Oil Storage and Handling at NIST-Gaithersburg

NIST S 7301.05
Issue Date: 09/09/2022
Effective Date: 09/30/2023[1]

1. PURPOSE

This suborder delineates the requirements for oil[2] storage and handling at the NIST-Gaithersburg Site. The intent of this program is to minimize oil spills and to prepare for effective oil spill response.

2. BACKGROUND

Due to the vast quantities of oil used nationwide and a history of extensive oil spills, federal and state regulations have been promulgated specific to oil storage and handling. The following types of regulated oil storage containers and equipment are in use at the NIST Gaithersburg site:

- Aboveground storage tanks (*e.g.*, gasoline and diesel fuel tanks) and drums with a capacity of at least 55 gallons[3],
- Underground storage tanks (*e.g.,* fuel oil and diesel fuel), and
- Oil-filled operational equipment with a capacity of at least 55 gallons[2] (*e.g.,* electric transformers, elevator hydraulics)

An inventory for each of the above oil storage containers is included in Appendices B, C, and D.

NIST Gaithersburg is required to comply with the following federal and state regulations regarding oil storage and handling:

[1] For revision history, see Appendix A.
[2] "Oil" is broadly defined (see Section 7) in this suborder, and in the referenced regulations, as any kind or form of oil including petroleum, fuel oil, gasoline, diesel fuel, used oil, hydraulic oil, transformer oil, synthetic oils, animal oils and vegetable oils.
[3] Oil storage containers with a capacity of less than 55 gallons are exempt from federal and state requirements. Good practice is to keep smaller exempt containers within secondary containment and inspect periodically

- Federal Oil Pollution Prevention Regulations (40 CFR 112) were published originally in 1973 under the authority of §311 of the Clean Water Act. These regulations focus on oil spill prevention, spill control methods and spill countermeasures.

- Federal Underground Storage Tank (UST) Regulations (40 CFR 280-282) were published in 1988 and revised in 2015. These regulations define requirements for the installation and operation of underground oil storage tanks so that leaks and spills are minimized.

- State of Maryland Oil Pollution and Tank Management Regulations published in the Code of Maryland Regulations (COMAR) 26.10, regulate oil storage in Maryland. All USTs at the NIST-Gaithersburg Site must be registered with the Maryland Department of the Environment (MDE) and comply with tank monitoring, testing, and inspection requirements. All aboveground storage tanks (ASTs) containing oil must be registered for coverage under NIST's MDE issued Oil Operations Permit.

3. APPLICABILITY

The provisions of this suborder apply to NIST Employees and Covered Associates that own or work with the oil storage containers and equipment described above at the NIST Gaithersburg Site.

4. REFERENCES

a. COMAR Title 26, Subtitle 10, Oil Pollution Control

b. CFR Title 40, Part 112, Oil Pollution Prevention

c. CFR, Title 40, parts 280, 281, 282, Underground Storage Tanks

d. NIST-Gaithersburg Spill Prevention, Control, and Countermeasure Plan

e. NIST Oil Operations Permit No. 2018-OPT-133355, issued 24 May 2018 (renewed every 5 years)

5. APPLICABLE NIST DIRECTIVES

a. NIST S 7101.24: *Incident Reporting and Investigation*

b. NIST S 7301.01: *Environmental Management System*

c. NIST S 7301.06: *Storm Water Management at NIST Gaithersburg*

6. REQUIREMENTS

a. Following are general requirements specific to each type of oil storage container. Equipment specific requirements and responsible individuals at NIST Gaithersburg are listed in Appendix E.

(1) Aboveground oil storage tanks and drums with a capacity of at least 55 gallons

(a) Each tank/drum shall have secondary spill containment (e.g. double walled containers, containment pallets, containment berms) with a capacity equal to 100% (110% if exposed to precipitation) of the largest container within the containment.

(b) Monthly visual inspections shall be conducted at each tank/drum to screen for the presence of spills and ensure the integrity of the container(s). Inspections shall be documented.

(c) If permanent, each tank shall be properly labeled with contents and capacity and registered for coverage under NIST's Oil Operations Permit. Each tank/drum shall be included in the NIST-Gaithersburg Spill Prevention Control and Countermeasure (SPCC) Plan. The SPCC Plan and the Oil Operations Permit are maintained by the Gaithersburg Safety, Health, and Environment Division (GSHED), Environmental Management Group (EMG).

(2) Underground oil storage tanks (USTs)

(a) Each UST shall be registered with the MDE and inventoried in the NIST Gaithersburg SPCC Plan. The EMG maintains the inventory of USTs in the SPCC and coordinates the registration.

(b) UST design, construction, installation, and repairs must meet the standards and notification requirements in COMAR 26.10. MDE notification, design approval, and registration shall be coordinated with the EMG.

i. All installation, repairs or modifications of a UST must be conducted by MDE certified UST technicians.

(c) Each UST shall have spill catch basins installed on each fill port that will contain a minimum of 5 gallons of overfill/spillage.

i. Each spill catch basins shall be inspected prior to each fuel delivery. If deliveries occur more than once a month, the inspections may be performed monthly.

ii. Each spill catch basin shall be hydrostatically tested for tightness annually.

(d) Each UST shall have a spill containment sump installed for appurtenances (*e.g.,* level gauges, vents) attached to and entering the UST.

i. Each containment sumps shall be inspected annually.

ii. Each containment sump shall be hydrostatically tested for tightness every three years.

iii. Containment sumps attached to double walled supply piping shall be tested every three years.

(e) Each UST shall have over-fill protection (*e.g.,* electronic product level monitoring, overfill alarms). Overfill protection equipment shall be inspected every three years.

(f) Tank tightness testing (pressure tests) shall be conducted on each UST during installation, at 15 years of service, and every 5 years afterwards.

(g) Monthly leak/subsurface release detection shall be performed on each UST per methods (*e.g.*, Veeder Root® automatic tank gauging) approved in 40 CFR 280-281 and COMAR 26.10. Automatic tank gauging systems shall be inspected and tested for operability annually.

(h) UST inspection/testing records shall be maintained a minimum of three years. Tightness testing records shall be maintained until the next test.

(i) Any permanent closure or change in service of a UST must meet the standards and notification requirements in COMAR 26.10. MDE notification shall be coordinated with EMG.

(3) Oil filled operational equipment (OFOE) (*e.g.*, electric transformers) with a capacity of 55 gallons or more.

(a) Each piece of OFOE shall be visually inspected at a frequency specified by the equipment maintenance plan.

(b) Each piece of OFOE shall have either secondary containment or written spill procedures for containing a spill or discharge.

(c) Each piece of OFOE shall be included in the NIST Gaithersburg SPCC Plan.

b. Site Security

The following site security measures shall be met at each oil storage area:

(1) Access to starter controls on oil pumps shall be secured;

(2) Master flow and drain valves shall be secured; and

(3) Adequate lighting shall be present to prevent acts of vandalism and assist in the discovery of oil discharges.

c. Oil Spill Response Procedures

The following procedures shall be followed when an oil spill occurs at the NIST-Gaithersburg Site:

(1) Ensure that you, and all other personnel in the area, are safe (if necessary, clear the spill area).

(2) Only if safe to do so, remove any ignition sources.

(3) Provide notification of the spill as soon as practical. NIST must notify regulatory agencies within 2 hours of detection:

(a) Call extension 2222 to report the oil spill. From a non-system phone, call 301-975-2222, Provide information requested by the emergency responders and follow their guidance.

(4) Attempt to contain the spill only if all the following criteria are met:

(a) You know the source of the spill and are familiar with the hazards;

(b) You can safely remove any ignition sources;

(c) The spill area is sufficiently ventilated; and

(d) You have the training, personal protective equipment and supplies necessary to contain the spill.

