Area 1, Phase 1
Spill Prevention and Response Plan

Baltimore Works Site
Baltimore, Maryland

REVISED

November 2013

By:
Harbor Point Development LLC
Environmental Resources Management, Inc.

For:
U.S. Environmental Protection Agency – Region III
Maryland Department of the Environment

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LIST OF ACRONYMS AND ABBREVIATIONS

AST	Aboveground Storage Tank
CFR	Code of Federal Regulations
CrVI	Hexavalent chromium
COC	Contaminant of Concern
COMAR	Code of Maryland Regulations
DOT	U.S. Department of Transportation
EC	Emergency Coordinator
EPA	U.S. Environmental Protection Agency
ERP	Emergency Response Plan
HMS	Head Maintenance System
HPD	Harbor Point Development, LLC
HW	Hazardous waste
MDE	Maryland Department of the Environment
MHMP	Material Handling and Management Plan
MMC	Multimedia Cap
NPDES	National Pollutant Discharge Elimination System
PE	Professional Engineer
SPCC	Spill Prevention, Control, and Countermeasure
SPRP	Spill Prevention and Response Plan
UST	Underground Storage Tank

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1.0 INTRODUCTION

1.1 BACKGROUND AND PURPOSE

This Spill Prevention and Response Plan (SPRP) has been prepared as part of the Detailed Development Plan (DDP) for Harbor Point Area 1, Phase 1 Development (Site) and is meant to be used in conjunction with the Material Handling & Management Plan (MHMP) as well as the Storm Water Pollution Prevention Plan (SWPPP) and Contingency Plan prepared for the Site. This SPRP is applicable to development support activities as described in the DDP.

The approved Environmental Remediation System (ERS) is operated and maintained by Honeywell International Inc. (Honeywell) pursuant to the Consent Decree dated April 27, 1989, as amended, by and between Honeywell, the U.S. Department of Justice, U.S. Environmental Protection Agency (EPA) and Maryland Department of the Environment (MDE), to contain chromium contaminated groundwater and limit exposure to impacted soil. The ERS consists of the Multimedia Cap (MMC), Hydraulic Barrier, Head Maintenance System (HMS) and Outboard Embankment.

Honeywell currently stores less than 1,320 gallons of aboveground oil storage and less than 42,000 gallons of underground oil storage. Based on these thresholds volumes, Honeywell is not subject to the Spill Prevention, Control, and Countermeasures (SPCC) regulations under 40 CFR 112. Nonetheless, Honeywell maintains a SPCC for activities associated with the operation of the ERS. The Honeywell SPCC will continue to remain in effect for routine ERS operations and maintenance activities conducted outside the footprint of redevelopment.

This Plan is intended to describe the measures to be implemented by Harbor Point Development LLC (HPD) and its Contractors to prevent hazardous material and petroleum product discharges (i.e., spills) from occurring, and mitigate the effects of a discharge, should one occur. Spills are inclusive of solids and liquids.

Solids include, but are not limited to, asphalt, stone aggregates, concrete and wood debris, soil and product residuals from the former chromium ore production facilities. Liquids include but are not limited to groundwater, seeps, fuel, oil, decontamination liquids, liquids generated from subsurface dewatering activities, liquid that may have come in contact with site soils beneath the existing environmental protections exposed by the work, or liquids that may have come in contact with other potentially contaminated material.

For the purpose of this development project, HPD is considered the "Developer". Contractors are required to notify as soon as possible the Developer's Representative and Honeywell's Representative of a spill that occurs and is subject to this SPRP. Examples of spills that could occur that would be subject to this document include the following:

1. Diesel fuel spill from construction equipment or re-fueling tank, either during re-fueling or a fuel line;

2. Hydraulic fluid spill from a hydraulic line break in construction equipment;

3. Soil spill during loading of soil excavated from below the MMC into containers or during on-site transport;

4. Water spill of either chromium-contaminated ground water or surface water in contact with affected soil during transfer into a temporary holding tank or tanker for off-site disposal.

The Solid Waste Program within MDE must be notified in the event of a release of hazardous waste or hazardous waste-contaminated materials.

