



# Virginia Department of Corrections

## Engineering and Environmental Services

### Operating Procedure 302.1

#### *Environmental Management Systems*

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<b>Content Owner:</b>	Timothy Newton Director, Infrastructure and Environmental Management Unit	<i>Documentation on File</i>	4/16/19
		Signature	Date
<b>Reviewer:</b>	Lisa Hernandez Corrections Administration Manager	<i>Documentation on File</i>	4/18/19
		Signature	Date
<b>Signatory:</b>	Joseph W. Walters Deputy Director for Administration	<i>Signature Copy on File</i>	4/24/19
		Signature	Date

### REVIEW

The Content Owner will review this operating procedure annually and re-write it no later than three years after the effective date.

### COMPLIANCE

This operating procedure applies to all units operated by the Virginia Department of Corrections. Practices and procedures must comply with applicable State and Federal laws and regulations, ACA standards, PREA standards, and DOC directives and operating procedures.

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## PURPOSE

This operating procedure establishes a Department of Corrections (DOC) *Environmental Management Policy Statement* to comply with applicable federal and state regulations. It details requirements for DOC units to develop and maintain an *Environmental Management Plan* in support of the DOC *Environmental Management Policy Statement* and outlines requirements for the development of an *Environmental Management Plan* to be written at each unit detailing local compliance efforts.

## PROCEDURE

- I. Environmental Management Policy Statement
  - A. The Virginia Department of Corrections is committed to attaining environmentally sustainable operations and compliance with applicable federal, state, local laws, and other requirements.
  - B. It is the intent of the DOC that all DOC employees will be provided the necessary support and resources to achieve this task.
  - C. DOC can accomplish this by performing the following:
    1. Effectively protect public safety and reduce DOC impact on the environment
    2. Provide DOC employees with adequate training on environmental regulatory responsibilities of their work area, as well as on environmental initiatives.
    3. To meet, and when operationally beneficial, exceed compliance standards set by federal, state, and local environmental regulations.
    4. Develop a community-based environmental culture for compliance responsibilities and sustainability initiatives utilizing a top-down approach.
    5. Increase awareness of executive level staff to successes and challenges of the environmental program through effective communication.
    6. Reduce raw materials usage, with the goal of ultimately decreasing the amount of waste created through statewide sustainability initiatives.
    7. Increase commitment to energy use reduction through innovative process developments to meet the Governor's existing Executive Orders on energy use and reduction.
  - D. The commitment to protect the environment is required of all DOC employees.
- II. Environmental Management Plans
  - A. Requirement for *Environmental Management Plans*
    1. Under the supervision of the Regional Environmental Specialist, each DOC unit shall develop a site specific *Environmental Management Plan* in support of the Department of Corrections *Environmental Management Policy Statement*.
      - a. Units that consist of only office operations (such as Regional Offices and Probation and Parole Offices) and produce minimal waste may be exempted by the Regional Environmental Specialist from writing a formal *Environmental Management Plan*. Documentation of such exemption may be in the form of a letter or email and will be maintained on file by the Organizational Unit Head.
      - b. The *Environmental Management Plan* will ensure that each unit will integrate pollution prevention, water conservation, energy conservation, and minimize the amount of waste produced from its operations and that waste produced is stored, handled, and disposed of in accordance with federal, state, and local regulations. (5-5D-4331; 4-4331; 4-ACRS-1A-04; 2-CO-1A-06-1) Each *Plan* will provide for quantifiable results allowing management review to drive continual reassessment and improvement.
      - c. Operating Procedure 302.3, *Sustainability Plan*, provides suggestions for minimizing waste and requirements and goals for removing recyclable materials from the waste stream.