(5) When containing a spill, the first priority is to prevent the oil from flowing into a storm drain, floor/sanitary drain or stream.

(6) Contain spills on blacktop or concrete and prevent spills from flowing into grassy areas.

(7) Complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation*.

d. Spill Reporting

The EMG will determine the reporting required for a spill based on the type, quantity, and location of a spill. Spill reporting to regulators shall be made by the EMG. If EMG staff cannot be contacted (*e.g.*, off hours), the NIST Fire Department shall notify the appropriate regulatory agency. Table 6.1 summarizes oil spill reporting requirements.

e. Underground Storage Tank Leak or Release Reporting

NIST is required to notify the Maryland Department of the Environment in the event of a suspected leak from a UST. Suspected leaks are first evaluated to rule out false alarms. EMG will determine if reporting is required based on MDE oil control requirements. All UST leak or release reporting to regulators will be made by EMG. Table 6.1 summarizes UST leak reporting requirements.

f. Spill Prevention, Control, and Countermeasure (SPCC) Plan

NIST shall maintain an SPCC plan per 40 CFR 112 that documents oil handling operations, spill prevention practices, drainage patterns near significant oil storage facilities, and resources and procedures used in response to spills. The SPCC plan shall contain official updated inventories of all oil containing tanks, drum storage areas, OFOE, and USTs at NIST-Gaithersburg.

Table 6.1 Oil Spill/Release Reporting Requirements		
Spill /Release/ Threshold	**Agency and Information Required**	**Report / Time Limit**
All Oil Spills	**Maryland Department of the Environment (MDE):** (1) Time of discharge; (2) Location of discharge; (3) Mode of transportation or type of facility involved; (4) Type and quantity of oil spilled; (5) Assistance required; (6) Name, address, and telephone number of the person making the report; and (7) Any other pertinent information requested by the MDE	Verbal Notification Within 2 Hours of Detection
All Oil Spills	**MDE:** Written Report of spill cleanup information using MDE "Report a Spill" form, completed and submitted by OSHE – EMG	Written Report 10 Working Days After Cleanup
Oil Spills that Cause a Sheen on Navigable Waters of the United States	**U.S. National Response Center:** (1) Name, organization, and telephone number (2) Name and address of the party responsible for the incident (3) Date and time of the incident (4) Location of the incident (5) Source and cause of the discharge (6) Types of material(s) discharged (7) Quantity of materials discharged (8) Danger or threat posed by the discharge (9) Number and types of injuries (if any) (10) Weather conditions at the incident location (11) Other information to help emergency personnel respond to the incident	Verbal Notification Immediately Upon Detection

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Table 6.1 Oil Spill/Release Reporting Requirements (continued)		
Spill/Release/ Threshold	**Agency and Information Required**	**Report / Time Limit**
More than 1,000 U.S. gallons of oil in a single discharge to navigable waters or adjoining shorelines Or More than 42 U.S. gallons of oil in each of two discharges to navigable waters or adjoining shorelines occurring within any twelve-month period	**U.S. Environmental Protection Agency:** (1) Name and location of the facility (2) Owner/operator name (3) Maximum storage/handling capacity of the facility and normal daily throughput (4) Corrective actions and countermeasures taken, including descriptions of equipment repairs and replacements (5) Adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary (6) Cause of the discharge to navigable waters, including a failure analysis (7) Failure analysis of the system where the discharge occurred (8) Additional preventive measures taken or planned to take to minimize discharge reoccurrence (9) Other information the RA may reasonably require	Written Report After Reporting to National Response Center
Underground Storage Tanks - 1) Failed Tightness Test 2) Monthly Monitoring Data Suggesting a Leak 3) Evidence Suggesting a Leaking UST	**Maryland Department of the Environment (MDE):** (1) Time of discharge; (2) Location of discharge; (3) Mode of transportation or type of facility involved; (4) Type and quantity of oil spilled; (5) Assistance required; (6) Name, address, and telephone number of the person making the report; and (7) Any other pertinent information requested by the MDE	Verbal Notification Within 2 Hours of Detection

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g. Training

(1) Oil-Handling Personnel are employees and associates engaged in the maintenance of regulated oil storage containers (*e.g.,* drums, tanks, oil filled operational equipment), oil transfer operations, inspection of oil storage containers, and emergency response. Employees and associates that are not directly involved with the tasks described above or that only operate oil filled operational equipment are not considered Oil-Handling Personnel.

All Oil-Handling Personnel require annual training in the following:

(a) An oil spill prevention and response course offered though NIST. The training shall be provided through the NIST *Safety Education and Training System* (SET) or through in-person training.

(b) Operation and maintenance of the equipment that they work with including known discharges or failures, malfunctioning components, any recently developed precautionary measures, and notifications. This shall be provided by the OU that owns or has responsibility for the oil storage container or equipment.

(2) OUs that own USTs shall designate operators in writing.

(a) Designated OU staff that work with USTs shall take Class A, B, or C UST operator training depending on their job responsibilities. Class A or B UST operator training is required once for each designated individual and must be provided by an MDE certified training program. Further information may be found at the MDE UST Certifications web page:

https://mde.maryland.gov/programs/land/oilcontrol/pages/ustcertification_programs.aspx

(b) Class C UST operator training can be provided by the designated Class A or B UST operator for the OU. Documentation of training shall be maintained in SET and available upon request by regulatory agencies.

h. Evaluation of Compliance

The EMG shall conduct an internal compliance audit of this program on an annual basis. Every three years, a third-party inspection of USTs is required by the MDE. The EMG coordinates the third-party inspection.

i. Records

NIST shall maintain records as necessary to demonstrate compliance with regulations specified in Section 2 of this suborder.

(1) General Records

The following records shall be maintained by EMG:

(a) Regulatory notifications and written reports identified in Sections 6.e. and 6.f;

(b) Regulatory Correspondence;

(c) Compliance Evaluation Reports;

(d) Visual inspection documentation;

(e) SPCC plan;

(f) Required training records maintained in SET;

(g) UST leak detection monitoring records;

(h) UST tightness testing records; and

(i) Compliance audit records.

(2) Equipment Specific Records

Records to demonstrate compliance with equipment-specific requirements (Appendix E) shall be maintained by the owners of the equipment.

(3) Retention of Records

Records pertaining to UST installation will be kept for the entire life of the UST. Records of tank testing and leak detection shall be kept for 5 years or longer if the most recent record is older than 5 years. Records pertaining to UST closure will be kept on file indefinitely. All other records required by this Suborder will be maintained for a period of three (3) years.

