SECTION 1 - HAZARDOUS MATERIALS STORAGE

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1 HAZARDOUS MATERIALS STORAGE

Synopsis

This section is promulgated to ensure hazardous chemicals and materials and equipment containing these materials are properly stored at NWS locations.

The section applies to all NWS facilities and work sites that store corrosive, flammable, combustible, toxic or reactive materials.

<u>Initial Implementation Requirements:</u>

- **Designate an Individual to Coordinate the Hazardous Material Storage Efforts** *(1.6.1)*
- **Compare Site/Facility Operations with the Requirements of this Section**
  - For materials stored in small quantities:
    - Identify materials that are:
      - flammable
      - combustible
      - corrosive
      - reactive *(1.6.2)*
    - Ensure flammables and combustibles are stored in appropriate storage lockers *(1.7.1)*
    - Ensure corrosives are stored compatibly *(1.7.2)*
    - Ensure reactives are stored compatibly *(1.7.3)*
    - Ensure janitorial supplies are properly stored *(1.7.4)*

  - For Storage in large quantities:
    - If aboveground storage containers are used for petroleum products, determine if an SPCC plan is required *(1.8.2)*
    - If a SPCC Plan is required *(1.8.1)*, review it to ensure:
      - it has been reviewed by a professional engineer within the last 5 years *(1.8.1a.)*
      - all identified spill containment structures have not been modified *(1.8.1a)*
      - all identified spill response equipment is available and operational *(1.8.1a)*
      - all NWS personnel who maintain the spill containment structures or are responsible for spill response have been trained *(1.8.1a)*
    - if a SPCC Plan is not required, has a NOAA BMP plan been adopted in accord with Attachment A *(1.8.1a)*
    - If an underground storage tank is used, ensure:
      - the tank is registered with the State *(1.8.3 a)*
      - the tank meets the EPA design standards *(1.8.3 b)*
      - if the tank was an existing tank, it was upgraded to meet the EPA design standards *(1.8.3c)*
      - the tank has an operating leak detection system *(1.8.3 d)*

- the tank has monthly monitoring *(1.8.3 d)*

< Determine if the facility has hazardous chemicals or extremely hazardous chemicals on hand in a quantity that equals or exceeds the regulatory limits. If so, submit the required Tier I or Tier II reports to the LEPC *(1.8.4)*

<u>Recurring and Annual Task Requirements</u>:

C **Have a Professional Engineer review the SPCC Plan every 5 years *(1.8.1a)***

C **Periodically inspect the facility to ensure small quantities of hazardous materials are properly stored *(1.7)***

Checklist

1 Hazardous Materials Storage	**YES**	**NO**	**NA**
Hazardous Substance Storage 1. Has a Designated Person been appointed? *(1.6.1)*	_____	_____	____
2. Does the facility/work site use or store OSHA hazardous materials (1.6.2) or hazardous substances? *(1.6.3)*	_____	_____	____
3. Does the storage of small quantities of flammable or combustible materials comply with Procedure 16 of NWSM 50-1115? *(1.7.1)*	_____	_____	____
4. Are appropriate eyewash/drenching facilities available to personnel working with corrosive material?	_____	_____	_____
a. is the eyewash/drenching facility:			
- available within 10 seconds?	_____	_____	_____
- capable of 15 minutes of 0.4 gpm? *(1.7.2)*	_____	_____	_____
5. Are materials stored in a compatible manner? *(1.7.2, 1.7.3, 1.7.4)*	_____	_____	_____

1 Hazardous Materials Storage	**YES**	**NO**	**NA**
Petroleum Storage *(1.8.1a)*			
1. Does the facility/work site store more than a total of 1,320-gallons of petroleum product in containers that are 55-gallons or larger and could it have a discharge into or onto the waters of the U.S. or a resource under the authority of the U.S.?	_____	_____	_____
a. If so, does the facility have an SPCC Plan?	_____	_____	_____
b. If so, is the site attended more than 4-hours per day?	_____	_____	_____
- If so, is the SPCC Plan on-site?	_____	_____	_____
c. Has the SPCC Plan been reviewed by a Professional Engineer (PE) within 5-years?	_____	_____	____
d. If an SPCC Plan is not required, has a Best Management Plan (BMP) been completed?	_____	_____	____
2. Have all tanks been inventoried by the RECO?	_____	_____	_____
3. Has a Spills Coordinator been appointed? *(1.8.1a)*	_____	_____	_____
4. Have facility/work site personnel received the required training? *(1.8.1a)*	_____	_____	_____
5. Has refresher training been presented annually? *(1.8.1a)*	_____	_____	_____
6. If the petroleum product is stored in an aboveground tank, has the tank undergone integrity testing on a regular schedule and when repairs are done? *(1.8.2)*	_____	_____	_____
7. Are records of this testing maintained on-site for 3 years? *(1.8.1a)*	_____	_____	_____

1 Hazardous Materials Storage	**YES**	**NO**	**NA**
Underground Storage Tanks 1. Does the facility/work site store petroleum in a container that meets the definition of an "underground storage tank"? *(1.8.3)*	____	____	____
2. If yes, is the UST registered with the State? *(1.8.3a)*	____	____	____
3. Does the UST meet the design standards in 40 CFR 280.20 or State equivalent? *(1.8.3b)*	____	____	____
4. Is release detection performed on a periodic basis to detect leaks? (1.8.3d)	____	____	____
5. Is there a formal spill response plan?	____	____	____
6. If a release has occurred in the past, was corrective action performed?	____	☐	____
Clean Air Act 1. Does the facility or work site store more than 10,000-gallons of petroleum products? *(1.4.1b and 1.9.1b)*	☐	____	____
Emergency Planning and Community Right to Know Act 1. Does the facility or work site store 10,000 pounds or more of an OSHA-defined hazardous substance at any time? *(1.8.4a)*	____	____	____
a. If yes, has an MSDS for each regulated material been submitted to the local Fire Department or the Local Emergency Planning Committee? *(1.8.4b)*	____	____	____

1 Hazardous Materials Storage	YES	NO	NA
2. Does the facility store any extremely hazardous substance (EHS) as defined in 40 CFR 355 in a quantity equal to or greater than 500-pounds or the threshold planning quantity (TPQ) listed in 40 CFR 355 for that (EHS) (whichever is less)? *(1.8.4a)*	_____	_____	_____
a. If yes, has an MSDS for each regulated material been submitted to the local Fire Department or Local Emergency Planning Committee? *(1.8.4a)*	_____	_____	_____
b. Has a Tier I form been filed with the Local Emergency Planning Committee? *(1.8.5)*	_____	_____	_____
c. Has the Tier II been re-submitted annually? *(1.8.5)*	_____	_____	_____
Gasoline Storage			
1. Does the storage of gasoline in small containers comply with Section 16 of NWSM 50-1115 - Occupational Safety & Health? *(1.9.1a)*	_____	_____	_____
Unused Oil			
1. Is unused oil stored in the original container away from food and beverages? *(1.9.2a)*	_____	_____	_____
2. Are transfer containers labeled to identify the contents? *(1.9.2a)*	_____	_____	_____
Used Oil			
1. Is used oil stored in DOT-approved containers? *(1.9.2b)*	_____	_____	_____
2. Is spill response equipment readily available? *(1.9.2b)*	_____	_____	_____
Unused Antifreeze			
1. Is unused antifreeze stored in the original container away from food and beverages and in an area that provides containment in the event of a leak or spill? *(1.9.3a)*	_____	_____	_____

