

Appendix J

University of Vermont Environmental Safety Facility Inspection Plan

Inspection Plan

The Environmental Safety Facility (ESF) inspection plan is designed to detect malfunctions, deterioration, operator errors or discharges that could result in a release of hazardous waste constituents into the environment or pose a threat to human health.

All ESF staff members are trained in the use of the Daily Inspection Checklist and the Weekly Inspection Checklist included in this section. This training includes instruction on how to perform inspections, inspection recordkeeping procedures, procedures for corrective actions, and documented follow-up. Daily inspections are recorded every day that ESF personnel are normally scheduled to be on site. The inspection checklists are maintained at the ESF.

Daily Inspection

ESF staff members will perform a daily inspection of the main ESF building, Reactives Storage Building and grounds.

Any indication of unusual odors, possible spills or leaks, inadequate aisle space between drums, container defects or mechanical problems will be immediately reported to other ESF staff members who will promptly assist in investigating the problem. If necessary, the contingency plan will be implemented. The UVM Physical Plant Department will be notified if there are any mechanical problems.

Example Daily Inspection Walkthrough:

Upon entering the waste storage area, the ESF staff member (inspector) checks the truck bay for any noticeable problems such as spills, unusual odors, or unsecured waste containers. The containment sump control valve is checked to make sure that it is in the closed position; a sign in the truck bay indicates the open and shut positions. Power to the truck bay door is switched off to lock the door. The switch is located adjacent to the overhead door.

The inspector proceeds into the chemical workroom (room 109). This room is checked for evidence of spills or releases, the presence of required safety equipment, and the integrity and inventory of waste containers. Drums stored in this room may be partially filled drums that are awaiting further consolidation or lab packing. Other drums stored in this room may be drums that are stored in the pouring station following consolidation activities. Containers may also be stored in this room when they are staged for a scheduled shipment to an off-site TSDF.

The inspector checks the rooms where wastes are stored, including rooms 110, 111, 112, 113, 116, 118, 119, and 120; as well as rooms 115, 115-A, 115-B, and 117 where virgin product, and laboratory chemicals are stored. While inspecting each storage room for leaking or deteriorated containers, the inspector also takes a drum inventory to compare with the Emergency Response Inventory that is posted at the entrance of the facility. The barrel count also confirms that the maximum storage capacity of each room (twenty, 55-gallon drums or the equivalent) has not been exceeded. The exterior doors in the storage rooms are checked to confirm that they are locked and the lights in the hallway and in each storage room are inspected to ensure that they are functioning properly.

The second floor rooms 200 (heating), 201 (storage), 201-A (fan room), 202 (mechanical room) and EF-1 (fan room) are checked for water leaks, odors and odd mechanical noises. The upper truck bay delivery doors are checked to confirm that they are locked. The inspector checks the stairwells to ensure that they are accessible.

The inspector checks the Reactives Storage Building for any evidence of chemical leaks or spills, water leaks, unusual odors, container defects, or mechanical problems. The inspector confirms that there is adequate aisle space and that the storage limit of the building (eight, 55-gallon drums or the equivalent) has not been exceeded. Finally, the inspector ensures that the door is locked (this should always be in the locked configuration) and closed.

The ESF Main Building exterior is inspected to ensure that exterior doors are locked (Note: the front door to the ESF may remain unlocked at the time of the inspection; this door is locked, and the security alarm is set, when the last ESF staff member leaves the ESF for the day). The inspector checks the fire alarm panel to be sure the power light is on and the trouble lights are off. The inspector also checks the security alarm to ensure that the power light is lit. The inspector compares the result of the reviewed inventory to the Emergency Response inventory and makes sure that the emergency response inventory is posted in the foyer. The inspector checks the communications system by activating the intercom to the waste storage area from the office area.

Throughout the inspection, the inspector observes the grounds and general building structures and systems for necessary maintenance or repairs. These include, but are not limited to, lighting, plumbing, snow removal, and housekeeping. Deficiencies in these areas, that do not increase the risk of a release of hazardous materials nor the threat to human health or the environment, may be remedied through UVM's general work order process and do not have to be documented on the inspection form.

After concluding a complete walk around the ESF and building exterior, the inspector fills out the daily inspection checklist and records any problems or corrective actions taken. Records of the daily inspection are retained at the ESF for three years, as part of the facility operating record.

Weekly Inspection

ESF staff members perform weekly inspections of safety showers, eyewashes, and emergency equipment. During the inspection, the safety showers are flushed in accordance with VOSHA regulations.

ESF staff members also check the emergency spill supplies specified in the Contingency Plan portion of this permit. These supplies are located in room 109 and in the East Stairwell of the ESF.