7. DEFINITIONS

a. Aboveground Storage Tanks (ASTs) – All permanent fixed containers with a storage capacity of 55 gallons or greater.

b. Containment Sump – Liquid-tight container that protects the environment by containing leaks and spills of regulated substances from piping, dispensers, pumps and related components in the containment area. Containment sumps may be single walled or secondarily contained and located at the top of tank (tank top or submersible turbine pump sump), underneath the dispenser (under-dispenser containment sump), or at other points in the piping run (transition or intermediate sump).

c. Containment Sump Leak Test – A leak test of the tank top, vent, dispenser, piping transition, manway and containment structure for that equipment. This test is required every 3 years.

d. Containment Sump Used for Piping Interstitial Monitoring – A containment sump used to monitor leaks in the interstitial space of double walled piping. These can be located under dispensers or at piping transition areas. Leaks into the piping interstitial space will collect in these containment sumps and be visible during monthly monitoring.

e. Containment Sump Used for Piping Interstitial Monitoring Test – A leak test of containment sumps that house piping interstitial monitoring. This test is required every 3 years.

f. Discharge – Any spilling, leaking, pumping, pouring, emitting, emptying, dumping, addition of, introduction of any pollutant into waters of the State, or the placing of any pollutant in a location where it is likely to pollute.

g. Navigable Waters – All waters as defined in judicial decisions prior to passage of the 1972 Amendments of the Federal Water Pollution Control Act, and tributaries of such waters including interstate waters; interstate lakes; rivers; streams which are utilized by interstate travelers for recreation or other purposes; and intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

h. Oil – Any kind of oil, in any form, including petroleum, fuel oil, gasoline, diesel fuel, synthetic oils, mineral oils, or oil refuse; fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels.

i. Oil Filled Operational Equipment – Oil storage containers in which the oil is present solely to support the function of an apparatus or the device. Examples include oil filled transformers and elevator hydraulic fluid reservoirs.

j. Oil-Handling Personnel – Employees engaged in the maintenance of regulated oil storage containers (*e.g.,* drums, tanks, oil filled operational equipment), oil transfer operations, inspection of oil storage containers, and emergency response.

k. Secondary Containment – A means to contain a spill from an oil storage container. Secondary containment may consist of drain covers over floor drains, berms surrounding storage containers, or other means to contain the release of a container's contents in the event of a failure.

l. Spill – Any release of oil outside of its intended container.

m. Spill Catch Basin Hydrostatic Test – A leak test of the spill catch basins for the fueling ports of underground storage tanks. The test involves filling the spill catch basin with water and recording the level after one hour. Spill catch basin hydrostatic tests are required annually.

n. Spill Catch Basin (Spill Bucket) – A small containment area located around UST fill ports. Spill catch basins contain incidental drips and small spills when refueling the USTs.

o. Spill Prevention, Control, and Countermeasure Plan (SPCC Plan) – The document required by 40 CFR Part 112 that details the equipment, workforce, procedures, and steps to prevent, control, and provide adequate countermeasures to a discharge.

p. Suspected Leak – Suspected leaks are instances where a failed leak test for an underground storage tank cannot be resolved by excluding any external factors and passing a subsequent leak test. Leak tests include monthly, annual, 3- and 5-year tests. Suspected leaks may also include unexplained loss of product or unusual operating conditions that may be caused by a leak.

q. Tank Tightness Testing – Also known as precision tightness testing is a test of an underground storage tank and associated piping for leaks by a certified UST technician. This test is required every 5 years.

r. Underground Storage Tank (UST) – Completely buried underground tanks and any associated buried piping. Tanks that are partially buried or that are located in a vault underground are considered aboveground storage tanks.

8. ACRONYMS

a. AST – Aboveground Storage Tank

b. CFR – Code of Federal Regulations

c. COMAR – Code of Maryland

d. EMS – Environmental Management System

e. EMG – The Environmental Management Group which is part of the Gaithersburg Safety, Health, and Environment Division

f. FSD – Facilities Services Division

g. GDCD – Gaithersburg Design and Construction Division

h. GFMD – Gaithersburg Facility Maintenance Division

i. GSHED – Gaithersburg Safety, Health, and Environment Division

j. MDE – Maryland Department of the Environment

k. OFOE – Oil Filled Operational Equipment

l. OFPM – Office of Facilities and Property Management

m. OSHE – Office of Safety, Health, and Environment

n. OU – Operating Unit

o. PML – Physical Measurement Laboratory

p. RPD – Radiation Physics Division

q. SET – NIST Safety, Education and Training System

r. SPCC – Spill Prevention, Control and Countermeasure

s. USEPA – U.S. Environmental Protection Agency

9. RESPONSIBILITIES

a. EMG Leader, GSHED, OSHE is responsible for the following:

(1) Acting as the NIST point of contact with regulatory agencies for oil storage, spill prevention and control issues.

(2) Maintaining overall compliance with this suborder and applicable federal, state, and local regulations.

(3) Performing an internal compliance evaluation once per calendar year at a minimum to verify ongoing compliance with this Suborder. Coordinating third-party inspections of USTs every three years in accordance with MDE requirements.

(4) Communicating the regulatory requirements of this suborder to affected personnel.

(5) Maintaining this suborder and keeping it up to date.

(6) Conducting routine inspections of NIST-Gaithersburg ASTs and USTs

(7) Maintaining the following records:

(a) Oil spill reports identified in Section 6.e and 6.f;

(b) Regulatory correspondence;

(c) Inspection and testing records;

(d) Compliance evaluation reports;

(e) Required training records; and

(f) SPCC Plan.

(8) Providing emergency response support to the NIST Fire Department, including:

(a) Assisting in containing and cleaning up oil spills;

(b) Properly disposing of all oil spill cleanup material (*e.g.*, absorbent pads, granular absorbent, recovered liquids); and

(c) Providing regulatory agency notifications as required

(9) Coordinating or conducting oil spill response training for applicable employees and associates at NIST-Gaithersburg.

(10) Ensuring permanent aboveground tanks are properly labeled and registered for coverage under NIST's MDE issued Oil Operations Permit.

b. National Fire Research Laboratory Group Leader, Fire Research Division (FRD), Engineering Laboratory (EL) is responsible for the following:

(1) At Building 205, operating and maintaining the following oil storage locations per the requirements identified in Appendix E:

(a) 55-gallon drum storage area near the loading dock; and

(b) 240-gallon hydraulic oil reservoir in the basement;

(2) Assisting with visual inspections and testing as indicated in Appendix E;

(3) Following NIST spill procedures identified in Section 6 of this Suborder in the event of an oil spill; and

(4) Keeping required records (Appendix E) for a minimum of 3 years.

c. Transportation Group Leader, Facilities Services Division (FSD), Office of Facilities and Property Management (OFPM) is responsible for the following:

(1) At Building 303, operating and maintaining the following oil storage per the requirements identified in Appendix E:

(a) 55-gallon drum storage;

(b) 240-gallon used oil AST;

(c) 6,000-gallon gasoline AST; and

(d) 5,000-gallon diesel AST;

(2) Assisting with daily, monthly, and yearly visual inspections as indicated in Appendix E;

(3) Following NIST spill procedures identified in Section 6 of this Suborder in the event of an oil spill or AST discharge; and

(4) Keeping required records as indicated in Appendix E.

e. Facilities Operations Group Leader, Gaithersburg Facility Maintenance Division (GFMD), OFPM is responsible for the following:

(1) Operating and maintaining diesel storage tanks associated with the emergency generators in the following locations per the requirements identified in Appendix E:

(a) Building 205 (120-gallon AST)

(b) Building 215 (4,000-gallon UST);

(c) Building 215 (275-gallon AST);

(d) Building 227 (1,272-gallon AST);

(e) Building 245 (3,280-gallon AST); and

(f) Building 318 (1,700-gallon AST);

(2) Performing or assisting with visual inspections and testing as indicated in Appendix E;

(3) Following NIST spill procedures identified in Section 6 of this Suborder in the event of an oil spill or suspected UST discharge. Notify EMG immediately if any monthly UST leak detection test fails;

(4) Ensuring that any personnel working with or around USTs take approved UST operator Class A, B, or C training. Class C operator training may be given by Plant personnel with Class A or B operator certification;

(5) Ensuring that any personnel working with the Building 215 UST take approved UST operator Class A, B, or C training. Class C operator training may be given by Plant personnel with Class A or B operator certification; and

(6) Keeping required records indicated in Appendix E for a minimum of 3 years.

f. Dosimetry Group Leader, Radiation Physics Division (RPD), Physical Measurement Laboratory (PML) is responsible for the following:

(1) At Building 245, operating and maintaining the 500 KV Accelerator, (1000 gallons of insulating oil), as oil filled operational equipment per the requirements identified in Appendix E;

(2) Performing periodic visual inspections per Dosimetry procedures as indicated in Appendix E;

(3) Follow NIST spill procedures identified in Section 6. of this Suborder in the event of an oil spill; and

(4) Keeping required records, as indicated in Appendix E, for a minimum of 3 years.

g. Electrical Group Leader, GFMD, OFPM is responsible for the following:

(1) Operating and maintaining the oil-filled electric transformers and elevator hydraulic fluid reservoirs located at NIST Gaithersburg (listed in Appendix D) per the requirements identified in Appendix E;

(2) Performing visual inspections per Electrical Group procedures as indicated in Appendix E; and

(3) Following NIST spill procedures identified in Section 6 of this Suborder in the event of a release from the drum storage area.

h. Gaithersburg Design and Construction Division (GDCD) Chief, OFPM is responsible for the following:

(1) Communicating any proposed project that may result in adding, removing, or modifying a permanent oil storage tank or oil container (≥ 55 gallons) storage area to EMG; and

(2) Ensuring that secondary containment and release detection is installed for all new oil storage tanks or container (≥ 55 gallons) storage area.

i. Steam and Chilled Water Generation Plant Group Leader, GFMD, OFPM is responsible for the following:

(1) At Building 302, operating and maintaining the following oil storage per the requirements identified in Appendix E:

(a) Eight 30,000-gallon heating oil USTs;

(b) 240 gallon used oil AST; and

(c) 55-gallon drum storage;

(2) Following NIST spill procedures identified in Section 6 of this Suborder in the event of an oil spill or suspected UST discharge. Notify EMG immediately if any monthly UST leak detection test fails;

(3) Ensuring that any personnel working with the USTs take approved UST operator Class A, B, or C training. Class C operator training may be given by Plant personnel with Class A or B operator certification; and

(4) Keeping required records as indicated in Appendix E.

j. Reactor Operations and Engineering Group Leader, NIST Center for Neutron Research (NCNR) is responsible for the following:

(1) At Buildings 235 and 235-C, operating and maintaining the following oil storage per the requirements identified in Appendix E:

(a) 75-gallon diesel day tank associated with the emergency generator;

(b) 2000-gallon diesel UST also associated with the emergency generator; and

(c) 55-gallon drum storage areas.

(2) Performing or assisting with visual inspections and testing as indicated in Appendix E;

(3) Following NIST spill procedures identified in Section 6 of this Suborder in the event of an oil spill or suspected UST discharge. Notify EMG immediately if any monthly UST leak detection test fails;

(4) Ensuring that any personnel working with or around USTs take approved UST operator Class A, B, or C training. Class C operator training may be given by Plant personnel with Class A or B operator certification; and

(5) Keeping required records as indicated in Appendix E.

k. Fundamental Electrical Measurements (FEM) Group Leader, Quantum Measurement Division, PML is responsible for the following:

(1) At Building 218, operating and maintaining the five 100-gallon mineral oil baths and 55-gallon drum storage area per the requirements identified in Appendix E;

(2) At Building 220, operating and maintaining the 100-gallon mineral oil bath per the requirements identified in Appendix E;

(3) Performing or assisting with visual inspections as indicated in Appendix E; and

(4) Following NIST spill procedures identified in Section 6 of this Suborder in the event of a release from the drum storage area.

l. Site Services Group Leader, GFMD, OFPM is responsible for the following:

(1) At Building 101, operating and maintaining the 55-gallon drum waste kitchen grease storage area per the requirements identified in Appendix E;

(2) Performing or assisting with visual inspections as indicated in Appendix E; and

(3) Following NIST spill procedures identified in Section 6 of this Suborder in the event of a release from the AST.

m. Structures Group Leader, Materials and Structural Systems Division, Engineering Lab (EL) is responsible for the following:

(1) At Building 226, operating and maintaining the hydraulic power unit (250 gallons hydraulic fluid) per the requirements identified in Appendix E;

(2) Performing visual inspections per Structures Group procedures as indicated in Appendix E; and

(3) Following NIST spill procedures identified in Section 6 of this Suborder in the event of a release from the drum storage area.

n. Fabrication Technology Office, Associate Director for Management Resources (ADMR) is responsible for the following:

(1) At Building 304, operating and maintaining the drum storage areas per the requirements identified in Appendix E; and

(2) Performing or assisting with visual inspections as indicated in Appendix E.

o. Emergency Services Office Director, ADMR is responsible for the following:

(1) NIST Fire Department shall take lead responsibility for:

(a) Receiving notifications of oil spills through the emergency notification system (x2222);

(b) Providing 24-hour emergency response to contain, control and clean up oil spills;

(c) Contacting the EMG when an oil spill is reported through the emergency notification system;

(2) When the EMG cannot be contacted (off hours), NIST Fire Department shall:

(a) Ensure spill cleanups are complete;

(b) Collect and retain all oil spill cleanup material (*e.g.*, absorbent pads, granular absorbent, recovered liquids) in appropriate containers;

(c) Provide required regulatory agency spill notifications; and

(d) Contacting the EMG for waste disposal.

p. NIST Employees and Associates are responsible for reporting any observation of oil releases or spills to the emergency number (x2222).

10. AUTHORITIES

None

11. DIRECTIVE OWNER

Chief Safety Officer

12. APPENDICES

a. Revision History

b. NIST-Gaithersburg Aboveground Oil Containers (≥55 gal)

c. NIST-Gaithersburg Oil Filled Operational Equipment

d. NIST-Gaithersburg Underground Storage Tanks

e. Requirements for Subject Equipment

719 # Appendix A. Revision History

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Version #	Approval Date	Effective Date	Brief Description of Change
1	07/13/2021	07/13/2021	Initial document
2	09/09/2022	09/30/23	• Modified leaking test of the tank top, vent, dispenser, piping transition, manway and containment structure for that equipment from every 5 years to every 3 years per MDE change. • Modified training section to include associates. • NOTE: Effective date was originally TBD due to the COVID-19 pandemic. It was updated on 4/17/23.

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Appendix B
NIST-Gaithersburg Aboveground Storage Tanks, and Drum Storage Areas[4]

[4] As above ground storage tanks and drum storage areas are added or deleted from the NIST Gaithersburg inventory, the SPCC Plan shall be updated initially as the official inventory. This suborder shall subsequently be updated to be consistent with the SPCC Plan.

NIST-Gaithersburg Aboveground Storage Tanks			
Equipment	**OU/Division/Group**	**Tank Size (Gallons)**	**Contents**
Building 205, Fire Suppression Pump Room AST	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Facilities Operations Group	120	Diesel
Building 235, Emergency Generator Day Tank	NIST Center for Neutron Research, Reactor Operations and Engineering Group	75	Diesel
Building 245, Emergency Generator	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Facilities Operations Group	3,280	Diesel
Building 227, Emergency Generator	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Facilities Operation Group	1,272	Diesel
Building 215, Emergency Generator Day Tank	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Facilities Operation Group	275	Diesel
Building 303, Inside Back Room of Garage	Office of Facilities and Property Management, Facilities Services Division, Transportation Services Group	240	Used Oil
Building 303, Outside Near Dispensers	Office of Facilities and Property Management, Facilities Services Division, Transportation Services Group	2,500	Diesel

NIST-Gaithersburg Aboveground Storage Tanks			
Equipment	**OU/Division/Group**	**Tank Size (Gallons)**	**Contents**
Building 303, Outside Near Dispensers	Office of Facilities and Property Management, Facilities Services Division, Transportation Services Group	5,000	Diesel
Building 303, Outside Near Dispensers	Office of Facilities and Property Management, Facilities Services Division, Transportation Services Group	6,000	Gasoline
Building 305, Conex Box	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	240	Used Oil
Building 309, Grounds Maintenance – Main Bay	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Grounds and Service Support Group	120	Used Oil
Building 318, Emergency Generator	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Facilities Operations Group	1,700	Diesel

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NIST-Gaithersburg Drum Storage Areas			
Equipment	**OU/Division/Group**	**Container Size**	**Contents**
Building 101 Loading Dock	Office of Facilities and Property Management, Facilities Services Division, Site Services Group	55 Gallon Drums	Waste Kitchen Grease
Building 205, Drum Storage Area	Engineering Laboratory, Fire Research Division, National Fire Research Laboratory Group	55 Gallon Drums	Heptane, Used Oil
Building 218, Drum Storage Area	Physical Measurement Laboratory, Quantum Measurement Division, Fundamental Electrical Measurements Group	55 Gallon Drums	Mineral Oil
Building 235 Room A009 Drum Storage Area	NIST Center for Neutron Research, Reactor Operations and Engineering Group	55 Gallon Drums	Oil, Lubricants, Parts Cleaner
Building 235-C Drum Storage Area	NIST Center for Neutron Research, Reactor Operations and Engineering Group	55 Gallon Drums	Oil, Lubricants
Building 301, Excess Property Warehouse	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Excess Property	55 Gallon Drums	Shredder Oil
Building 303, Vehicle Service Area	Office of Facilities and Property Management, Facilities Services Division, Transportation Services Group	55 Gallon Drums	New/Used Oil

NIST-Gaithersburg Drum Storage Areas			
Equipment	**OU/Division/Group**	**Container Size**	**Contents**
Building 304, Loading Dock	Associate Director for Management Resources, Fabrication Technology Office, Main Shops Services Group	55 Gallon Drums	Lubricants, Oil
Building 304, Lubricant Use Area	Associate Director for Management Resources, Fabrication Technology Office, Main Shops Services Group	55 Gallon Drums	Lubricants, Oil
Building 305, Conex Box	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	55 Gallon Drums	Lubricants
Building 309, Grounds Maintenance – Main Bay	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Grounds and Service Support Group	55 Gallon Drums	New/Used Oil

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742 **Appendix C**
743 **NIST-Gaithersburg Underground Storage Tanks**[5]
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[5] As underground storage tanks are added or deleted from the NIST Gaithersburg inventory, the SPCC Plan shall be updated initially as the official inventory. This suborder shall subsequently be updated to be consistent with the SPCC Plan.

NIST-Gaithersburg Underground Storage Tanks					
MDE Tank ID# **Location**	**Tank Install Year**	**OU**	**Tank Size (gals)**	**Tank Material**	**Tank Contents**
005 Building 235 Emergency Generator	1988	NIST Center for Neutron Research, Reactor Operations and Engineering Group	2,000	Fiberglass	Diesel
011 Building 302, Central Heating Plant	1996	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	30,000	Fiberglass	Heating Oil
012 Building 302, Central Heating Plant	1996	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	30,000	Fiberglass	Heating Oil
013 Building 302, Central Heating Plant	1996	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	30,000	Fiberglass	Heating Oil
014 Building 302, Central Heating Plant	1996	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	30,000	Fiberglass	Heating Oil

NIST-Gaithersburg Underground Storage Tanks					
MDE Tank ID# **Location**	**Tank Install Year**	**OU**	**Tank Size (gals)**	**Tank Material**	**Tank Contents**
015 Building 302, Central Heating Plant	1996	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	30,000	Fiberglass	Heating Oil
016 Building 302, Central Heating Plant	1996	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	30,000	Fiberglass	Heating Oil
017 Building 302, Central Heating Plant	1996	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	30,000	Fiberglass	Heating Oil
018 Building 302, Central Heating Plant	1996	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Steam and Chilled Water Generation Group	30,000	Fiberglass	Heating Oil
025 Building 215, Emergency Generator	2004	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Facilities Operations Group	4,000	Fiberglass	Diesel

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756 **Appendix D**
757 **NIST-Gaithersburg Oil Filled Operational Equipment[6]**
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[6] As oil filled operational equipment is added or deleted from the NIST Gaithersburg inventory, the SPCC Plan shall be updated initially as the official inventory. This suborder shall subsequently be updated to be consistent with the SPCC Plan.

Table C-1: NIST-Gaithersburg Oil Filled Operational Equipment			
Equipment	**OU/Division/Group**	**Tank Size (Gallons)**	**Tank Contents**
Building 205, Basement, Hydraulics	Engineering Laboratory, Fire Research Division, National Fire Research Laboratory	240	Hydraulic Oil
Building 218, 5 Mineral Oil Baths	Physical Measurement Laboratory, Quantum Measurement Division, Fundamental Electrical Measurements Group	100	Mineral Oil
Building 220, Mineral Oil Bath	Physical Measurement Laboratory, Quantum Measurement Division, Fundamental Electrical Measurements Group	100	Mineral Oil
Building 226, Hydraulic Power Unit	Engineering Laboratory, Materials and Structural Systems Division, Structures Group	250	Hydraulic Oil
Building 245, Elevator Hydraulics	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Electrical Group	1,500	Hydraulic Oil
Building 245 H-Wing, Freight Elevator Hydraulics	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Electrical Group	1,030	Hydraulic Oil
Building 245, H-Wing, Passenger Elevator Hydraulics	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Electrical Group	304	Hydraulic Oil
Building 304, Elevator Hydraulics	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Electrical Group	1,000	Hydraulic Oil

Building 231, Elevator Hydraulics	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Electrical Group	500	Hydraulic Oil
Building 235, Elevator Hydraulics	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Electrical Group	500	Hydraulic Oil
Building 245 – 500 KV Accelerator	Physical Measurement Laboratory, Radiation Physics Division, Dosimetry Group	1,000	Insulating Oil
Oil Filled Electric Transformers (88) located in 21 Buildings (See Table C-2)	Office of Facilities and Property Management, Gaithersburg Facility Maintenance Division, Electrical Group	225 to 2500 gallons	Insulating Oil

Table C-2: NIST- Gaithersburg Oil Filled Operational Equipment – Transformers

No.	Building	Room Number	KVA	Size (Gallons)
1	301	A-143	750	241
2	301	A-143	750	241
3	301	A-143	750	241
4	305	Vault	1000	418
5	305	Vault	1000	418
6	305	Vault	1000	418

Table C-2: NIST- Gaithersburg Oil Filled Operational Equipment – Transformers				
No.	**Building**	**Room Number**	**KVA**	**Size (Gallons)**
7	302	Yard	1500	486
8	302	Yard	1500	486
9	302	Yard	1500	486
10	302	Yard	2500	660
11	302	Yard	2500	660
12	302	Yard	2500	660
13	302	Yard	2500	660
14	202	142	500	288
15	202	142	500	288
16	202	142	500	288
17	245	A-Yard	1500	402
18	245	A-Yard	1500	402
19	245	A-Yard	1500	402
20	245	A-Yard	300	181
21	245	A-Yard	300	300
22	245	A-Yard	300	181
23	245	B-230	500	240

Table C-2: NIST- Gaithersburg Oil Filled Operational Equipment – Transformers				
No.	**Building**	**Room Number**	**KVA**	**Size (Gallons)**
24	245	B-230	1000	316
25	245	B-230	1000	316
26	245	B-230	1000	316
27	245	B-230	500	240
28	245	B-230	500	240
29	245	B-230	500	240
30	245	C-34	225	178
31	245	C-34	225	178
32	245	C-34	225	178
33	245	C-34	300	181
34	245	C-34	300	181
35	245	C-34	300	181
36	235	A-02	1500	421
37	235	A-02	1500	421
38	205	103	300	131
39	205	103	300	131
40	206	101	300	200

Table C-2: NIST- Gaithersburg Oil Filled Operational Equipment – Transformers				
No.	**Building**	**Room Number**	**KVA**	**Size (Gallons)**
41	206	101	300	200
42	206	101	300	200
43	231	B-32	1000	355
44	231	B-32	1000	355
45	231	B-32	1000	355
46	231	B-32	500	297
47	231	B-32	500	297
48	231	B-32	500	297
49	230	02	2000	597
50	230	02	750	277
51	230	02	750	277
52	230	02	750	277
53	223	500	1000	275
54	223	500	1000	275
55	223	500	1000	275
56	221	500	1000	275
57	221	500	1000	275

Table C-2: NIST- Gaithersburg Oil Filled Operational Equipment – Transformers				
No.	**Building**	**Room Number**	**KVA**	**Size (Gallons)**
58	221	500	1000	275
59	221	C-09	300	200
60	221	C-09	300	200
61	221	C-09	300	200
62	220	500	1000	275
63	220	500	1000	275
64	220	500	1000	275
65	222	500	750	248
66	222	500	750	248
67	222	500	750	248
68	101	C-08	750	241
69	101	C-08	750	241
70	101	C-08	750	241
71	101	A-23	1000	316
72	101	A-23	1000	316
73	101	A-23	1000	316
74	225	500	1000	275

Table C-2: NIST- Gaithersburg Oil Filled Operational Equipment – Transformers				
No.	**Building**	**Room Number**	**KVA**	**Size (Gallons)**
75	225	500	1000	275
76	225	500	1000	275
77	226	500	1500	447
78	226	500	1500	447
79	226	500	1500	447
80	224	500	750	248
81	224	500	750	248
82	224	500	750	248
83	233	Underground Vault	255	147
84	233	Underground Vault	255	147
85	233	Underground Vault	255	147
86	304	B-16	750	241
87	304	B-16	750	241
88	304	B-16	750	241

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Appendix E
Requirements for Subject Equipment

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
101	Loading Dock Drum Storage Area 55 Gal Drums Waste Kitchen Grease	OFPM, FSD, Site Services Group Leader	1. Keep the grease storage containers and the area clean and free of grease (drips, splashing). 2. Direct the cafeteria contractor regarding all compliance requirements. 3. Clean up incidental spills if safe to do so. 4. Report grease spills to the EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify Site Services Group of any problems noted during inspections 4. Assist in spill response. 5. Complete required spill reporting.
205	AST 1* Fire Suppression Pump Room 120 Gal Diesel AST * - Listed as AST 1 under MDE Oil Operations Permit	OFPM, GFMD, Facilities Operation Group Leader	1. Monitor tank filling operations. 2. Maintain records of preventative maintenance and repairs. 3. Clean up incidental spills if safe to do so. 4. Report any fuel spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspection of the AST. 2. Maintain a log of visual inspections. 3. Notify GFMD of any problems noted during inspections. 4. Assist in spill response. 5. Complete required spill reporting.
205	Basement Hydraulic Room 240 Gal Hydraulic System OFOE	EL, NFRL Group Leader	1. Maintain the hydraulic equipment based on vendor or NFRL operational and maintenance procedures. 2. During or after each use of the hydraulic equipment, check hydraulic fluid lines and reservoirs for leaks. 3. Clean up incidental spills if safe to do so. 4. Maintain records of preventative maintenance and repairs of hydraulic equipment. 5. Report any hydraulic fluid spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Assist in spill response, and 2. Complete any required spill reporting.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
215	UST 025 - Emergency Generator Fuel Storage Tank 4,000 Gal Diesel UST	OFPM, GFMD, Facilities Operation Group Leader	1. Monitor tank filling operations. 2. Prior to deliveries or monthly if more than one delivery per month: Visually inspect spill prevention equipment by performing the following: - Check for any damage to the spill bucket. - Remove any liquid or debris from the spill bucket. - Check for and remove any obstructions, such as tank gauging sticks, in the fill pipe. - Make sure fill cap is securely fastened. - Check to make sure release detection equipment is operating with no alarms or other unusual operating conditions present. 3. Perform a stick measurement of the tank product prior to and after filling and check for water in the tank (water paste). 4. Verify that only low sulfur oil (<300 ppm sulfur by weight) is supplied by reviewing the bill of lading before accepting a fuel delivery. 5. Perform monthly leak release detection monitoring. 6. Perform a hydrostatic test of the spill catch basin annually. 7. Perform the following annually: - Visually check containment sump for damage or leaks to the containment area. - Remove any liquid or debris in the containment sump. - Check tank gauge sticks for operability. 8. Perform a containment sump leak test every 3 years. 9. Perform a tank tightness test every 5 years. 10. Check for leaks during equipment operation.	1. Assist in spill response. 2. Coordinate internal and external audits of USTs. 3. Report any suspected leak to the MDE.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
			11. Clean up incidental spills if safe to do so. 12. Maintain records of preventative maintenance and repairs to tank equipment. Report any fuel releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	
215	Emergency Generator Day Tank 275 Gal Diesel AST	OFPM, GFMD, Facilities Operation Group Leader	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify EMG of any problems noted during inspections. 4. Maintain equipment and fuel supply lines based on vendor operational and maintenance procedures. 5. Maintain records of preventative maintenance and repairs to tank equipment. 6. Clean up incidental spills if safe to do so. 7. Report any fuel releases to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: Incident Reporting and Investigation.	1. Assist in spill response. 2. Complete any required spill reporting.
218	Room F013 Drum Storage Area 55 Gal Drums Mineral Oil	PML, Quantum Measurement Division, Fundamental Electrical Measurements (FEM) Group Leader	1. Monitor mineral oil transfer operations and check for leaks. 2. Clean up incidental spills if safe to do so. 3. Replace or repair any leaking drums or secondary containment. 4. Report any mineral oil releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify FEM of any problems noted during inspections. 4. Assist in spill response. 5. Complete any required spill reporting.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
218	Building 218 Room F013 Mineral Oil Baths 5 - 100 Gal Baths OFOE	PML, Quantum Measurement Division, Fundamental Electrical Measurements Group Leader	1. Maintain the mineral oil baths based on vendor or FEM operational and maintenance procedures. 2. During use of the baths, periodically check for leaks and/or spills. 3. Clean up incidental spills if safe to do so. 4. Maintain records of preventative maintenance and repairs to mineral oil baths. 5. Report any mineral oil releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: Incident Reporting and Investigation.	1. Assist in spill response. 2. Complete any required spill reporting.
220	Building 220 Room B131 Mineral Oil Bath 1 - 100 Gal Bath OFOE	PML, Quantum Measurement Division, Fundamental Electrical Measurements Group Leader	1. Maintain the mineral oil baths based on vendor or FEM operational and maintenance procedures. 2. During use of the baths, periodically check for leaks and/or spills. 3. Clean up incidental spills if safe to do so. 4. Maintain records of preventative maintenance and repairs to mineral oil baths. 5. Report any mineral oil releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: Incident Reporting and Investigation.	1. Assist in spill response. 2. Complete any required spill reporting.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
226	Room B165 Hydraulic Power Unit 250 Gal Hydraulic System OFOE	EL, Materials and Structural Systems Division, Structures Group Leader	1. Maintain the hydraulic power unit based on vendor or Structures Group operational and maintenance procedures. 2. During use of the hydraulic power unit, periodically check for leaks and/or spills. 3. Clean up incidental spills if safe to do so. 4. Maintain records of preventative maintenance and repairs to hydraulic power unit. 5. Report any mineral oil releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: Incident Reporting and Investigation.	1. Assist in spill response. 2. Complete any required spill reporting.
227	AST 2* Emergency Generator Belly Tank 1,272 Gal Diesel AST * - Listed as AST 2 under MDE Oil Operations Permit	OFPM, GFMD, Facilities Operation Group Leader	1. Monitor tank filling operations. 2. Verify that only low sulfur oil (<300 ppm sulfur by weight) is supplied by reviewing the bill of lading before accepting a fuel delivery. 3. Maintain equipment and fuel supply lines based on vendor operational and maintenance procedures. 4. Maintain records of preventative maintenance and repairs to tank equipment. 5. Clean up incidental spills if safe to do so. 6. Report any fuel releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify FOG of any problems noted during inspections. 4. Assist in spill response. 5. Complete any required spill reporting.
235	UST 005 - Emergency Generator Fuel Storage Tank	NCNR, Reactor Operations and Engineering Group Leader	1. Monitor tank filling operations. 2. Prior to deliveries or monthly if more than one delivery per month: Visually inspect spill prevention equipment by performing the following: - Check for any damage to the spill bucket.	1. Assist in spill response. 2. Coordinate internal and external audits of UST. 3. Complete any required spill reporting.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
	2,000 Gal Diesel UST		- Remove any liquid or debris from the spill bucket. - Check for and remove any obstructions, such as tank gauging sticks, in the fill pipe. - Make sure fill cap is securely fastened. - Check to make sure release detection equipment is operating with no alarms or other unusual operating conditions present. 3. Perform a stick measurement of the tank product prior to and after filling and check for water in the tank (water paste). Verify that only low sulfur oil (<300 ppm sulfur by weight) is supplied by reviewing the bill of lading before accepting a fuel delivery. 4. Perform monthly leak release detection. 5. Perform a hydrostatic test of the spill catch basin annually. 6. Perform the following annually: - Visually check containment sump for damage or leaks to the containment area. - Remove any liquid or debris in the containment sump. - Check tank gauge sticks for operability. 7. Perform a containment sump leak test every 3 years. 8. Perform a tank tightness test every 5 years. 9. Check for leaks during equipment operation 10. Maintain records of preventative maintenance and repairs to tank equipment. 11. Clean up incidental spills if safe to do so.	

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
			12. Report any fuel releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	
235	Emergency Generator Day Tank 75 Gal Diesel AST	NCNR, Reactor Operations and Engineering Group Leader	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify EMG of any problems noted during inspections. 4. Maintain equipment and fuel supply lines based on vendor operational and maintenance procedures. 5. Maintain records of preventative maintenance and repairs to tank equipment. 6. Clean up incidental spills if safe to do so. 7. Report any fuel releases to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Assist in spill response. 2. Complete any required spill reporting.
235	235/A009 and 235-C Drum Storage Areas 55 Gal Drums Lubricants, New Oil, Parts Cleaner	NCNR, Reactor Operations and Engineering Group Leader	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Monitor new and used oil transfer operations and check for leaks of containers and secondary containment. 4. Clean up any incidental spills if safe to do so. 5. Replace or repair any leaking drums or secondary containment. 6. Report any hydraulic fluid spills/releases to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Assist in spill response. 2. Complete any required spill reporting.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
245	Emergency Generator Belly Tank 3,280 Gal Diesel AST	OFPM, GFMD, Facilities Operation Group Leader	1. Monitor tank filling operations. 2. Verify that only **ultra-low sulfur diesel (<15 ppm sulfur by weight)** that complies with the specifications of 40 CFR §80.510 is supplied by reviewing the bill of lading before accepting a fuel delivery. 3. Maintain equipment and fuel supply lines based on vendor operational and maintenance procedures. 4. Maintain records of preventative maintenance and repairs to tank equipment. 5. Clean up incidental spills if safe to do so. 6. Report any fuel releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify FOG of any problems noted during inspections. 4. Assist in spill response. 5. Complete any required spill reporting.
245	Room B-028 500 KV Accelerator 500 Gal Transformer OFOE	PML, Radiation Physics Division, Dosimetry Group Leader	1. Maintain the Accelerator based on vendor or Dosimetry Group operational and maintenance procedures 2. Periodically check for leaks and/or spills based on Dosimetry Group procedures. Clean up any incidental spills. 3. Maintain records of preventative maintenance and repairs to mineral oil baths. 4. Clean up incidental spills if safe to do so. 5. Report any oil spills/releases to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: Incident Reporting and Investigation.	1. Assist in spill response. 2. Complete any required spill reporting.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
			1.	1.
302	USTs 011 – 018 Central Plant Heating Oil Storage Tanks 8 – 30,000 Gal USTs	OFPM, GFMD, Steam and Chilled Water Generation Plant Group Leader	1. Monitor tank filling operations. 2. Prior to deliveries or monthly if more than one delivery per month: Visually inspect spill prevention equipment by performing the following: - Check for any damage to the spill bucket. - Remove any liquid or debris from the spill bucket. - Check for and remove any obstructions, such as tank gauging sticks, in the fill pipe. - Make sure fill cap is securely fastened. - Check to make sure release detection equipment is operating with no alarms or other unusual operating conditions present. 3. Perform a stick measurement of the tank product prior to and after filling and check for water in the tank (water paste). 4. Verify that only low sulfur oil (<300 ppm sulfur by weight) is supplied by reviewing the bill of lading before accepting a fuel delivery. 5. Perform a hydrostatic test of the spill catch basin annually. 6. Perform the following annually: - Visually check containment sump for damage or leaks to the containment area. - Remove any liquid or debris in the containment sump.	1. Assist in spill response. 2. Coordinate testing of spill catch basins, containment sumps, and tank tightness. 3. Report any suspected leak to the MDE. Follow up with required reporting per MDE direction.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
			- Check tank gauge sticks for operability. 7. Perform a containment sump leak test every 3 years. 8. Perform a tank tightness test every 5 years. 9. Certify automatic tank gauging, Veeder Root, system annually using an MDE certified UST technician. 10. Conduct a monthly monitored release detection test using the automatic tank gauging system. 11. Report any UST alarms to EMG. 12. Check for leaks during equipment operation. 13. Maintain records of preventative maintenance and repairs to tank equipment. 14. Clean up any incidental spills if safe to do so. 15. Report any fuel/spills releases to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	
303	AST 5* Used Oil Tank 240 Gal Used Oil AST * - Listed as AST 5 under MDE Oil Operations Permit	OFPM, FSD, Transportation Services Group Leader	1. Monitor used oil transfer operations and check for leaks /spills. 2. Clean up any incidental spills if safe to do so. 3. Monitor the tank level monthly and report to the EMG when the tank is approximately 75% full. 4. Report any used oil releases to EMG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify Transportation Services Group of any problems noted during inspections. 4. Assist in spill response. 5. Complete any required spill reporting.
303	AST 6* Gasoline Storage Tank 6,000 Gal Gasoline AST	OFPM, FSD, Transportation Services Group Leader	1. Monitor tank filling operations. 2. Perform daily, monthly and annual inspections. according to checklists meeting STI 001 guidelines. 3. Check containment sump used for interstitial piping monitoring monthly. Maintain clean and dry and record in monthly checklist.	1. Assist in spill response. 2. Report any suspected leaks to the MDE. Follow up with required reporting per MDE direction.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
	* - Listed as AST 6 under MDE Oil Operations Permit		4. Certify automatic tank gauging, Veeder Root, system annually using an MDE certified UST technician. 5. Conduct a monthly release monitoring detection test, to the interstitial space, using the Veeder Root automatic tank gauging system. 6. Check for leaks during equipment operation and during fuel deliveries. Maintain records for fuel delivery leak observations. 7. Maintain records of preventative maintenance and repairs to tank equipment. 8. Clean up any incidental spills if safe to do so. 9. Report any suspected fuel releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	
303	AST 7* Diesel Storage Tank 5,000 Gal Diesel AST	OFPM, FSD, Transportation Services Group Leader	1. Monitor tank filling operations. 2. Perform daily, monthly and annual inspections according to checklists meeting STI 001 guidelines. 3. Verify that only ultra-low sulfur road grade diesel fuel (<15 ppm sulfur by weight) is supplied by reviewing the bill of lading before accepting a fuel delivery. 4. Certify automatic tank gauging, Veeder Root, system annually using an MDE certified UST technician. 5. Monitor automatic detection system for releases to the interstitial space. 6. Check for leaks during equipment operation. 7. Maintain records of preventative maintenance and repairs to tank equipment. 8. Clean up any incidental spills if safe to do so.	1. Assist in spill response. 2. Report any suspected leaks to the MDE. Follow up with required reporting per MDE direction.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
	* - Listed as AST 7 under MDE Oil Operations Permit		9. Report any suspected fuel releases or spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	
303	Drum Storage Area 55 Gal Drums New/Used Oil	OFPM, FSD, Transportation Services Group Leader	1. Monitor new and used oil transfer operations and check for leaks of containers and secondary containment. 2. Perform daily, monthly and annual inspections according to checklists meeting STI 001 guidelines. 3. Clean up any incidental spills if safe to do so. 4. Replace or repair any leaking drums or secondary containment. 5. Report any hydraulic fluid spills/releases to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Assist in spill response. 2. Report any suspected leaks to the MDE. Follow up with required reporting per MDE direction.
303	Aboveground Oil Water Separator 300 Gal Building Floor Drains	OFPM, FSD, Transportation Services Group Leader (note: support for maintenance is provided by GFMD)	1. Coordinate inspections of the Oil Water Separator to check for the presence of oil. 2. Maintain the Oil Water Separator based on vendor or OFPM procedures. 3. Coordinate with EMG to pump out the Oil Water Separator as needed. 4. Clean up any incidental spills if safe to do so. 5. Report any suspected oil releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: Incident Reporting and Investigation. 6. GFMD shall provide a log of maintenance services performed to the Transportation Services Group Leader.	1. Provide service to pump out contents of Oil Water Separator, as needed. 2. Assist in spill response. 3. Complete any required spill reporting.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
304	Loading Dock Drum Storage Area 55 Gal Drums New/Used Oil	ADMR, Fabrication Technology Office, Main Shops Services Group Leader	1. Monitor new/used oil transfer operations and check for leaks of containers and secondary containment. 2. Clean up any incidental spills if safe to do so. 3. Replace or repair any leaking drums or secondary containment. 4. Report any hydraulic fluid releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify Main Shop Services Group of any problems noted during inspections. 4. Assist in spill response. 5. Complete any required spill reporting to the National Response Center or the MDE.
304	Lubricant Use Area 55 Gal Drums Lubricants	ADMR, Fabrication Technology Office, Main Shops Services Group Leader	1. Monitor lubricant transfer operations and check for leaks of containers and secondary containment. 2. Clean up any incidental spills if safe to do so. 3. Replace or repair any leaking drums or secondary containment. 4. Report any hydraulic fluid releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify Main Shop Services Group of any problems noted during inspections. 4. Assist in spill response. 5. Complete any required spill reporting.
305	AST 4* Used Oil Tank 240 Gal Used Oil AST 55 Gal Drums Lubricants * - Listed as AST 4 under MDE Oil Operations Permit	OFPM, GFMD, Steam and Chilled Water Generation Plant Group Leader	1. Monitor used oil transfer operations and check for leaks /spills. 2. Clean up any incidental spills if safe to do so. 3. Monitor the tank level monthly and report to the EMG when the tank is approximately 75% full. 4. Report any used oil releases to EMG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify Steam and Chilled Water Generation Plant of any problems noted during inspections. 4. Assist in spill response. 5. Complete any required spill reporting.
309	AST 9* Used Oil Tank	OFPM, GFMD, Grounds and	1. Monitor used oil transfer operations and check for leaks/spills. 2. Clean up any incidental spills if safe to do so.	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
	120 Gal Used Oil AST * - Listed as AST 6 under MDE Oil Operations Permit	Service Support Group Leader	3. Monitor the tank level monthly and report to the EMG when the tank is approximately 75% full. 4. Report any used oil releases to EMG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	3. Notify Transportation Services Group of any problems noted during inspections 4. Assist in spill response. 6. Complete any required spill reporting.
309	Grounds Maintenance Drum Storage Area 55 Gal Drums New/Used Oil	OFPM, GFMD, Grounds and Service Support Group Leader	1. Monitor new/used oil transfer operations and check for leaks of containers and secondary containment. 2. Clean up any incidental spills if safe to do so. 3. Replace or repair any leaking drums or secondary containment. 4. Report any oil releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify Grounds and Service Support Group of any problems noted during inspections. 4. Assist in spill response. 5. Complete any required spill reporting.
318	AST 3 Emergency Generator Belly Tank 1,700 Gal Diesel AST * - Listed as AST 3 under MDE Oil Operations Permit	OFPM, GFMD, Facilities Operation Group Leader	1. Monitor tank filling operations. 2. Verify that only low sulfur oil (<300 ppm sulfur by weight) is supplied by reviewing the bill of lading before accepting a fuel delivery. 3. Maintain equipment and fuel supply lines based on vendor operational and maintenance procedures. 4. Maintain records of preventative maintenance and repairs to tank equipment. 5. Clean up any incidental spills if safe to do so. 6. Report any fuel releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: *Incident Reporting and Investigation.*	1. Perform monthly visual inspections. 2. Maintain a log of visual inspections. 3. Notify FOG of any problems noted during inspections. 4. Assist in spill response. 5. Complete any required spill reporting.
231 235 245	Building Elevator Hydraulic Fluid Reservoirs	OFPM, GFMD, Electrical Group Leader	1. Maintain elevator hydraulic systems based on vendor operational and Electrical Group maintenance procedures.	1. Assist in spill response. 2. Complete any required spill reporting.

Requirements for Subject Equipment				
Bldg.	**Oil Storage Equipment**	**Owner**	**Owner Requirements**	**EMG Requirements**
304	500, 500, 1,500*, 304*, 1030*, 1,000 Gal, respectively Hydraulic Fluid OFOE * - Bldg 245 contains 3 elevators		2. Periodically check for leaks and/or spills based on Electrical Group procedures. Clean up any incidental spills if safe to do so. 3. Maintain records of preventative maintenance and repairs. 4. Clean up any incidental spills if safe to do so. 5. Report any hydraulic fluid releases/spills to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: Incident Reporting and Investigation.	
See Table C-2	Electric Transformers Various sizes from 131 – 660 Gal Transformer Oil OFOE	OFPM, GFMD, Electrical Group Leader	1. Maintain the electric transformers based on vendor operational and maintenance procedures. 2. Periodically check for leaks and/or spills base on Electrical Group procedures. Clean up any incidental spills if safe to do so. 3. Maintain records of preventative maintenance and repairs. 4. Clean up any incidental spills if safe to do so. 5. Report any transformer oil releases/spills that to EMG/FPG and complete an incident report in accordance with NIST S 7101.24: Incident Reporting and Investigation.	1. Assist in spill response. 2. Complete any required spill reporting.

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