National Institutes of Health
Turning Discovery Into Health

Spill Prevention, Control, and Countermeasure Plan

National Institutes of Health Animal Center

16701 Elmer School Road

Dickerson, MD 20842

July 25, 2016

Prepared by

EnDyna

7926 Jones Branch Drive, Suite 620; McLean, VA 22102

and

Tellevate, LLC
One West Court Square, Suite 750; Decatur, GA 30330

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INTRODUCTION

The purpose of this Spill Prevention, Control, and Countermeasure (SPCC) Plan is to describe measures implemented by the National Institutes of Health Animal Center (NIHAC) to prevent oil discharges from occurring, and to prepare NIHAC 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.

NIHAC management has determined that this facility 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.

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

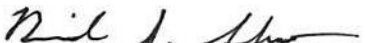
- Complete monthly and annual site inspections as outlined in the Inspection, Tests, and Records section of this Plan (Section 3.7) using the inspection checklists included in ***Appendix C***.
- Perform preventive maintenance of equipment, secondary containment systems, and discharge prevention systems 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.

1. PART 1: Plan Administration

1.1 Management Approval and Designated Person (40 CFR 112.7)

NIHAC 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 NIHAC management. NIHAC has committed the necessary resources to implement the measures described in this Plan.

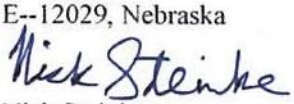
The Facility Manager is the Designated Person Accountable for Oil Spill Prevention at the facility and has the authority to commit the necessary resources to implement this Plan.

Authorized Facility Representative (facility response coordinator): David Shaw
Signature: 
Title: Facility Manager
Date: 7/28/16

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: 
Name: Nick Steinke
Title: Principal
Company: Tellevate, LLC
Date: 7/25/16

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

In accordance with 40 CFR 112.3(e), a complete copy of this SPCC Plan is maintained in the Facility Manager's office in Building 101A. Building 101A is always attended as the facility is operating 24 hours per day, seven days per week.

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), NIHAC 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.

NIHAC 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 Facility Manager 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), NIHAC 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 July 25, 2016. The next plan review is therefore scheduled to take place on or prior to July 25, 2021.

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 July 25, 2021.

Table 1-1: Plan Review Log

By	Date	Activity	PE certification required?	Comments
DEP Contractor	July 25, 2016	Plan Review	Yes	For SPCC Plan Update

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

NIHAC 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 1-2 presents a cross-reference of Plan sections relative to applicable parts of 40 CFR part 112.

Table 1-2: SPCC Cross-Reference

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*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.

2. PART 2: General Facility Information

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

Name: National Institutes of Health Animal Center (NIHAC)

Address: 16701 Elmer School Road; Dickerson, MD 20842; (301) 496-9550

Type: Medical Research Facility

Owner/Operator: National Institutes of Health; 9000 Rockville Pike; Bethesda, MD 20892

Primary Contact: David Shaw, Facility Manager, Work: (301) 496-9040, Cell (24 hours): (240) 478-8356

2.1.1 Location and Activities

NIHAC is an animal research center that includes an animal breeding center, serves as a holding area to ensure animals are disease-free before research elsewhere, and is a base for behavioral and genetic research projects involving primates. The facility handles, stores and uses petroleum products in the form of gasoline, diesel, and motor oil. NIHAC receives products via tanker truck. The products are stored in several aboveground storage tanks (ASTs) and underground storage tanks (USTs).

NIHAC is located at 16701 Elmer School Road in Dickerson, Maryland. Hours of operation are 24 hours per day, seven days per week. The site is comprised of approximately 503 acres with 25 buildings and 100 employees. Personnel at the facility with oil handling responsibilities include a facility manager, power plant personnel and contractor personnel responsible for loading tanks.

The Site Plan and Facility Diagram included in ***Appendix A*** of this Plan show the location and layout of the facility. The Facility Diagram shows the location of oil containers, buildings, loading/unloading and transfer areas, and critical spill control structures.

The site includes buildings used for medical research, office buildings, a power plant (Building 101A), a fuel dispensing area and a wastewater treatment plant. Petroleum products are stored outside of buildings, inside Building 101A, underground and at the fuel dispensing area.

There is a grounds maintenance area containing one ASTs and the AST is owned and operated by others and therefore are not considered part of NIHAC under the definition of "facility" in 40 CFR 112.2.

2.1.2 Oil Storage

Oil storage at the facility includes 26 tanks: 12 fixed ASTs (three are exempt from the SPCC) and 14 emergency generators (1 with associated day tank, 2 with associated day tanks and sub-base tanks, and 11 with sub-base tanks). In addition, NIHAC stores a varying stock of oil drums inside the power plant and has 16 oil-containing transformers with greater than 55 gallons of oil capacity.

There are two 300 gallon ASTs (one diesel and one gasoline) located at the fuel dispensing area that are used to refuel on- and off-road vehicles used onsite.

The capacities of oil containers and exempt fuel containers present at the site are listed below in Table 2.1.2 and are also indicated on the facility diagram in ***Appendix A***. All containers with capacity of 55 gallons or more are included. The capacity for the USTs and residential ASTs are not included in the total capacity because they are exempt as described below. There are five propane ASTs but they are also excluded because they are not contain oil. There is one 500 gallon AST at the grounds maintenance area owned and operated by others and not part of the NIHAC "facility" which is described below. Thus this tank is also exempt from this SPCC Plan.

As shown in **Appendix B**, NIHAC has determined that it 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.

Total Oil Storage: 17,381 gallons*

NOTE: This includes all non-exempt ASTs, emergency generators, and oil drums in the power plant that have storage capacity greater than 55 gallons (maximum of ten 55-gallon drums at any given time). This number also includes the two 300-gallon tanks at the fuel dispensing area. It does not include the one 500-gallon tank at the grounds maintenance area that is owned by others because it is deemed a "separate facility." This number also does not include the exempt two residential ASTs, all six USTs, all five propane tanks, and the disconnected Tank #15 that had 4,000 gallons of storage.

