Spill Prevention, Control and Countermeasure Plan

National Institutes of Health Bethesda Campus

9000 Rockville Pike

Bethesda, MD 20892

13 September 2017

Prepared by

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TABLE OF CONTENTS

INTRODUCTION

The purpose of this Spill Prevention, Control, and Countermeasure (SPCC) Plan is to describe measures implemented by the National Institutes of Health (NIH) to prevent oil discharges from occurring, and to prepare NIH to respond in a safe, effective, and timely manner to mitigate the impacts of a discharge.

This Plan has been prepared to meet the requirements of Title 40, Code of Federal Regulations, Part 112 (40 CFR part 112), and supersedes the earlier Plan developed to meet provisions in effect since 1974.

In addition to fulfilling requirements of 40 CFR part 112, this SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with employees, as a guide to facility inspections, and as a resource during emergency response.

NIH management has determined that the NIH Bethesda Campus does not pose a risk of substantial harm under 40 CFR part 112, as recorded in the "Substantial Harm Determination" included in ***Appendix B*** of this Plan. Therefore, a Facility Response Plan (FRP) is not required for inclusion into this Plan.

This Plan provides guidance on key actions that NIH must perform to comply with the SPCC rule:

- Complete monthly and annual site inspections as outlined in the Inspection, Tests, and Records section of this Plan (Section 3.7) using the inspection checklists included in ***Appendix C***.
- Perform preventive maintenance of equipment, secondary containment systems, and discharge prevention systems described in this Plan as needed to keep them in proper operating conditions.
- Conduct annual employee training as outlined in the Personnel, Training, and Spill Prevention Procedures section of this Plan (Section 3.8) and utilize the log in ***Appendix E*** to document the training.
- If either of the following occurs, submit the SPCC Plan to the U.S. Environmental Protection Agency (EPA) Region 3 and the Maryland Department of Environment (MDE), along with other information as detailed in Section 5.4 of this Plan:
    - The facility discharges more than 1,000 gallons of oil into or upon the navigable waters of the U.S. or adjoining shorelines in a single spill event; or
    - The facility discharges oil in quantity greater than 42 gallons in each of two spill events within any 12-month period.
- Amend the SPCC Plan within six (6) months whenever there is a change in facility design, construction, operation, or maintenance that materially affects the facility's spill potential. The revised Plan must be recertified by a PE.
- Review the Plan on an annual basis. Update the Plan to reflect any "administrative changes" that are applicable, such as personnel changes or revisions to contact information, such as phone numbers. Administrative changes must be documented in the Plan review log of Section 1.4 of this Plan, but do not have to be certified by a PE.
- Review the SPCC Plan at least once every five years and amend it to include more effective prevention and control technology, if such technology will significantly reduce the likelihood of a spill event and has been proven effective in the field at the time of the review. Plan amendments, other than administrative changes discussed above, must be recertified by a Professional Engineer (PE) on the certification page in Section 1.2 of this Plan.

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PART 1: Plan Administration

1.1 Management Approval and Designated Person (40 CFR 112.7)

NIH is committed to preventing discharges of oil to navigable waters and the environment, and to maintaining the highest standards for spill prevention control and countermeasures through the implementation and regular review and amendment to the Plan. This SPCC Plan has the full approval of NIH management. NIH has committed the necessary resources to implement the measures described in this Plan.

The Director of the Division of Environmental Protection (DEP) is the Designated Person Accountable for Oil Spill Prevention at the facility and has the authority to commit the necessary resources to implement this Plan.

Authorized Facility Representative (facility response coordinator):	William K. Floyd
Signature:	William K. Floyd
Title:	Director, Division of Environmental Protection
Date:	9/13/2017

1.2 Professional Engineer Certification (40 CFR 112.3(d))

The undersigned Registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the Code of Federal Regulations (40 CFR part 112) and has visited and examined the facility, or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR part 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the facility. (40 CFR 112.3(d))

This certification in no way relieves the owner or operator of the facility of his/her duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR part 112. This Plan is valid only to the extent that the facility owner or operator maintains, tests, and inspects equipment, containment, and other devices as prescribed in this Plan.

Professional Engineer Registration Number:	E--12029, Nebraska
Signature:	Nick Steinke
Name:	Nick Steinke
Title:	Principal
Company:	Tellevate, LLC
Date:	September 6, 2017 9/13/17

1.3 Location of SPCC Plan (40 CFR 112.3(e))

In accordance with 40 CFR 112.3(e), complete copies of this SPCC Plan are maintained in the Division of Environmental Protection (DEP) in Room 2S11 in Building 13, Division of Facilities, Operations and Maintenance (DFOM) in Room 1416 in Building 13, Division of Technical Resources (DTR) in the first floor office in the Central Utility Plant and Division of Fire and Rescue Services in Building 51. The DEP Offices are attended from 7:00 AM to 5:00 PM Monday through Friday.

1.4 Plan Review (40 CFR 112.3 and 112.5)

1.4.1 Changes in Facility Configuration

In accordance with 40 CFR 112.5(a), NIH periodically reviews and evaluates this SPCC Plan for any change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for an oil discharge, including, but not limited to:

- Commissioning or decommissioning of containers;
- Reconstruction, replacement, or installation of piping systems;
- Construction or demolition that might alter secondary containment structures; or
- Changes of product or service, revisions to standard operation, modification of testing/inspection procedures, and use of new or modified industry standards or maintenance procedures.

Amendments to the Plan made to address changes of this nature are referred to as technical amendments, and must be certified by a PE. Non-technical amendments can be done (and must be documented in this section) by the facility owner and/or operator. Non-technical amendments include the following:

- Change in the name or contact information (i.e., telephone numbers) of individuals responsible for the implementation of this Plan; or
- Change in the name or contact information of spill response or cleanup contractors.

NIH will make the needed revisions to the SPCC Plan as soon as possible, but no later than six months after the change occurs. The Plan must be implemented as soon as possible following any technical amendment, but no later than six months from the date of the amendment. The DEP Director is responsible for initiating and coordinating revisions to the SPCC Plan.

1.4.2 Scheduled Plan Reviews

In accordance with 40 CFR 112.5(b), NIH reviews this SPCC Plan at least once every five years. Revisions to the Plan, if needed, are made within six months of the five-year review. A registered PE certifies any technical amendment to the Plan, as described above, in accordance with 40 CFR 112.3(d). This Plan is dated September 6, 2017. The next plan review is therefore scheduled to take place on or prior to September 13, 2022.

1.4.3 Record of Plan Reviews

Scheduled five-year reviews and Plan amendments are recorded in the Plan Review Log (Table 1-1). This log will be completed even if no amendment is made to the Plan as a result of the review. Unless a technical or administrative change prompts an earlier review of the Plan, the next scheduled review of this Plan will occur by September 13, 2022.

Table 1-1: Plan Review Log

By	Date	Activity	PE certification required?	Comments
DEP Contractor	March 20, 2017	Plan Review	Yes	For SPCC Plan Update
NIH	March 20, 2012	Plan Review	Yes	For SPCC Plan Update

Previous PE certifications of the Plan are summarized below on Table 1-2:

Table 1-2: Previous PE Certifications

Date	Scope	PE Name	Licensing State and Registration No.
March 20, 2012	SPCC Plan Update	James Carscadden	MD, 18671

1.5 Facilities, Procedures, Methods of Equipment Not Yet Fully Operational (40 CFR 112.7)

NIH currently does not have any facilities, procedures or equipment that are not yet fully operational.

1.6 Cross Reference with SPCC Provisions (40 CFR 112.7)

This SPCC Plan does not follow the exact order presented in 40 CFR part 112. Section headings identify, where appropriate, the relevant section(s) of the SPCC rule. Table 1-3 presents a cross-reference of Plan sections relative to applicable parts of 40 CFR part 112.

Table 1-3: SPCC Cross-Reference

Provision	Plan Section	Page
112.3(d)	Professional Engineer Certification	4
112.3(e)	Location of SPCC Plan	5
112.5	Plan Review	5 Table 1-1
112.7	Management Approval	4
112.7	Cross-Reference with SPCC Rule	Table 1-3
112.7(a)(3)	Part 2: General Facility Information ***Appendix A: Site Plan and Facility Diagrams***	8 ***Appendix A***

Table 1-3: SPCC Cross-Reference

Provision	Plan Section	Page
112.7(a)(4)	5.4 Discharge Notification	41 ***Appendix G*** ***Appendix I***
112.7(a)(5)	Part 5: Discharge Response	39
112.7(b)	3.4 Potential Discharge Volumes and Direction of Flow	12
112.7(c)	3.5 Containment and Diversionary Structures	14
112.7(d)	3.6 Practicability of Secondary Containment	15
112.7(e)	3.7 Inspections, Tests, and Records	16 ***Appendix C***
112.7(f)	3.8 Personnel, Training and Discharge Prevention Procedures	17
112.7(g)	3.9 Security	17
112.7(h)	3.10 Tank Truck Loading/Unloading	18
112.7(i)	3.11 Brittle Fracture Evaluation	19
112.7(j)	3.12 Conformance with Applicable State and Local Requirements	20
112.8(b)	4.1 Facility Drainage	21
112.8(c)(1)	4.2.1 Construction	30
112.8(c)(2)	4.2.2 Secondary Containment	30
112.8(c)(3)	4.2.3 Drainage of Diked Areas	30 ***Appendix D***
112.8(c)(4)	4.2.4 Corrosion Protection	31
112.8(c)(5)	4.2.5 Partially Buried and Bunkered Storage Tanks	31
112.8(c)(6)	4.2.6 Inspection ***Appendix C: Facility Inspection Checklists***	31 ***Appendix C***
112.8(c)(7)	4.2.7 Heating Coils	31
112.8(c)(8)	4.2.8 Overfill Prevention System	31
112.8(c)(9)	4.2.9 Effluent Treatment Facilities	32
112.8(c)(10)	4.2.10 Visible Discharges	32
112.8(c)(11)	4.2.11 Mobile and Portable Containers	32
112.8(d)	4.3 Transfer Operations, Pumping and In-Plant Processes	37
112.20(e)	Certification of Substantial Harm Determination	***Appendix B***

*Only selected excerpts of relevant rule text are provided. For a complete list of SPCC requirements, refer to the full text of 40 CFR part 112.

PART 2: General Facility Information

2.1 Facility Description (40 CFR 112.7(a)(3))

Name:	National Institutes of Health (NIH)
Address:	9000 Rockville Pike Bethesda, MD 20892 (301) 496-7775
Type:	Medical Research Facility
Owner/Operator:	National Institutes of Health 9000 Rockville Pike Bethesda, MD 20892
Primary Contact:	William K. Floyd, Director, DEP Work: (301) 496-7775 Cell (24 hours): (304) 229-4392

2.1.1 Location and Activities

The NIH is an Operating Division (OPDIV) of the Department of Health and Human Services (DHHS). The NIH is the primary federal medical research agency and is tasked with both leading the nation's medical research initiatives and providing funding and support to medical institutions across the country. The NIH is comprised of 27 Institutes and Centers, each with a specific research agenda, often focusing on particular disease or body symptoms.

The NIH Bethesda Campus includes a research hospital, patient-family temporary houses, clinics, animal research, approximately 5,000 labs, office buildings, Building 11 Central Utility Plant (CUP) and Co-Generation Plant (COGEN) that provides steam and chilled water to the NIH Bethesda Campus, grounds maintenance area and fuel dispensing area. The NIH Bethesda Campus is located at 9000 Rockville Pike in Bethesda, Maryland, and spans over 322 acres with 70 buildings and has more than 22,000 employees. Hours of operation are 24 hours per day, seven days per week. Personnel at the facility with oil handling responsibilities include the DEP Director, DEP staff managing the fuel storage program, Division of Facilities, Operations and Maintenance (DFOM) and Division of Technical Resources (DTR) personnel responsible for maintaining and inspecting tanks, and contractor personnel, overseen by DFOM and DTR, responsible for maintaining, inspecting and loading tanks. The NIH Fire Department is also responsible for assisting in spill response.

Site Plan/Facility Diagrams included in ***Appendix A*** of this Plan show three figures: Figure A-1, the location and layout of the facility; Figure A-2, location of oil containers and throughout the NIH Bethesda Campus; and Figure A-3, locations of transformers and hydraulic lifts throughout the NIH Bethesda Campus.

2.1.2 Oil Storage

The NIH Bethesda Campus requires the storage and use of many different types and quantities of petroleum products, including diesel fuel, heating oil, gasoline, lubricating oils and biodiesel. Oil storage activities support operations associated with auxiliary/emergency power and heat generation, fleet fuel services, transformers, hydraulic elevators, as well as new and used cooking oil grease. Petroleum products are stored outside of buildings, inside buildings, underground and at the fuel dispensing area.

Oil storage with greater than 55 gallons of oil capacity includes 87 tanks that include: 19 ASTs, 57 emergency generator sub-base, day or return tanks, 1 fuel dispensing tank and 10 portable emergency generators.

NIH stores at a minimum of 1,000 gallons of lubricating oils and waste oils in 55 gallon drums and/or 5 gallon containers inside Building 11 - the CUP. The NIH CUP also has 9,765 gallons of lubricating silicon fluid in seventeen (17) transformers in five (5) different areas. Inside the Building 11A Cogeneration Plant, NIH stores approximately 500 gallons of lubricating oils and waste oils in 55 gallon drums and/or 5 gallon drums. The

Cogeneration Plant has 850 gallons of R-Temp fluid in two (2) transformers in two (2) different areas. In addition, NIH stores an estimated 5500 gallons in 100 55-gallon drums in other areas of the NIH Bethesda Campus that are managed by DFOM. NIH Bethesda Campus has 117 network transformers with oil capacity above 55 gallons and a total transformer oil capacity of 47,608 gallons. NIH Bethesda Campus also has 43 hydraulic elevator reservoirs above 55-gallons and a total oil capacity of 14,832 gallons.

There are 18 underground storage tanks (USTs) located at the site that are exempt from this SPCC Plan. The USTs are exempt from this SPCC Plan because they are subject to, and meet, all the technical requirements of 40 CFR Part 280 and Maryland's more stringent UST Program at COMAR 26.10.02-.11, as approved under 40 CFR part 281, State Program Approval (SPA). Thus, they are neither counted in the storage capacity for this facility nor are subject to the requirements of 40 CFR 112 (exempt under 40 CFR 112.1(d)(4)). These USTs include two 567,000 gallon tanks and four 10,000 gallon tank for CUP boilers and three 10,000 gallon tanks at the fuel dispensing area.

The capacities of exempt USTs present at the site are listed in Table 2-1; the locations are indicated on Figure A-2, ***Appendix A***. All other containers with a capacity of 55 gallons or more are included in this Plan. The capacity for the USTs are not included in the total capacity because they are exempt as described below. There is oil-filled equipment owned and operated by the utility, Pepco, and not part of the NIH "facility". This oil-filled equipment is also exempt from this SPCC Plan.

As shown in ***Appendix B***, NIH has determined that the NIH Bethesda Campus does not have the potential to cause substantial harm to the environment in the event of a discharge into or on navigable waters or adjoining shorelines and thus is not required to prepare and submit a Facility Response Plan. The underground storage capacity does not count towards the facility's total oil storage and thus the total oil storage at NIH Bethesda Campus does not exceed the total oil storage threshold for developing a Facility Response Plan.

Total Oil Storage: 176,994 gallons*

NOTE: This includes all non-exempt ASTs, emergency generators, and oil drums in the Central Utility Plant and other areas of the NIH Bethesda Campus that have storage capacity greater than 55 gallons. This does not include the exempt USTs located at the NIH Bethesda Campus.

Note: The USTs are subject to, and meet, all the technical requirements of 40 CFR Part 280 and Maryland's more stringent UST Program at COMAR 26.10.02-.11, as approved under 40 CFR part 281, and are therefore neither counted in the storage capacity for this facility nor are subject to the requirements of 40 CFR 112 (exempt under 40 CFR 112.1(d)(4)). Their locations are indicated on the Facility Diagram in **Appendix A**.