1 Hazardous Materials Storage	**YES**	**NO**	**NA**
2. Are transfer containers labeled to identify the contents? *(1.9.3a)*	_____	_____	_____
Used Antifreeze			
1. Is the used antifreeze stored in DOT-approved containers? *(1.9.3b)*	_____	_____	_____
2. Are the containers in good condition, labeled "antifreeze/water mixture" and stored to prevent a release or spill? *(1.9.3b)*	_____	_____	_____
Rain Gauge Antifreeze/Oil/Water Mixtures *(1.9.4)*			
1. Does the facility currently collect antifreeze/oil/water mixtures from the rain gauges?	_____	_____	_____
a. If yes, is the material separated into oil and antifreeze/water layers?	_____	_____	_____
b. Is the container in good condition; labeled "Oil/Water Mixture-Do Not Drink!"?	_____	_____	_____
c. Has the local POTW been contacted to determine if the antifreeze/water mixture can be discharged to the sewer system?	_____	_____	_____
d. If no, has the used oil contractor been contacted to determine potential for mixing with used oil?	_____	_____	_____
Radiosonde Battery Activation Water			
1. Does the State regulate water solutions containing copper as a hazardous waste?	_____	_____	_____
2. If so, is the activation water managed as a hazardous waste?	_____	_____	_____
3. Does the local sewage treatment plant object to receiving the activation water?	_____	_____	_____
4. If the facility employs a septic system is the activation water managed to ensure it is not discharged into this system?	_____	_____	_____

1 Hazardous Materials Storage	YES	NO	NA
Universal Wastes			
1. Does the facility or work site recycle batteries *(1.9.6)*, fluorescent tubes *(1.9.7)*, pesticides *(1.9.8)*?	_____	_____	_____
a. Are the stored wastes protected from damage? *(1.9.6, 1.9.7, 1.9.8)*	_____	_____	_____
b. Are the storage/accumulation containers clearly identified and marked with the date the accumulation began?	_____	_____	_____
Paint			
1. Does the facility or work site store flammable or combustible paint in accord with NWSM 50-1115 - Occupational Safety & Health Procedure 16 - Flammable and Combustible Storage? *(1.9.9)*	_____	_____	_____
Compressed Gas Cylinders			
1. Does the facility/work site store compressed gas cylinders in accord with NWSM 50-1115 Occupational Safety & Health Procedure 9 - Compressed Gas Safety? *(1.9.10)*	_____	_____	_____

1 HAZARDOUS MATERIALS STORAGE

1.1 Purpose and Scope

To perform its mission, National Weather Service (NWS) facilities and work sites must store and use hazardous materials such as gasoline, propane and other fuels as well as oils, batteries, paints and solvents. To ensure these materials are safely stored and managed, this procedure has been promulgated**.**

1.2 Definitions

Container - a device used for storage. It may be a drum, aboveground tank or other storage device. For the purpose of calculating storage capacity on-site, only containers with a capacity of 55-gallons or more are counted.

Designated Person - an NWS employee designated by the Facility Manager who is responsible for ensuring all hazardous materials are stored at the work site in accordance with Federal, State and local regulations.

Facility - for purposes of EPCRA, all buildings, equipment, structures and other stationary items that are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (or by any person which controls, is controlled by or under common control with, such person). Facility shall include manmade structures as well as all natural structures in which chemicals are purposefully placed or removed through human means such that it functions as a containment structure for human use. For purposes of emergency release notification, the term includes motor vehicles, rolling stock and aircraft.

Leak Detection - a system used to determine if an underground tank is leaking.

Publicly-Owned Treatment Works (POTW) - a municipal sewage treatment plant.

Reportable Quantity (RQ) - the amount of a hazardous substance as set forth in 40 CFR 302.4, which when released into the environment within any 24-hour period, requires an immediate report to the National Response Center - AND/OR -

- the amount of an extremely hazardous substance as established in 40 CFR 355 which when released off-site, requires an immediate report to the Community Emergency Coordinator for the Local Emergency Planning Committee (LEPC).

Secondary Containment - use of a device or technique such as a berm, dike, culvert, diversion pond, etc. which is designed to prevent the spread of a spill or release of a regulated material.

Spills Coordinator - an individual designated within the SPCC Plan who will be accountable for oil discharge prevention. This individual is responsible for ensuring required maintenance is performed

on equipment and structures, response procedures are appropriate, response supplies are on hand and personnel are trained to prevent and respond to releases.

Threshold Planning Quantity (TPQ) - the quantity of an extremely hazardous substance identified in 40 CFR 355.

Tier I Form - A reporting form required under the Emergency Planning and Community Right to Know Act that summarizes information on all the hazardous chemicals present at a facility above the threshold levels established by the EPA in 40CFR370.20. This form is found in 40CFR 370.40 and is available on-line as explained in Attachment B to this section.

Tier II Form - A reporting form required under the Emergency Planning and Community Right to Know Act which reports information on specific hazardous chemicals present at a facility above the threshold levels established by the EPA in 40CFR370.20. This form is found in 40CFR370.41 and is available on-line as explained in Appendix C to this section.

Underground Storage Tank (UST) - a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground that stores either a petroleum product or any hazardous substance listed on the list generated under the Comprehensive Environmental Response, Compensation Liability Act (CERCLA) or Superfund and published in 40 CFR 302.4.

1.3 Acronyms Employed in This Section

BMP	-	Best Management Practices
CAA	-	Clean Air Act
CERCLA	-	Comprehensive Environmental Response Compensation Liability Act
CFR	-	Code of Federal Regulations
DOT	-	Department of Transportation
EHS	-	Extremely Hazardous Substance
EPA	-	Environmental Protection Agency
EPCRA	-	Emergency Planning and Community Right-to-Know Act
HC	-	Hazardous Chemical
HSWA	-	Hazardous and Solid Waste Amendments
LEPC	-	Local Emergency Planning Committee
MSDS	-	Material Safety Data Sheet
NFPA	-	National Fire Protection Association
NOAA	-	National Oceanic and Atmospheric Administration
NWS	-	National Weather Service
NWSH	-	National Weather Service Headquarters
OSHA	-	Occupational Safety and Health Administration
OSH Act	-	Occupational Safety and Health Act
P.E.	-	Professional Engineer
POTW	-	Publicly Owned Treatment Works
RECO	-	Regional Environmental Compliance Officer

RQ	-	Reportable Quantity
SERC	-	State Emergency Response Commission
SPCC	-	Spill Prevention Control and Countermeasures
sp.gr.	-	specific gravity
TPQ	-	Threshold Planning Quantity
UST	-	Underground Storage Tank

1.4 Regulatory Requirements

Because of overlapping concerns, storage of hazardous materials is regulated under environmental, worker safety and transportation regulations. Additionally, the National Fire Protection Association (NFPA) has created guidance to assist in proper storage of flammable and combustible materials.

1.4.1 Federal

a. Clean Water Act

The Clean Water Act regulates the storage of oil and petroleum products to prevent their release into the waters of the United States and ensure a proper response should a release occur.

For the storage of larger quantities, the regulations require the creation and implementation of facility-specific Spill Control and Countermeasures (SPCC) Plans. The rules can be found in 40 CFR 112. To ensure spills of hazardous materials are reported and properly managed, the EPA has also created a list of regulated materials and has assigned each a "reportable quantity (RQ)." This list, found in 40 CFR 302.4, requires spills that are larger than the RQ to be reported to the National Response Center and has been incorporated in this manual as Appendix B.

b. Clean Air Act

The Clean Air Act requires facilities that store large quantities of petroleum products or volatile organic liquids to obtain permits as stationary emission sources. Because most NWS facilities:

- store only 1,000 or 2,000-gallons of diesel oil
- do not store gasoline in tank quantities
- do not store other volatile organic liquids in tanks

They are not regulated by Title V of the Clean Air Act.

Facilities that store these commodities in tanks with capacities of 10,000-gallons or more must contact the NWS Regional Environmental Coordinator and/or the NOAA Environmental Compliance Officer (RECO) for guidance.

c. Comprehensive Environmental Response, Compensation Liability Act

The Comprehensive Environmental Response, Compensation Liability Act (CERCLA) or Superfund was created in 1980 to address the problem of old hazardous waste dump sites. In establishing the regulatory program under this law, the Environmental Protection Agency (EPA) promulgated a series of regulations that established, among other things, the requirement for the reporting to the National Response Center of all spills, leaks or "releases" into the environment in excess of a "reportable quantity" or RQ for chemicals that were deemed "hazardous substances."

d. Hazardous and Solid Waste Amendments

The Hazardous and Solid Waste Amendments (HSWA) was enacted in 1984. Subtitle I of the law required the EPA to regulate underground storage tanks that contained the EPA-defined "hazardous substances" that were created as a result of CERCLA.

e. Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) was created to ensure local response personnel know what they might be facing when responding to an emergency. The law requires facilities that use and/or store "extremely hazardous substances" (EHS) to notify the Local Emergency Planning Committee (LEPC) of the hazard, presence, location and quantity of each EHS on an annual basis. The list of extremely hazardous substances is found in 40 CFR Part 355.