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**. *The two residential ASTs containing heating oil with a capacity of 250 gallons each are also not counted in the storage capacity for the facility. (exempt under 40 CFR 112.1(d)(9)). One AST containing ultra-low sulfur non-highway diesel at the grounds maintenance area is not counted because it is owned and operated by others and thus not part of NIHAC under the definition of "facility" in 40 CFR 112.2.*

Table 2.1.2 List of Exempt Underground and Above Ground Storage Tanks on Site

BUILDING KEY	TYPE (AST/UST)	FUEL TYPE	CAPACITY GAL
101[a]	UST	Diesel	50000
101[a]	UST	Diesel	50000
111[a]	UST	Diesel	10000
110[a]	UST	Diesel	6000
112[a]	UST	Diesel	500
112[a]	UST	Diesel	10000
101A[b]	AST	Diesel	500
116[c]	AST	Diesel	250
117[c]	AST	Diesel	250

a: Exempt status because it is a UST
b: Exempt status because it is a contractor owned and operated AST
c: Exempt status because it is a residential tank

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 NIHAC are Broad Run and its tributaries. Broad Run and its tributaries flow into the Potomac River, which is located one mile away towards the south from NIHAC. If an oil spill does occur at NIHAC, the endpoint is broad run and its tributaries. A spill likely would not reach its endpoint because intervention would likely prevent this scenario. In the event of a spill, the wastewater treatment plant will be notified and halt operation. The oil-contaminated wastewater would be re-routed to the wastewater lagoons at NIHAC. The oil-contaminated wastewater then would be treated in the wastewater lagoon or transported for proper waste disposal.

2.2.2 Discharge History

Table 2-1 summarizes the facility's discharge history.

Table 2-2: Oil Discharge History

Description of Discharge	Corrective Actions Taken	Plan for Preventing Recurrence
In 2013, a leaking emergency generator day tank discharged approximately 20 gallons of diesel onto the ground.	NIHAC assessed the level of oil contamination in the soil. NIHAC excavated the contaminated soil.	NIHAC closed buildings 127 and 128 where the emergency generator was located in 2013 and also removed the emergency generator and the day tank.
In 2010, an emergency generator day tank leaked and discharged approximately 100-150 gallons of diesel onto the ground. The day tank float became stuck, which allowed continued pumping and a resultant overflow.	NIHAC assessed the level of oil contamination in the soil. NIHAC excavated the contaminated soil.	NIHAC repaired the day tank float for the emergency generator.

3. 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 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 NIHAC 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 shows the general location of the facility on a U.S. Geological Survey topographic map. ***Appendix A*** also 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 3,000 gallons, located at Building 132. This is unlikely to occur because the # 2 diesel fuel is contained in a convault, which is a double-wall steel tank.

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

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
ASTs				
Failure of aboveground tank (collapse or puncture below product level)	3,000	Gradual to instantaneous	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Double-wall tanks
Tank overfill	1 to 200	Up to 1 gal/min	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Double-wall tanks

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
Pipe failure Note: Anti-siphon valve installed in tank piping.	Up to 3,000	1 gal/sec	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Double-wall tanks
Leaking pipe or valve packing	Variable from several ounces to several gallons	Up to 1 gallon/minute	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Double-wall tanks
Tank truck or trailer mounted refueling tank failure	1 to 3,000	Gradual to instantaneous	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Double-wall tanks
Hose leak during refueling	Variable from 1 to several gallons	Up to 1 gallon/minute	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Double-wall tanks
Fuel Dispensing Area				
Tank truck leak or failure	1 to 300	Gradual to instantaneous	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Double-wall tanks
Hose leak during truck loading	Variable from 1 to several gallons	Up to 1 gallon/minute	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Double-wall tanks
Building 101A (Power Plant)				
Leak or failure of drum	1 to 55	Gradual to instantaneous	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Spill pallets

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
Failure of emergency generator tanks (collapse or puncture below product level) (Tanks #22 and 23)	1 to 300	3 gal/min	Southerly, overland towards an unnamed tributary of Broad Run. Intervention would most likely prevent this scenario.	Double-wall tanks

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

Methods of secondary containment at this facility include double-walled tanks, spill containment pallets, spill curbs and bins and spill buckets. NIHAC also has spill response equipment, such as drain covers, sorbents and spill containers to prevent oil from reaching navigable waters and adjoining shorelines. Secondary containment, diversionary structures and spill response equipment are used to prevent discharges to navigable waters.

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 codes and recognized engineering standards, such as Underwriters Laboratories (UL) 142 Standard for Safety for Steel Aboveground Tanks for Flammable and Combustible Liquids. The ASTs have overfill prevention equipment (mechanical and/or electrical) and overfill alarms. All product transfers are monitored.

Spill pallets. Spill pallets are used for secondary containment for the 55-gallon oil drums stored in Building 101A.

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

Spill Containers. Fill ports for all ASTs are equipped with spill buckets to contain residual fuel from the piping/hose connections.

Spill Containment Curbs: Some ASTs are surrounded by spill containment curbs, which serves as a tertiary spill containment system.

Sorbent material. Spill cleanup kits that include absorbent material, booms, and nitrile gloves are located inside various places within the Power Plant, Building 101A, (near the drummed oil storage areas and stockpiles are stored in the storage cages); in both the fuel dispensing areas behind 101A at the contractors 500 gallon diesel refueling AST and adjacent to the water towers (Building 114); and outside adjacent to the two 50,000 gallon USTs behind building 101A, as shown on the Facility Diagram in ***Appendix A***. The spill kits are located within close proximity of the oil product storage and handling areas for rapid deployment should a spill occur. Sorbent material, booms, and nitrile gloves are stored in the shed next to the loading rack/unloading area to allow for quick deployment in the event of a discharge during loading/unloading activities or any other accidental discharge outside the dike or loading rack/unloading area, such as from tank vehicles entering/leaving the facility or spills associated with the fuel dispenser. The response equipment inventory for the facility is listed in ***Appendix H*** of this Plan. The inventory is checked monthly to ensure that used material is replenished.

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

NIHAC 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, NIHAC 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
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

3.7.1 Daily Inspection

A NIHAC employee performs 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 Facility Manager will be notified.

3.7.2 Monthly Inspection

The checklist provided in ***Appendix C*** is used for monthly inspections by NIHAC personnel. 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 Facility Manager. 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 the Facility Manager and maintained with this SPCC Plan for a period of three years.

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 the Facility Manager and maintained with this SPCC Plan for a period of three years.

3.7.4 Periodic Integrity Testing

Industry Standard STI SP001 specifies that ASTs with a capacity less than 5,000 gallons that have spill control and continuous release detection methods do not require integrity testing and all ASTs at NIHAC fit these criteria. Therefore, NIHAC does not perform periodic integrity testing of its ASTs and emergency generators.

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

The Facility Manager is the facility designee and is responsible for oil discharge prevention, control, and response preparedness activities at this facility.

NIH Division of Environmental Protection (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 the NIH DEP for all facility 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 facility is surrounded by 10-foot tall steel security fencing. The fence encircles the entire footprint of the facility. There is one entrance gate to the facility, which is guarded 24 hours a day, every day of the year. The entrance to the facility requires a NIH security badge to enter the premises, unless escorted by an NIH employee. NIHAC has campus dusk/dawn photo sensor lighting commensurate with the type and location of the facility. NIHAC also takes measures to prevent accidents to tanks and prevent malicious acts of vandalism.