1.2 CONSISTENCY WITH OTHER PLANS

A MHMP has been prepared to address the handling and management of solids (asphalt, stone aggregates, concrete and wood debris, COPR and soil) and liquids (storm water, decontamination water and groundwater) that may be encountered during the intrusive activities at the Site. A Surface Water Pollution Prevention Plan (SWPPP) has been prepared which presents best management practices for managing storm water runoff during construction activities. The Contingency Plan describes the pre-construction preparation of the existing systems, details and other contingencies designed with the intent of maintaining operation of the HMS and Transfer Station with minimal service interruptions. The EN drawings found in Appendix B of the DDP provide additional information regarding the HMS and Transfer Station, including potential service interruptions.

2.0 GENERAL SITE DESCRIPTION

2.1 LOCATION, SITE USE AND LAYOUT

The Site is located on a peninsula on the northeast shore of the Patapsco River of the Inner Harbor, in the Fells Point section of Baltimore City, Maryland, on an area that covers approximately 14 acres. The Site is surrounded by water on the north, west and south, the Living Classrooms facility to the north and by the Thames Street Wharf Office Building and its associated parking lots to the east.

2.2 SITE USE

The Site has been divided into Areas 1, 2, and 3. Area 1 is the principal site of Honeywell's (formerly AlliedSignal) Baltimore Works Facility (Figure 1). Chromium ore was processed in Area 1 from 1845 to 1985. The former manufacturing processes resulted in chromium impacts to soil and groundwater. The ERS is maintained and operated by Honeywell to contain ground water impacted by hexavalent chromium (CrVI) in Area 1, and to control the potential for human exposure to affected soil. The ERS consists of the MMC, the Hydraulic Barrier, the HMS, groundwater storage and transfer system, and the Outboard Embankment. The HMS maintains an inward ground water gradient to mitigate the migration of chromium-impacted ground water from the Site.

Area 2 was mainly used for coal and raw chromium ore storage. In addition, a fertilizer warehousing and supply company operated in this area for many years.

Area 3 consists of five separate properties all with a history of industrial activity. This industrial activity included brass casing, oil blending and storage, lumber storage and coating/plastics production.

Honeywell purchased all of these properties by 1993 at which time all manufacturing was halted and subsequently all buildings and tanks were removed.

The Site is the location for the future development project to be conducted by HPD. The development project consists of: the Exelon Tower and Trading Floor Garage; the Central Plaza Garage; modifications to the existing Transfer Station, HMS and MMC; general site development (landscaped plaza, streets, sidewalks, etc.); and utilities, foundations, roadways, and other related site development elements.

3.0 *FACILITY CONTACT SUMMARY AND APPLICABLE PERMITS*

Honeywell Contact:	Chris French Honeywell International Inc. 101 Columbia Road, P.O. Box 2105 Morristown, NJ 07962 973-216-7506
Resident Honeywell Site Manager:	Kenneth Biles, CH2M Hill 1000 Wills Street Baltimore, MD 21231 410-271-6694
Developer:	Jonathan Flesher Beatty Development Group, LLC 1300 Thames Street, Suite 10 Baltimore, MD 21231 443-463-3937

The Emergency Coordinator (EC) and contact information is presented in Section 6.1.

Applicable state and local permits and/or approvals required for this project are summarized below:

Jurisdiction	Permits and/or Approvals
MDE	General Permit for Stormwater Associated with Construction Activity
MDE	Chesapeake Bay Critical Area
City of Baltimore	Building Permit
City of Baltimore	Stormwater Management
City of Baltimore	Developer's Agreement

4.0 LIQUID DISCHARGE PREVENTION

Direct discharge of collected liquids to adjacent surface waters or ground surfaces is prohibited. Characterization and proper disposal of captured and stored liquids in accordance with the Material Handling and Management Plan (MHMP) is required. Liquids characterized as non-contact water may be discharged to storm sewer following the appropriate testing as described in the MHMP.

Surface water will be excluded from the excavations using diversion berms. Surface water originating from disturbed construction areas will be excluded from adjacent areas using containment berms (See DDP Drawing F1.30). Where the cover soils are highly permeable and up-gradient runoff contribution areas are large, a temporary membrane will be used to enhance the berm performance. Suitable excavated cover soil may be used for berm construction. Surface and storm water management are discussed in the projects MHMP and SWPPP.