2. *Environmental Management Plans* developed in accordance with this operating procedure (See Attachment 1 for an example.) will be submitted to the Regional Environmental Specialist for review and approval.
3. The Regional Environmental Specialist will forward approved *Environmental Management Plans* to the Energy and Environmental Administrator, and then to the Regional Administrator for final review and approval.
4. *Environmental Management Plan Qualification* - While DOC requires waste reduction and waste minimization, any *Environmental Management Plans* promulgated must not detract from the health and safety of employees, the public, or offenders. Additionally, *Environmental Management Plans* must not degrade security or detract from the DOC mission.
5. *Environmental Management Plan Benefits* - The goal of the *Environmental Management Plans* will be to meet the following objectives:
  - a. Reduce regulatory burdens
  - b. Outline regulatory responsibilities, and those specific personnel responsible
  - c. Reduce or eliminate health and safety risks
  - d. Reduce or eliminate long term liability concerns
  - e. Streamline operations
  - f. Encourage water conservation
  - g. Increase emphasis on energy conservation
  - h. Improve quality of products produced by the DOC
  - i. Cost savings

#### B. *Environmental Management Plan Contents*

1. Each *Environmental Management Plan* will provide for:
  - a. Designation of a Unit Environmental Coordinator (e.g., Institutional Safety Specialist, Unit Safety Coordinator, Buildings and Grounds Director, or as designated by the Organizational Unit Head)
  - b. Promotion of employee awareness/orientation on environmental management, pollution prevention, and waste reduction
  - c. Establishment of an Environmental Management Team
  - d. Accommodation of employee input and suggestions
  - e. Program implementation sections outlining all applicable Environmental Programs and regulatory requirements, as listed in this operating procedure.
2. In accordance with the *Pollution Prevention Act of 1990* (42 U.S.C. §13101 et seq.), DOC units will adopt the following prioritization in pollution prevention:
  - a. Pollution prevention through source reduction, reuse, or closed loop recycling to eliminate or reduce waste through product and process changes
  - b. Recycling and reclamation of waste or waste components, preferably on site when possible
  - c. Alteration of process to reduce volume or toxicity of waste
  - d. Disposal of waste into or on land, water, or air in accordance with governing regulations
3. *Environmental Management Plan Elements* - Effective pollution prevention methods and techniques will vary depending on the age, design, and other variables of the unit or process being managed. However, *Environmental Management Plans* will provide for the following elements:
  - a. Policy statement from the Organizational Unit Head
  - b. Review of total unit operations to identify Environmental Program applicability as outlined in this procedure.
  - c. Review of total unit operations to identify waste streams which can be completed using the *Aspect Significance Rating Worksheet*, Attachment 2 and the *Aspect Significance Rating Worksheet* -



*Instructions, Attachment 3.)*

- i. Assessment of the waste stream and generating process to identify possible pollution/waste prevention methodologies
  - ii. Establishment of pollution prevention/waste minimization goals and objectives, which may be either qualitative or quantitative
  - iii. Recognition for pollution prevention and waste minimization activities
  - d. Feasibility and cost/benefit analysis as necessary
  - e. Monitoring for plan compliance
  - f. Signature reflecting approval by Unit Environmental Coordinator
  - g. Signature reflecting approval of plan by Organizational Unit Head
  - h. Signature reflecting approval of plan by Regional Environmental Specialist
  - i. Signature reflecting approval by Energy and Environmental Administrator
  - j. Signature reflecting approval of plan by Regional Administrator
4. Additional *Environmental Management Plan* Elements VEEP E-2 Level:
- a. DOC *Environmental Management Policy Statement*
  - b. Policy statement from Organizational Unit Head including continual improvement (see above)
  - c. All waste stream aspects and impacts identified and rated as to significance (see above)
  - d. Establishment of quantifiable goals and objectives (see above)