The fill ports to the tanks are locked. The contractor(s) that maintain the POL equipment keep a set of the keys for the locked valves. Water drain valves in curb-like tertiary spill containment surrounding the tanks are maintained in the closed position to prevent unauthorized opening of drain valves. Lights illuminate the gasoline dispensing area.

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

There is potential for discharges from the transfer of fuel from tanker trucks to tanks and NIHAC 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 (40 CFR 112.7(h)(1))

All ASTs and emergency generators are double-walled and have adequate secondary containment. The fuel dispensing area has one 300-gallon double-walled AST containing gasoline and one 300-gallon double-walled AST containing diesel. In addition, both double-walled tanks are inside appropriately sized spill containment bins with adequate freeboard for rain and NIHAC maintains a spill kit at the fuel dispensing area. To minimize direct exposure to rain, and facilitate the cleanup of small spills that may occur during loading/unloading operations at the fuel dispensing area, the area is partially covered by a roof. Any substances that enter the building drainage system flow into the Wastewater Treatment Facility.

3.10.2 Loading/Unloading Procedures (40 CFR 112.7(h)(2-3))

All suppliers must meet the minimum requirements and regulations for tank truck loading/unloading established by the U.S. Department of Transportation. NIHAC 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.

NIHAC personnel supervise oil deliveries from the tanker operator. The tanker operator remains with the tanker truck at all times while fuel is being loaded into tanks. 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.
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 receiving tank to prevent overflow. ☐ Monitor flow meters to determine rate of flow. ☐ When topping off the tank, reduce flow rate to prevent overflow.

Stage	Tasks
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 NIHAC fall into the criteria of the above requirement.

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. The Oil Operations Permit requires NIHAC 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 NIHAC 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 State Program Approval under 40 CFR 281.

Maryland has more stringent spill response requirements. The Facility Manager or designee will remain on site after an oil discharge until granted permission to depart by a representative of either MDE or any Maryland emergency fire or rescue service or any 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. In addition, 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.

4. 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. NIHAC has a sanitary system and a Wastewater Treatment Plant. Drains from buildings within NIHAC flow to the wastewater treatment plant for treatment in accordance with the discharge limits in the NPDES permit. The Wastewater Treatment Plant will be notified of any oil spill and halt operation, if needed. Oil-contaminated water at the Wastewater Treatment Plan will be contained in the equalization tanks and then rerouted to the wastewater lagoon for storage or treatment.

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

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

Table 4-1: List of Oil Containers

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#22	Bldg. 101A (ML-108 Generator Rm.A))	Emergency Generator Day Tank (UL 142)	600	Diesel	Double-wall (Pryco, Inc)	Inside Building
#23	Bldg. 101A (ML-108 Generator Rm.B))	Emergency Generator Day Tank (UL 142)	600	Diesel	Double-wall (Pryco, Inc)	Inside Building
N/A	Bldg. 101A (ML-105 Chiller Bay, Rm A and Rm B)	Steel Drums	55	SAE 5W40 and Used Oil	Spill pallets with built in secondary containment	None
#13	Bldg. 102	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.	None
#24	Bldg. 102	Emergency Generator Sub-Base Tank (UL 142)	230	Diesel	Double-wall (Tramont Co.) Electronic liquid level gauge (low fuel only)	None

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#25	Bldg. 103	Emergency Generator Sub-Base Tank (UL 142)	1525	Diesel	Double-wall (ZMB, Inc). Electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring.	Fence
#5	Bldg. 104	Emergency Generator Sub-Base (UL142)	250	Diesel	Double-wall (Tramont Co.) Electronic liquid level gauge (low fuel only)	Fence
#14	Bldg. 107	Containment Solutions AST (Lube Cube) (UL 142)	2000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge.	None
N/A	Bldg. 107	Emergency Generator Sub-Base Tank (UL 142)	300	Diesel	Double-wall (Detroit Generator). Electronic overfill prevention alarm system. Mechanical and electronic liquid level gauge.	None
#3	Bldg. 110	Hoover Containment System AST (UL 2085)	500	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Mechanical and electronic liquid level gauge.	Fence
#9	Bldg. 110A	Hoover Containment System AST (UL 2085)	500	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Mechanical and electronic liquid level gauge.	Fence
N/A	Bldg. 110A	Emergency Generator Sub-Base Tank (UL 142)	230	Diesel	Double-wall (ZMB, Inc.) Electronic overfill prevention alarm system. Mechanical liquid level gauge and interstitial monitoring system.	Fence

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#4	Bldg. 111	Hoover Containment System AST (UL 2085)	500	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge ad interstitial monitoring system.	Fence
N/A	Bldg. 111	Emergency Generator Day Tank (UL 142)	100	Diesel	Double-wall. Mechanical liquid level gauge.	Fence
#18	114 Water Tower	Emergency Generator Sub-Base Tank (UL 142)	230	Diesel	Double-wall. Electronic overfill prevention alarm system. Mechanical liquid level gauge and interstitial monitoring system.	None
N/A	Fuel Dispensing Area (Near 114 Water Tower)	Bristol AST (UL 142)	300	Diesel	Double-wall (Bristol Tank and Welding Co. acquisition by ASG in 2009). Mechanical liquid level gauge. Stick gauging port.	Bollards
N/A	Fuel Dispensing Area (Near 114 Water Tower)	Highland AST (UL 142)	300	Gasoline	Double-wall. Mechanical liquid level gauge. Leak detection monitoring port and stick gauging port.	Bollards
#10	Bldg. 132	Convault AST (UL 2085)	1000	Diesel	Double-wall. Electronic high-low liquid level alarm system. Electronic liquid level gauge.	None
N/A	Bldg. 132	Emergency Generator Day Tank (UL 142)	56	Diesel	Double-wall (Simplex SST-25 C Day Tank assoc. w/ 1000 gal AST). Electronic overfill prevention alarm system	None

MDE Tank No.	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention and Containment	Impact Protection
#11	Bldg. 132	Convault AST (UL 2085)	3000	Diesel	Double-wall. Mechanical and electronic overfill prevention alarm system. Mechanical and electronic liquid level gauge.	Bollards
N/A	Bldg. T-14 Warehouse Well #4	Emergency Generator Sub-Base Tank (UL 142)	230	Diesel	Double-wall (ZMB, Inc). Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	Fence
#27	Well #1A	Emergency Generator Sub-Base Tank (UL 142)	193	Diesel	Double-wall (Generac Generator). Mechanical liquid level gauge.	None
#26	Well #5	Emergency Generator Sub-Base Tank (UL 142)	180	Diesel	Double-wall (ZMB, Inc.) Mechanical liquid level gauge	None
N/A	Bldg. T-1	Emergency Generator Sub-Base Tank (UL 142)	500	Diesel	Double-wall (ONAN). Mechanical and electronic overfill prevention alarm system. Electronic liquid level gauge and interstitial monitoring system.	None

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 Codes and UL industry 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 fixed aboveground bulk storage tanks is made of steel and placed aboveground on appropriate supports designed to minimize erosion and stress.