If a NWS facility stores at any time any EHS in a quantity greater than the Threshold Planning Quantity (TPQ) - see Appendix B to this manual - it will be regulated under EPCRA.

For example, a NWS facility will be regulated if it stores a total of:

- 1,000 pounds of battery acid - the contents of about 185 batteries, because it is listed as an EHS, or
- 10,000 pounds of diesel fuel, heating oil or gasoline - about 1,300-1,500-gallons, because these are OSHA hazardous substances, or
- 10,000 pounds of propane - about 2,500-gallons, or
- 10,000 pounds of hydrogen.

If the TPQ for any EHS is exceeded, a number of reports must be filed in preparation for an emergency event. Section 1.8.4 explains the EPCRA reporting requirements.

f. Occupational Safety & Health Act

The Occupational Safety & Health Act (OSH Act) has empowered the Occupational Safety and Health Administration (OSHA) to create regulations for the storage of hazardous chemicals. The rules cover broad classes of chemicals such as flammable or corrosive as well as many specific chemicals. These rules are found in 29 CFR 1910.

g. Hazardous Materials Transportation Act

Although the Hazardous Materials Transportation Act legally deals with hazardous materials while in *transport* by specifying containers, markings and labels, the regulations in 49 CFR 172 have the additional effect of specifying containers, markings and labels that should be used while in storage.

1.4.2 National Fire Code

The National Fire Protection Association (NFPA) has created "The National Fire Code, Flammable and Combustible Liquids NFPA 30" which is the national standard for the storage of these materials.

1.5 Spill Reports

Because the amount of a hazardous material or extremely hazardous material that is spilled or released will often determine the risks to human health and the environment, the EPA has created two separate lists of these materials and assigned each a "Reportable Quantity" or RQ. Should a hazardous material be spilled or released into the environment in an amount equal or greater than the RQ, a report must be filed with the National Response Center.

If an extremely hazardous substance is released and the amount that goes off-site is equal to or greater than the RQ in 40 CFR 355, the Community Emergency Coordinator for the Local Emergency Planning Committee must be notified immediately.

The RQs range from 1 pound to 5,000 pounds depending on the dangers presented by the released material. The list of hazardous materials and their RQs are found in 40 CFR 302.4 and the list of extremely hazardous substances and their RQs are found in 40 CFR 355 which are reproduced in Appendix B to this manual as the List of Hazardous and Extremely Hazardous Substances. A detailed discussion on the procedure for the reporting of spills or releases of hazardous materials is found in Section 4 of this manual.

Although diesel or lubricating oils are not found on the list of hazardous substances on Table 302.4, the EPA does require the reporting of spills of petroleum products. For these spills, the National Response Center must be notified if the release or discharge may violate applicable water quality standards or may cause a film or sheen or discoloration of the surface of the water, or the formation of a sludge below the surface of the water. It is important to note that the oil does not have to

actually contact the water to require a report to the National Response Center - it only has to be possible that it *could* contact water to trigger the reporting requirement.

Normally a spill of 25-gallons of oil in an uncontained area will necessitate a call to the National Response Center, however, it is important to note that some States have reporting requirements for oil and hazardous materials at higher or lower levels. Appendix C is a listing of the websites of the State environmental agencies. It can be used to determine who needs to be called and when. If this information is not available on-line, contact the NWS Regional Environmental Coordinator and/or the NOAA RECO to determine if state or local requirements exist. Section 4 of this manual provides a detailed discussion for the reporting of oil spills.

1.6 Implementation of a Storage Program for Hazardous Materials

1.6.1 The Station Manager appoints an individual who will be responsible for the day-to-day implementation of the hazardous material storage program.

1.6.2 The Designated Person reviews the list of hazardous materials and the associated Material Safety Data Sheets (MSDSs) used at the facility or work site. This list is required as part of NWSM 50-1115, Procedure 7 - Hazard Communication Standard. The purpose of this review will be to identify and quantify the materials considered to be flammable, combustible, corrosive and/or reactive.

1.6.3 The Designated Person reviews Appendix B to this manual to determine:

- if the materials are considered a hazardous substance under 40 CFR 302.4 or an extremely hazardous substance under 40 CFR 355 or both, and
- the reportable quantity for each substance, and
- the threshold planning quantity (TPQ) if the material is considered an extremely hazardous substance.

1.6.4 The Designated Person determines the type and size of storage container(s) used for each hazardous material and/or petroleum product as well as the typical and maximum volume stored at any one time.

1.7 Storage of Small Quantities of Hazardous Materials

Because even small quantities (i.e., less than 55-gallons) of hazardous materials can create major problems, they must be stored to minimize their hazards. Flammable and combustible materials must be isolated from ignition sources. Corrosives must be containerized to prevent reaction and incompatibles must be kept separated.

1.7.1 Storage of Flammable and Combustible

The Designated Person will review Procedure 16 - Flammable and Combustible Liquid Storage in NWSM 50-1115. This procedure describes the equipment and techniques required to safely store flammable and combustible materials including:

a. storage
b. use
c. control of sources of ignition
d. grounding
e. housekeeping

For these materials designated as flammable or combustible, the Designated Person will ensure appropriate storage space is available. If the volume of current material on-hand exceeds on-site capacity, additional storage cabinets must be obtained or the inventory must be reduced.

The storage of flammable or combustible materials in areas not in conformity with NWSM 50-1115 will not be allowed.

1.7.2 Corrosive Materials

The term "corrosive" is applied to any material that dissolves or destroys metal or human skin. Normally, the pH scale is used to describe a corrosive material. If the pH is less than 7.0, the material is deemed "acidic." If the pH is greater than 7.0, the material is deemed alkaline or basic.

In addition to the need to use the appropriate personal protective equipment (i.e., gloves, aprons, goggles, etc.) when handling these materials, all corrosive materials also must be stored so as not to react.

While the need to keep acids and bases separated is widely understood, it is also important to use a compatibility system to determine if two acidic or two alkaline materials can be stored together.

As a general rule, because of its ability to react with a large number of other materials, a common NWS corrosive material, battery acid (sulfuric acid), must be kept segregated from all other acids.

In addition, ANSI Standard 2358.1 - 1998 Standard requires an eyewash/drenching facility be available to personnel working with corrosive materials that is capable of providing 15-minutes of continuous flushing at 0.4 gpm. The facilities shall be available within 10 seconds of unobstructed travel time from point of use or storage.

1.7.3 Storage of Reactives

Because commercial products containing hazardous materials are normally composed of several different chemicals, the potential for a chemical reaction when two or more products are commingled (for example, when the shelving collapses in a fire or earthquake) can be high. To minimize the potential for adverse incompatible reactions, all NWS facilities and work sites must segregate hazardous materials into appropriate categories.

a. Compatibility Systems

Several compatibility systems are available in the literature and on-line. One widely used system is the EPA/NOAA Reactivity Worksheet. This system is available on-line at http://response.restoration.noaa.gov/chemaids/react.html. Once downloaded and installed, this worksheet determines the potential for reaction when different materials combine. Because the database includes over 6,600 different chemical records, it usually contains data on common materials used by the NWS.

b. Storage Techniques for Reactives

To prevent incompatible materials from adversely reacting, two techniques - distance and containerization - are normally employed.

Distance is based on the assumption that if two materials are kept apart, it is unlikely they will commingle and react. Using this principle, incompatible hazardous materials are stored in different storage areas or are widely separated within an area. For example, because battery acid (sulfuric acid) tends to react with many other materials, it must be stored away from all other chemicals - especially cleaning solvents.

Containerization attempts to isolate reactive materials by placing them into secondary containment units. For example, a quart bottle can be placed into a wide-mouth gallon jar and the top secured or, a number of small containers of compatible material can be placed into a plastic dish pan to prevent contact with other materials stored in the same cabinet**.**

1.7.4 Storage of Janitorial Supplies

Whether purchased by the NWS, a lessee or a contractor, all janitorial supplies must be stored in accord with this section.

These products are often flammable, combustible, reactive or corrosive, hence proper storage is important to the safety of all facility or work site personnel.

A special note: If NWS employees have access to janitorial supplies provided by a lessee or a contractor, the lessee or contractor must make copies of the Material Safety Data Sheets for each product available to the facility. The Designated Person will use these sheets to determine the hazards presented by these supplies.

1.8 Large Quantity Storage

The requirements for the storage of large quantities of hazardous materials depend on the material (i.e., is it a hazardous substance, an extremely hazardous substance or a petroleum product?), the quantity stored (i.e., more than 1,320-gallons), the type of container and its design (55-gallon drum, aboveground tank or underground storage tank) and the location of the facility.

If the hazardous material is a petroleum product and more than a total of 1,320-gallons is stored in 55-gallon containers or larger and a release of oil could reach the navigable waters of the U.S. or adjoining shorelines or the waters of the contiguous zone (defined as nine miles seaward from U.S. borders) or natural resources, a Spill Prevention Control and Countermeasures Plan will be required (see Section 1.8.1).

If the material is a petroleum product or an extremely hazardous substance as listed in 40 CFR Part 355, and the quantity at any time exceeds the threshold planning quantity, a notification to the Local Emergency Planning Commission (LEPC) will be required under EPCRA (see Section 1.8.4).

If the material is stored in an aboveground tank (i.e., the ConVault fuel tank), the tank must be operated and maintained in accordance with the requirements of 40 CFR Part 112 (see Section 1.8.3).

If the material is stored in an underground tank or an aboveground tank that has 10% of its total volume underground (including all attached piping), the tank must be registered with the State and operated in accordance with the requirements of 40 CFR Part 280 (see Section 1.8.2).

1.8.1 Spill Prevention Control and Countermeasures Plan (SPCC)

To prevent the discharge of petroleum products into the environment, a Spill Prevention Control and Countermeasures Plan may be required. The SPCC plan, which must be reviewed by a Registered Professional Engineer, details the equipment and structures to prevent a release as well as the procedures that will be performed should a release occur.

a. Requirements for a SPCC Plan

Those NWS facilities or work sites that store more than a total of 1,320-gallons in containers that are 55-gallons or larger and are entirely above ground and could have a discharge into or onto the waters of the U.S. or a resource under the authority of the U.S. are required to have a SPCC Plan. In calculating the volume stored on-site,

remember that the definition of a container includes drums, tanks or other storage devices that are 55-gallons or more. If the site is attended at least 4-hours per day, a copy of the plan must be on-site.

The Station Manager has overall responsibility for ensuring the procedures, equipment and structures specified in the SPCC Plan are maintained and operational and that the plan is reviewed by a Professional Engineer (P.E.) at least every five (5) years or when major changes to equipment or operations occur. If needed, the Regional Environmental Coordinator and/or NOAA RECO should be contacted for assistance in securing the services of a registered Professional Engineer.

Note: NWS personnel may not change or modify the technical design or operation of the equipment or structures described in the SPCC Plan without approval of a Professional Engineer. Names, addresses and telephone numbers can be changed as appropriate without P.E. Certification.

The EPA requires the designation of a person at the facility who will be accountable for oil discharge prevention (a "Spills Coordinator"). This person is assigned and reports to the Station Manager. The Spills Coordinator is required to arrange for the required maintenance on the equipment and structures specified in the SPCC Plan as well as ensure all specified response procedures are appropriate and that the required spill response supplies are on-hand. The Spills Coordinator is also responsible for ensuring all NWS employees that handle oil have received training in:

- operation and maintenance of the equipment to prevent discharges
- applicable pollution control laws, rules and regulations
- general facility operations
- the contents of the SPCC Plan
- their role in the event of a release.

This training must be repeated once a year. The refresher training must highlight and discuss known spills, discharges or malfunctioning equipment.

OSHA also has a training requirement for NWS employees who respond to releases of petroleum products under the Hazardous Waste Operations and Emergency Response (HAZWOPER) requirements in 29 CFR 1910.120q. Employees who only respond in a defensive fashion (i.e. use sorbant to absorb a spill) without actually trying to stop the release, are deemed "First Responder Operations Level." These employees must receive at least eight (8) hours of training or be certified by the employer (i.e. the Station Manager) that they "have sufficient experience to objectively demonstrate competency" in the following areas:

A. Knowledge of the basic hazard and risk assessment techniques.
B. Know how to select and use proper personal protective equipment provided to the first responder operational level.
C. An understanding of basic hazardous materials terms.
D. Know how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available with their unit.
E. Know how to implement basic decontamination procedures.
F. An understanding of the relevant standard operating procedures and termination procedures.

For employees who only respond to releases of diesel oil, successful completion of the EPA-required SPCC training will allow the Station Manager to make the necessary certification negating the need for the OSHA 8-hour training course.

In addition, operating personnel must frequently inspect the outside of the "containers" for signs of deterioration, leaks or accumulation of oil inside diked areas. Inspection checklists are normally included in the SPCC Plan for monthly and yearly inspections. The EPA requires these records be maintained for at least three (3) years and used for comparison in future tests.

Prior to August 16, 2002, the EPA required a SPCC Plan if a facility or work site had 660-gallons or more of oil in one container. As a result, NWS facilities that have the 1,000-gallon ConVault storage tank used for storage of diesel fuel for the emergency generator were required to have a SPCC Plan. This plan was provided for each regulated facility when it was built and should be available on-site.

Although the SPCC Plan is not required if the total volume stored in above ground containers is less than 1,320-gallons, NWS facilities that have an existing plan shall implement and maintain the existing plan or adopt a Best Management Plan in accord with Attachment A to this section as an alternative.

1.8.2 Aboveground Storage Tanks

Storage tanks that store petroleum or a hazardous substance and are aboveground are regulated by the Oil Pollution Prevention requirements in 40 CFR Part 112 and/or State equivalent.

For NWS facilities, some of the techniques allowed to contain a spilled material from an aboveground tank include:

- dikes, berms or retaining walls
- curbing
- culverts, gutters or other drainage systems

- weirs, booms or other barriers
- spill diversion ponds
- retention ponds
- sorbent materials
- tank spill and overflow devices.

Also, effective August 16, 2002, aboveground tanks and containers which are required to have a SPCC Plan must undergo integrity testing on a regular schedule and whenever material repairs are done. The specific method to be used for the integrity testing and the "regular schedule" will normally established by the Professional Engineer in accord with EPA, State and local requirements as well as industry standards and then incorporated into the SPCC Plan. The testing must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing or other non-destructive shell testing. NWS facilities that are still subject to the SPCC Plan requirements will have this testing and the schedule included in the plan when it is re-certified by a Professional Engineer.

Because the ConVault tanks used by the NWS have a storage capacity of only 1000 gallons, if a facility does not store oil or other petroleum products in any other aboveground tanks or containers that are 55 gallons or larger such that the total storage on site does not exceed 1320 gallons, the facility is not required to have an SPCC Plan nor perform these inspections. However best management practices require the integrity inspections still occur on a regular basis and whenever repairs are made to the tank or its associated piping. Because the frequency for integrity testing can be influenced by the specific location of the tank, the NWS Regional Environmental Coordinator and/or the NOAA Regional Environmental Compliance Officer (RECO) should be contacted for assistance in establishing the integrity testing procedure to be used and the "regular schedule" for these inspections. To assist in determining what and how to inspect, the, the EPA has created a set of reduced testing requirements for the ConVault tanks which are defined by the EPA as "shop-built double walled tanks". For the ConVault tanks, the EPA recommends the inspection include:

- visual inspection of outer walls for signs of deterioration, discharges or accumulation of oil inside the dike area,
- visual inspection of the inner wall and interstitial spaces,
- an operational check on all automatic devices that monitor the interstitial space, and
- in addition, all piping, equipment and connected devices should be visually checked to ensure they are not leaking.