Table 2-1: List of Exempt Underground Storage Tanks

MDE Tank #	NIH Tank #	NIH Building Number	Product	Capacity Gallons	Installation Date	Tank Construction
1	1	NIH 11	Heating Oil (No. 2 Diesel)	567,000	1952	Welded Steel
2	2	NIH 11	Heating Oil (No. 2 Diesel)	567,000	1952	Welded Steel
4	6	NIH 11	Heating Oil (No. 2 Diesel)	10,000	1992	Composite Steel with Fiberglass
5	7	NIH 11	Heating Oil (No. 2 Diesel)	10,000	1992	Composite Steel with Fiberglass
6	10	NIH 12	Gasoline (low-grade)	10,000	1995	Fiberglass Reinforced Plastic Clad Steel
7	11	NIH 12	Gasoline (E-85 Ethanol)	10,000	1995	Fiberglass Reinforced Plastic Clad Steel
8	12	NIH 12	Bio-Diesel	10,000	1995	Fiberglass Reinforced Plastic Clad Steel
11	24	NIH 5	Diesel	1,000	1995	Steel (sti-P3 CP)
12	25	NIH 6A	Diesel	1,000	1993	Fiberglass Reinforced Plastic Clad Steel
17	49	NIH 29B	Diesel	4,000	1995	Fiberglass Reinforced Plastic Clad Steel
18	50	NIH 21	Diesel	550	1993	Fiberglass Reinforced Plastic Clad Steel
20	29	NIH 52	Diesel	1,000	1993	Fiberglass Reinforced Plastic Clad Steel

MDE Tank #	NIH Tank #	NIH Building Number	Product	Capacity Gallons	Installation Date	Tank Construction
21	31	NIH 29A	Diesel	550	1995	Fiberglass Reinforced Plastic Clad Steel
24	27	NIH 6B	Diesel	4,000	1987	Composite Steel with Fiberglass
27	994	NIH 31A	Diesel	600	2001	Fiberglass Reinforced Plastic (XERXES)
29	993	NIH 40 - VRC	Diesel	10,000	1999-2000	Double Wall Fiberglass (XERXES)
30	992	NIH 49	Diesel	5,000	Registered w/ MDE 2006	Fiberglass Reinforced Plastic (Owens-Corning)
31	995	NIH 14E	Diesel	550	Registered w/ MDE 2006	Steel (sti-P3 CP)

2.2 Evaluation of Discharge Potential

2.2.1 Distance to Navigable Waters and Adjoining Shorelines and Flow Paths

The closest bodies of water to the NIH Bethesda Campus are the NIH (unnamed) Stream and Rock Creek. A potential spill could impact the NIH (unnamed) Stream running north from South Drive to Rockville Pike (Maryland Route 355), either directly or via the storm sewer system, or Rock Creek. The NIH Stream eventually drains into Rock Creek and Rock Creek discharges into the Potomac River. If an oil spill does occur at NIH, the NIH Stream or Rock Creek are the endpoints. A spill would likely not reach these endpoints because intervention would likely prevent this scenario in the form of oil spill cleanup.

2.2.2 Discharge History

Table 2-2 summarizes the facility's discharge history for the past five years.

Table 2-2: Five-Year Discharge History

Description of Discharge	Corrective Actions Taken
On 8/26/2016, there was an hydraulic leak from the hydraulic system in elevator car #4 at parking garage MLP-8 resulting in approximately 120-140 gallons of hydraulic oil leaking into the jack hole of the elevator shaft.	A contractor came in to assess the situation of missing hydraulic fluid within the hydraulic system of Car #4 elevator at MLP-8. The components were removed and assessed. Approximately 120-140 gallons of hydraulic fluid was recovered in the jack hole of the hydraulic system. The groundwater remaining in the jack hole was tested and the small sheen on top was removed both with bailers and absorbent pads.

Description of Discharge	Corrective Actions Taken
On 6/13/2016, approximately 25 gallons of diesel leaked onto the pavement between Bldg. 34 and the bulk fuel tank secondary containment from a rupture in the underbelly tank of a dump truck at the demolition site at Bldg. 34.	Contractors and NIH Fire Department immediately put absorbent pads and kitty litter absorbent on the diesel spill path on the roadway from Bldg. 34 to the secondary containment. The construction crew immediately directed the driver to the known secondary containment area to ensure minimal damage from the leak. All diesel was thoroughly cleaned from the roadways and there was no release into the environment.
On 12/23/2015, fuel oil was detected in the Bldg. 11 (CUP) Basement in the Steam Side. The fuel oil source originated from the door post to stair well 2.	In order to rectify the issue, oil containment booms were placed to surround the door post to stair well 2. The oil leak appears to have ceased and it being monitored to see if any further action is needed. No oil has reached the drain troughs located in the basement steam side.
On 12/9/2015, a 5-gallon container of hydraulic fluid was spilled onto the pavement at MLP-8 when the contractor was off-loading a pallet of 5-gallon containers of hydraulic fluid while performing maintenance on the elevators.	Absorbent materials were delivered by Clean Ventures to the contractor who was performing maintenance on the hydraulic elevators. This contractor thoroughly removed the spilled granulated material with absorbent material and pads and cleaned the area. There was no oil released into the environment as a result of this spill.
On 5/19/2015, the Bldg. 5 Emergency Generator Day tank pump was found continually running because the high level alarm for the pump was disabled.	Initially, 10 gallons was cleaned up at the scene and on 5/25/2015, the oil/water separator (OWS) downgradient was cleaned out.
On 5/17/2015, the NIH Fire Department discovered a diesel fuel smell in the OWS Containment system area upon arrival.	Fire Department personnel deployed big booms and pads from the adjacent shed at containment area. This further decreased downstream contamination. NIH Fire Department and DEP personnel checked upstream areas at Bldgs. 11 and 12 to assess source and never found anything.
On May 10, 2015, the Cogen's gas turbine cooler failed, which resulted in chilled water and oil to collect in the turbine enclosure.	The turbine drains to a wastewater drain tank and then is pumped into an oil water separator. The water is sent the blowdown flash tank while the oil is collected in a waste oil storage tank. The oily waste water was contained within the Cogen drain system. Clean Harbors was called on 5/11/2015 to pump out the oily waste water, which was contained in the Cogen drain system.
On 6/12/2012, there was a 200-300 gallon container of kitchen grease that leaked an unknown quantity in the Cafeteria Loading Dock approximately 100 feet towards South Drive. When DEP arrived at the scene, there was a stain on the pavement near the AST of kitchen grease and tire path down the road.	Clay absorbent material was repeatedly applied and removed throughout the day several times followed by a wash-down of the pavement.
On 1/25/2012, there was a hydraulic oil leak from a truck	The plug was replaced.

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PART 3: Discharge Prevention – General SPCC Provisions

The following measures are implemented to prevent oil discharges during the handling, use, or transfer of oil products at the facility. Oil-handling employees have received annual training in the proper implementation of these measures.

3.1 Compliance with Applicable Requirements (40 CFR 112.7(a)(2))

40 CFR 112 requires compliance with all applicable requirements, as described in this plan. All tanks and drums located at NIH Bethesda Campus have adequate secondary containment. Inspections of tanks are conducted and personnel are trained in spill response.

3.2 Facility Layout Diagram (40 CFR 112.7(a)(3))

Appendix A, Figure A-1**,** shows the general location of the facility on a U.S. Geological Survey topographic map. ***Appendix A***, Figure A-2, presents a layout of the facility and the location of storage tanks and 55-gallon drums. As required under 40 CFR 112.7(a)(3), the facility diagram indicates the location and content of ASTs, USTs, and transfer stations and connecting piping. The facility diagram also identifies the location of and mark as "exempt" underground tanks that are exempted from the requirements of this part under §112.1(d)(4).

3.3 Spill Reporting (40 CFR 112.7(a)(4))

The discharge notification form included in ***Appendix G*** will be completed upon immediate detection of a discharge and prior to reporting a spill to the proper notification contacts.

3.4 Potential Discharge Volumes and Direction of Flow (40 CFR 112.7(b))

Table 3-1 presents expected volume, discharge rate, general direction of flow in the event of equipment failure, and means of secondary containment for different parts of the facility where oil is stored, used, or handled. Maximum potential discharge volumes are based on the largest tank, which is 10,000 gallons, located at Building 35. This is unlikely to occur because the tank is surrounded by a metal containment dike with a dike leak monitoring system. This tank also has mechanical and electronic overfill prevention alarm systems.

Table 3-1: Potential Discharge Volumes and Direction of Flow

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
10,000-gallon AST – Building 35				
Failure of aboveground tank (collapse or puncture below product level)	10,000	Gradual to instantaneous	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	Metal containment dike
Partial rupture of a full tank	Variable from 1 – 10,000	Gradual to instantaneous	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	Metal containment dike

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
Tank overfill	Up to 10,000	Gradual to instantaneous	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	Metal containment dike
Pipe failure	Up to 10,000	60 gal/min	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	Metal containment dike
Leaking pipe or valve packing	Variable from several ounces to several gallons	Up to 1 gallon/minute	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	Metal containment dike
Tank truck or trailer mounted refueling tank failure	1 to 10,000	Gradual to instantaneous	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	Metal containment dike
Hose leak during refueling	Variable from 1 to several gallons	Up to 1 gallon/minute	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	Metal containment dike
Building 11 (Central Utility Plant)				
Leak or failure of drum	1 to 55	Gradual to instantaneous	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	Spill pallets

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
Leak in Cooling Tower Gear box	30 gallons	Gradual to instantaneous	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	Oil alarms on Gear Boxes Coffer Dam at Creek
Building 11A (Cogeneration Plant)				
Leak or failure of drum	1 to 55	Gradual to instantaneous	Southerly, to a storm drain that empties into NIH Stream. Intervention through OWS containment would most likely prevent this scenario.	All drains drain to an oil water separator. Waste oil storage has a level alarm, and tank is evacuated once alarm limit is reached. Waste oil drums are on secondary containment

3.5 Containment and Diversionary Structures (40 CFR 112.7(c))

Methods of secondary containment at this facility include a combination of structures (e.g., protected concrete vault containment, steel containment, built-in secondary containment, locked containment curb), drainage systems (e.g., shut-off valves), and land-based spill response (e.g., drain covers and absorbents). These containment and diversionary structures are intended to prevent oil from reaching streams, navigable waters and adjoining shorelines.

For bulk storage containers (refer to Section 4.2.2 of this Plan):

Tank construction. All ASTs subject to 40 CFR 112 meet National Fire Protection Association (NFPA) flammable and combustible liquids codes and recognized engineering standards, such as Underwriters Laboratories (UL) Rating 142 and 2085 for Steel Aboveground Storage Tanks containing Flammable and Combustible Liquids; and Steel Tank Institute (STI) Industry Standards for Steel Aboveground Storage Tank engineering, repair, inspection, and safety. The ASTs have overfill prevention equipment (mechanical and/or electrical) and most ASTs have overfill alarms. A variety of overfill protection systems are utilized, including but not limited to, varied combinations of Veeder-Root tank monitoring systems, interstitial monitoring, Continuous Release Detection, overflow alarms, high-/low-level alarms, and float-level gauges. All bulk storage ASTs are equipped with direct-reading level gauges. All product transfers are monitored.

Protected Concrete Vault Containment. Protected concrete vault containment is provided for selected bulk storage ASTs.

Double-Wall Tank Construction. Most bulk storage ASTs operated at the NIH Bethesda Campus are double-walled. These double-wall tanks are equipped with a secondary shell and are designed to contain 100 percent of the inner shell capacity.

Containment Dikes/Berms/Curbs. Most single-wall bulk storage ASTs are surrounded by metal containment dikes with dike leak monitoring systems or containment berms. Some double-walled ASTs are surrounded by spill containment curbs, which serves as a tertiary spill containment system.

In transfer areas and other parts of a facility where a discharge could occur:

Spill pallets. Spill pallets are used for secondary containment for the 55-gallon oil drums stored throughout the NIH Bethesda Campus.

Spill Containers. Fill ports for all ASTs are equipped with spill buckets to contain residual fuel from the piping/hose connections. Drip pans are drained from the bottom to a bucket for disposal or manually returned to the tank.

Absorbent materials. Spill cleanup kits that include absorbent materials, booms, and other portable barriers are available on NIH contractor servicing vehicles. Gloves, trash bags, absorbent materials, buckets, a wet vacuum or a pump are available and constantly resupplied.

Temporary Berms. There are 9 portable emergency generators located on the NIH Bethesda Campus and six of those generators have single-walled tanks. When the single-walled portable generators are not in use and parked at their designated location, NIH has set up temporary berms for secondary containment. When portable generators are in use throughout the NIH Bethesda Campus, temporary berms are placed around the single-walled tanks for secondary containment.

Some single-walled ASTs do not have adequate secondary containment and secondary containment will be provided for those tanks according to the Compliance Plan in ***Appendix J***.

The NIH Discharge Response Equipment Inventory is listed in ***Appendix H*** of this plan. The Inventory is checked routinely to ensure it is properly replenished.

3.6 Practicability of Secondary Containment (40 CFR 112.7(d))

NIH has determined that secondary containment is practicable at the facility.

3.7 Inspections, Tests and Records (40 CFR 112.7(e))

As required by the SPCC rule, NIH performs the inspections, tests, and evaluations listed in the following table. Table 3-2 summarizes the various types of inspections and tests performed at the facility. The inspections and tests are described later in this section, and in the respective sections that describe different parts of the facility.

Table 3-2: Inspection and Testing Program

Facility Component	Action	Frequency/Circumstances
Aboveground container	Conduct visual inspections. Inspect outside of container for signs of deterioration and discharges.	Following a regular schedule (monthly, annual, and during scheduled inspections) and whenever material repairs are made.
Container supports and foundation	Inspect container's supports and foundations.	Following a regular schedule (monthly, annual, and during scheduled inspections) and whenever material repairs are made.
Liquid level sensing devices (overfill)	Check for proper operation.	Monthly
Lowermost drain and all outlets of tank truck	Visually inspect.	Prior to filling and departure

Facility Component	Action	Frequency/Circumstances
Effluent treatment facilities	Detect possible system upsets that could cause a discharge.	Daily, monthly
All aboveground valves, piping, and appurtenances	Assess general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces.	Monthly
Integrity Testing	Formal external inspection of tanks with more than 5,000 gallons of oil capacity.	Every 20 years

3.7.1 Daily Inspection

As a best management practice, NIH contractor personnel perform a complete walk-through of the facility each day. This daily visual inspection involves looking for tank/piping damage or leakage, or stained or discolored soils. If there is an issue, the DEP Director will be notified and other appropriate management personnel.

3.7.2 Monthly Inspection

The checklist provided in ***Appendix C*** is used for monthly inspections by the NIH personnel and NIH contractor for inspecting and maintaining tanks. The monthly inspections cover the following key elements:

- Observing the exterior of aboveground storage tanks, pipes, and other equipment for signs of deterioration, leaks, corrosion, and thinning.
- Observing the exterior of portable containers for signs of deterioration or leaks.
- Observing tank foundations and supports for signs of instability or excessive settlement.
- Observing the tank fill and discharge pipes for signs of poor connection that could cause a discharge, and tank vent for obstructions and proper operation.
- Verifying the proper functioning of overfill prevention systems.
- Checking the inventory of discharge response equipment and restocking as needed.

All problems regarding tanks, piping, containment, or response equipment must immediately be reported to the Director of DEP. Visible oil leaks from tank walls, piping, or other components must be repaired as soon as possible to prevent a larger spill or a discharge to navigable waters or adjoining shorelines. Pooled oil is removed immediately upon discovery.

Written monthly inspection records are signed by contractor personnel and maintained by the contractor for a period of three years. Copies of the monthly inspection records are provided to the DEP Environmental Compliance Branch (DEP-ECB).

3.7.3 Annual Inspection

Facility personnel perform a more thorough inspection of facility equipment on an annual basis. This annual inspection complements the monthly inspection described above and is performed using the checklist provided in ***Appendix C*** of this Plan.

The annual inspection is preferably performed after a large storm event in order to verify the imperviousness and/or proper functioning of drainage control systems such as the dike, rollover berm, and control valves. Written annual inspection records are signed by contractor personnel and maintained with this SPCC Plan for a period of three years. Copies of the annual inspection records are provided to the DEP-ECB.