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

All ASTs are of double-wall construction and provide intrinsic secondary containment for 110 percent of the primary tank capacity. All ASTs and emergency generators at NIHAC comply with the secondary containment requirements due to the following:

- ASTs and emergency generators are shop-built;
- Inner tanks are UL-listed steel tanks (venting and leak detection);
- Outer tanks are constructed in accordance with nationally accepted 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 ASTs and emergency generators is not open to precipitation, this 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 is inspected on a monthly basis to detect any leak of product from the primary container. Because all ASTs and emergency generators are double-walled, NIHAC is not required to calculate the secondary containment capacity in this SPCC Plan.

The 55-gallon steel drums located in Building 101A are stored on spill containment pallets. Each spill pallet provides 75 gallons of containment capacity, which is more than the required 55 gallons for any single drum since the drums are not exposed to precipitation.

NIHAC bulk 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.

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

The only diked area at NIHAC is a pond located outside Building 101A. Any oil discharge from un-diked areas will prompt the halting of operation of the wastewater treatment plant. The oil-contaminated water will be contained in the equalization tanks and then rerouted to the wastewater lagoon for storage or treatment. Some bulk ASTs have tertiary spill containment that must be periodically drained and logged.

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

All USTs at NIHAC are exempt under 40 CFR 112(d)(4) from the requirements of 40 CFR part 112 because USTs are subject to the more stringent Maryland requirements at COMAR 26.10.02.01-.10 and the Maryland UST program is approved under 40 CFR 281.

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 NIHAC.

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

Industry Standard STI SP001 specifies that ASTs with a capacity under 5,000 gallons that have spill control and continuous release detection methods do not require integrity testing and all ASTs at NIHAC fit these criteria. Therefore, NIHAC does not conduct integrity tests of its ASTs and emergency generators.

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

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

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

All tanks are equipped with a liquid level gauging device – either a direct-reading level float gauge, a mechanical and/or electrical overfill prevention system. Additionally, all fixed ASTs and emergency generators are equipped with high level alarms set at 90 percent of the rated 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))

The facility's wastewater treatment effluent discharges into Broad Run and is observed and records are maintained as required by NPDES permit MD0020931. When oil is discharged into a drain, the Wastewater Treatment Plant is notified and halts operation. The wastewater contaminated with oil will remain in the equalization tanks where the Wastewater Treatment Plant operators will be able to see oil sheen on top of the wastewater. The oil-contaminated wastewater would be re-routed to the wastewater lagoons at NIHAC. The oil-contaminated wastewater then would be treated in the wastewater lagoon or transported for proper waste disposal.

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 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))

55-gallon drums are stored inside Building 101A where secondary containment is provided by spill pallets. Any discharged material is quickly contained and cleaned up using sorbent pads and appropriate cleaning products.

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

NIHAC has three portable emergency generators with a capacity of 50 gallons. These emergency generators are exempt under this SPCC Plan because they store less than 55 gallons of oil.

4.2.12 Oil-Filled Equipment

NIHAC has 16 transformers with oil capacity above 55 gallons (and 4 dry transformers) and a total transformer oil capacity of 3,007 gallons as listed in Table 4.2.12 below. NIHAC maintains spill response equipment in the event of a spill from the transformers for secondary containment. NIHAC maintains absorbent materials, booms and nitrile gloves that are located at the power plant and the fuel dispensing area.

Table 4.2.12: List of Transformers on Site

Location	Voltage (Kva)	Oil (gal)
Bldg 132	500	150
Bldg 110A	300	370
Bldg 111	225	165
Bldg T-18	500	178
Bldg 112	225	109
Bldg 112	500	145
Bldg T-1	500	178
Bldg 107	335	335
WH-1	112	140
Bldg 104	150	140
Bldg 103	750	277
WH-5	75	134
Bldg 110	300	189
Bldg 110A Rear	500	145
Bldg T-8	500	178
Bldg 114	225	174

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 piping from ASTs to buildings.
- The transfer of oil from tanker trucks to the ASTs and emergency generators.
- The filling of vehicle tanks 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.

All personnel who are able to operate motor vehicles at or near above ground oil piping are verbally warned prior to entering these restricted areas. All above ground piping is located in areas where regular vehicular traffic is strictly prohibited at the site.

Buried piping at NIHAC is exempt under 40 CFR 112(d)(4) from the requirements of 40 CFR part 112 because USTs are subject to the more stringent Maryland requirements at COMAR 26.10.02.01-.10 and the Maryland UST program has State Program Approval under 40 CFR 281.

5. 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 the Facility Manager or his/her alternate;
- 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.

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***.

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 NIHAC personnel. The following guidelines apply:

- Immediately notify the Facility Manager.
- Under the direction of the Facility Manager, contain the discharge with discharge response materials and equipment. Place discharge debris in properly labeled waste containers.
- The Facility Manager 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 water;
- The discharge requires special equipment or training to clean up;
- The discharged material poses a hazard to human health or safety; 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.
- If the Facility Manager is not present at the facility, the senior on-site person notifies the Facility Manager 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 publicly owned treatment works (POTW) should be notified immediately. A discharge that threatens Broad Run or the Potomac River may require immediate notification to downstream users.
- The Facility Manager (or senior on-site person) must call for medical assistance if workers are injured.
- The Facility Manager (or senior on-site person) must notify the Fire Department or Police Department.
- The Facility Manager (or senior on-site person) must coordinate with NIH Division of Facilities, Operations and Maintenance (DFOM) and DEP management to call the spill response and cleanup contractors listed in the Emergency Contacts list in ***Appendix F***.
- The Facility Manager (or senior on-site person) must immediately contact the Maryland Department of Environment (866-633-4686) and the National Response Center (888-424-8802).
- The Facility Manager (or senior on-site person) must record the call on the Discharge Notification form in ***Appendix G*** and attach a copy to this SPCC Plan.
- The Facility Manager (or senior on-site person) 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 facility manager will characterize the waste for proper disposal and will coordinate with the NIH Waste and Resource Recovery Branch to ensure that it is removed from the facility properly.