For other aboveground tanks used by the NWS, the EPA has allowed that if these tanks:

- are smaller "shop-built" containers in which internal corrosion poses minimal risk of failure,
- have all sides visible (i.e. the container has no direct contact with the ground),

- are inspected at least monthly,

Visual integrity inspection will also suffice. For both types of tanks, the EPA recommends that the SPCC Plan explain why the visual integrity testing is sufficient. This explanation should include:

- a statement that the tank is built to ASTM Standards,
- the tank is visible on all sides,
- the SPCC Plan outlines the visual inspection and recording requirements, and,
- the SPCC Plan explains that the visual integrity protocol provides equivalent environmental protection.

To meet this requirement, it is recommended that the SPCC Plan explain that:

- the tank is double-walled,
- there is on-going monitoring of the tank (interstitial monitoring for leaks and visual inspection),
- the staff is trained on a regular schedule

OR

For single-walled tanks:

- the tank is single-walled,
- the tank has secondary containment and is visible on all sides, and
- there is an on-going monitoring of the tank.

For tanks that do not require a SPCC Plan, this information should be included in the Best Management Plan for the tank.

Some States still require additional measures such as periodic testing of the wall thickness or structural integrity testing of the storage tank. It is important to check with the NWS Regional Environmental Coordinator and/or NOAA RECO to determine if additional tank integrity testing is required for the other aboveground tanks or containers and how often it must be repeated.

1.8.3 Underground Storage Tanks (USTs)

With the modernization of the NWS, it has been assumed that all underground tanks have been located and moved. Unfortunately, this may not be the case. The definition of an underground storage tank is “a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground that stores either petroleum or any hazardous substance listed on the list generated under CERCLA (or Superfund) and published in 40 CFR 302.4.”

The definition does not include:

- tanks used for storing heating oil for consumptive use on the premises where stored
- septic tanks
- surface impoundment, pit, pond or lagoon
- storm water or wastewater collection systems, or
- a storage tank located in an underground area (such as a basement, cellar or mine) if the tank is situated upon or above the surface of the floor.

Based on this definition, a petroleum tank that is entirely aboveground but has an extensive underground piping system may meet the legal definition of an underground tank and be subject to the EPA and State regulations.

Should a previously unknown UST be discovered, contact the NWS Regional Environmental Coordinator and/or the NOAA Regional Environmental Compliance Officer (RECO) for assistance in establishing the UST compliance program.

If a NWS facility or work site uses an UST, or an aboveground tank is found to meet the definition of an underground storage tank because of buried piping, or an old, forgotten tank is uncovered, the Facility Manager must:

- ensure it is registered with the appropriate State authority
- ensure the tank meets the design standards in 40 CFR 280.20 or State equivalent or upgrade or replace
- perform release detection to determine if it is leaking
- ensure there is a proper response to any spills
- perform corrective action (clean-up) if a release has occurred
- properly close when taken out of service
- maintain UST-required records.

a. <u>UST Registration</u>

As required by the Hazardous and Solid Waste Amendments, owners or operators of USTs that were in existence on or after January 1, 1974 were required to document the existence and location of the tank as well as its contents by notifying the State or local agency designated to manage this program. Because this notification was due in 1985, contact the NWS Regional Environmental Coordinator and/or NOAA RECO before contacting the State.

b. <u>Design Standards for new USTs</u>

The EPA design standards for USTs and their associated piping are found in 40 CFR Part 280.20. These regulations require:

(1) the material of construction must be:

(a) fiberglass reinforced plastic, or
(b) cathodically protected steel, or
(c) steel-fiberglass-reinforced plastic composite, or
(d) metal without corrosion protection if a corrosion expert determines the site is not corrosive enough to cause the tank to have a leak during its operating life and the tank is maintained as required by the corrosion expert, or
(e) the tank construction and corrosion protection is determined by the implementing agency to be appropriate.

(2) the piping must be designed and constructed and protected to prevent releases

(3) the tank has spill and overflow prevention equipment

(4) the installation must be certified by the installer or a Registered Professional Engineer.

c. Upgrading Existing USTs

By December 22, 1998, all existing USTs were required to be upgraded to meet the design standards for new USTs. If it is determined that an existing tank has not been upgraded, contact the NWS Environmental Coordinator and/or NOAA RECO immediately.

d. Operation of a UST

(1) Release (leak) Detection

As required by 40 CFR 280.40(a), every UST must have a release detection system that can detect a leak from any part of the tank or its piping that routinely contains petroleum. This system must be installed, calibrated, operated and maintained in accord with the manufacturer's specifications. In 40 CFR 280.43, the EPA defines several methods for release detection and the requirements for each. Some of the acceptable methods include inventory control, manual gauging, tank tightness testing, automatic tank gauging, vapor monitoring, groundwater monitoring and interstitial monitoring of the space between the double walls.

(2) Monthly Monitoring

Every UST must be inspected monthly by:

(a) monitoring the interstitial space between the inner and outer tank walls (interstitial monitoring)

(b) using a device to continuously monitor the level of the liquid in the tank (automatic tank gauging)

(c) using sensors to monitor the soil surrounding the tank for petroleum vapors

(d) using a system to sample and check the groundwater downstream of the tank

(e) using a statistical program to reconcile the inventory

(f) or any method approved by the regulatory agency (usually the State)

1.8.4 EPCRA Reporting Requirements

a. Determine the list of regulated materials

EPCRA requires community notification if any hazardous chemical (HC) regulated by the OSHA Hazard Communication Standard in 29 CFR 1910.1200 because it is a physical or chemical hazard is present at any one time in a quantity equal to or greater than 10,000 pounds OR is an extremely hazardous substance (EHS) identified in 40 CFR Part 355 which is present at the facility in a quantity equal to or greater than 500 pounds or the threshold planning quantity (TPQ) whichever is less.

The EPCRA rules regulate the amount of OSHA-defined hazardous chemical or extremely hazardous substance which is present at a facility. While the definition of a facility can vary from state-to-state, in 40 CFR 370.20, the EPA defines the term "facility" to mean all buildings, equipment, structures and other stationary items that are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (or by any person which controls, is controlled by or under common control with, such person). Facility shall include manmade structures as well as all natural structures in which chemicals are purposefully placed or removed through human means such that it functions as a containment structure for human use. For purposes of emergency release notification, the term includes motor vehicles, rolling stock and aircraft.

By definition, a "facility" must be "located on a single site or on contiguous or adjacent sites." Because a Weather Forecast Office facility and radar facility are normally separated by a public road, by definition, they are considered as two facilities on two distinct and separate sites. Therefore, the 10,000 lb. Rule for Tier II reporting of diesel fuel would be applicable to each of the two facilities, but their accumulative store of

diesel fuel would not be considered.

To determine the HCs used at the facility, review the inventory of hazardous chemicals prepared in accordance with Procedure 7 of NWSM 50-1115 "Occupational Safety and Health."
To determine the EHSs used at the facility, review Appendix B to this manual, "The List of Hazardous and Extremely Hazardous Substances." The EHS can be identified by entries under the column heading "40 CFR 355 EHS RQ" and/or "40 CFR 355 EHS TPQ."

Note: To determine the total amount of a chemical on-site, find the specific gravity (sp.gr.) as listed on the Material Safety Data Sheet for the product. Multiply the specific gravity by 8.345 pounds per gallon to obtain the weight per gallon of the HC or EHS. Divide the appropriate quantity limitation (10,000 pounds for an HC, the TPQ or 500 pounds for an EHS) by the weight per gallon of the HC or EHS. The result is the maximum amount of the material, in gallons, that the facility can store and **not** be regulated by EPCRA.

b. For each regulated material, obtain a copy of the Material Safety Data Sheet (MSDS) and send the MSDS to the local Fire Department and/or the Local Emergency Planning Committee (LEPC) or the State Emergency Response Commission (SERC) - whichever has jurisdiction over the facility.

Note: Contact the NWS Regional Environmental Coordinator or NOAA RECO to determine which agency has jurisdiction.

In lieu of a MSDS for each EHS, the NWS facility may submit:

(1) a list of hazardous chemicals for which a MSDS is required
(2) the chemical or common name of each hazardous chemical
(3) any hazardous component of each hazardous chemical

(c) If a NWS facility is regulated by EPCRA, as required by 40 CFR 355.30(c), the Facility Manager must appoint a representative to serve on the LEPC. To the extent practicable, each regulated NWS facility shall provide any emergency information requested by the LEPC.

Note: Even if a NWS facility is not required to join the LEPC, it is highly recommended that each facility send a representative. In the event of an emergency involving a hazardous material (i.e. fire, explosion, release, etc.), the LEPC will usually call the NWS to obtain pertinent weather information. Each NWS facility should work

with the LEPC to ensure the needed information is provided without delays. In return, the NWS will rapidly learn that the LEPC is comprised of local experts in the management of hazardous materials, substances or wastes - experts who are normally more than willing to provide assistance to the NWS at no charge.

1.8.5 Submit the Tier I Form to the LEPC as soon as it is determined that a NWS facility is regulated by EPCRA or the State Emergency Response Commission (SERC).

Under EPCRA, NWS facilities that have a material listed on the EHS list in 40 CFR 355 in a quantity greater than 500 pounds or the TPQ (as listed on 40 CFR 355) must submit a Tier I or Tier II inventory report to the LEPC, SERC or Fire Department which has jurisdiction over the facility.

The Tier I form is a summary of the hazards present on the site. A copy of the form is found in 40 CFR 370.40 and included here as Attachment B to this section.

The Tier II form provides information about individual EHSs on-site. The Tier II form is found in 40 CFR 370.41 and included here as Attachment C to this section.

Because it is more specific, a Tier II form may be submitted in lieu of a Tier I form. Also, a SERC, LEPC or Fire Department that has jurisdiction can request a Tier II at any time, and, the NWS facility must submit the required form within 30-days.

Note: The EPA has created an electronic version of the Tier I and Tier II forms. The Tier I form can be found and downloaded from: http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr370_00.html. If the SERC, LEPC or Fire Department that has jurisdiction over a specific NWS facility has the capability to receive the Tier II electronically, the Tier II form can be download at http://www.epa.gov/ceppo/tier2.htm.

Submit the Tier I or Tier II form annually on or before March 1st of each year to the SERC, LEPC or Fire Department that has jurisdiction over the NWS facility.

1.9 Storage of Specific Materials Used by the NWS

1.9.1 Gasoline

a. Small Quantities

Gasoline is a Class 1A flammable liquid. Small quantities must be stored in accordance with Section 16 of NWSM 50-1115 - Occupational Safety & Health which details the specific requirements for flammable and combustible liquid storage. This section details the containers, storage cabinets, locations and procedures that must be used.

b. Large Quantities

NWS facilities do not typically store large amounts of gasoline in tanks. If the storage of more than 55 gallons of gasoline is contemplated, consult with the NWS Regional Environmental Coordinator and/or NOAA RECO.

1.9.2 Oil

NWS facilities and work sites store two types of oil. New, unused oil and spent, used oil. Although the hazards of new and used oil are the same, used oil is regulated by the EPA and the States differently from the unused oil - hence the two are stored differently.

a. Unused Oil

While there are no EPA rules for the storage of small quantities of unused oil (less than 1,320-gallons), to minimize the possibility of a spill, best management practices require that unused oil be stored in the original container. It must be stored away from food and beverages and the storage location must provide containment to minimize the potential release to the environment in the event of a leak or spill. If the oil is transferred to another container to be used at the work site, the container must be labeled to identify the contents as oil.

b. Used Oil

Because the used oil requirements vary from state-to-state, the NWS Regional Environmental Coordinator and/or NOAA RECO should be contacted to determine if specific rules exist. To meet the EPA requirements, used oil generated from the maintenance of the emergency generator and other NWS equipment must be stored in DOT-approved containers (typically 5, 10 or 55-gallon drums - but not a gasoline can) which are:

(1) in good condition (no dents or rust)

(2) labeled "Used oil" or equivalent (i.e., used dielectric fluid)
(3) stored in a contained area which will prevent any releases or spills from reaching the "waters of the U.S."
(4) dated to show when the oil was placed in the container

Spill response equipment such as spill sorbant, booms or pillows, shovels, plastic tarps and bags must be readily available and NWS personnel must be trained in how to respond.

1.9.3 Antifreeze

Antifreeze (ethylene or propylene glycol) is also usually stored in two forms - unused concentrated propylene glycol and a used mixture of propylene glycol and water. Again, because of State authority in this area, the rules for storage of used antifreeze can vary significantly from the requirements for unused antifreeze.

a. Unused Antifreeze

Like unused oil, best management practices require that unused antifreeze be stored in its original container in a location away from food and beverages and if possible, the storage location must provide containment of the antifreeze in the event of a spill or leak.

If antifreeze is transferred to another container for use at the work site, the transfer container must be labeled to identify the contents as propylene glycol.

b. Used Antifreeze Solution

A used antifreeze and water mixture is generated from the maintenance of the emergency generator and other NWS equipment and it must be stored in DOT-approved containers (typically 5, 10 or 55-gallon drums) which are:

(1) in good condition
(2) labeled "Antifreeze/Water Mixture"
(3) stored in a contained area which will prevent any release or spills from entering the soil or water.

Spill response equipment must be readily available and NWS personnel must be trained in its use.

1.9.4 Rain Gauge Antifreeze/Oil/Water Mixtures

To prevent evaporation, a small amount of mineral oil is often added to rain gauges. The oil blankets the collected rainwater from the air and hence minimizes the evaporation

loss. Likewise, in colder climates, a small amount of propylene glycol is also added to the rain gauge to prevent the collected water from freezing. The result is that the collected rainwater is also a mixture of water, mineral oil and/or propylene glycol.

Because this mixture can be disposed either as a mixture or separated into oil and water/propylene glycol portions, storage can vary.

If the mixture is to be disposed as a mixture, it normally can be added to the used oil drum. The used oil contractor must be contacted prior to mixing with the used oil to determine if this procedure will create any problems in recycling the oil.

If the mixture is to be separated, it can be temporarily stored in a collection vessel with a bottom valve (such as a plastic picnic jug). The vessel must be clearly marked with the words "Oil/Water Mixture - Do NOT Drink!"
Periodically empty the vessel using the bottom valve to drain off the water/propylene glycol mixture and discharge to the sewer system - if allowed by the POTW. If this solution cannot be discharged to the sewer system, add to the antifreeze/water mixture collected from servicing the diesel generator.

As the oil layer drains from the collection vessel, either:

- filter it using a paper towel or coffee filter and funnel and collect for reuse in the rain gauges, or
- collect it and add to the used oil collected from servicing the diesel generator.

1.9.5 Radiosonde Battery Activation Water

Prior to use, radiosonde batteries must be soaked in a container of water to activate the battery. In the process, small amounts of dissolved copper "leaks" from the battery into the water bath. After many battery activations, the water usually contains a small amount of copper.

Because the volume of this bath is low and the amount of contamination minimal, this water usually can be poured down the drain.

However, because copper is a biocide (it kills bacteria), this may not be a good idea if the facility uses a septic system to treat its wastewater. Additionally, some States regulate this wastewater as a hazardous waste and some publicly-owned treatment plants (POTW or sewage treatment plant) are concerned that the dissolved copper might disrupt their biological treatment systems and thus forbid or restrict its disposal into their system.

To ensure safe disposal of this fluid, site personnel need to contact the local POTW to determine how the local POTW regulates this waste.

If analytical data is required, NWS Headquarters has the results from the testing of radiosonde water which is available to all NWS sites.

It may be necessary to collect this wastewater and ship it to an off-site treatment facility.

If the POTW does not object to accepting this waste, ask for a letter from the POTW verifying this approval.

1.9.6 Batteries

Typically, NWS work sites will employ a contractor to service the lead acid batteries. As a result, the vendor will bring in new batteries as needed and immediately remove the spent batteries, eliminating the need to store these batteries. There are some work sites that cannot use a contractor and thus must create a storage area for both new and used batteries.

a. Lead Acid Batteries

Whether new or spent, the storage of lead acid batteries is the same. Because they contain sulfuric acid, these batteries must be stored so that:

(1) they are protected from physical damage to the casing,
(2) spills and other releases will be contained,
(3) contact with other materials is minimized, and
(4) temperature variation is controlled.

To ensure all leaks are contained, lead acid batteries should be stored on a battery tray.

b. Alkaline/Nickel Cadmium/Lithium Batteries

Depending on the recycling vendor selected, storage of smaller batteries (A, C, D, AA, AAA, 6v, etc.) may vary. Some battery recyclers prefer the nickel cadmium batteries to be segregated from all others but this is not a universal rule. While any non-conductive container can be used, it is recommended that a plastic tub with an easily-removable lid be used to collect these batteries. The container must be marked “Used Batteries for Recycling” and be located in an area accessible to facility employees to encourage its use.

Additionally, the marking must include a point of contact (in case there are questions or problems) and the accumulation start date (which begins when the first battery is placed into the container). There is a 1-year on-site storage limit from the accumulation start date.

An example of this label can be found and downloaded at: www.easc.gov/environ/lampsballastweb/lampentrypage_v2.htm.

1.9.7 Fluorescent Tubes

Whether new or used, fluorescent tubes must be protected from breakage due to mechanical impact. As tubes are replaced, the spent tubes should be placed in the cardboard sleeve and outer box that were used to protect the replacement tubes. They will then be properly packaged to be sent to the recycling facility.

As the spent tubes are accumulated, the outer box should be marked with the words "Spent Fluorescent Tubes" or "Universal Wastes - Fluorescent Tubes" as well as the accumulation start date. Remember that these tubes can only be kept on-site for one (1) year from the accumulation start date.

Again, an example of this label can be found and downloaded at: www.easc.gov/environ/lampsballastweb/lampentrypage_v2.htm.

1.9.8 Pesticides

Typically, NWS facilities or work sites contract with a vendor to apply pesticides around the property. These vendors normally bring to the site the pesticides they are going to use and take all residual materials when they leave. Some facilities, however, augment these applications with the use of commercially-available ant or wasp killing agents on a spot basis. Although these commercial containers are relatively small in volume, they can represent a serious health threat to NWS employees.

a. Small, Over-the-Counter Containers

Small containers of pesticides must be stored:

(1) away from food or beverage handling areas
(2) near a ventilation system which could remove vapors, if necessary
(3) near personal protective gear which could be used to clean-up releases or spills.

b. Larger Containers

For NWS facilities or work sites that mix and use pesticides for use at the facility or work site, review the requirements of Section 10 of this manual. Accordingly, the pesticides must be stored:

(1) in the original container if possible or if mixed for use, in a container labeled

to identify the contents
(2) in a well-ventilated area if possible
(3) near personal protective gear which could be used to clean-up releases or spills
(4) near an emergency deluge shower and eyewash station.

The storage area must be inspected quarterly by a certified applicator.

1.9.9 Paints

While latex paint poses little or no threat to human health or the environment, oil-based paint and spray cans present a different level of risk and must be stored appropriately.

Most oil-based paint and spray paint are either flammable or combustible material as defined in NWSM 50-1115 - Occupational Safety and Health, Procedure 16, Flammable and Combustible Storage. As a result, these materials must be stored in accordance with 16.3.1 which describes storage considerations for these materials.

In general, paint containers must be kept closed and stored away from high temperatures. Original labels must be maintained if possible or the container clearly marked to identify the contents.

1.9.10 Compressed Gas Cylinders

The safe storage of compressed gas cylinders is described in NWSM 50-1115 Occupational Safety and Health, Procedure 9 - Compressed Gas Safety.

The section details general storage rules in 9.3.1 for all compressed gases but also provides specific rules for:

- Oxygen in 9.3.2
- Acetylene in 9.3.3
- Liquified Petroleum Gas in 9.3.4
- Hydrogen in 9.3.5.

1.9.11 Cleaning Solvents and Degreasers

While many cleaning solvents and degreasers used by the NWS previously contained chlorinated solvents, international agreements to reduce the damage to the ozone layer have greatly decreased the production and use of these materials. Current cleaning materials tend to be either flammable materials or corrosives.

To determine the appropriate storage method, review the MSDS for each material and determine:

- does it have a flash point or
- does it have a lower explosive limit (LEL) and upper explosive limit (UEL)?

If so, the solvent or degreaser is considered either a flammable material (flash point less than 100/F) or combustible material (flash point greater than 100/F or there is no flash point but there is a LEL and UEL). The requirements for storage in Section 16 of NWSM 50-1115 would then apply.

If the material has a pH below 6.0 or above 8.0, it is considered corrosive. This will require the use of plastic containers (such as a dish pan or trays) to maintain proper segregation from other materials and provide secondary containment in the event of a leak.

1.10 Responsibilities

1.10.1 NWS Headquarters (NWSH)

a. The NWSH Environmental/Safety Office shall perform an annual assessment of the NWSH facilities to ensure that the facilities are in compliance with this section.

b. The NWSH Environmental/Safety Office shall periodically perform an assessment of the regional headquarters and field offices to ensure compliance with this section. The frequency of these regional and field office assessments shall be determined by the NWSH Environmental/Safety Office.

c. Requests for clarification concerning this section shall be directed to the NWSH Environmental/Safety Office.

1.10.2 Regional or Operating Unit Environmental/Safety Coordinator

a. Shall monitor and coordinate to promote compliance with the requirements of this procedure for the regional headquarters and field offices or operating units.

b. Shall ensure flammable, combustible, corrosive and reactive liquids are used and stored according to the requirements of this section.

c. Shall assist in procuring the services of a Professional Engineer to review facility or work site SPCC Plans.

d. Shall assess the Regional Headquarter's facility or operating unit to monitor and promote compliance with this section.

e. Shall perform assessments or designate personnel to perform assessments of all field offices to monitor and promote compliance with the requirements of the

section every two years.

1.10.3 Station Manager

a. Shall have oversight over the implementation of this section and ensure that the requirements of this section are followed by individuals at the NWS facility.

b. Shall ensure sufficient personnel and funding are available to enable compliance with all applicable requirements of this section.

c. Shall ensure flammable, combustible, corrosive and reactive liquids are used and stored according to the requirements of this section.

d. Shall ensure that procedures are developed at NWS field offices for reporting all releases, compatibly storing all flammable, combustible or corrosive liquids.

e. Shall ensure the SPCC Plan is reviewed by a Professional Engineer every 5-years.

f. Shall ensure the Tier II report is submitted to the SERC, LEPC or local Fire Department on an annual basis (if applicable).

g. Shall ensure NWS employees are following the requirements of this section.

i. Shall review or delegate review of this section on an annual basis to ensure that the facility is complying with its requirements. Confirmation of this review shall be forwarded to the Regional or Operating Unit Environmental/Safety Coordinator.

1.10.4 Environmental or Environmental/Safety Focal Point or Designated Person

a. Shall ensure any tasks delegated to them by the Station Manager are implemented in accordance with the requirements of this section.

b. Shall ensure a reporting procedure is in place for reporting all releases of a hazardous substance in excess of the Reportable Quantity or petroleum in a quantity capable of discoloring surface water.

1.10.5 Employees

a. Individual employees affected by this section are required to read, understand and comply with the requirements of this section.

b. Report all violations of the requirements of this section to their supervisor or Environmental or Environmental/Safety Focal Point.

c. Report all spills or releases to their supervisor or Environmental or Environmental/Safety Focal Point.

1.11 References

Incorporated References

The following list of references is incorporated as a whole or in part into this section. These references can provide additional explanation or guidance for the implementation of this section.

1.11.1 American National Standards Institute, ANSI, Z358.1-1998, "Emergency Eyewash and Shower Equipment."

1.11.2 National Fire Protection Association, NFPA 30, "Flammable and Combustible Liquids Code".

1.11.3 National Weather Service Manual 50-1115, Occupational Safety and Health, Procedure 7, "Hazard Communication".

1.11.4 National Weather Service Manual 50-1115, Occupational Safety and Health, Procedure 9, "Compressed Gas Safety".

1.11.5 National Weather Service Manual 50-1115, Occupational Safety and Health, Procedure 16, "Flammable and Combustible Liquids".

1.11.6 U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910.106, "Flammable and Combustible Liquids".

1.11.7 U.S. Department of Transportation, 49 CFR 172, "Hazardous Materials Table, Special Provisions, Hazardous Materials Communication, Emergency Response Information, and Training Requirements".

1.11.8 U.S. Environmental Protection Agency, 40 CFR 112, "Oil Pollution Prevention".

1.11.9 U.S. Environmental Protection Agency, 40 CFR 273, "Standards for Universal Waste Management".

1.11.10 U.S. Environmental Protection Agency, 40 CFR 279, "Standards for the Management of Used Oil".

1.11.11 U.S. Environmental Protection Agency, 40 CFR 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (USTs)".

1.11.12 U.S. Environmental Protection Agency, 40 CFR 302.4, "Designation of Hazardous Substances".

1.11.13 U.S. Environmental Protection Agency, 40 CFR 355, "Emergency Planning and Notification".

1.11.14 U.S. Environmental Protection Agency, 40 CFR 370.40, "Tier I Emergency and Hazardous Chemical Inventory Form", http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr370_00.html

1.11.15 U.S. Environmental Protection Agency, 40 CFR 370.41, "Tier II Emergency and Hazardous Chemical Inventory Form," http://www.epa.gov/ceppo/tier2/htm.

ATTACHMENT A

SPILL PREVENTION, CONTROL AND COUNTERMEASURES BEST MANAGEMENT PLAN

(available from http://www.easc.noaa.gov/environ/BMPWEBA/BMPVSSPCCpage1.htm)

(Facility Specific Data:
Name and Address)
Sample

NOAA
NATIONAL WEATHER SERVICE
Rainbow Forecast Office
2001 Snow Road
Blizzardville, TN

Designated Person Responsible for Spill Prevention (DRO):

Printed Name:

Signature:

Date:

Telephone:

The Regional Environmental Compliance Officer (RECO) has reviewed the facility and determined that an SPCC Plan is not required per 40 CFR 112. This Plan is developed strictly as a Best Management Plan. The determination is based on :
_____ The facility does not exceed capacity.
_____ The facility meets capacity requirements but, a discharge will not reach navigable waterways.

RECO Printed Name:

RECO Signature:

Date:

PART I - GENERAL INFORMATION

A. GENERAL

This section of the Best Management Practices plan provides general information about the facility.

1. **Name:**
   National Weather Service (NWS) Weather Forecast Office (WFO)
2. **Date of Initial Operation**:
3. **Location:**
   Street:
   City:
   State/Zip Code:
   Latitude:
   Longitude:

4. **Name and phone number of Owner (POC)**
5. **Facility Contacts (Environmental Coordinator, Area Safety representative, Alternate, Focal Point, First responder)**

Name	Title/EC Role	Telephone Number
1.		
2.		
3.		
4.		

B. SITE DESCRIPTION AND OPERATIONS

1.The facility is located in _____ County, _____(state) , approximately_____ _____miles of _____ (list major city). The Aboveground Storage Tanks (AST) are used to store diesel fuel for generators used for emergency backup power to the WFO. This Facility has _____ (specify number) _____ (specify capacity) generator tank(s) and _____ (specify capacity) day tank.

2. Fuel usage for the weather station is estimated at _____ gallons per month based on fuel records for a 6-month period. WFO generator is tested _____ (specify frequency). Fuel consumption would increase based on the frequency and duration of any power outages.

3. In addition to the diesel fuel used for emergency power generator, this facility also stores chemicals, e.g., paint, solvents, antifreeze, bulk mercury, and pesticides for _____e.g., O&M, Testing activities. These are stored/used in the following location(s).

Locations (Example: flammable locker next to coffee mess)

1._____
2._____
3._____

PART II - SPILL COUNTERMEASURES AND REPORTING

A. SPILL COUNTERMEASURES

This section presents countermeasures to contain, clean up, and mitigate the effects of an oil spill that impacts navigable waters or adjacent shorelines.

A spill containment and cleanup activity will never take precedence over the safety of personnel. No countermeasures will be undertaken until conditions are safe for workers. The **SWIMS** procedure should be implemented as countermeasures:

1. **S-** Stop the leak and eliminate ignition sources.
   a. Attempt to seal or some how stop leak if it can be done safely.
   b. Attempt to divert flow away from the drainage ditch with a spill barrier or the contents of spill kit. The spill kit is located at_____.
   c. Eliminate all ignition sources in the immediate area.
2. **W-** Warn others.
   a. Yell out "SPILL". Inform the person in-charge at your facility.
   b. Account for all personnel and ensure their safety.
   c. Notify contacts and emergency response contractor as described in the following section for assistance in control and cleanup.
3. **I-** Isolate the area.
   a. Rope off the area
4. **M-** Minimize your exposures. Stay upwind
5. **S-** Standby to assist the emergency response contractor.

B. SPILL REPORTING

1. General Notification Procedures For All Spills
   Within 24 hours, the responsible person or designee (on this plan title page or in Part 1, A.5.) is directly charged with reporting **all** oil spills that result from facility operations as follows:
   a. In the event of a emergency (e.g., fire, or injury), call_____ (eg. **9-1-1)**
   b. Notify the appropriate persons within your region and line office.

National Weather Service:
Mike Jacob, NWS Environmental Compliance Officer
Phone number: (301) 713-1838 Ext. 165, Jmichael.Jacob@NOAA.GOV

Olga Kebis, NWS Safety Officer
Phone number: (301) 713-1838 Ext. 173, Olga.Kebis@NOAA.GOV

Regional EC Coordinator (in line office regional office or center)
Phone number: (___) ___-____ Ext. ___, _____@NOAA.GOV

c. **NOAA Environmental Compliance and Safety Office Program: Pick a RECO**. E-mail or call your RECO.

EASC Lynnette.J.Ansell@NOAA.GOV
(757) 441-6298
WASC Thanh.M.Trinh@NOAA.GOV(206) 526-6647
MASC Mark.George@NOAA.GOV(303) 497-3064
CASC Sherilyn.S.Villegas@NOAA.GOV
(816) 426-7267 x 263

d. **LECO & RECO** must determine if Federal or State notification is required and follow up accordingly.

2. Cleanup Contractor Notification

An emergency response contractor may also be notified to assist with the clean up if necessary. NWS (Insert your Line office) has identified and contacted the following contractors that are available for an emergency response:

Contractor(s) Phone Number

_____

_____

_____

3. Spill Report

Complete a spill report using the format provided in Appendix "X". Send this to Your RECO.

C. Training

The Environmental/Safety Focal Point and an alternate should be trained in spill countermeasures. The alternate should be designated in case the primary person is off -site at the time of a spill.

ATTACHMENT B

Tier I Reporting Form

The Tier I Form is available on-line at:

http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr261_00.html

The form is a scanned document and must be downloaded, printed and manually completed.

Unfortunately, the Tier I Form is not a form which can be completed electronically.

ATTACHMENT C

Tier II Reporting Form

The Tier II Form is available on-line at:

http://www.epa.gov/ceppo/tier2.htm

This is an electronic version of the form. If the Local Emergency Planning Committee is equipped to receive these forms electronically, a hard printed copy need not be prepared.