3.7.4 Periodic Integrity Testing

NIH Bethesda Campus has six ASTs with a capacity more than 5,000 but less than 30,000 gallons (one 10,000 gallon AST, four 6,000 gallon ASTs and one 5,500 gallon emergency generator sub-base tank) that require periodic integrity testing under Industry Standard Steel Tank Institute (STI) SP001. These tanks are required to have a formal external inspection conducted by a certified inspector every 20 years in accordance with STI SP001. Examples of integrity test methods include, but are not limited to: visual inspection, ultrasonic testing, hydrostatic testing, radiographic testing, acoustic emissions testing, or other systems of non-destructive testing. Tank integrity test records are maintained for a period of three years.

All other tanks have a capacity of 5,000 gallons or less and, as a result, are not subject to requirements for integrity testing under Industry Standard STI SP001.

3.8 Personnel, Training and Discharge Prevention Procedures (40 CFR 112.7(f))

The Director of DEP is the facility designee and is responsible for oil discharge prevention, control, and response preparedness activities at this facility. The DEP-ECB Chief is the alternate facility designee.

NIH DEP has instructed oil-handling facility personnel in the operation and maintenance of oil pollution prevention equipment, discharge procedure protocols, applicable pollution control laws, rules and regulations, general facility operations, and the content of this SPCC Plan. Any new facility personnel with oil-handling responsibilities are provided with this same training prior to being involved in any oil operation.

Annual discharge prevention briefings are held by NIH DEP for all facility and contractor personnel involved in oil operations. The briefings are aimed at ensuring continued understanding and adherence to the discharge prevention procedures presented in the SPCC Plan. The briefings also highlight and describe known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best management practices. Facility operators and other personnel will have the opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

Records of the briefings and discharge prevention training are kept on the form shown in ***Appendix E*** and maintained with this SPCC Plan for a period of three years.

3.9 Security (40 CFR 112.7(g))

The NIH Bethesda Campus is protected by the NIH Police Department and a contracted security company which provides security services 24 hours a day, seven days per week.

Actions to secure ASTs include:

- ASTs have locked fuel fill ports or, otherwise, various protective devices, including locked steel gate enclosures and concrete traffic bollards, surround ASTs to prevent unauthorized access, potential vehicular impacts or intentional vandalism.
- The master flow and drain valves and any other valves that will permit direct outward flow of tank contents to the surface are locked in the closed position when in non-operating status.
- Fuel pumps, situated adjacent to generators (not ASTs), are automatic and starter control is generator-controlled and as such are locked and/or fenced.
- The loading/unloading connections of oil pipelines are capped or blank-flanged when not in service or are in stand-by service for an extended time. This security practice also applies to pipelines that are emptied of liquid content either by draining or by inert gas pressure. Many containment berms are locked to prevent unauthorized discharge.

- The entire campus is patrolled providing observation of unplanned fuel spills and other criminal behavior. All entrance/exit access points are guarded and vehicles may be inspected at these access points.
- Campus lighting is commensurate with the type and location of the facility.

NIH Bethesda Campus is also surrounded by a metal picket fence and incorporates elements associated with electronic security systems such as access control, closed-circuit surveillance cameras and emergency call boxes. The fence encircles the entire footprint of the facility. All visitors, whether entering through the Gateway Center or other designated visitors entrances, are required to show one form of identification and to state the purpose of their visit.

3.10 Tank Truck Loading/Unloading Requirements (40 CFR 112.7(c))

40 CFR 112.7(h) does not apply because the tank truck loading location does not technically meet the definition of a loading rack. There is potential for discharges from the transfer of fuel from tanker trucks to tanks and NIH is committed to ensuring the safe transfer of fuel. The following measures are implemented to prevent oil discharges during tank filling operations from tanker trucks.

3.10.1 Secondary Containment

Almost all ASTs and emergency generators have adequate secondary containment. Specific single-walled ASTs do not have adequate secondary containment and secondary containment will be provided for those tanks according to the Compliance Plan in **Appendix J**. Fill ports for stationary ASTs are equipped with spill buckets and some of these ASTs have a tertiary spill containment curb or berm to contain residual fuel from the piping/hose connections.

3.10.2 Loading/Unloading Procedures

All suppliers must meet the minimum requirements and regulations for tank truck loading/unloading established by the U.S. Department of Transportation. NIH ensures that the contractor understands the site layout, knows the protocol for entering the facility and unloading product, and has the necessary equipment to respond to a discharge from the vehicle or fuel delivery hose.

NIH responsible staff and NIH contractor personnel supervise oil deliveries from the tanker operator. The tanker operator and contractor personnel overseeing the oil delivery remain with the tanker truck at all times while fuel is being loaded into tanks and observe tank filling to prevent spillage and overfilling. The tanker operator and NIH contractor personnel maintain absorbent material, such as sand, sorbent pads, sorbent booms or granular sorbent materials, in their vehicle to contain spills during tank filling. Transfer operations are performed according to the minimum procedures outlined in Table 3-3.

Table 3-3: Fuel Transfer Procedures

Stage	Tasks
Prior to loading/ unloading	• Visually check all hoses for leaks and wet spots. • Verify that sufficient volume (ullage) is available in the storage tank or truck. • Lock in the closed position all drainage valves of the secondary containment structure. • Secure the tank vehicle with wheel chocks and interlocks. • Ensure that the vehicle's parking brakes are set. • Verify proper alignment of valves and proper functioning of the pumping system. • If filling a tank truck, inspect the lowermost drain and all outlets. • Establish adequate bonding/grounding prior to connecting to the fuel transfer point. • Turn off cell phone. • Ensure tanker operator stick gauges the fuel tank prior to filling.

Stage	Tasks
During loading/ unloading	• Driver must stay with the vehicle at all times during loading/unloading activities. • Periodically inspect all systems, hoses and connections. • When loading, keep internal and external valves on the receiving tank open along with the pressure relief valves. • When making a connection, shut off the vehicle engine. When transferring Class 3 materials, shut off the vehicle engine unless it is used to operate a pump. • Maintain communication with the pumping and receiving stations. • Monitor the liquid level in the tanker and receiving tank to prevent overflow. • Monitor flow meters to determine rate of flow. • When topping off the tank, reduce flow rate to prevent overflow.
After loading/ unloading	• Make sure the transfer operation is completed. • Close all tank and loading valves before disconnecting. • Securely close all vehicle internal, external, and dome cover valves before disconnecting. • Secure all hatches and fill caps (lock). • Disconnect grounding/bonding wires. • Make sure the hoses are drained to remove the remaining oil before moving them away from the connection. Use a drip pan. • Cap the end of the hose and other connecting devices before moving them to prevent uncontrolled leakage. • Remove wheel chocks and interlocks. • Inspect the lowermost drain and all outlets on tank truck prior to departure. If necessary, tighten, adjust, or replace caps, valves, or other equipment to prevent oil leaking while in transit.

3.11 Brittle Fracture Evaluation (40 CFR 112.7(i))

40 CFR 112.7(i) states that if a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, we must evaluate the container for risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.

No tanks at NIH Bethesda Campus fall into the criteria of the above requirement because all ASTs and emergency generators are shop-built.

3.12 Conformance with State and Local Applicable Requirements (40 CFR 112.7(j))

All ASTs are permitted by the facility's Oil Operations Permit issued by MDE Oil Control Program. The Oil Operations Permit requires NIH to do the following:

- Measure and record in writing the liquid levels of oil storage systems prior to filling;
- Manage the drainage of the emergency containment areas;
- Provide MDE annually with an updated listing of ASTs;
- Submit a "Plan for Notification, Containment and Clean-Up of Oil Spills" to MDE;
- Immediately report any oil discharges to MDE; and
- Submit a written report on removal and cleanup of spilled oil within 10 days after completion of the control, containment, removal and restoration operations.

All USTs at NIH are registered with MDE and they meet the requirements of Maryland's more stringent UST regulations. USTs are exempt from this SPCC Plan under 40 CFR 112.1(d)(4) because Maryland's UST program has SPA under 40 CFR 281.

Per COMAR 26.10.01.03, Maryland has more stringent spill response requirements. The SPCC Plan Designated Person or designee will remain on site after an oil discharge until granted permission to depart by a representative of either MDE or any non-NIH Maryland emergency fire or rescue service or any non-NIH state, county or local police officer on the scene. If the oil spill is less than 250 gallons, the aforementioned authorities may grant permission to depart the spill site without notifying and receiving approval from the Maryland Waste Management Administration. However, these requirements do not apply to this SPCC Plan because NIH will always be the first responders for any spill on the NIH Bethesda Campus.

Per COMAR 26.10.01.05, MDE can also require further remedial action after a spill if it is determined that there is a threat to public health and welfare or the environment; the discharge recurs as free phase oil product; a letter issued was obtained through fraud or misinterpretation; or a new or previously undiscovered discharge of oil is found that would require corrective action.

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PART 4: Discharge Prevention – SPCC Provisions for Onshore Facilities (Excluding Production Facilities)

4.1 Facility Drainage (40 CFR 112.8(b))

Any potential discharge from ASTs will be restrained by secondary containment structures. NIH utilizes a variety of discharge and pollutant prevention measures to prevent oil discharge from AST areas to storm drains or sewer manholes. These onsite source measures include the use of concrete-vaulted and steel-contained double-walled tanks, spill curbing, automatic tank gauge, leak detection monitoring and spill/overfill protection systems, typically Veeder-Root automatic tank gauge and leak detection monitoring systems with audible/visible alarm capabilities; or Pneumercator monitoring system with high/low level visible/audible alarm.

NIH also employs various discharge prevention measures at drainage areas including Stormcepter oil/water separators and Vortechnic oil/sediment separators, an underground surface water management structure, frog ponding, absorbent booms, direct discharge via outfall, OWS containment or combination thereof.

4.2 Bulk Storage Containers (40 CFR 112.8(c))

Table 4-1 summarizes the construction, volume, and content of bulk storage stationary containers at NIH.

Table 4-1: List of Oil Containers

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#1	Bldg. 4	Hoover Containment System AST (UL 2085)	500	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Mechanical liquid level gauge and interstitial monitoring system	Wall
#2	Bldg. 6	Emergency Generator Sub-Base Tank (UL 142)	1,250	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system	Enclosure, Bollards
#3	Bldg. 8	Hoover Containment System AST (UL 2085)	250	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system	Fence
#4	Bldg. 8	Emergency Generator Sub-Base Tank (UL 142)	366	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#5	Bldg. 9	Emergency Generator Sub-Base Tank (UL 142)	100	Diesel	Single-wall with containment berm. Electronic overfill prevention alarm system. Electronic liquid level gauge	Inside Bldg.

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#6	Bldg. 10	Emergency Generator Sub-Base Tank (UL 142)	100	Diesel	Single-wall. Mechanical liquid level gauge.	Fence
#7	Bldg. 10 (A-Wing)	Emergency Generator Sub-Base Tank (UL 142)	1,000	Diesel	Single-wall. Mechanical liquid level gauge.	Fence
#8	Bldg. 10 (59A)	Hoover Containment System AST (UL 2085)	6,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#9	Bldg. 10 (59A)	Pryco Day Tank	75	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#6	Bldg. 10	Emergency Generator Sub-Base Tank (UL 142)	100	Diesel	Single-wall. Mechanical liquid level gauge.	Fence
#7	Bldg. 10 (A-Wing)	Emergency Generator Sub-Base Tank (UL 142)	1,000	Diesel	Single-wall. Mechanical liquid level gauge.	Fence
#8	Bldg. 10 (59A)	Hoover Containment System AST (UL 2085)	6,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#9	Bldg. 10 (59A)	Pryco Day Tank	75	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#10	Bldg. 10 (59A)	Pryco Day Tank	75	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#11	Bldg. 10 (59A)	Pryco Day Tank	75	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#12	Bldg. 10A	Hoover Containment System AST (UL 2085)	1,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#13	Bldg. 10A (B1-19 Generator Room)	Pryco Day Tank (UL 142)	50	Diesel	Single-wall. Mechanical liquid level gauge.	Inside Bldg.
#14	Bldg. 10A (B1-19 Generator Room)	Pryco Return Tank (UL 142)	50	Diesel	Single-wall.	Inside Bldg.
#15	Bldg. 10B (ACRF)	Ultra Cube (UL 142)	1,500	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Mechanical liquid level gauge and interstitial monitoring system.	None
#16	Bldg. 10B (ACRF)	Hoover Containment System AST (UL 2085)	4,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Vault
#17	Bldg. 10B (ACRF P2 Garage)	Day Tank (UL 142)	240	Diesel	Double-wall with metal dike containment structure. Electronic overfill prevention equipment. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#18	Bldg. 10B (ICU) (P3 Garage)	Hoover Containment System AST (UL 2085)	1,500	Diesel	Double-wall. Mechanical and electronic overfill prevention equipment. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#19	Building 10 Data	Emergency Generator Sub-Base Tank (UL 142)	2,650	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#20	Bldg. 11 (CUP)	Simplex STS Series System AST (UL 142)	275	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#21	Bldg. 12 (CIT Hitec)	Emergency Generator Sub-Base Tank (UL 142)	5,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#22	Bldg. 12 (CIT Hitec)	Day Tank (UL 142)	150	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#23	Bldg. 12 (CIT Hitec)	Emergency Generator Sub-Base Tank (UL 142)	5,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#24	Bldg. 12 (CIT Hitec)	Day Tank (UL 142)	150	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#25	Bldg. 12 (CIT Hitec)	Emergency Generator Sub-Base Tank (UL 142)	5,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#26	Bldg. 12 (CIT Hitec)	Day Tank (UL 142)	150	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#27	Bldg. 12 (CIT Hitec)	Emergency Generator Sub-Base Tank (UL 142)	5,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#28	Bldg. 12 (CIT Hitec)	Day Tank (UL 142)	150	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#29	Bldg. 12 (CIT Data)	Hoover Containment System AST (UL 2085)	4,000	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#30	Bldg. 12 (CIT Data)	Emergency Generator Day Tank (UL 142)	125	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#31	Bldg. 12 (CIT Data)	Emergency Generator Day Tank (UL 142)	125	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#32	Bldg. 12 (CIT Data)	Emergency Generator Day Tank (UL 142)	125	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#33	Bldg. 13	Hoover Containment System AST (UL 2085)	500	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#34	Bldg. 13	Emergency Generator Day Tank (UL 142)	50	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Mechanical liquid level gauge.	Fence
#35	Bldg. 14A	Emergency Generator Sub-Base Tank (UL 142)	335	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence/ Bollards
#36	Bldg. 14B (South)	Hoover Containment System AST (UL 2085)	850	Diesel	Double-wall. Mechanical overfill prevention alarm system. Mechanical liquid level gauge.	Wall
#37	Bldg. 14B (South)	Emergency Generator Day Tank (UL 142)	100	Diesel	Double-wall and surrounded by berm. Mechanical overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence/ Courtyard
#38	Bldg. 14B (North)	Emergency Generator Sub-Base Tank (UL 142)	250	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence/ Courtyard
#39	Bldg. 14C	Emergency Generator Sub-Base Tank (UL 142)	250	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence/ Courtyard

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#41	Bldg. 14E	Emergency Generator Day Tank (UL 142)	50	Diesel	Double-wall. Mechanical and electronic liquid level gauge. Electrical basin alarm.	Fence
#42	Bldg. 14G	Residential AST (UL 142)	275	Diesel	Double-wall. Mechanical liquid level gauge and mechanical interstitial float.	Metal Protection Bar
#43	Bldg. 28A	Emergency Generator Day Tank (UL 142)	50	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring.	Fence
#44	Bldg. 29B	Emergency Generator Sub-Base Tank (UL 142)	150	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Pad/ Bollards
#45	Bldg. 30	Emergency Generator Sub-Base Tank (UL 142)	948	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Wall
#46	Bldg. 31	Emergency Generator Sub-Base Tank (UL 142)	1,813	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#47	Bldg. 32T	Emergency Generator Sub-Base Tank (UL 142)	150	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#48	Bldg. 33	Emergency Generator Sub-Base Tank (UL 142)	3,300	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Bollards
#49	Bldg. 35	Single-Wall Steel (UL 142)	10,000	Diesel	Single-wall with metal containment dike. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence/ Bollards

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#50	Bldg. 35 (GA-1012 Generator Room)	Emergency Generator Day Tank (UL 142)	200	Diesel	Double-wall. Electronic overfill protection system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#51	Bldg. 35 (GA-1012 Generator Room)	Emergency Generator Day Tank (UL 142)	200	Diesel	Double-wall. Electronic overfill protection system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#52	Bldg. 35 (GA-1012 Generator Room)	Emergency Generator Day Tank (UL 142)	200	Diesel	Double-wall. Electronic overfill protection system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#53	Bldg. 38	Emergency Generator Sub-Base Tank (UL 142)	864	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Concrete Pit
#54	Bldg. 38A	Emergency Generator Sub-Base Tank (UL 142)	472	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence/ Bollards
#55	Bldg. 40/37 (Bldg. 40 B1072 Generator Room)	Emergency Generator Day Tank (UL 142)	600	Diesel	Single-wall with metal containment dike. Electronic overfill prevention alarm system. Mechanical liquid level gauge and dike leak monitoring system.	Inside Bldg.
#56	Bldg. 41	Hoover Containment System AST (UL 2085)	500	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#57	Bldg. 45	Hoover Containment System AST (UL 2085)	4,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Vault
#58	Bldg. 45 (P2AN.04C Generator Room)	Emergency Generator Day Tank (UL 142)	275	Diesel	Single-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge.	Inside Bldg.