Two types of fuel storage tanks are anticipated during construction activities at the Site. The two types of storage tanks will likely include a generator and small above ground storage tanks (ASTs) for storage of equipment fuel. A fuel truck is also anticipated to enter and exit the site for re-fueling equipment at the site. All petroleum product ASTs used at this facility will be double walled and constructed in accordance with industry specifications and will contain approximately 250-500 gallons of fuel. Alternatively, the storage tanks may be placed in secondary containment. The storage containers used will be compatible with the characteristics of the petroleum product they contain, and with temperature and pressure conditions.

Emergency generators with a day tank will also likely be used at the Site with a capacity of approximately 250 gallons. Piping between storage tanks and in connection with a storage tank will be placed aboveground for easy access and visual monitoring during use. The piping will either be double walled or placed in secondary containment. The total volume of petroleum stored on site during the project, including the generator day tank and small AST, is anticipated to be between 500 and 750 gallons.

Fuel trucks will be brought on Site during construction activities to re-fuel equipment and fuel oil storage tanks. (i.e., cranes, excavators, day tanks, etc.). Fueling of equipment will be performed using the portable, containment system (Drawing DDP EN1.04). The Developer's Representative will direct the Contractor to ensure that the driver understands the site layout, knows the protocol for entering the Site and

unloading product, is familiar with this SPRP, and has the necessary equipment to respond to a discharge from the vehicle or fuel delivery hose. The trucks and/or site contractor will be equipped with a functioning spill kit that meets industry standards exercised by experienced professionals performing the same services under similar circumstances. Those engaged with re-fueling activities will be knowledgeable with the deployment and use of the spill kit.

Transfer of contact storm water and groundwater extracted by the HMS or extracted for construction purposes will be conducted within a containment area of sufficient size and construction of appropriate materials to contain materials spilled during transfer (Drawings DDP EN1.03, EN1.04, F1.16 and F1.17). A spill kit will be maintained near the area where the transfer occurs. Spills within the containment area will be managed in a similar manner to the procedures noted in section 5.0 of this plan.

ASTs for the storage of extracted groundwater are located inside the Transfer Station tank room and are within secondary containment (Drawing DDP EN1.07). The ASTs include two (2) 10,000 gal ASTs for storing contaminated groundwater extracted by the HMS and one (1) 1,000 gal AST periodically filled with a potable water/acid mix (Table 5-1). These tanks are covered under this SPRP only as they relate to the redevelopment and construction activities, specifically during selective demolition of the Transfer Station and during pipe pile driving activities adjacent to the Transfer Station.

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For the purpose of the this Plan, "non-contact" water is defined as storm water that is collected above the MMC synthetic layers, while "contact" water is defined as storm water collected from excavation zones below the MMC synthetic layers. Contaminated groundwater is defined as water extracted from below the MMC synthetic layers via the HMS or water other than contact water removed from any excavation. Each of these waters is further described in the MHMP.

Temporary storage containers to be provided include two (2) 16,380-gallon double-walled Frac tanks (Table 5-1). Contaminated groundwater will be temporarily diverted to one of the two Frac tanks via double-wall conveyance lines plumbed below grade from Vault 1 (Drawing DDP EN1.05). Should the Level II contingency plan be implemented, double-wall conveyance lines will be plumbed above grade and protected from vehicular traffic. The second Frac tank is provided primarily for collecting non-contact water that may pond on the surface during "normal" storm events or may be used as supplemental storage for HMS generated contaminated groundwater, if needed. In the event the second Frac tank is used for supplemental storage, the tank will be decontaminated and verified as clean by sample results prior to being used for storage for non-contact water.

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Additional temporary storage containers include two (2) 168,000-gallon MODU™ tanks (Table 5-1). The MODU™ tanks are 75 ft. x 75 ft. x 4 ft. and are provided for temporary storage of contact water generated from open excavation(s) during a 24-hour period of 25-year and 100-year frequency storm event (Drawing DDP EN1.01). One MODU™ tank has adequate volume capacity to store approximately 107,000 gal/day and 138,000 gal/day, for 25-year and 100-year frequency storm event, respectively. The second MODU™ tank is provided for supplemental storage during the period when the first MODU™ tank is being emptied.

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A 120 ft. x 205 ft. x 1.5 ft. deep containment berm with 14-inches of filling capacity will provide storage sufficient to handle water stored in a single ModuTank.

Since the storm water collected will be potentially impacted by contact with the bottom of the excavation, double-walled conveyance pipes or alternatively conveyance pipes within secondary containment must be installed from the pump location to the storage tanks. Double-walled conveyance pipes will drain back to the excavation for recovery. Contact and non-contact water testing and disposal requirements are provided in the MHMP.

Table 5-1. On Site Storage Tanks/Drums Anticipated during Construction

Tank #	Container Type	Size (gal)	Contents
Tank # 1 (GWT-201)	AST	10,000	Contaminated groundwater
Tank # 2 (GWT-202)	AST	10,000	Contaminated groundwater
Frac Tank #1	AST	16,380	Non-contact water Frac Tank
Frac Tank #2	AST	16,380	Contact water Frac Tank
MODU Tank #1	AST	168,000	Storm Water management (Contact water)
MODU Tank #2	AST	168,000	Storm Water management (Contact water)
MWT-210	AST	1,000	Existing water/Acid Mix
NA	Drum	55	Impacted PPE

Existing Tanks #1 and #2 and Frac Tanks #1 and #2 will be emptied via a vacuum tanker truck for transportation and appropriate off-site disposal. In the event that a vacuum truck is not available, a centrifugal transfer pump may be used to pump water to a transfer tractor-trailer.

Water stored in the ASTs will be transferred for off-site disposal using the existing 3-inch "Kamlock" connection located on the western wall of the Tank room. Double-wall flexible hose will be connected from the Kamlock to a portable, temporary loading secondary containment system. During periods when access to the existing loading dock is restricted, a "collapse-a-tainer" containment system, described as a Temporary Loading Dock (Drawing DDP-EN1.03), will provide the portability needed to ensure water transfer operations by vacuum truck or tractor-trailer are uninterrupted. The vacuum truck will be equipped with a functioning spill kit that meets industry standards exercised by experienced professionals performing the same services under similar circumstances.

Construction equipment will be re-fueled nearby its working location and, when possible, stationed on a portable "collapse-a-tainer" secondary containment system as described above. Those engaged with re-fueling activities will be knowledgeable with the deployment of the collapse-a-tainer and use of the spill kit. If a fuel spill occurs outside of the collapse-a-tainer system, other measures in addition to a spill kit may be used to contain and manage the spill. These measures include the following:

- installation of containment berms around the spill;
- installation of swales around the spill;
- construction of a sump(s) for removal of the spill. Spilled fuel liquids that are collected will be conveyed to a storage container specifically designated for spilled fuel or other petroleum materials; spilled fuel will not be mixed with the groundwater storage tanks designated for other purposes;
- other containment measures may be used to immediately stop the migration of the liquids; and,
- removal of soil materials that are impacted by the spill for characterization and off-site disposal. The soil would be excavated at a minimum to a depth at which there is no visual or olfactory evidence of the spill. Soil excavation will not penetrate any part of the ERS not intended to be disturbed as part of development.

Tank MWT-210 is used for storing maintenance/backwash water on an as-needed basis. This tank will temporarily hold an acid solution used for flushing accumulated precipitates from the HMS lines (only used during backwash activities). Tank MWT-210 is also a vertical cylindrical, flat

bottom, reinforced flat/vent top tank constructed of fiberglass reinforced plastic with a nominal capacity of 1,000 gallons.

During proposed construction activities, an Emergency Generator will also be maintained at the Site by HDP. The generator will be inspected daily for leaks during use.

The generator will include a double-walled fuel tank (110% containment system) to ensure all fuels are isolated from the surrounding environment. In the event of a fuel leak, sorbent pads or other similar response materials will be used to recovery fuel, and contaminated soil will be promptly excavated and properly disposed off-site, along with the sorbent material. The soil would be excavated at a minimum to a depth at which there is no visual or olfactory evidence of the spill. Depending on the extent of the spill, soil sampling may be required to confirm cleanup. Soil excavation will not penetrate any part of the ERS not intended to be disturbed as part of development.

5.1 *DISPOSAL OF RECOVERED MATERIALS*

During construction activities, diesel fuel storage for small construction equipment will be provided on Site in the form of small ASTs and/or generator belly tanks. In the event of a small fuel spill during construction activities (e.g., spills less than 5 gallons) at the facility, fuel will be recovered by the environmental response contractor's employees using absorbent materials from spill kits, or other measures. The Developer's environmental response contractor (Environmental Waste Minimization, Inc. – EWMI) will be on the project site throughout the site work phase of construction. Any oil-soaked recovered material or wastes resulting from a spill cleanup will be stored in an approved container and then disposed or recycled off-site according to applicable federal and State regulations.

In the event of an oil spill or discharge at the facility, the contractor will notify the Developer's Representative immediately upon becoming aware of such an event. The Developer's response contractor will respond, as they will be on-site throughout intrusive site work activities. The Maryland Department of the Environment (MDE) Oil Control Program (OCP) will to be notified by the Developer's Representative in accordance with Code of Maryland Regulations (COMAR) 26.10.08.01 Reporting Of Suspected Releases. The MDE OCP contact number to report a spill is 866-633-4686 (24 hour) or 410-974-3551.

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In addition to the Developer's environmental response contractor (EWMI: 877-460-1038), Honeywell's emergency response contractor, Maryland Environmental Services at 410-979-8200, Baltimore City or the Maryland Department of the Environment's HAZMAT Team may be contacted by the Developer's Representative to recover the oil. Disposal of any recovered materials generated from cleanup by a spill response contractor will be coordinated through the Site Manager to ensure proper disposal of recovered materials in accordance with Maryland regulations.

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6.0 *DISCHARGE NOTIFICATIONS*

The Contractor will immediately commit all necessary manpower, equipment, and materials required to prevent a spill from reaching waterways, shorelines, or sewers. Once the spill, release or discharge is under control, the Contractor will immediately notify the Developer's Representative and Honeywell's Representative.

The MDE OCP is to be notified by the Developer's Representative in accordance with Code of Maryland Regulations (COMAR) 26.10.08.01 Reporting Of Suspected Releases. The MDE OCP contact number to report a spill is 866-633-4686 (24 hour) or 410-974-3551. In the event of a release of hazardous waste or hazardous waste-contaminated materials, the Solid Waste Program within MDE must also be notified at 410-537-3315.

6.1 *PROJECT SPECIFIC EMERGENCY CONTACTS*

In the event of a contaminated groundwater spill, material release, fire or explosion, the following Honeywell and developer should be notified immediately.

Emergency Coordinator (EC)

Developer: Jonathan Flesher – 443-463-3937

Resident Site Manager: Ken Biles – 443-271-6694

6.2 *EMERGENCY NOTIFICATIONS*

The following table (Table 6-1) provides government agency and emergency response contact information in the event of a spill:

Table 6-1. Emergency Contact Information

	Name	Phone
US Coast Guard Spill Reporting	National Response Center (Chemtrec)	800-424-8802
EPA Region III Reporting	US EPA Region III	215-814-5000

	Name	Phone
State Reporting	Maryland Department of the Environment Emergency Response Notification	866-633-4686 (24 hour) or 410-974-3551
	Maryland Natural Resources Police	410-643-5773
Local Reporting	Baltimore Fire Department	911 (emergency) 410-396-3083 (non-emergency)
Emergency Response Contractor	Maryland Environmental Services	410-729-8200
	EWMI (Developer's response contractor)	877-460-1038

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6.3 *DISCHARGE RESPONSE PROCEDURES*

In the event of an oil, contaminated groundwater or contact water spill outside of the containment area, spill response measures will be utilized to minimize migration of contaminated material.

If the EC determines that the facility has had a release, fire, or explosion that could threaten human health or the environment, or if the release is of a quantity which would exceed the Reportable Quantity (RQ) for chromium (1 pound as referenced in 40 CFR 302.4) outside of the tank containment or truck loading area, he shall report his findings as follows:

- Name, address, and telephone number of the person reporting
- Name, address, and telephone number and the responsible party
- Specific location of the incident
- Date and time the incident occurred or was discovered
- Name of the chemical/material released
- Source and cause of the release
- Total quantity discharged
- Medium into which the substance was discharged
- Amount spilled into water
- Weather conditions

- Name of the carrier or vessel, the railcar/truck number, or other identifying information
- Number and type of injuries or fatalities
- Whether an evacuation has occurred
- Estimation of the dollar amount of property damage
- Description of current and future cleanup actions
- Other agencies notified or about to be notified

If the facility stops operations in response to a fire, explosion, or release, the EC shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate. Immediately after an emergency, the EC shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

If the spill material is flammable, all ignition sources shall be controlled/disabled. Fire extinguishers will be on hand for immediate use. The following actions should be taken as needed:

- Clear the area;
- Keep unnecessary personnel away;
- Identify the spilled material and report to the SM;
- Develop a plan of action;
- Don additional protective equipment;
- Control the source of the spill;
- Dike or apply absorbent material to spill;
- Decontaminate area as necessary; and
- Decontaminate personnel.

The EC shall ensure that, in the affected areas of the site:

- Waste that may be incompatible with the released material is not treated, stored or disposed of until cleanup procedures are completed;
- Treatment or disposal of waste materials may not occur on site; and
- All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

Material spills may occur during construction from excavation, truck loading, and vehicle accidents, as well as during operation and maintenance of the HMS during Level II operations (See Contingency Plan and Drawing DDP EN1.02). Every effort will be made to prevent or minimize spilled groundwater discharge to the local surface waters.

Should an onsite spill of contaminated groundwater occur, the immediate response will include closing off the source of the spill, controlling the spilled material, application of a sorbent material or sand bagging, and street sweeping, as appropriate. The spill shall be collected as soon as possible, either manually or with equipment such as pumps. Ground material such as concrete or asphalt, which comes in contact with the spill, shall be cleaned as appropriate. Ground material that comes in contact with the spill that would not or cannot be cleaned will be removed for disposal and replaced with clean material. Removed materials that were in contact with the spilled contaminated groundwater will be stored in roll-off containers for characterization testing. The final disposition of these materials will be determined based on the test results. Spilled contaminated groundwater that is collected will be stored in the designated groundwater tanks and managed with the HMS extracted groundwater.

Records of all spills and releases will be documented in a log. The reported information described above will be included in the log.

6.4 WRITTEN NOTIFICATIONS

If the facility discharges more than 1,000 U.S. gallons of oil in a single discharge, or discharges more than 42 U.S. gallons of oil in each of two discharges that occur within any twelve-month period, into or upon navigable waters, a written report will be sent to the following address within 60 days of meeting the 1,000-gallon or 42-gallon criteria discussed above (this reporting criteria is consistent with 40 CFR 112.4):

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U.S. EPA – Region III
Office of Remediation, 3LC20
1650 Arch Street
Philadelphia, PA 19103
Attn: Mr. Russell Fish

A copy of this written report will also be sent to the following State agencies:

Maryland Department of the Environment (MDE)

Solid Waste Program
1800 Washington Boulevard
Baltimore, Maryland 21230
Attn: Mr. Edward Dexter

Maryland Department of the Environment (MDE)
Land Management Administration – Oil Control Program
1800 Washington Boulevard
Baltimore, Maryland 21230
Phone: 410-537-3442

The written report will include the following information:

- Name and location of the facility and name of the owner/operator;
- Corrective actions and countermeasures taken, including a description of equipment repairs and replacements;
- Description of facility, including maps, flow diagrams, and topographical maps;
- Cause of the discharge(s) to navigable waters and adjoining shorelines, including a failure analysis of the system and subsystem in which the failure occurred;
- Additional preventive measures taken or contemplated to minimize possibility of recurrence; and
- Other pertinent information requested by the Regional Administrator.

7.0 DISCHARGE PREVENTION MEASURES, CONTROLS, AND COUNTERMEASURES POST CONSTRUCTION ACTIVITIES

This SPRP is limited to construction-related activities. Once construction is completed, the current spill prevention control and countermeasures (SPCC) plan will continue to be employed at the site.

Figure

Figure 1
Site Location Map