Wastes resulting from a major discharge response will be removed and disposed of by a cleanup 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:

- 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 Regional 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

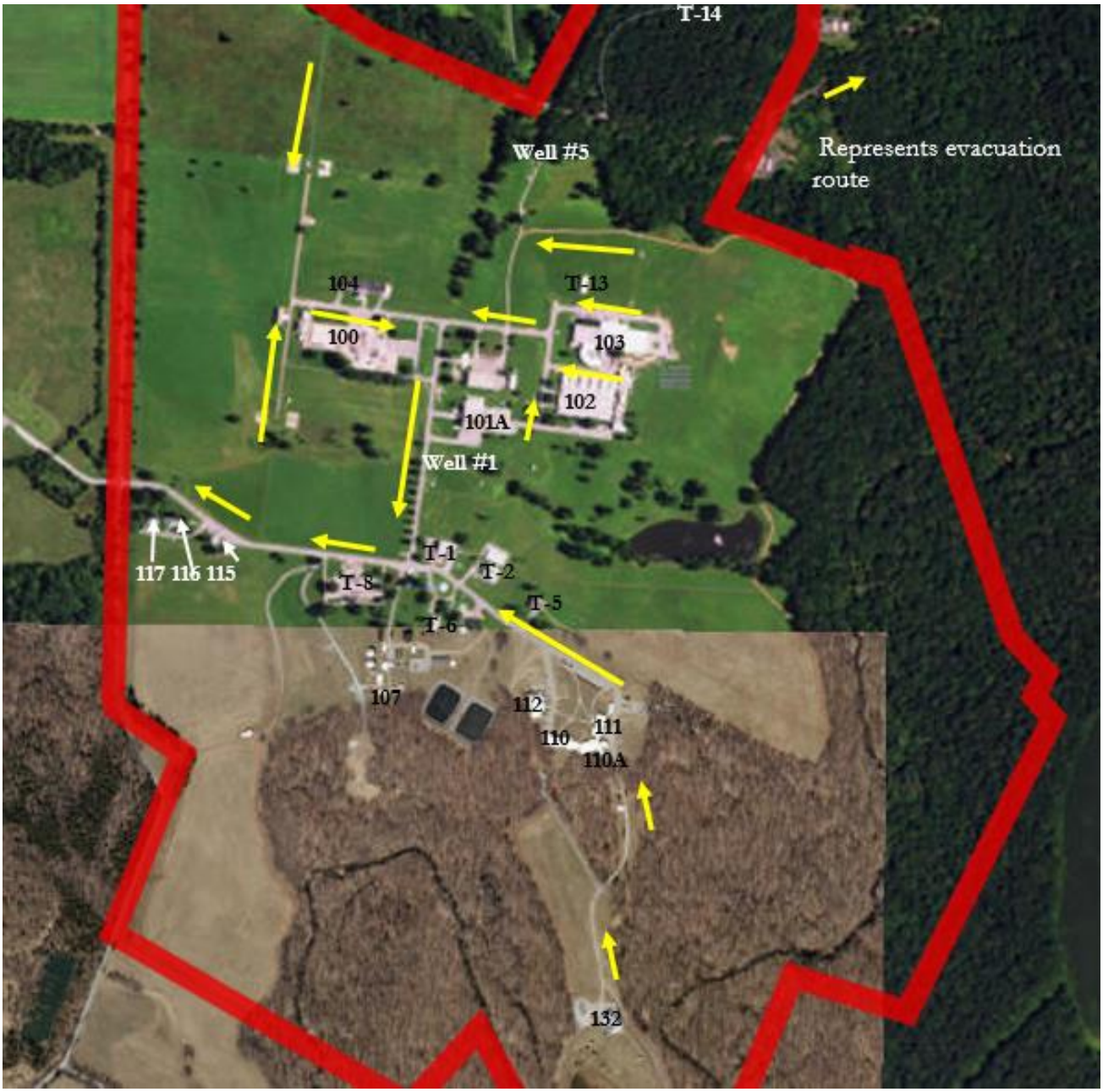
Contact information for specialized spill response and cleanup contractors are provided in ***Appendix F***. These contractors have the necessary equipment to respond to a discharge of oil that affects Broad Run or adjoining tributaries, including floating booms and oil skimmers.

Spill kits are located in Building 101A and at the fuel dispensing area. The inventory of response supplies and equipment is provided in ***Appendix H*** of this Plan. The inventory is verified on a monthly basis. Additional supplies and equipment may be ordered from the following sources:

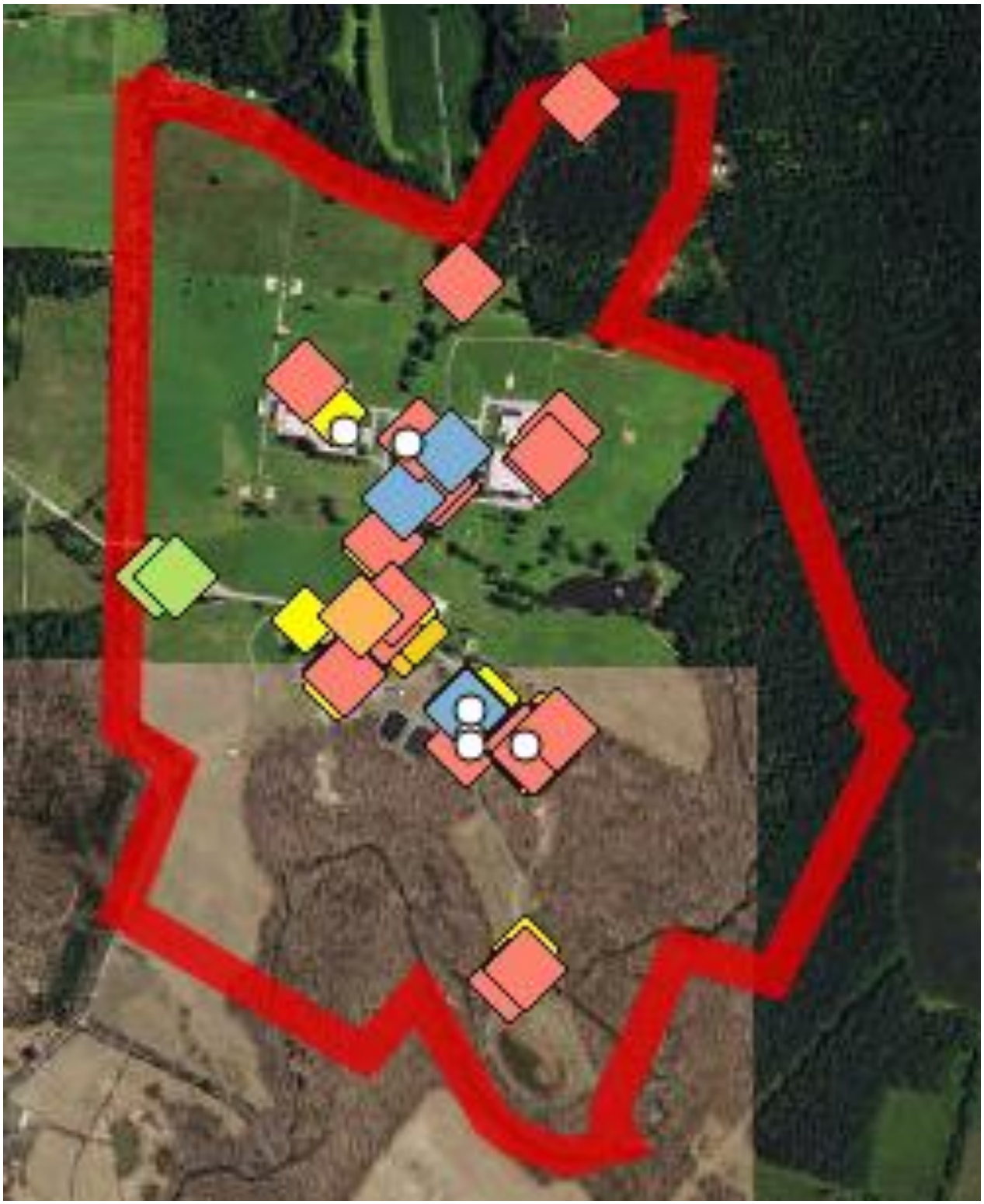
Clean Venture: (410) 368-9170

APPENDICES Site Plan and Facility Diagram

NIHAC Facility boundaries outlined in red. The blue represents Broad Run (with arrows for flow direction) that flows into the Potomac River.

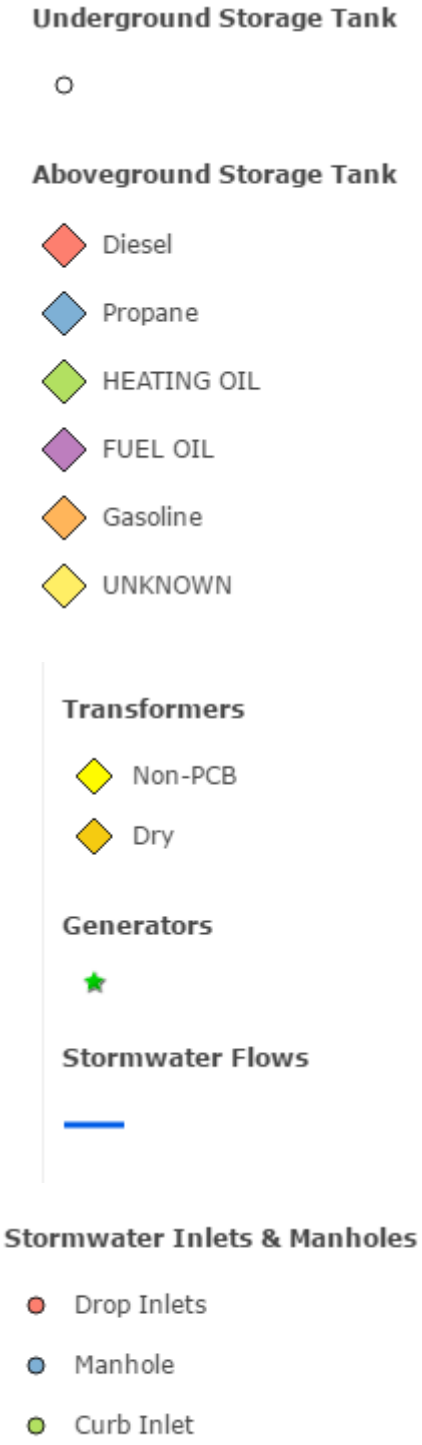


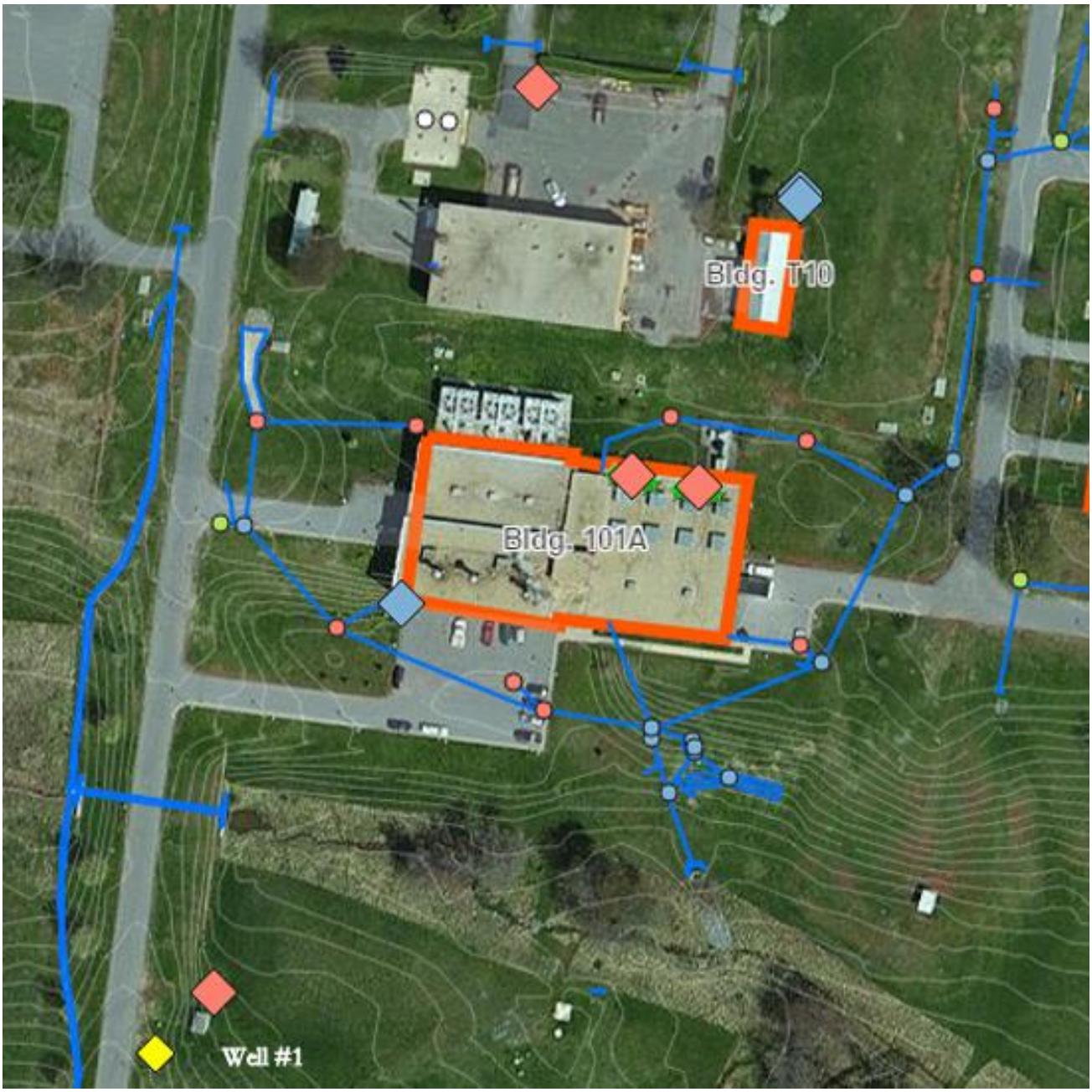
Overview of NIHAC facility boundaries outlined in red with evacuation routes represented by yellow arrows.