**C. *Environmental Management Plan* Review and Updates**

1. Each *Environmental Management Plan* must be updated and approved by all parties at least once every three years.
2. The Regional Environmental Specialists must review all *Environmental Management Plans* developed by units within their region to verify that applicable environmental regulatory programs are captured, assessed, and enacted.
3. The Infrastructure and Environmental Management Unit will:
  - a. Serve as the Environmental Coordinator for the DOC and act as liaison with the Virginia Department of Environmental Quality (DEQ)
  - b. Facilitate training as needed to appropriate DOC staff.
4. *Environmental Management Plan* Review
  - a. The Unit Environmental Coordinator must review unit operation with the Environmental Management Assessment Team every quarter to ensure the adequacy of the *Plan*.
  - b. Any significant/technical adjustments to the *Plan* must be submitted to the Regional Environmental Specialist for review.
5. Prior to implementing a new operation or process, it should be reviewed by the Unit Environmental Coordinator or the Environmental Management Assessment Team to ensure pollution prevention is adopted by the new process. Any new operation or process that will change the Environmental Program's regulatory applicability should be reviewed by the Regional Environmental Specialist before start-up to assist with regulatory compliance.
6. If assistance is needed during the formulation or application of agency *Environmental Management Plans*, agency personnel should contact their Regional Environmental Specialist.

**D. Master Environmental, Health, and Safety File (*Master EHS File*)**

1. All DOC units must utilize the unit specific digital environmental folder located on the unit's shared drive to maintain the *Master Environmental, Health, and Safety File (Master EHS File)*. The intent of this folder is to consolidate and make readily accessible all documents outlined in this operating procedure.
2. Each unit must determine which positions need read or read/write access to the unit's *Master EHS*



*File.*

3. This folder must contain, in subfolders appropriately arranged by subject heading, all documents noted in this operating procedure as well as the unit's *Environmental Management Plan*.
  4. This folder must be reviewed quarterly to ensure all required documents have been uploaded for the previous quarter. Each unit must designate a specific position or designee responsible for review of this file.
- E. *Common Environmental Program Documents*, Attachment 4, contains a listing of common documents related to DOC environmental programs that, if applicable to the individual unit, must be uploaded to this folder. This list is not comprehensive, and unit specific conditions may determine additional recordkeeping requirements.

### III. Environmental Programs Implementation

#### A. Environmental Programs Implementation Development

1. The Environmental Programs implementation will address the following topics depending on the applicability to the specific individual unit.
  - a. Master EHSI File
  - b. Petroleum Programs
  - c. *Resource Conservation Recovery Act (RCRA)*
  - d. Solid Waste Management
  - e. *Emergency Planning and Community Right-to Know Act (EPCRA)*
  - f. Regulated Medical Waste
  - g. *Clean Air Act (CAA)*
2. The Environmental Programs implementation will identify and designate a specific unit position to serve as the Unit Environmental Coordinator as well as a designated back-up to serve as the position authorized to act in lieu of the Unit Environmental Coordinator.
  - a. The Unit Environmental Coordinator has the primary responsibility for overseeing daily operational compliance with the *Environmental Management Plan*.
  - b. Monitoring responsibilities for each of the individual components may be delegated to unit staff with an appropriate level of knowledge, experience, and training in the individual areas as designated by the Organizational Unit Head or the Unit Environmental Coordinator.

#### B. Petroleum Programs

1. Each DOC unit whose total above ground petroleum storage capacity is greater than or equal to 1320 gallons in aggregate of tanks 55 gallons and greater, or 660 gallons in the volume of one tank must develop and implement all applicable requirements of a *Spill Prevention Control and Countermeasure (SPCC)* plan.
2. Each VADOC unit whose total above ground petroleum storage capacity is greater than or equal to 25,000 gallons in aggregate of tanks 660 gallons and greater must develop and implement all applicable requirements of an *Oil Discharge Contingency Plan (ODCP)*.
3. The Environmental Programs implementation will detail the following:
  - a. Above Ground Petroleum Storage Tank (AST's) Inspections:
    - i. Daily AST inspections for tanks 660 gallons or greater, *Daily Aboveground Storage Tank (AST) Inspection*, Attachment 5. These inspections must meet the following requirements:
      - (a) Inspection of the ground surface for signs of leakage, spillage, stained or discolored soil
      - (b) Inspection of the berm, or diked area (secondary containment) for excess water from rain
      - (c) Inspection of the exterior tank shell, and gauges to look for signs of leakage, or damage
      - (d) Note unusual conditions, that may cause concern
      - (e) If applicable, a visual inspection of the leak detection gauge for signs of leakage into the interstitial space