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#59	Bldg. 45 (P2AN.04C Generator Room)	Emergency Generator Return Tank (UL 142)	275	Diesel	Single-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge.	Inside Bldg.
#60	Bldg. 49 (B-2A01 Generator Room)	Emergency Generator Day Tank (UL 142)	275	Diesel	Single-wall with containment dike. Electronic overfill prevention alarm system. Electronic liquid level gauge with dike leak monitoring system.	Inside Bldg.
#61	Bldg. 50	Emergency Generator Sub-Base Tank (UL 142)	5,500	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Open Air Wall
#62	Bldg. 57 (Electrical Sub-Station)	Temporary Emergency Generator Sub-Base Tank (UL 142)	1,349	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	None
#63	Bldg. 62 (Children's Inn)	Emergency Generator Sub-Base Tank (UL 142)	500	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	None (Jersey Barriers proposed)
#64	Bldg. 65 (Family Lodge)	Emergency Generator Sub-Base Tank (UL 142)	500	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Enclosure/ Fence/ Bollards
#65	Bldg. 66 (Gateway Center)	Emergency Generator Sub-Base Tank (UL 142)	700	Diesel	Double-wall. Electronic overfill prevention alarm system. Mechanical and electronic liquid level gauge and interstitial monitoring system.	Open Air Wall
#66	Bldg. 67 (CVIF)	Hoover Containment AST (UL 2085)	3,000	Diesel	Double-wall. Mechanical liquid level gauge and interstitial monitoring system.	Fence
#67	Bldg. 67 (CVIF)	Emergency Generator Sub-Base Tank (UL 142)	325	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#68	Bldg. MLP-9	Hoover Containment System AST (UL 2085)	6,000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#69	Bldg. MLP-9	Hoover Containment System AST (UL 2085)	6,000	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#70	Bldg. MLP-9	Emergency Generator Day Tank (UL 142)	150	Diesel	Double-wall. Mechanical liquid level gauge and interstitial monitoring system.	Inside Bldg.
#71	Bldg. MLP-9	Hoover Containment System AST (UL 2085)	6,000	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#73	Bldg. MLP-9	Emergency Generator Day Tank (UL 142)	400	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#74	Bldg. MLP-9	Emergency Generator Sub-Base Tank	125	Diesel	Double-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Inside Bldg.
#75	Bldg. MLP-10	Emergency Generator Sub-Base Tank (UL 142)	500	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence

4.2.1 Construction (40 CFR 112.8(c)(1))

All oil tanks used at this facility are constructed of steel, in accordance with NFPA 30 Codes, and UL engineering and Industry Standard Rating specifications as described above. The design and construction of all bulk storage containers are compatible with the characteristics of the flammable and combustible liquids they contain, and with temperature and pressure conditions.

Piping between stationary aboveground bulk storage tanks and generator equipment is made of steel and placed aboveground on appropriate supports designed to minimize erosion and stress. Underground piping between ASTs and generator equipment must comply with UST piping compliance requirements.

4.2.2 Secondary Containment (40 CFR 112.8(c)(2))

Most ASTs are of double-wall construction and provide intrinsic secondary containment for 100 percent of the primary tank capacity. Some single-walled ASTs are surrounded by a metal containment dike or containment

berm with leak monitoring and provide secondary containment for 110% of the primary tank. Almost all ASTs and emergency generators at the NIH Bethesda Campus comply with the secondary containment requirements due to the following:

- ASTs and emergency generators are shop-built;
- UL-Rated steel tanks (venting and leak detection);
- Tanks are constructed in accordance with nationally accepted engineering and industry standards;
- ASTs and emergency generators are equipped with overfill protection measures; and
- All product transfers are constantly monitored.

Since the secondary containment of the double-walled ASTs and emergency generators is not open to precipitation, the volume is sufficient to fully contain the product in the event of a leak from the primary container. The interstitial space between the primary and secondary containers of these ASTs and emergency generators are inspected on a monthly basis to detect any leak of product from the primary container. Some single-walled tanks are surrounded by metal containment dikes or containment berms, which provide adequate secondary containment. The remaining single-walled ASTs do not have adequate secondary containment and secondary containment will be provided for those tanks according to the Compliance Plan in **Appendix J**.

The 55-gallon steel drums located in Building 11 (CUP and COGEN Plant) and other buildings are stored on spill containment pallets. Each spill pallet provides at least 60 gallons of containment capacity, which is more than the required 55 gallons for any single drum since the drums are not exposed to precipitation. When the single-walled portable generators are not in use and parked at their designated location, NIH has set up temporary berms for secondary containment. When the portable generators are in use throughout the NIH Bethesda Campus, temporary berms are placed around the single-walled tanks for secondary containment. The portable fuel dispensing tank also uses a temporary berm.

Stationary ASTs are designed with spill buckets that surround the fill pipe when filling a tank to catch and contain any small leaks, drips, and spills from the delivery hose disconnection that may occur during the fuel delivery process. Spill buckets are kept clean and dry at all times. The portable generators and fuel dispensing tank utilize a portable spill containment berm, which is kept clean and dry.

4.2.3 Drainage of Diked Areas (40 CFR 112.8(c)(3))

Concrete containment berm and portable spill containment areas are drained by NIH contractor personnel. Accumulated water is observed for signs of oil prior to drainage. Ball valves are normally maintained in a closed and locked position except during containment drainage operations. If no oil/sheen is observed in retained water in the containment area, it is drained and logged. If significant drainage is not encountered, it is collected and transferred for temporary storage prior to offsite recycling or disposal. Containment drainage events are recorded on the form included in ***Appendix D*** of this Plan; facility personnel log drainage date, drainage volume and water quality; records are maintained at the facility for at least three years. NIH contractor personnel inspect individual containment devices for integrity prior to drainage. Some bulk ASTs have tertiary spill containment that must be periodically drained and logged.

Discharges outside the containment areas, such as those occurring in the fuel dispensing area or while unloading heating oil, will flow by gravity into the drainage collection area and into the drainage system which can be manually closed to contain any spills having the potential to reach navigable waterways.

4.2.4 Corrosion Protection (40 CFR 112.8(c)(4))

All USTs at NIH are exempt under 40 CFR 112(d)(4) from the requirements of 40 CFR part 112 because USTs are subject to 40 CFR 280 and the more stringent Maryland requirements at COMAR 26.10.02.01-.11 and the Maryland UST program is approved under 40 CFR 281, SPA.

4.2.5 Partially Buried and Bunkered Storage Tanks (40 CFR 112.8(c)(5))

This section is not applicable because there are no partially buried or bunkered storage tanks at NIH Bethesda Campus.

4.2.6 Inspections and Tests (40 CFR 112.8(c)(6))

NIH conducts inspections of all tanks in accordance with STI SP001. NIH Bethesda Campus has six ASTs with a capacity more than 5,000 but less than 30,000 gallons (one 10,000 gallon AST, four 6,000 gallon ASTs and one 5,500 gallon emergency generator sub-base tank) that require periodic integrity testing under Industry Standard STI SP001. These tanks are required to have a formal external inspection conducted by a certified inspector every 20 years in accordance with STI SP001. Examples of integrity test methods include, but are not limited to: visual inspection, ultrasonic testing, hydrostatic testing, radiographic testing, acoustic emissions testing, or other systems of non-destructive testing. Tank integrity test records are maintained for a period of three years. NIH conducts visual inspections of all other tanks in accordance with STI SP001.

4.2.7 Heating Coils (40 CFR 112.8(c)(7))

This section is not applicable because NIH currently does not have ASTS with internal heating coils.

4.2.8 Overfill Prevention Systems (40 CFR 112.8(c)(8))

A variety of overfill prevention systems are utilized through NIH Bethesda Campus, including, but not limited to varied combinations of Veeder-Root tank monitoring systems, interstitial monitoring, continuous leak detection, overflow alarms, high-/low-level alarms, and mechanical float-level gauge.

All ASTs are equipped with direct-reading level gauges and high-level alarms set at 90 percent volume of the rated tank capacity. General secondary containment is provided in the event of overfills, as described in this Plan. Liquid level overfill prevention devices are regularly checked to ensure proper operation.

Liquid level audible and visual high-level alarms are checked on a monthly basis during the monthly inspection of the facility, following manufacturer recommendations. Venting capacity is suitable for the fill and withdrawal rates.

Facility personnel are present throughout the filling operations to monitor the product level in the tanks.

4.2.9 Effluent Treatment Facilities (40 CFR 112.8(c)(9))

NIH storm water effluent discharged into the NIH Stream is observed to detect possible system upsets and ensure that a release would not affect municipal/regional surface waterways. Records are maintained according to the frequency required by NPDES Permit MD0025496.

4.2.10 Visible Discharges (40 CFR 112.8(c)(10))

Visible discharges from any container or appurtenance – including seams, gaskets, piping, pumps, valves, rivets, and bolts – are enclosed within containment areas and quickly corrected upon discovery.

Oil is promptly removed and disposed of according to the waste disposal method described in Part 5 of this Plan.

4.2.11 Mobile and Portable Containers (40 CFR 112.8(c)(11))

NIH owns nine portable emergency generators and one fuel dispenser tank (diesel) with oil capacity greater than 55 gallons for use throughout the NIH Bethesda Campus. Six of the portable emergency generators are double-walled and, as a result, have adequate secondary containment. When the single-walled portable generators are not in use and parked at their designated location, NIH has set up temporary berms for secondary containment. When the single-walled portable generators are in use throughout the NIH Bethesda Campus, temporary berms are placed around the single-walled tanks for secondary containment.

The CUP and COGEN Plant stores at a minimum of 1,000 gallons of lubricating oils and waste oils in 55-gallon drums and/or 5-gallon containers. Additionally, there are an estimated 5,500 gallons of oil contained in 55-gallon drums that are managed by DFOM stored throughout the NIH Bethesda Campus. Any discharged material is quickly contained and cleaned up using sorbent pads and appropriate cleaning products.

Contractor oil trucks only operate at NIH when tanks need to be refilled.

Table 4-2 summarizes the volume and discharge prevention/containment of mobile and portable containers at NIH.

Table 4-2: List of Mobile and Portable Containers

MDE Tank No.	Location	Type	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#40	Bldg. 14D	Portable Emergency Generator Trailer-Mounted Tank (UL 142)	150	Diesel	Single-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge.	Fence/Bollards
#76	Bldg. T-23	Portable Trailer-Mounted Fuel Dispenser Tank (UL 142)	250	Diesel	Double-wall. Mechanical liquid level gauge.	None
#77	Bldg. 13 (Platform B Dock) (Fac. #6077)	Portable Emergency Generator Trailer-Mounted Tank (UL 142)	100	Diesel	Double wall. Electronic overfill prevention alarm system. Mechanical liquid level gauge and interstitial monitoring system.	None
#78	Bldg. 13 (Platform B Dock) (Fac. #5858)	Portable Emergency Generator Trailer-Mounted Tank (UL 142)	150	Diesel	Single-wall. Electronic overfill prevention alarm system. Electronic liquid level gauge.	None
#79	Bldg. 13 (Platform B Dock) (Fac. #05517)	Portable Emergency Generator Trailer-Mounted Tank (UL 142)	150	Diesel	Single-wall. Mechanical liquid level gauge.	None

MDE Tank No.	Location	Type	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#80	Bldg. 13 (Platform B Dock) (Fac. #6401)	Portable Emergency Generator Trailer-Mounted Tank (UL 142)	150	Diesel	Single-wall. Mechanical and electronic overfill prevention equipment. Electronic liquid level gauge.	None
#81	Bldg. 60 (Convent) (Fac. #5870)	Portable Emergency Generator Trailer-Mounted Tank (UL 142)	150	Diesel	Single-wall. Electronic overfill prevention equipment. Electronic liquid level gauge.	None
#82	Bldg. 10 (Data Center) (Fac. #10475)	Portable Emergency Generator Trailer-Mounted Tank (UL 142)	250	Diesel	Double wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	None
#83	Lot 10E/Valet Srv. Center) (Fac. #9960)	Portable Emergency Generator Trailer-Mounted Tank (UL 142)	150	Diesel	Double wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	None
#84	Bldg. 11 (East Side)	Mounted Tank (UL 142)	1,250	Diesel	Double wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	None
#85	Bldg. 11 (East Side)	Tank (UL 142)	660	Diesel	Double wall. Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	None 3410
N/A	Bldg. 11 (Power Plant)	Steel Drums	55	Lubricating oil and used oil	Spill pallets with built in secondary containment.	None

4.2.12 Oil-Filled Equipment

NIH Bethesda Campus has 117 network transformers with oil capacity above 55 gallons and a total transformer oil capacity of 48,490 gallons as listed in Table 4-3 below. NIH provides a variety of methods of secondary containment or diversionary structures for oil-filled equipment. Oil-filled equipment are either double-walled, located within a containment berm or spill response equipment (absorbent materials, booms and nitrile gloves) is located nearby.

The NIH CUP has a series of transformers to step down the incoming electricity from 13.8 kV down to 4,160, 480V, or 208V, which is used to power various motors to operate the boilers and chillers needed to produce steam and chilled water for the NIH Bethesda Campus. All of the transformer are filled with Silicone Fluid, and each transformer has a berm to contain 110% of the volume of Silicone Fluid in the event of a leak. The following table, lists the locations of each Silicon Lubricating Fluid Filled Transformers located in the NIH Bethesda Campus, including the Central Utility Plant:

Table 4-3: List of Network Transformers (Oil-Filled)

Location	Kilo-volt Amp (KVA)	Oil Capacity (gallons)
Bldg 2	300	165
Bldg 2	300	165
Bldg 6	500	367
Bldg 6	500	200
Bldg 6	500	200
Bldg 7	500	262
Bldg 7	500	262
Bldg 8	750	245
Bldg 8	750	245
Bldg 10	1000	395
Bldg 10	1000	395
Bldg 10	1000	395
Bldg 10	500	250
Bldg 10	750	340
Bldg 10	750	340
Bldg 10	750	340
Bldg 10	1000	423
Bldg 10	1000	423
Bldg 10	1000	423
Bldg 10	500	290
Bldg 10	1000	395
Bldg 10	1000	395
Bldg 10	1000	395
Bldg 10	500	250
Bldg 10	1000	395
Bldg 10	1000	395
Bldg 10	1000	395

Location	Kilo-volt Amp (KVA)	Oil Capacity (gallons)
Bldg 10	500	250
Bldg 10 Library	500	275
Bldg 10 Library	500	275
Bldg 10 Library	500	275
Bldg 11	5000	1485
Bldg 11	5000	1485
Bldg 11	5000	1485
Bldg 11	5000	835
Bldg 11	500	222
Bldg 11	500	222
Bldg 11	500	257
Bldg 11	500	257
Bldg 11	500	257
Bldg 11	300	199
Bldg 11	5,000	490
Bldg 11	5,000	490
Bldg 11	5,000	529
Bldg 11	3,000	580
Bldg 11	3,000	580
Bldg 11	3,000	647
Bldg 11	10,000	1190
Bldg 11	10,000	1240
Bldg 11	10,000	1190
Bldg 11	5,000	501
Bldg 11	5,000	501
Bldg 11	500	341
Bldg 11	500	341
Bldg 11	500	341
Bldg 11	1,500	268
Bldg 11	1,500	268
Bldg 11	1,500	268
Bldg 11A Cogen	1,500	377
Bldg 11A Cogen	2,500	473
Bldg 12	500	202
Bldg 12	500	202
Bldg 12	500	252
Bldg 12A	750	302
Bldg 12A	750	302
Bldg 12B	500	220
Bldg 12B	500	220

Location	Kilo-volt Amp (KVA)	Oil Capacity (gallons)
Bldg 13	750	463
Bldg 13	750	463
Bldg 13	750	463
Bldg 13	750	463
Bldg 14A	500	255
Bldg 14A	500	255
Bldg 14A	500	255
Bldg 16	300	185
Bldg 20	300	231
Bldg 29	750	422
Bldg 29	750	422
Bldg 29	500	313
Bldg 29A	750	278
Bldg 29A	750	278
Bldg 29A	750	278
Bldg 29A	500	155
Bldg 30	750	397
Bldg 30	750	397
Bldg 30	750	397
Bldg 30	500	336
Bldg 31A	1000	405
Bldg 31A	1000	405
Bldg 31A	1000	405
Bldg 31B	750	405
Bldg 31B	750	405
Bldg 31B	750	405
Bldg 31C	1000	335
Bldg 31C	1000	335
Bldg 31C	1000	335
Bldg 34	7500	1115
Bldg 34	7500	1180
Bldg 34	7500	160
Bldg 34	7500	161
Bldg 36	1500	542
Bldg 36	1500	542
Bldg 36	1500	542
Bldg 36	1000	262
Bldg 37	1500	542
Bldg 37	1500	542
Bldg 37	1500	542

Location	Kilo-volt Amp (KVA)	Oil Capacity (gallons)
Bldg 37	1000	542
Bldg 38	750	255
Bldg 38	750	255
Bldg 38	750	255
MLP6	750	275
Bldg 41	750	256
Bldg 41	750	256
Bldg 41	750	256
Bldg 46	225	85
Bldg 52	750	349
Bldg 52	750	355
Bldg 54	225	241

NIH Bethesda Campus has hydraulic elevator reservoirs exceeding 55-gallons of oil capacity. The total oil capacity of hydraulic elevator reservoirs is 14,832 gallons. Table 4-4 lists the locations of all hydraulic elevator reservoirs at the NIH Bethesda Campus:

Table 4-4: List of Hydraulic Elevator Reservoirs

Location	Hydraulic Oil Capacity (gallons)
Bldg 2	199
Bldg 2	281
Bldg 10	635
Bldg 10	310
Bldg 10	336
Bldg 10	148
Bldg 10	207
Bldg 10	232
Bldg 10	268
Bldg 13	258
Bldg 13	326
Bldg 35	890
Bldg 38	981
Bldg 38	794
Bldg 38	340
Bldg 41	222
Bldg 45	751
Bldg 45	240
Bldg 50	358
Bldg 51	216

Location	Hydraulic Oil Capacity (gallons)
Bldg 60	164
Bldg 62	172
Bldg 65	233
Bldg 66	453
Bldg 66	453
Bldg 82	182
Bldg 15K	241
Bldg 31A	189
Bldg 31C	213
Bldg 62A	237
Bldg 6B	180
Bldg 6B	420
Bldg 6B	420
Bldg 6B	349
Bldg 6B	469
MLP-11	303
MLP-8	684
MLP-9	387
MLP-9	387
MLP-9	387
MLP-9	387

4.3 Transfer Operations, Pumping and In-Plant Processes (40 CFR 112.8(d))

Transfer operations at this facility include:

- The transfer of oil through aboveground and buried piping from ASTs to buildings.
- The transfer of oil from tanker trucks to the ASTs and emergency generators.
- The transfer of oil from portable trailer-mounted fuel dispenser tank to emergency generators
- The filling of vehicle tanks from the exempt USTs at the fuel dispensing area.

All aboveground piping and valves are examined monthly to assess their condition. Inspection includes aboveground valves, piping, appurtenances, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. Observations are noted on the monthly inspection checklist provided in this Plan. AST with underground piping are tested annually for precision tightness, in accordance with Maryland requirements at COMAR 26.10.02.01-.11.

Warning signs are posted at appropriate locations throughout the facility to prevent vehicles from damaging aboveground piping and related appurtenances (40 CFR 112.8(d)(5)). Most of the aboveground piping is located within areas that are not accessible to vehicular traffic (e.g., inside a diked area). Brightly painted bollards are placed where needed to prevent vehicular collisions with AST-related equipment.

All buried piping at NIH is cathodically protected against corrosion and provided with a protective wrapping and coating. When a section of buried lined is exposed, it is carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action is taken as deemed appropriate considering the magnitude of the damage. Additionally, NIH conducts integrity and leak testing of buried piping at the time of installation, modification, construction, relocation or replacement. Records of all tests are maintained at the facility for at least three years.

All pipe supports are designed to minimize abrasion and corrosion and to allow for expansion and contraction. Pipe supports are visually inspected during the monthly inspection.

Lines that are not in service or are on standby for an extended prior of time are capped or blank-flanged and marked as to their origin.

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PART 5: Discharge Response

This section describes the response and cleanup procedures in the event of an oil discharge. The uncontrolled discharge of oil to groundwater, surface water, or soil is prohibited by state and federal laws. Immediate action must be taken to control, contain, and recover discharged product.

In general, the following steps are taken:

- Eliminate potential spark sources;
- If possible and safe to do so, identify and shut down source of the discharge to stop the flow;
- Contain the discharge with sorbents, berms, fences, trenches, sandbags, or other material;
- Contact immediate supervisor/management of the spill and/or release;
- Contact William Floyd, Director of DEP, Mark Miller, Chief of DEP-ECB or designee;
- Contact the NIH Fire Department for assistance in containing oil discharges;
- Contact the spill response and cleanup contractor listed in Emergency Contacts in Appendix F;
- Contact the Maryland Department of Environment and the response organization; and
- Collect and dispose of recovered products according to regulation.

For the purpose of establishing appropriate response procedures, this SPCC Plan classifies discharges as either "minor" or "major," depending on the volume and characteristics of the material released.

William Floyd, Director of DEP, is the Designated Person and responsible for coordinating spill response measures. If William Floyd is not available, Mark Miller, Chief of DEP-ECB, is the alternate Designated Person responsible for coordinating spill response measures. The NIH Fire Department provides assistance in responding to and cleaning up oil spills.

A list of Emergency Contacts is provided in ***Appendix F***. The list is also posted at prominent locations throughout the facility. A list of discharge response material kept at the facility is included in ***Appendix H***.

NIH personnel will complete the Incident Reporting Form provided in ***Appendix K*** to document the spill and spill response and submit to DEP.

5.1 Response to a Minor Discharge

A "minor" discharge is defined as one that poses no significant harm (or threat) to human health and safety or to the environment. Minor discharges are generally those where:

- The quantity of product discharged is small (e.g., may involve less than 10 gallons of oil);
- Discharged material is easily stopped and controlled at the time of the discharge;
- Discharge is localized near the source;
- Discharged material is not likely to reach water;
- There is little risk to human health or safety; and
- There is little risk of fire or explosion.

Minor discharges can usually be cleaned up by NIH personnel or NIH contractor personnel. The following guidelines apply:

- Immediately notify the Director of DEP. If not available, notify the Chief of DEP-ECB or a designee.
- Under the direction of the Director of DEP, Chief of DEP-ECB or a designee, contain the discharge with discharge response materials and equipment. Place discharge debris in properly labeled waste containers.
- The Director of DEP, Chief of DEP-ECB or a designee will complete the discharge notification form (***Appendix G***) and attach a copy to this SPCC Plan.

5.2 Response to a Major Discharge

A "major" discharge is defined as one that cannot be safely controlled or cleaned up by facility personnel, such as when:

- The discharge is large enough to spread beyond the immediate discharge area;
- The discharged material enters the storm drain and potentially reaches water;
- The discharge requires special equipment or training to clean up;
- The discharged material poses a hazard to human health, safety or the environment; or
- There is a danger of fire or explosion.

In the event of a major discharge, the following guidelines apply:

- All workers must immediately evacuate the discharge site via the designated exit routes and move to the designated staging areas at a safe distance from the discharge. Exit routes are included on the facility diagram and posted in the maintenance building, in the office building, and on the outside wall of the outside shed that contains the spill response equipment.
- Notify the Director of DEP. If the Director of DEP is not present at the facility, the Chief of DEP-ECB or a designee must be notified of the discharge and has authority to initiate notification and response. Certain notifications are dependent on the circumstances and type of discharge. For example, if oil reaches a sanitary sewer, the Washington Suburban Sanitary Commission should be notified immediately. A discharge that threatens Rock Creek or the Potomac River may require immediate notification to downstream users.
- The Director of DEP, Chief of DEP-ECB or a designee must call for medical assistance if workers are injured.
- The Director of DEP, Chief of DEP-ECB or a designee must notify the NIH Fire Department or NIH Police Department.
- The Director of DEP, Chief of DEP-ECB or a designee must coordinate with DFOM to call the spill response and cleanup contractor listed in the Emergency Contacts list in ***Appendix F***.
- If spill responses is associated with the CUP, then the DEP Director, Branch Chief, Compliance Branch or a designee must coordinate with the NIH DTR Utilities Generation Chief to call the spill response and cleanup contractors listed in the Emergency Contacts list in ***Appendix F***.

- The Director of DEP, Chief of DEP-ECB or a designee must immediately contact the Maryland Department of Environment (866-633-4686) and the National Response Center (888-424-8802).
- The Director of DEP, Chief of DEP-ECB or a designee must record the call on the Discharge Notification form in ***Appendix G*** and attach a copy to this SPCC Plan.
- The Director of DEP, Chief of DEP-ECB or a designee coordinates cleanup and obtains assistance from a cleanup contractor or other response organization as necessary.

5.3 Waste Disposal

Wastes resulting from a minor discharge response will be containerized in impervious bags, drums, or buckets. The Waste Resource and Recovery Branch (WRRB) of DEP will characterize the waste and ensure its proper disposal so that it is removed from NIH Bethesda Campus properly. All contractor-associated paperwork (e.g., non-hazardous waste manifest) will be signed by the DEP designee prior to waste removal off the NIH property.

Wastes resulting from a major discharge response will be removed and disposed of by WRRB's Chemical Waste Contractor.

5.4 Discharge Notification

Any size discharge (i.e., one that creates a sheen, emulsion, or sludge) that affects or threatens to affect navigable waters or adjoining shorelines must be reported immediately to the National Response Center (1-800-424-8802). The Center is staffed 24 hours a day. MDE must be notified within two hours of discovery of release or spill.

A summary sheet is included in ***Appendix G*** to facilitate reporting. The person reporting the discharge must provide the following information to the National Response Center and MDE Oil Control Program:

- Name, location, organization, and telephone number
- Name and address of the party responsible for the incident
- Date and time of the incident
- Location of the incident
- Source and cause of the release or discharge
- Types of material(s) released or discharged
- Quantity of materials released or discharged
- Danger or threat posed by the release or discharge
- Number and types of injuries (if any)
- Media affected or threatened by the discharge (i.e., water, land, air)
- Weather conditions at the incident location
- Any other information that may help emergency personnel respond to the incident

Contact information for reporting a discharge to the appropriate authorities is listed in ***Appendix*** F and is also posted in prominent locations throughout the facility (e.g., in the office building, in the maintenance building, and at the loading rack/unloading area).

In addition to the above reporting, 40 CFR 112.4 requires that information be submitted to the United States Environmental Protection Agency (EPA) Regional Administrator in charge of oil pollution control activities (see contact information in ***Appendix G***) whenever the facility discharges (as defined in 40 CFR 112.1(b)) more than 1,000 gallons of oil in a single event, or discharges more than 42 gallons of oil in each of two discharge incidents within a 12-month period. The following information must be submitted to the EPA Region 3 Administrator and MDE within 60 days:

- Name of the facility;
- Name of the owner/operator;
- Location of the facility;
- Maximum storage or handling capacity and normal daily throughput;
- Corrective action 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.

A standard report for submitting the information to the EPA Regional Administrator is included in ***Appendix I*** of this Plan.

5.5 Cleanup Contractors and Equipment Suppliers

Contact information for specialized spill response and cleanup contractors are provided in ***Appendix F***. The inventory of discharge response supplies and equipment, including spill kits, is provided in ***Appendix H*** of this Plan. The inventory is verified on a monthly basis. Additional cleanup is conducted by DEP Chemical Service Contractor. Additional supplies and equipment may be ordered from the DEP Chemical Service Contractor.

PART 6: APPENDICES

APPENDIX A: Site Plan/Facility Diagrams

- Figure A-1: NIH Bethesda Campus and Surrounding Area
- Figure A-2: Oil Filled Storage Tanks
- Figure A-3: Hydraulic Lifts and Transformers

APPENDIX B: Substantial Harm Determination
APPENDIX C: Facility Inspection Checklists

- Monthly Inspection Checklist
- Annual Facility Inspection Checklist

APPENDIX D: Record of Containment Dike Drainage
APPENDIX E: Record of Annual Discharge Prevention Briefings and Training
APPENDIX F: Emergency Contacts
APPENDIX G: Discharge Notification Form
APPENDIX H: Discharge Response Equipment Inventory

- Table 1: Hazardous Waste Storage Units (4)
- Table2: Emergency Equipment within Building 21
- Table 3: Building 26T Emergency Equipment
- Table 4: Building 21 Radioactive Waste Management Facility Emergency Equipment
- Table 5: NIH Fire Department Hazardous Materials Unit – Cab
- Table 6: NIH Fire Department Hazardous Materials Unit - Drivers Side
- Table 7: NIH Fire Department Hazardous Materials Unit - Rear Compartment
- Table 8: NIH Fire Department Hazardous Materials Unit - Officers Side Compartment
- Table 9: NIH Fire Department Hazardous Materials Unit - Driver Side Compartment #1 and #2
- Table 10: NIH Fire Department Hazardous Materials Unit - Driver Side Compartment Decon Tub
- Table 11: NIH Fire Department Hazardous Materials Unit - Driver Side Compartment #3
- Table 12: NIH Fire Department Hazardous Materials Unit - Driver Side Compartment #4 (D-4)
- Table 13: NIH Fire Department Hazardous Materials Unit - Drivers Side Compartment #5 (D-5)
- Table 14: NIH Fire Department Hazardous Materials Unit - Drivers Side Compartment #6 (D-6)
- Table 15: NIH Fire Department Hazardous Materials Unit - Driver Side Belly Compartment #7
- Table 16: NIH Fire Department Hazardous Materials Unit - Driver Side Belly Compartment #8
- Table 17: NIH Fire Department Hazardous Materials Unit - Rear Compartment
- Table 18: NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #1 (O-1)
- Table 19: NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #2 (O-2)
- Table 20: NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #3 (O-3)
- Table 21: NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #4 (O-4)
- Table 22: NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #5 (O-5)

- Table 23: NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #6 (O-6)
- Table 24: NIH Fire Department Hazardous Materials Unit - Officers Side Belly Compartment #7 (O-7)
- Table 25: NIH Fire Department Hazardous Materials Unit - Officers Side Belly Compartment #8 (O-8)
- Table 26: NIH Fire Department Hazardous Materials Unit - Inside Cab
- Table 27: NIH Fire Department Hazardous Materials Unit - Front Off. Side Coffin Comp. #1 (C-1)
- Table 28: NIH Fire Department Hazardous Materials Unit - Rear Off. Side Coffin Comp. #2 (C-2)
- Table 29: NIH Fire Department Hazardous Materials Unit - Middle Coffin Comp. #3 (C-3)
- Table 30: NIH Fire Department Hazardous Materials Unit - Front Dr. Side Coffin Comp. #1 (C-4)
- Table 31: NIH Fire Department Hazardous Materials Unit - Rear Dr. Side Coffin Comp. #2 (C-5)

APPENDIX I: Agency Notification Standard Report
APPENDIX J: Compliance Plan
APPENDIX K: Incident Reporting Form

APPENDIX A: Site Plan/Facility Diagrams

Figure A-1: NIH Bethesda Campus and Surrounding Area

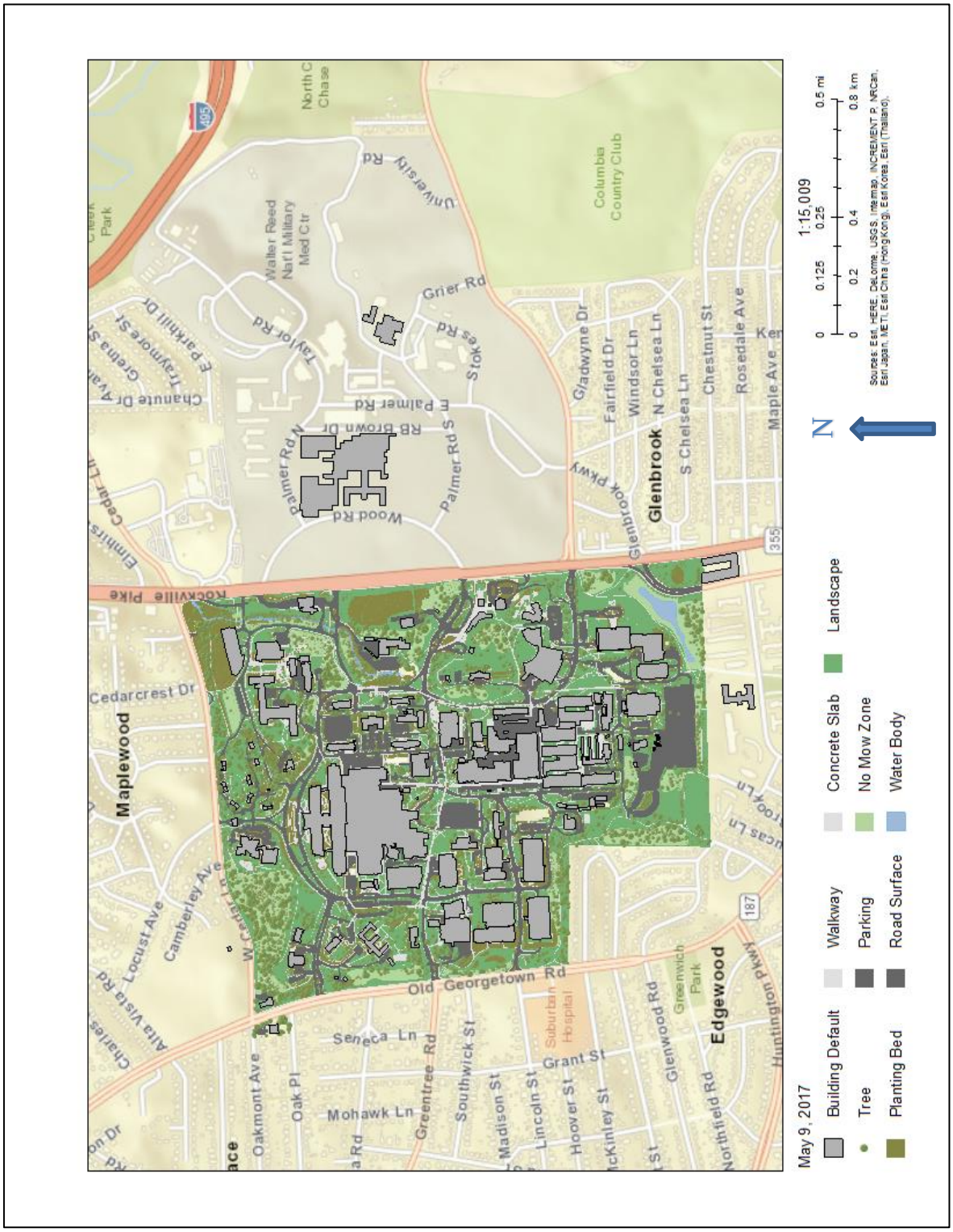

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Figure A-2: Oil Filled Storage Tanks

CLICK ONTO HYPERLINK BELOW TO ACCESS FULL-SIZE MAP at

https://orfweb.od.nih.gov/sites/dep/Documents%20and%20Records/NIH%20_Tanks_0906%202.pdf

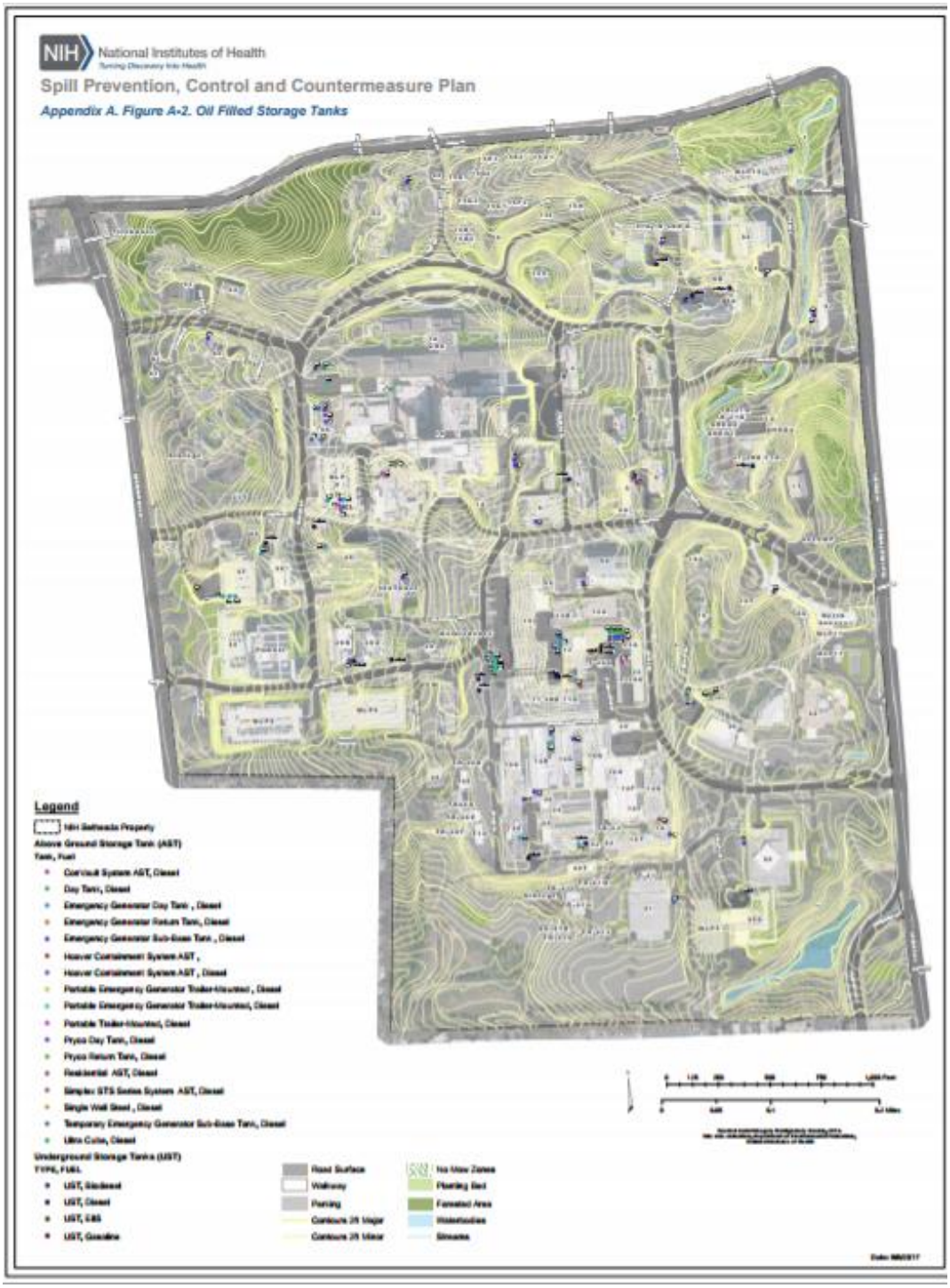

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Figure A-3: Hydraulic Lifts and Transformers

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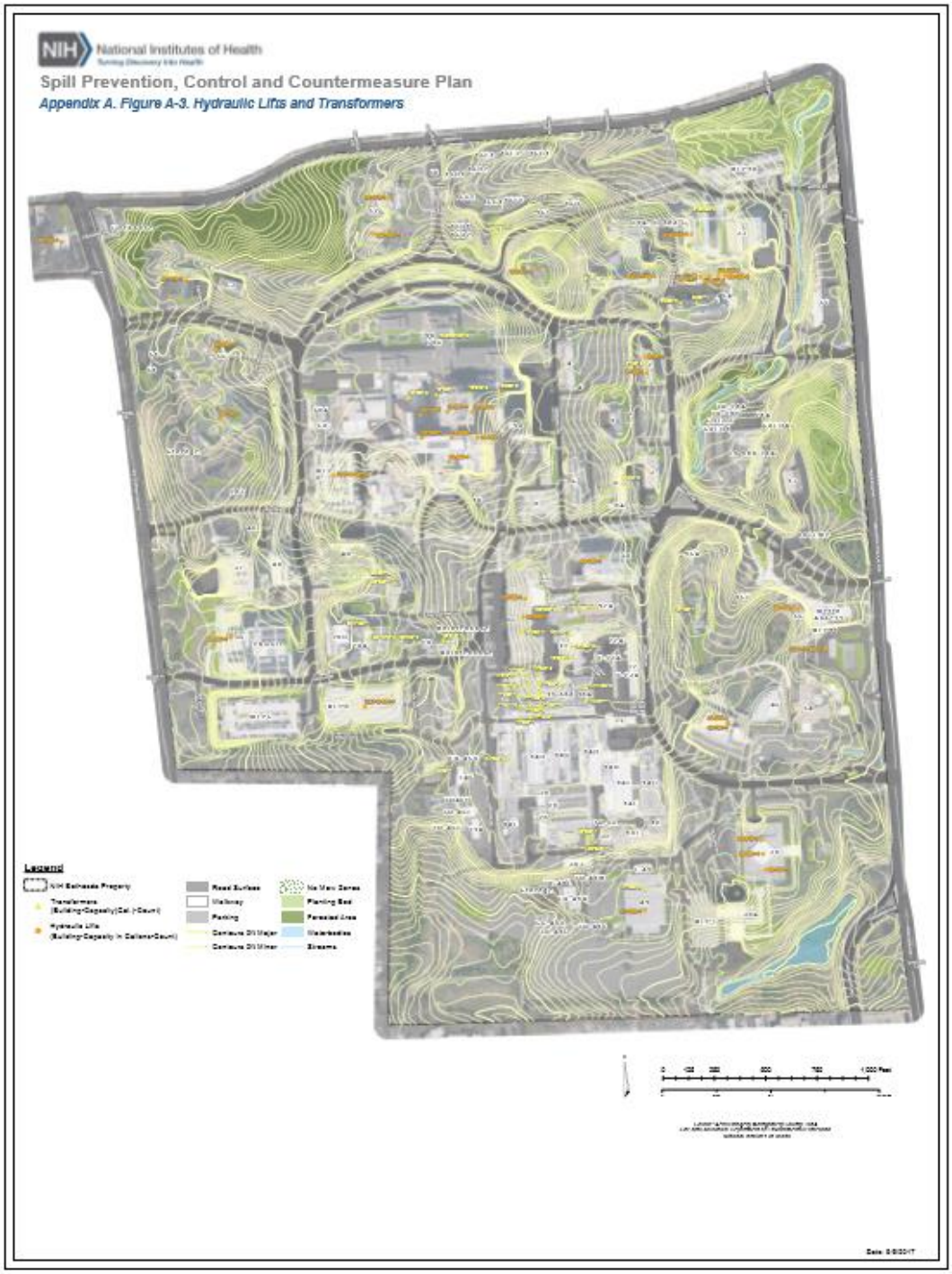
https://orfweb.od.nih.gov/sites/dep/Documents%20and%20Records/NIH%20_TransLifts_0906%20(2).pdf



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APPENDIX B: Substantial Harm Determination

Facility Name:	National Institutes of Health Bethesda Campus
Facility Address:	9000 Rockville Pike Bethesda, MD 20892

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes __ No _X_

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground storage tank area?

Yes __ No _X_

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in 40 CFR part 112 ***Appendix C***, Attachment C-III or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

Yes __ No _X_

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in 40 CFR part 112 ***Appendix C***, Attachment C-III or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?

Yes __ No _X_

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

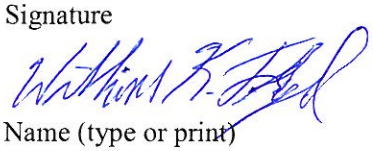
Yes __ No _X_

Note: If the answer is "No" to all questions, then a Facility Response Plan is not required.

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature



Name (type or print)

William K. Floyd

Title

DEP Director

Date

9/13/2017

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APPENDIX C: Facility Inspection Checklists

The following checklists are to be used for monthly and annual inspections. Completed checklists must be signed by the inspector and maintained at the facility, with this SPCC Plan, for at least three years.

- Monthly Inspection Checklist
- Annual Facility Inspection Checklist

Monthly Inspection Checklist

This inspection record must be completed each month except the month in which an annual inspection is performed. Provide further description and comments, if necessary, on a separate sheet of paper and attach to this sheet. *Any item that receives "yes" as an answer must be described and addressed immediately.

	Y*	N	Description & Comments
Storage tanks			
Tank surfaces show signs of leakage			
Tanks are damaged, rusted or deteriorated			
Bolts, rivets, or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Vents are obstructed			
Secondary containment is damaged or stained			
Water/product in interstice of double-walled tank			
Dike drainage valve is open or is not locked			
Piping			
Valve seals, gaskets, or other appurtenances are leaking			
Pipelines or supports are damaged or deteriorated			
Joints, valves and other appurtenances are leaking			
Buried piping is exposed			
Loading/unloading and transfer equipment			
Loading/unloading rack is damaged or deteriorated			
Connections are not capped or blank-flanged			
Secondary containment is damaged or stained			
Berm drainage valve is open or is not locked			
Liquid levels are gauged and the measurements are recorded during filling operations.			
Security			
Fencing, gates, or lighting is non-functional			
Pumps and valves are locked if not in use			
Response Equipment			
Response equipment inventory is complete			
Required Signage			
Hazard diamonds			
Contents and capacity			
Refueling Instructions			

Date: _____ Signature: _____

Annual Facility Inspection Checklist

This inspection record must be completed each year. If any response requires further elaboration, provide comments in Description & Comments space provided. Further description and comments, if necessary, must be provided on a separate sheet of paper and attached to this sheet. *Any item that receives "yes" as an answer must be described and addressed immediately.

	Y*	N	Description & Comments
Storage tanks			
Tank surfaces show signs of leakage			
Tank is damaged, rusted or deteriorated			
Bolts, rivets or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Vents are obstructed			
Concrete dike			
Secondary containment is stained			
Dike drainage valve is open or is not locked			
Dike walls or floors are cracked or are separating			
Dike is not retaining water (following large rainfall)			
Piping			
Valve seals or gaskets are leaking			
Pipelines or supports are damaged or deteriorated			
Joints, valves and other appurtenances are leaking			
Buried piping is exposed			
Out-of-service pipes are not capped			
Warning signs are missing or damaged			
Loading/unloading and transfer equipment			
Loading/unloading rack is damaged or deteriorated			
Connections are not capped or blank-flanged			
Rollover berm is damaged or stained			
Berm drainage valve is open or is not locked			
Drip pans have accumulated oil or are leaking			
Security			
Fencing, gates, or lighting is non-functional			
Pumps and valves are not locked (and not in use)			
Response equipment			
Response equipment inventory is incomplete			

Annual reminders:

- Hold SPCC Briefing for all oil-handling personnel (and update briefing log in the Plan); and
- Check contact information for key employees and response/cleanup contractors and update them in the Plan as needed;

Additional Remarks:

Date: _____ Signature: _____

APPENDIX D: Record of Containment Dike Drainage

This record must be completed when rainwater from diked areas is drained into a storm drain or into an open watercourse, lake, or pond, and bypasses the water treatment system. The bypass valve must normally be sealed in closed position. It must be opened and resealed following drainage under responsible supervision.

Date	Diked Area	Presence of Oil	Time Started	Time Finished	Signature

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APPENDIX E: Record of Annual Discharge Prevention Briefings and Training

Briefings will be scheduled and conducted by the facility owner or operator for operating personnel at regular intervals to ensure adequate understanding of this SPCC Plan. The briefings will also highlight and describe known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best practices. Personnel will also be instructed in operation and maintenance of equipment to prevent the discharge of oil, and in applicable pollution laws, rules, and regulations. Facility operators and other personnel will have an opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

Date	Subjects Covered	Employees in Attendance	Instructor(s)

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APPENDIX F: Emergency Contacts

Designated person responsible for spill prevention:	William K. Floyd, DEP Director 301-496-7775

EMERGENCY TELEPHONE NUMBERS:

Facility

William Floyd, Director of DEP	301-496-7775 (office) 304-229-4392 (cell)
Mark Miller, Chief, DEP-ECB	301-496-7775 (office) 301-366-3864 (cell)

Local Emergency Response

NIH Fire Department	911 or (301) 496-2372
NIH Police Department	911 or (301) 496-5685

Response/Cleanup Contractors

Contractor	410-368-0170

Notification

Maryland Department of Environment Emergency Line	866-633-4686
National Response Center	800-424-8802
United States Environmental Protection Agency, Region 3	800-438-2474

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APPENDIX G: Discharge Notification Form

Part A: Discharge Information	
General information when reporting a spill to outside authorities: Name: National Institutes of Health Bethesda Campus Address: 9000 Rockville Pike Bethesda, MD 20892 Telephone: (301) 496-7775 Primary Contact: William K. Floyd, Director, Division of Environmental Protection Work: (301) 496-7775 Cell (24 hrs): (304) 229-4392	
Type of oil:	Discharge Date and Time:
Quantity released:	Discovery Date and Time:
Quantity released to a waterbody:	Discharge Duration:
Location/Source:	
Actions taken to stop, remove, and mitigate impacts of the discharge:	
Affected media: __ air __ water __ soil	 __ storm water sewer/POTW __ dike/berm/oil-water separator __ other: _____
Notification person:	Telephone contact: Business: 24-hr:
Nature of discharges, environmental/health effects, and damages: Injuries, fatalities or evacuation required?	

Part B: Notification Checklist		
	Date and time	Name of person receiving call
Discharge in any amount		
William Floyd, DEP Director and Response Coordinator (301) 496-7775 (office) (304) 229-4392 (cell)		
Mark Miller, Branch Chief, Compliance Branch and Alternate Response Coordinator (301) 496-2372 (office) (301) 366-3864 (cell)		
Discharge in any amount and affecting (or threatening to affect) a waterbody		
NIH Fire Department (301) 496-2372 or 911		
Maryland Department of Environment (410) 537-3000 (daytime) (866) 633-4686 (nights/weekends)		
National Response Center (800) 424-8802		
NIH Police Department (301) 496-5685 or 911		
Maryland State Fire Marshal Brian Geraci, Fire Marshal (410) 653-8980		
State Emergency Response Commission (410) 517-3600		

APPENDIX H: Discharge Response Equipment Inventory

The discharge response equipment inventory is verified during the monthly inspection and must be replenished as needed.

The following is a current list of discharge response equipment:

Table 1	
Hazardous Waste Storage Units (4)	
Type	**Quantity**
Dry Chemical Fire Extinguisher Systems	1 System per Unit
Sump Basins for Containing Spills with Liquid Sensing Alarms which Activate an External Audible Alarm and Flashing White Light	3 Sump Basins per Unit 3 Sensors per Unit 1 Alarm per Unit
Explosive Blow-out Panels on Rear Wall	3 per Unit
Spill absorbents (booms, pads)	Various quantities

Table2	
Emergency Equipment within Building 21	
Type	**Quantity**
Fire Extinguishers for Metal Fires	2
ABC Fire Extinguishers	5
Chemical Fume Hoods	8
Carcinogen Handling Box	1
Walk-In Solvent Pouring	1 Hood
Walk-In Solvent Glass Crusher	1
Mercury Vacuum	1
Self-Contained Breathing Devices	2 Apparatus
Acid Base Neutralizing Agents	Various quantities
Whole face respirators with supply of various cartridges	1 per Employee
Saranex and Tyvek Chemical Contamination Suits (Disposable)	Minimum of 12
Chemical Resistant Gloves (Nitrile)	4 cases
Industrial Vacuum Cleaner with HEPA Filter	2

Table2	
Emergency Equipment within Building 21	
Room Temperature and Refrigerator Temperature Sensors and Alarms for the Explosives Holding Room	See Attachment E for Details
Foam Extinguishing System for the Solvent Room (Activated only with Fire Department Hook-Up) and Class I Electrical Wiring	1
Safety Goggles	1 Per Employee
Electrical Drum Pump	2
Automatic Water sprinkler system for areas other than Solvent and Explosives Handling Room	Every Room and Hall
Service Area Spill Containment Trenches	2
Eyewash Stations	5
Large Portable Ventilation Fan	1
First Aid Kit	1
Supplied air compressor with air hoses and breathing masks	1 compressor with varying number of hoses and masks

Table 3	
Building 26T Emergency Equipment	
Type	Quantity
ABC Fire Extinguishers	2
Spill Absorbing Material	400 lbs. Minimum 8 Bags
Emergency Shower/Eyewash Station	2
General First Aid Kit	1
Saranex and Tyvek Chemical Contamination Suits (Disposable)	Minimum of 3
Chemical Resistant Gloves (Nitrile)	1 case
Safety Goggles	Minimum 1 per employee
Chemical Fume Hood	4

Table 3	
Building 26T Emergency Equipment	
Controlled Atmosphere Glove Box/Inert Atmosphere Handling Box	1

Table 4	
Building 21 Radioactive Waste Management Facility Emergency Equipment	
Type	Quantity
Eyewash Stations	4
ABC Fire Extinguishers	3
Fire Alarm Pull Stations	1
Industrial Vacuum Cleaner	1
Supply of Spill Absorbing Material	20 Bags
Tyvek Contamination Suits	1 Case
Shoe Covers	1 Case
Safety Goggles	Minimum 1 per Employee
Vinyl Gloves	3 Cases
CRAM tape	100 Rolls
"Caution Radioactive Materials" Signs	5-10
Plastic Bags	30 Cases
Absorbent Paper	1 Case
Yellow and Magenta Nylon Rope	Approximately 100 feet
Walk-in Ventilated Hood for Solidifying Wastes	1

Table 5	
NIH Fire Department Hazardous Materials Unit – Cab (Quantity)	
ADC Map of PG County/Montgomery (1)	ADC Map of PG County/Montgomery (1)
Chemical Waste ID Tags (variable)	5lb ABC Extinguisher (1)
Box of Road Triangles (1)	Hazardous Waste Disposal Receipts (variable)
IC Vests (2)	DOT Emergency Response Guide (1)

Table 6	
NIH Fire Department Hazardous Materials Unit - Drivers Side (Quantity)	
Pints of 15W40 Motor Oil (3)	Gallon of Antifreeze (1)
20amp Cord Reels (2)	Water Manifold (1)
Spare 100watt Light Bulbs (2)	10lb ABC Extinguisher (1)
Jack Stands (4)	30amp Cable for Trailer (1)
Grounding Cable (1)	15amp Extension Cords with Drop Light (2)
15amp Extension Cords with Drop Light and Inline Junction Box (2)	25’ Extension Cord 15amp (2)
15’ Extension Cord 15amp (1)	25’ 15 amp Extension with Junction Box (1)
8’ Extension with Junction Box (1)	15amp to 20amp Pigtail (1)
15amp 3way (1)	3way Water Connection (1)
Waste Water Lines (2)	Cold Water Line (1)
Hot Water Line (1)	Bottles of Ivory Dish Soap (12)
Spray Lines (2)	Bag of Universal Pads (1)
4x4 Wood Cribbing (3)	5 Gallon Bucket of Clay (1)
Acid Pads (24)	Pints of ATF (3)

Table 7	
NIH Fire Department Hazardous Materials Unit - Rear Compartment (Quantity)	
Type	**Quantity**
Grounding Rod (1)	40lb Bags of Clay Absorbent (2)
Box of Large Trash Bags (1)	6’ Benches (12)
6’ Barricades (2)	Box of C cell Batteries (1)
Rolls of Duct Tape (5)	Boxes of ID Wrist Bands (2)
Package of Wire Ties (1)	Legal Pads (8)

Table 7 NIH Fire Department Hazardous Materials Unit - Rear Compartment (Quantity)	
Packages of Zip Lock Bags (10)	EMT Scissors (20)
Boxes of Pens (2)	High Lighters (2)
Markers (4)	Rolls of Transparent Tape (2)
Bundles of Trash Bags (3)	Spare Tire (1)

Table 8 NIH Fire Department Hazardous Materials Unit - Officers Side Compartment (Quantity)	
Type	**Quantity**
Reese Hitches (2)	Pair of Latex Surgical Gloves (3)
Pairs of Knee Pads (3)	SCOTT Twin Cartridge Adaptors (12)
Set of Jumper Cables (1)	Pair of Sliver Shield Gloves (2)
1.5amp Battery Charger (1)	Packs of Zip Ties (2)
Large Ratchet Straps (4)	Rolls of Velcro (2)
Anchor Kits for Decon Shower (2)	Roll of Vinyl Patch Tape (1)
Hilti Hammer Drill (1)	Rolls of Electric Tape (3)
Megaphone (1)	Pair of Rubber Boot Covers (1)
P100 OV Cartridges (13)	Rolls of Solder Wire (Assorted)
Bags of Assorted Pipe Fittings (3)	Pipe Wrench (1)
D Cylinder w/Regulator (1)	Adult NRB (1)
O2 Box (1)	6 Ton Bottle Jack (1)
Rescue Helmets (4)	Medium Ratchet Straps (4)
Repair Kits for Decon Shower (2)	Anti-sway Bars (2)

Table 8	
NIH Fire Department Hazardous Materials Unit - Officers Side Compartment (Quantity)	
M95 Negative Pressure Face Masks w/P100 Cartridge (12)	Chem-Bio Bag (1)
CPF 1 Suits (2)	Boxes of SCOTT P100 Cartridges (4)
Pair of Neoprene Gloves (2)	Box of Nitrile Gloves (1)
Rolls of Pipe Tread Tape (2)	Bottle of FLUX (1)
Rolls of Duct Tape (6)	Assorted Wrenches Assorted Screw Drivers (Assorted)
Large Adjustable Wrenches (2)	Large Salvage Covers (4)
Pediatric NRB (1)	Adult NC (1)

Table 9	
NIH Fire Department Hazardous Materials Unit - Driver Side Compartment #1 and #2 (Quantity)	
Pig Tails (6)	Apparatus Batteries (4)
Junction Box (2)	100’ Extension Cord (House) (1)
100’ Extension Cord (Twist) (1)	16”X20” Universal Pads (100)
16”X20” Acid Pads (100)	50’ Reel of Grounding Cable (1)
200’ Reel of Breathing Air Hose (1)	4’ Round Pigs (5)

Table 10	
NIH Fire Department Hazardous Materials Unit - Driver Side Compartment Decon Tub (Quantity)	
Wheel Brushes (8)	41/2” Round Brushes (6)
Truck Brushes (5)	Zone signs (20)
One Gallon Container of Bleach (2)	One Gallon container of LPH (2)
One Quart Container of Dispatch (2)	Half Gallon of 70% Isopropyl Alcohol
2-500 ML 10X Mops (1)	One Pint container of ivory Liquid Soap (4)

Table 10	
NIH Fire Department Hazardous Materials Unit - Driver Side Compartment Decon Tub (Quantity)	
Jar of Petroleum Jelly (1)	Trauma sheers (6)
Jack Plates (2)	

Table 11	
NIH Fire Department Hazardous Materials Unit - Driver Side Compartment #3 (Quantity)	
Sampling Kits (8)	Hand Siphon Pump (4)
Large Inspection Mirror (1)	Small Inspection Mirror (1)
One Hour Light Sticks (12)	7oz. Cans of Instant Gasket (2)
8oz. Powder Dam (3)	Various size Scoops (6)
50cc Bulb Syringe (1)	Sticks of Epoxy Repair Putty (1)
Ear Muffs (6 pair)	Ear Plugs (100)
Safety Glasses (10)	Full Face Shields (5)
Safety Goggles (5)	Scott Pro Flow (4)
80mm Hoses (4)	40mm Mask Adapters (4)
OV/P100 NBC Cartridges (12)	PAPR Chargers (2)
Instruction manual (1)	40mm Cartridges (8)
40mm Adapters (8)	P100 Cartridges (9)
Scott T-Bone Adapters (9)	Body Bags (11)
Tychem Thermo Pro (4)	Tychem 1400 Suits (4)
Splash Suits (5)	Self-Contained Breathing Apparatus (1)

Table 12	
NIH Fire Department Hazardous Materials Unit Driver Side Compartment #4 (D-4)	
Type	**Quantity**
Trash Bags (100)	Boxes of 6oz Sqwincher Mix (50 packets/box) (3)
Five Gallon Sqwincher Drink Mix Packets (4)	Towels (25)
Blankets (4)	Chlorine "A" Kit (1)
Chlorine "B" Kit (1)	Dome Clamps (4)
Large Tool Box (Various wrenches, sockets, Etc) (1)	
Pneumatic Tool Box (1) containing: 3/8" Drill (1) Reciprocating Saw (1) Air Chisel (1) Hole Saw Kit (1) Non-Sparking Tool (1) Edward Cromwell pipe Wrap Kit (1) Edward Cromwell Drum Kit (1) Edward Cromwell Internal Plug kit (1) Edward Cromwell Large Tank Kit (1)	**Drum Kit Box (1) containing:** HazGard Neutralizing System (1) Drum Pumps (2) Short Grounding Cables (2) 10' Grounding Cables (2) Drum Hoist (1) Small Hand Pumps (4) Drum Roll (1) Storm Drain Magnets (7)

Table 13	
NIH Fire Department Hazardous Materials Unit - Drivers Side Compartment #5 (D-5) (Quantity)	
Stokes Basket with Back Board (1)	Portable Breathing Air Hoses (290' of Hose) (4)
Little Giant Ladder (1)	3500 watt Honda Generator (1)
100' Fall Protection Winch (1)	100' Working Winch (1)
Hazmat SKED (2)	

Table 14	
NIH Fire Department Hazardous Materials Unit - Drivers Side Compartment #6 (D-6) (Quantity)	
Type	**Quantity**
300'X1/2" Rope (4)	306'X1/2" Rope (1)
297'X1/2 Rope (1)	150'X1/2" Rope (3)
150'X1/2" Utility Rope (1)	Bags of Orange Flags (2)
Class III Harness (8)	LSP Harness (1)
SKED Stretcher (1)	Edge Protector Roller (2)
Pickets (10)	Windless Pickets (5)

Table 14	
NIH Fire Department Hazardous Materials Unit - Drivers Side Compartment #6 (D-6) (Quantity)	
LOTO Bag (1)	
SAR Equipment Packs (2) containing: 10' Continuous Loop (1) 6' Continuous Loop (1) Extra Large Anchor Strap (1) 1"X5' Tube Webbing (2) 1"X12' Tube Webbing (6) 1"X15" Tube Webbing (4) Short Prusik Loop (3) Long Prusik Loop (3) 4' Continuous Loop (1) Medium Multi Loop (1) Gear Sling (1) Rope Pad (2) 1"X20' Tube Webbing (2) 1"X25' Tube Webbing (1) Load Releasing Hitch (1) Prusik Minding Pulley (2) RSI Single Pulley (3) Rock Exotica Swivel (1) RSI K-2 Pulley (1) Large Carabineer (5) CMI Rescue Rappel 8 (1) R3 Rescue 8 with Ears (1) Rescue Rappel Rack (2)	**Advanced Rigging Box (1) containing:** RSI Triple Sheeve Pulley (2) RSI Double Sheeve Pulley with Becket(2) SMC Double Sheeve Pulley with Becket(4) SMC 3" Single Sheeve Pulley (5) RSI Knot Passing Pulley (2) Large Multi-Loop (1) Rope Pads (4) Tri-Links (6) Extra Large Carabineer (1) Gibbs Ascenders (2) RSI Ascenders (2) Harness Bridle (1) Fox Whistle (4) Prusik Minding Pulley (2) Extra Large Anchor Strap (1) Twist Link Carabineer (4) Rock Exotica Swivel (2) Master Key Ring (1) **Air Cart (1) containing** 60' Minute Air Cylinder (2) 10' Air Hose (4) 5 Minute Escape Packs (4)

Table 15	
NIH Fire Department Hazardous Materials Unit - Driver Side Belly Compartment #7 (D-7) (Quantity)	
6 Way Water Manifold (1)	50' Garden Hose (3)
Garden Hose Nozzles (5)	50'X2.5" Rubber Hose (2)
2 ½" Double Male (2)	2 ½" Blind Caps with Air Valve System (4)
Hydrant Wrench (1)	Spanner Wrenches (2)
Regulator with Air Chuck (1)	

Table 16	
NIH Fire Department Hazardous Materials Unit - Driver Side Belly Compartment #8 (D-8) (Quantity)	
Type	**Quantity**
Salvage Covers (4)	20'X2.5" Red Hose (2)
2.5" 90 Degree Adapters (2)	

Table 17	
NIH Fire Department Hazardous Materials Unit - Rear Compartment (Quantity)	
Type	**Quantity**
Cascade System (6000 psi) (1)	1000 watt Quarts Lights (2)
60 Minute Air Cylinder (2)	45 Minute Air Cylinder (3)
30 Minute Air Cylinder (2)	

Table 18		
NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #1 (O-1) (Quantity)		
AID Bag containing:	**AID Bag containing:**	**Oxygen Bottle with-**
Trauma Sheers (2) Band Aids (70) Pair Gloves (4) Stethoscope (1) Adult B/P Cuff (1) Nasal Canella(1) Cravats (6) Ice Packs (2) Window Punch (1) Roll of 2" Tape (1) Pen Light (1) Glucose Paste Tube (1)	Ring Cutter (1) 6" Rolled Kling (4) 4" Rolled Kling (1) 3" Rolled Kling (5) 2"X2" Gauze Pads(7) 4"X4" Gauze Pad(12) 4-8"X7 1/2" Combine Dressing Burn Sheets (2) Trauma pad (1) Surgical Mask (3) Adult Non-Re-breather Mask(1)	1-D Cylinder with Regulator 1-Adult Nasal Canula 2-Adult Non-Rebreathers 1-Extension Tube 6-Road Triangles 6-Road Flares 1-ABC Fire Extinguisher

Table 19	
NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #2 (O-2) (Quantity)	
Hazmat I.D. (1)	Hazmat I.D. Batteries (2)
Gas I.D. (1)	Hazmat I.D. Supplies (1)
Gas I.D. Batteries (1)	Gas I.D. Pump (1)
Gas I.D. Supplies (1)	

Table 19	
NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #2 (O-2) (Quantity)	
Drager CDS Kit containing:	**Drager CDS Kit containing:**
Hand Pumps (2)	Set of Hydrochloric Acid Tubes (1)
Bulb Pump (1)	Set of Formaldehyde Tubes (1)
Sampling Vial (1)	Set of Chromic Acid Tubes (1)
Sets of Extension Tubing (2)	Set of Chlorine Tubes (1)
Air Current Kit (1)	Set of Ammonia Tubes (1)
Tubes with Rubber Caps (6)	Set of Alcohol Tubes (1)
Tube opener (1)	Water Cooler (1)
Set of Pyridine Tubes (1)	Flashlights (4)
Set of Sulfuric Acid Tubes (1)	Lite Box Flash Lights (2)
Set of Phosgene Tubes (1)	Large Mercury Pump (1)
Set of Phenol Tubes (1)	Bull Horn (1)
Set of Nitric Acid Tubes (1)	Bull Horn Batteries (1)
Set of Methylene Chloride Tubes (1)	Set Gully Plug with Regulators (Air Bags)(1)
Set of Hydrogen Sulfide Tubes (1)	200' Air Supply Reel (1)
Set of Hydrogen Fluoride Tubes (1)	200' Electric Cord Reel (1)

Table 20		
NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #3 (O-3) (Quantity)		
Box 9-1 containing:	**Box 9-3 containing:**	**Box 9-4 containing:**
Boxes of Latex Gloves (2)	Pair of Line Man Gloves (2)	20/20 Kits (14)
Pairs of Nitrile Heavy	Pair of Cryogenic Gloves (2)	
Duty Gloves (15)	11-Pair of Work Gloves (11)	**Box 9-5 containing:**
Boxes of Nitrile Exam Gloves	2-Pair of Jersey Gloves (2)	Pair of Bootie Covers (25)
(2)	5-Pair of Kevlar Gloves (5)	Telescope (1)
Pair of Cuff Connectors (13)	11-Pair of Butyl Gloves (11)	Tripod (1)
Pair of Surgical Gloves (7)	**Box 9-4 containing:**	Box of N95 Mask (1)
	256 A-1 Kits	jet Gueard Suits (18)
Box 9-2 containing:	Chor-N-Oil 50 Kits (7)	18Level "C" Suits (18)
Box of Viton Gloves (1)	Packs M-8 Paper (11)	Cooling Vests (4)
Box of Neoprene Gloves (1)	Rolls M-9 Paper(2)	Nomex Coveralls (8)
Box of Butyl Gloves (1)	Jumbo Rolls PH Paper(5)	Tingley Boot Size 10 (3)
Pair of Silver Shield Gloves (24)	Packs of PH Paper(4)	Tingley Boot Size 11 (3)
	Spill Fyer Waste Water(1)	Tingley Boot Size 12 (3)
	Spill Pyer Chemical(2)	Scott Headsets (4)

Table 21	
NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #4 (O-4) (Quantity)	
Box 8-1 containing-	**Box 8-1 containing:**
Mercury Spill Kit (1)	1-Box Latex Gloves (1)
Pair of Bootie Covers (3)	"Level A" Suits w/Flash (2)
Box of Zip Lock Bags (1)	Rolls of Fire Line Tape (3)
Box of Alcohol Swipes (1)	"Level A" Suits (4)
Mercury Sponges (15)	Cooling Vests (4)
Mercury Hand Pump (1)	Tingley Boot Size 7 (3)
Mercury Absorbent Powder (4)	Tingley Boot Size 8 (3)
Mercury Indicator (1)	Tingley Boot Size 9 (3)
Bulb Syringe (1)	Roll of duct Tape (2)

Table 22	
NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #5 (O-5) (Quantity)	
Miller 9' Tripod (1)	Box 4-1 (1)

Table 23	
NIH Fire Department Hazardous Materials Unit - Officers Side Compartment #6 (O-6) (Quantity)	
85 Gallon Poly Over Pack (1)	15 Gallon Over Pack (1)
10 Gallon Over Pack (1)	5 Gallon Bucket (5)
5 Gallon Bucket Lids (5)	5 Gallon Bucket of Soda Ash (2)
5 Gallon Bucket of Safe Step (1)	Small Scoop (2)
Large Scoop (1)	Poly Shovels (4)
Clay Pick (1)	Hand Cart (1)

Table 24	
NIH Fire Department Hazardous Materials Unit - Officers Side Belly Compartment #7 (O-7) (Quantity)	
Mop Head (4)	Mop Handles (3)
Street Broom (8)	Fox Tail Brooms (6)
Dust Pan (2)	Soft Broom (1)
Broom Handles (7)	Grabber Tool (1)

Table 25 NIH Fire Department Hazardous Materials Unit - Officers Side Belly Compartment #8 (O-8) (Quantity)	
Flat head Shovels (2)	Bale Hook (1)
Round Head Shovels (2)	Sledge Hammer (1)
Scrapper (6)	55 Gallon Drum Pump (1)
Squeegees (4)	Grabber Tool (1)
Squeegee Handles (4)	

Table 26 NIH Fire Department Hazardous Materials Unit - Inside Cab (Quantity)	
UV Light (1)	Reference Material (1)
Guardian Kit (1)	Freezer (1)
Small Mercury Vacuum (1)	Refrigerator (1)
Refrigerant Leak Detector (1)	Blood Agar Plate (1)
Draeger Mini Warn and Pump (1)	Expiration Date (1)
Mercury Vapor Analyzer (1)	Lite Box Flash Lights (2)
Printer (1)	Lap Top Computer (1)
Heat Guns (2)	6 Bank Portable Charger (1)
MSA Passport (1)	Portable Radio Batteries
Bacharach Leak Detector (1)	Safety Vest (4)
Mini RAE 11.7 (1)	(940) NIH HM-751 Driver
APD 2000 (1)	(720953) M.C.HM-751 Driver
RAE PPB Meter (1)	(942) NIH HM-751
Extract IR (1)	(720957) M.C. HM-751
Raman First Defender (1)	(941) NIH HM-751 Right
Raman First Defender Vials (1)	(721958) M.C. HM 751 Right
Canon Portable Printer (1)	(944) NIH HM-751 Left
Photo Camera (1)	(721957) M.C. HM-751 Left
Zone Keys (1)	(330) NIH HM-751
Rewind Keys (1)	(331) NIH HM-751
Hazmat Check Sheets (1)	(332) NIH HM-751
Verizon Wirele1ss Card (1)	(329) NIH HM-751
MSDS CD-ROM's (1)	SCBA (3)
VCR/DVD Player (1)	ADC Maps (6)
TV Monitor (1)	Reference Material (1)

Table 27	
NIH Fire Department Hazardous Materials Unit - Front Off. Side Coffin Comp. #1 (C-1) (Quantity)	
Pump Sprayer (2)	Transfer Pump Box (1)
Roll Plastic (2)	Box of Oil Only Socks (1)
Betts Valve (1)	Oil Only Socks (Loose) (13)
Betts Valve Wrench (1)	Grounding Rod (1)
Mop Bucket (1)	10' Pike pole (1)
Mop Ringer (1)	Hazmet SKED (1)
Hose Pump (1)	Weather Station Head (1)

Table 28	
NIH Fire Department Hazardous Materials Unit - Rear Off. Side Coffin Comp. #2 (C-2) (Quantity)	
Pack of Oil Only Pads (1)	Pig Pillows (10)
Pack of Acid Only Pads (1)	Large Oil Only Socks/Booms (5)
Pack of universal (1)	

Table 29	
NIH Fire Department Hazardous Materials Unit - Middle Coffin Comp. #3 (C-3) (Quantity)	
Utility Rope 300' (Black) (1)	300'X5/8" Rope (Black) (2)
Vouel Lube (1)	

Table 30	
NIH Fire Department Hazardous Materials Unit - Front Dr. Side Coffin Comp. #1 (C-4) (Quantity)	
Saddle Vent (1)	Submersible Pump (1)
Drum Thief Box (1)	Drum Sampler Box (1)
Hand Pump (1)	Drum Cart (1)
Garden Hose (1)	Stinger (1)
Decon Shower (1)	Decon Pools (4)
Confine Space Ventilator (1)	Confine Space Ventilator Hose (1)

Table 31	
NIH Fire Department Hazardous Materials Unit - Rear Dr. Side Coffin Comp. #2 (C-5) (Quantity)	
Folding Chairs (6)	Bundle of Stakes (1)
Stinger Hose Couplers (1)	Large Oil Only Socks/Booms (3)
Orange Snow Fence (1)	5 Gallon Bucket Safe Step (1)
Black Snow Fence (1)	5 Gallon Bucket Soda Ash (1)
4'PVC Pipe (4)	Adsorbent Level (1)

APPENDIX I: Agency Notification Standard Report

Information contained in this report, and any supporting documentation, must be submitted to the EPA Region 3 Regional Administrator, and to MDE, within 60 days of the qualifying discharge incident.

Facility:	*National Institutes of Health Bethesda Campus*
Name of person filing report:	
Location:	*9000 Rockville Pike* *Bethesda, MD 20892*
Maximum storage capacity:	*176,994 gallons*
Daily throughput:	
Nature of qualifying incident(s): __ Discharge to navigable waters or adjoining shorelines exceeding 1,000 gallons __ Second discharge exceeding 42 gallons within a 12-month period.	
Description of facility (attach maps, flow diagrams, and topographical maps): The NIH is an Operating Division (OPDIV) of the Department of Health and Human Services (DHHS). The NIH is the primary federal medical research agency and is tasked with both leading the nation's medical research initiatives and providing funding and support to medical institutions across the country. The NIH is comprised of 27 institutes, each with a specific research agenda, often focusing on particular disease or body symptoms. The NIH Bethesda Campus includes a research hospital, patient-family temporary houses, clinics, animal research, approximately 5,000 labs, office buildings, a power plant that provides steam and electricity to the NIH Bethesda Campus (Building 11), grounds maintenance area and fuel dispensing area. The NIH Bethesda Campus is located at 9000 Rockville Pike in Bethesda, Maryland, and spans over 322 acres with 70 buildings and has more than 22,000 employees. Hours of operation are 24 hours per day, seven days per week. Personnel at the facility with oil handling responsibilities include the DEP Director, DEP staff managing the fuel storage program and contractor personnel responsible for maintaining, inspecting and loading tanks.	

Agency Notification Standard Report (cont'd)
Cause of the discharge(s), including a failure analysis of the system and subsystems in which the failure occurred:
Corrective actions and countermeasures taken, including a description of equipment repairs and replacements:
Additional preventive measures taken or contemplated to minimize possibility of recurrence:
Other pertinent information:

APPENDIX J: Compliance Plan

As mentioned in this SPCC Plan, some single-walled bulk ASTs do not have adequate secondary containment. Secondary containment will be provided for these tanks as specified in Table J-1 below:

Table J-1: ASTs without Adequate Secondary Containment

Location	Issue	Tank	Compliance Plan	Compliance Deadline
Building 10	Secondary containment for single-wall AST	MDE Tank #6 (100-gallon emergency generator sub-base tank)	NIH will construct a concrete berm surrounding the AST to provide sufficient secondary containment	NIH will provide secondary containment within 90 days of plan signature
Building 10 (A-Wing)	Secondary containment for single-wall AST	MDE Tank #7 (1,000 gallon emergency generator sub-base tank)	NIH will construct a concrete berm surrounding the AST to provide sufficient secondary containment	NIH will provide secondary containment within 90 days of plan signature
Building 45 (P2AN.04C Generator Room)	Secondary containment for single-wall AST	MDE Tank #58 (275 gallon emergency generator day tank)	NIH will construct a concrete berm surrounding the AST to provide sufficient secondary containment	NIH will provide secondary containment within 90 days of plan signature
Building 45 (P2AN.04C Generator Room)	Secondary containment for single-wall AST	MDE Tank #58 (275 gallon emergency generator return tank)	NIH will construct a concrete berm surrounding the AST to provide sufficient secondary containment	NIH will provide secondary containment within 90 days of plan signature

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APPENDIX K: Incident Reporting Form

Completed by: _____
Title: _____
Date: _____

Instructions: In the event of a spill or other hazardous materials incident, provide the following information to the NIH SPCC Designated Person.

Facility Name:	
Facility Address:	
Facility Phone Number:	
Date of Incident:	
Time Incident Occurred	
Type of Material Discharged	
Source of the Discharge	
Cause of the Discharge	
Estimate of the Total Quantity Discharged	
Estimate of the Quantity Discharged into Navigable Waters	
Estimate of Area/Volume Soil Affected	
Description of Affected Media	
Health Hazards Encountered	
Damage or Injuries Caused by Discharge	
Actions Implemented to Stop, Remove or Mitigate Effects of the Discharge	
Response Time and Effectiveness	
Outside Agencies & Resources Contacted and/or Employed	
Names of Individuals and/or Organizations who have been Contacted	
Evacuation Required	

Note: Attach photographic documentation, written eye-witness accounts and map of affected area.

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