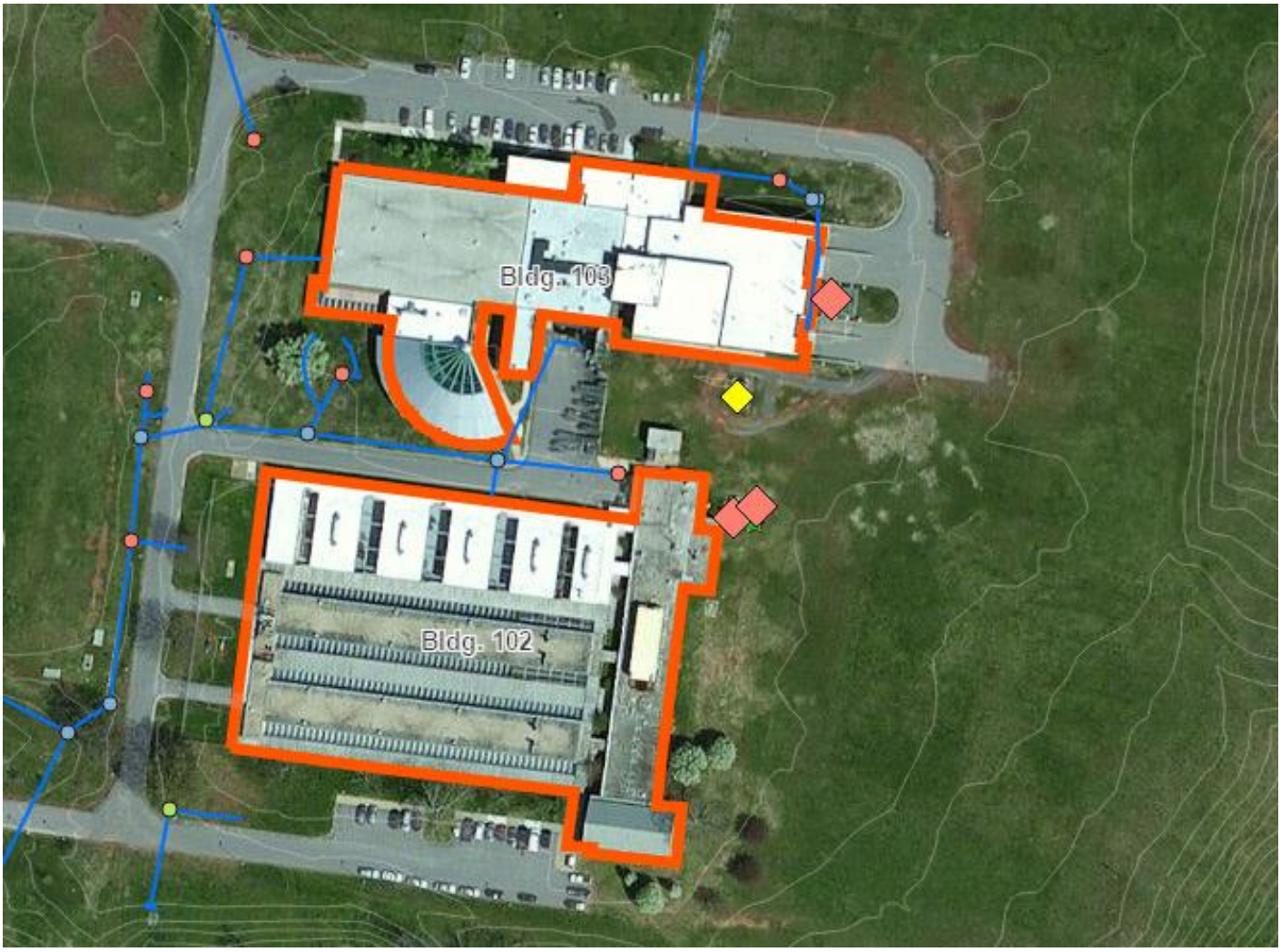


NIHAC facility boundaries with POL resources (ASTs, USTs, Generators, and Transformers)

Legend for all Remaining Figures:




Bldg. T10
Bldg. 101A
Well #1


Bldg. 103
Bldg. 102

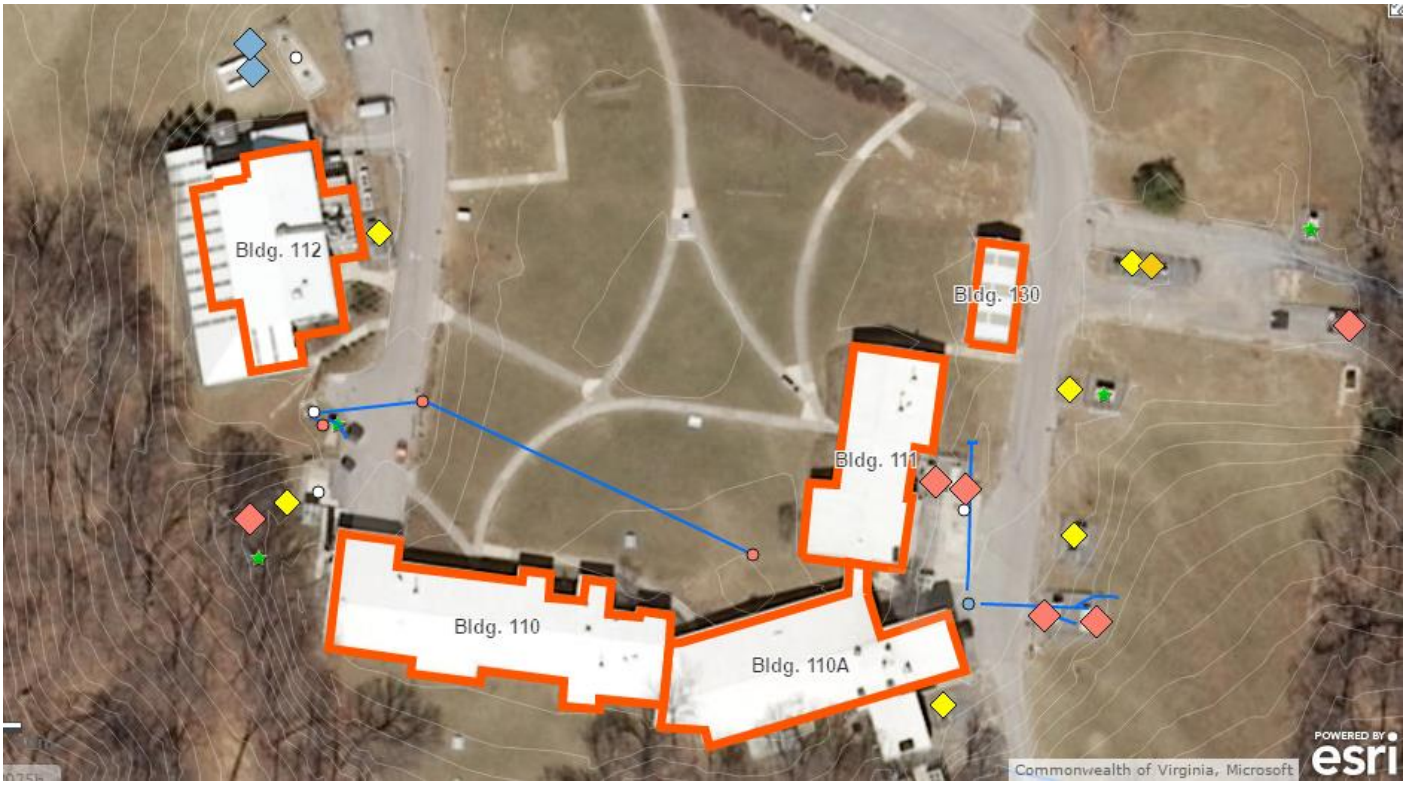

Bldg. 104
Bldg. T20
Bldg. 100


Bldg. T21
Bldg. T22
Bldg. T14


Well #5
Bldg. T13


Bldg. T01
Bldg. T02
Bldg. T15
Bldg. T16
Bldg. T06


Bldg. 107


Bldg. 112
Bldg. 130
Bldg. 111
Bldg. 110
Bldg. 110A
Commonwealth of Virginia, Microsoft
POWERED BY esri


Bldg. 132


Bldg. 117
Bldg. 116
Bldg. 115

APPENDIX B: Substantial Harm Determination

Facility Name: National Institutes of Health Animal Center

Facility Address: 16701 Elmer School Road; Dickerson, MD 20842

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

Title, Facility Manager

Name (type or print), David Shaw

Date

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

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

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)

APPENDIX F: Emergency Contacts

Designated person responsible for spill prevention: David Shaw, Facility Manager

301-496-9040

EMERGENCY TELEPHONE NUMBERS:

Facility

David Shaw, Facility Manager: 301-496-9040

DFOM Emergency Contact: 301-252-8380

Local Emergency Response

Beallsville Fire Department: 911 or 301-349-2512

NIH Police Department: 301-496-2387

Response/Cleanup Contractors

Clean Venture: 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

APPENDIX G: Discharge Notification Form

Part A: Discharge Information	
General information when reporting a spill to outside authorities: Name: National Institutes of Health Animal Center Address: 16701 Elmer School Road Dickerson, MD 20842 Telephone: (301) 496-9040 Primary Contact: David Shaw, Facility Manager Work: (301) 496-9040 Cell (24 hrs): (240) 478-8356	
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		
David Shaw, Facility Manager and Response Coordinator (301) 496-9040 (office) (240) 478-8356 (cell)		
Discharge in any amount and affecting (or threatening to affect) a waterbody		
Beallsville Fire Department (301) 349-2512 or 911		
Maryland Department of Environment (410) 537-3000 (daytime) (866) 633-4686 (nights/weekends)		
National Response Center (800) 424-8802		

Part B: Notification Checklist		
NIH Fire Department (301) 496-2372		
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 Spill Equipment

Inside Power Plant (Facility 101A):

1. Absorbent pads (both rolls and packages) where 55 gallon drums are stored and extra supplies in supply cages.

Fueling Station AST (Gasoline/300 gal & Diesel/300 gal) – Adj. to 114 Water Tower Spill Cabinet Material:

1. (2 – SPC Spill Kit Universal 5 gal. Bucket) Contents:
2. "What to do when a spill occurs" instructions.
3. One pair of nitrile gloves (sealed pack)
4. One yellow plastic waste disposal bag.
5. Three 4' oil absorbent socks.
6. Ten Brady oil absorbent pads (Polypropylene/Carbon Black).

Ground Maintenance Contractor AST (Diesel/500 gal) – Adj. to Bldg. 101A UST tank pad. Oil-Dri Spill Kits 5 gal. Bucket (Containers Deteriorated) Contents:

1. One pair of nitrile gloves.
2. One yellow waste disposal bag.
3. Two 4' oil absorbent socks.
4. Fifteen Universal Bonded Absorbent pads (Polypropylene/Carbon Black).

Bldg. 101A UST (2 – 50,000 gal/Diesel) – Located on tank pad 2 – Small Spill Kits 3 gal. Bucket (Containers Deteriorated/Broken) Contents

Fifteen Gray Universal Bonded Absorbent pads (Polypropylene/Carbon Black).
Twenty-Five White Absorbent pads (Polypropylene)

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.

Agency Notification Standard Report	
Facility:	*National Institutes of Health Animal Center*
Name of person filing report:	
Location:	*16701 Elmer School Road* *Dickerson, MD 20842*
Maximum storage capacity:	*17,381 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): *NIHAC is an animal research center that includes an animal breeding center, serves as a holding area to ensure animals are disease-free before research elsewhere, and is a base for behavioral and genetic research projects involving primates. NIHAC handles, stores and uses petroleum products in the form of gasoline, diesel, No. 2 fuel oil and motor oil. NIHAC receives products by common carrier via tanker truck. The products are stored in several aboveground storage tanks (ASTs) and underground storage tanks (USTs).* *NIHAC is located at 16701 Elmer School Road in Dickerson, Maryland. The site is comprised of approximately 503 acres with 25 buildings and 100 employees. Personnel at the facility with oil handling responsibilities include a facility manager, power plant personnel and contractor personnel responsible for loading tanks.* *The Site Plan and Facility Diagram included in* **Appendix A** *of this Plan show the location and layout of the facility. The Facility Diagram shows the location of oil containers, buildings, loading/unloading and transfer areas, and critical spill control structures.* *The site includes buildings used for medical research, office buildings, a power plant, a grounds maintenance area, a fuel dispensing area and a wastewater treatment plant. Petroleum products are stored outside of buildings, inside the power plant, underground, and at the fuel dispensing area.*	
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:	

Agency Notification Standard Report
Additional preventive measures taken or contemplated to minimize possibility of recurrence:
Other pertinent information: