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403-5107

April 10, 2014

Planning and Environmental Branch

Mr. James Giattina
Director, Water Protection Division
US Environmental Protection Agency, Region IV
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Dear Mr. Giattina:

As you are aware, the U.S. Army Corps of Engineers, Charleston District is studying the feasibility of deepening/widening Charleston Harbor (a.k.a., Post 45 study). One of the important components of the study is analyzing the chemical and toxicological characteristics of the sediments that would be dredged if deepening the harbor is authorized. After coordinating our sediment sampling plan with Mr. Gary Collins of your staff, we began collecting the sediment samples in October 2012. This work culminated in a December 2013 report that provided the results of the chemical and toxicological analyses that were performed. This report was also coordinated with Mr. Collins. We have subsequently prepared a Marine Protection Research and Sanctuaries Act, Section 103 evaluation for the Post 45 study. It is included as an attachment to this letter. This evaluation covers future maintenance dredging of the Charleston Harbor Anchorage Basin, future maintenance dredging of the Shem Creek channel, deepening/widening of Charleston Harbor, and future maintenance dredging of Charleston Harbor assuming a deepening/widening project is completed.

Our Section 103 evaluation has concluded that all of the sediments tested are suitable for disposal in the Charleston Ocean Dredged Material Disposal Site. We request your concurrence with these findings. To support our current schedule for the Post 45 study your concurrence is requested by May 28, 2014.

If you have any questions or need additional information related to this issue, please contact Mr. Alan Shirey of my staff at (843) 329-8166.

Sincerely,

BRET WALTERS
Chief, Planning and Environmental
Branch

Attachment

cc: Gary Collins