ESF staff members also inspect the retention pond on a weekly basis to assure the control valve is in the closed position. If the pond is holding water, it is drained. The retention pond control valve is returned to the closed position after draining. This process ensures that the valve is

operable. The exterior features of the building, including fences, gates, and lighting, are also checked.

Records of the weekly inspection are kept at the ESF for three years, as part of the facility operating record.

Fire Extinguisher Inspection

All fire extinguishers are inspected and tagged monthly by UVM's Department of Physical Plant to verify that they are charged and full, and to comply with Vermont Department of Labor regulations. Fire alarms and the main building sprinkler system are inspected and tagged annually in compliance with Vermont Department of Labor regulations. The dry chemical fire suppression systems in the pouring station and in the Reactives Storage Building are inspected semi-annually and tagged in accordance with Vermont Department of Labor regulations. The fire safety equipment are tagged to show current certification.

Additional Inspections

UVM's Electrical Department checks all exterior lights as part of the routine campus maintenance program and makes repairs as necessary. UVM's Grounds Department routinely maintains the lawns and vegetation in the moat; the use of chemical pesticides and herbicides is avoided. Preventative maintenance and repairs on air handling systems, heating systems, electrical, plumbing and other building operational systems are scheduled and performed by UVM's Department of Physical Plant.

At a frequency of every 10 years, to coincide with the permit renewal, the sump area beneath each waste storage room will be inspected to ensure that the epoxy-coated concrete is free of cracks or gaps and is sufficiently impervious to contain leaks and spills, so that it complies with 40 CFR§264.175. Records of these inspections, including the inspector's name, the date of the assessment, the method of the assessment and the results of the assessment will be maintained with the ESF permit.

**Environmental Safety Facility
Daily Inspection Checklist**

This completed checklist is part of the facility operating record for three years following the inspection date.

Inspected by: _____

Inspection Date: _____

Inspection Time: _____

Deficient? Yes/No

Storage Areas

- Chemical Releases (spills, leaks, odors):
- Water Leaks: -----
- Container Defects/Deterioration: -----
- Aisle Space: -----
- Labels (deficient if not visible): -----

Spill Control Supplies

Inventory & Location (deficient if used and not replaced or if not in proper location):

Truck Loading/Unloading Bay

- Containment sump control: -----
- Unsecured waste containers: -----
- Evidence of spills or releases: -----

Communications

- Internal Communications - cell phone: -
- On-site notification systems - fire alarm:

Fire Equipment

- Extinguishers (deficient if missing or discharged): -----
- Alarm panel (deficient if power light is off or if trouble lights are on): -----
- Emergency Response Inventory-----

Security Check

- Door Locks: -----
- Reactives Building: -----
- Fence & Gate: -----
- Alarm (deficient if power light is off): ---

Storage Room	Number of Containers	Visual Inspection Comments
109		
110		
111		
112		
113		
114, 115, 115A, 115B	(Non-waste)	
116		
117	(Nonwaste)	
118		
119		
120		
Reactives Storage Bldg		

Mechanical Rooms/Comments

200 (Heat)	
201 (Storage)	
201-A (Fan)	
202 (Mech.)	
EF-1 (Fan)	

Repair or Corrective Action for each item identified above as being deficient:

Deficiency	Repair or Corrective Action	Date/Time Completed

Environmental Safety Facility Weekly Inspection Checklist

This completed checklist is part of the facility operating record for three years following the inspection date.

Inspected by: _____

Inspection Date: _____

Inspection Time: _____

Safety Showers & Eyewashes

Flush Safety Showers and Eye Wash Stations.

Check when completed	Safety Showers	Eye Wash Stations
Chemical Workroom	<input type="checkbox"/>	<input type="checkbox"/>
West Hallway	<input type="checkbox"/>	<input type="checkbox"/>
Center Hallway	<input type="checkbox"/>	<input type="checkbox"/>
East Hallway	<input type="checkbox"/>	<input type="checkbox"/>
Chemical Distribution	<input type="checkbox"/>	<input type="checkbox"/>
Laboratory Drench Hose	<input type="checkbox"/>	<input type="checkbox"/>

Emergency Spill Supplies

Check that spill supplies, as specified in Contingency Plan are in proper locations.

Supplies in room 109 Yes No
Supplies in East Stairwell Yes No

Truck Bay

Valve is operable and left closed Yes No
Heat is on (November – March) Yes No

Exterior Inspection

Retention Pond Control Valve
 Inspected and drained if there is standing water. Yes No
 Pond valve operable & returned to closed position? Yes No
Perimeter fence intact? Yes No
Exterior lights intact? Yes No

Repair or Corrective Action for each item identified above as being deficient:

Deficiency	Repair or Corrective Action	Date/Time Completed