- ii. Weekly tank inspections for all ASTs 55 gallon or greater, to meet the requirements above. (*Weekly/Monthly Aboveground Storage Tank (AST) Inspection*, Attachment 7).
  - b. Underground Storage Tank (UST) Inspection Requirements:
    - i. Copy of most recent UST Registration to the Virginia Department of Environmental Quality (DEQ)
    - ii. Copy of approval letter from VADEQ most recent 3 year inspection
    - iii. Operation and maintenance of any installed corrosion protective equipment (Steel tanks only.)
    - iv. Operable leak detection device
    - v. Monthly release detection records for the last year
    - vi. Presence of functional spill containment and overfill devices
    - vii. Installation, warranty, and repair records for tanks or piping closed since last DEQ UST inspection
    - viii. UST operator training certification from DEQ approved vendor
  - c. Annual site specific training for *Spill Prevention Control and Countermeasure (SPCC)* and *Oil Discharge Contingency Plan (ODCP)*
  - d. Gauge calibrations must be performed and documented on all applicable AST and USTs. An alternate form of calibration must be performed and documented if a gauge calibration cannot be performed.
  - e. Presence of appropriately sized, designed, and functioning petroleum spill kit directly adjacent to the storage tank.
4. The following Petroleum Program documents must be kept in the unit's *Master EHS File*, as well as the original documents, which must be maintained in a designated area:
  - a. Tank and dike inspections
  - b. Gauge calibrations
  - c. Digital copy of SPCC
  - d. Digital Copy of ODCP
  - e. SPCC/ODCP training - to include roster and agenda
  - f. PE secondary containment certifications
  - g. ODCP renewal letter
  - h. Tank closure documentation
  - i. Associate pipe pressure testing documentation
  - j. ODCP approval letter

**C. Resource Conservation Recovery Act (RCRA)**

1. Each organizational unit must comply with all applicable aspects of the [Resource Conservation and Recovery Act \(RCRA\), 42 U.S.C. §6901 et seq. \(1976\)](#) as applied to the generation, transportation, treatment, storage and disposal of all flammable, toxic, and caustic hazardous and universal waste materials. (5-3B-4215; 4-4215)
2. Each unit must perform and document a detailed *Waste Stream Analysis* (See Attachment 6.) on all waste types to meet the following requirements:
  - a. Identified waste
  - b. If identified as a hazardous waste, how the determination was made (characteristic, listed, generator knowledge)
  - c. Determination must be made at the point of generation
  - d. Monthly generation rate
3. Each unit must designate a central accumulation area for all hazardous and universal wastes.
4. The unit Environmental Programs implementation will specifically address the following:
  - a. Location of all satellite and central accumulation areas



- b. Storage and labeling of all hazardous and universal wastes. Containers must meet the following container management minimum standards:
    - i. Closed at all times, unless adding or removing waste from the container
    - ii. Stored on secondary containment appropriate for the waste being stored
    - iii. Labeled in compliance with [40 CFR 262.15 \(5\) \(i-ii\)](#), or [40 CFR 273.14 \(a-e\)](#)
      - (a) The words “Hazardous Waste” or “Universal Waste”
      - (b) Start date of accumulation
      - (c) An indication of the hazards of the contents of the container
  5. Once accumulation of non-acute hazardous waste reaches 55 gallons, the generator must date the waste and move the waste to a central accumulation area within three consecutive calendar days. The following RCRA documents must be kept in the unit’s *Master EHS File*, (original documents must be maintained in a designated area):
    - a. Hazardous waste or Universal waste disposal manifests
    - b. Initial generator copies, until final destruction certificates are received.
    - c. Monthly generation totals (sustainability report can suffice as this document)
    - d. Documented central accumulation area weekly inspections
    - e. Personnel training records - to include rosters and agendas
    - f. Exception reports
  6. The Unit Environmental Coordinator is designated as the Hazardous Waste Coordinator, and one employee will be appointed as the authorized designee. These employees must be trained in hazardous and universal waste management.
  7. Hazardous and universal waste disposal must also be documented in the facility Sustainability Report.
- D. Solid Waste Management
1. Each Organizational Unit must implement a recycling program according to Operating Procedure 302.3, *Sustainability Plan*.
  2. Units must develop a site-specific plan detailing the specific collection, sorting, storage and disposal of recycling and compostable materials. (5-5D-4331; 4-4331)
  3. This plan must be included in the unit Environmental Programs implementation.
  4. No unit is permitted to create or manage an open dump on its property.
  5. Composting is encouraged as a food-waste diversion program where feasible. Facilities are encouraged to explore alternate food-waste diversion programs as needed. The Sustainability Administrator will manage all composting programs in the agency.
  6. All compost facilities must comply with [§9VAC20-81-310, Solid Waste Management Regulations, Applicability](#).
    - a. No compost site should be located within 50 feet of a property boundary, perennial stream, river or within a flood plain.
    - b. Non-compostable or other undesirable solid waste will be segregated and disposed of separately.
    - c. Dust, odors, or vectors will be controlled so they do not constitute nuisances or hazards.
    - d. Testing for parasites and pathogens will occur per DEQ instructions and will be coordinated through the Infrastructure and Environmental Management Unit.
  7. Recycling and Food-Waste diversion totals will be documented in the unit Sustainability Report.
- E. *Emergency Planning and Community Right-to Know Act (EPCRA)*
1. The Environmental Programs implementation will address all applicable sections of the [Emergency Planning and Community Right-to Know Act \(EPCRA\), 42 U.S.C. §11001 et seq. \(1986\)](#); specifically *TIER II* requirements and reporting.
  2. The Environmental Programs implementation must address the following:



- a. All chemicals stored on site at any given time during the year, in quantities above the threshold planning quantity.
  - b. List the responsible staff member for completing the annual *Tier II* report
  - c. The following must be kept in the *Master EHS File*:
    - i. Annual *Tier II* report (due annually on March 1st)
    - ii. Documentation showing to whom the report was submitted and when.
3. The Unit Environmental Coordinator and an authorized designee are responsible for the above listed regulatory requirements.

#### F. Regulated Medical Waste

1. The Environmental Programs implementation will address the storage and disposal of regulated medical waste as outlined in all applicable sections of the *Virginia Regulated Medical Waste* requirements, under [9VAC 20-120](#) and Operating Procedure 740.2, *Infectious Waste Management and Disposal*.
  - a. No regulated medical waste will be disposed of in a solid waste landfill or other solid waste management facility.
  - b. The generator of regulated medical waste is responsible for the packaging and labeling of regulated medical wastes. As a bag or container becomes full, it must be immediately sealed, labeled, and managed/stored so that there is no leakage from the containers. Only approved regulated medical waste bags and containers will be used.
  - c. The waste generator label must be securely attached to or printed on the waste packaging. Indelible ink must be used to complete the information on the label. The label and the information provided on the label must be clearly legible and must be immediately filled out upon closure of the container or filling of the sharps container. The following information must be included:
    - i. The name, address, and business telephone number of the generator
    - ii. "Regulated Medical Waste" in large print
    - iii. The Biological Hazard Symbol
    - iv. The date the box was closed
  - d. Regulated medical waste may be conveyed in reusable carts or containers under the following conditions:
    - i. The waste in the cart or container is packaged and labeled fully in accordance with [9VAC20-120-210](#) through [9VAC20-120-240](#).
    - ii. Immediately following each time a reusable cart or container is emptied and prior to being reused it is thoroughly cleaned with detergent or general purpose disinfectant.
  - e. Each unit must designate an area as the regulated medical waste storage area (if applicable).
  - f. All units are required to keep a spill containment and cleanup kit within the vicinity of where regulated medical wastes are managed, and the location of the kit must provide for rapid and efficient cleanup of spills anywhere within the area.
  - g. All vehicles (to include gators, golf carts, etc.) transporting regulated medical wastes are required to carry a spill containment and clean up kit in the vehicle whenever regulated medical wastes are conveyed. The kit must consist of at least the following items:
    - i. Material designed to absorb spilled liquids; the amount of absorbent material must be that having a capacity, as rated by the manufacturer, of one gallon of liquid for every cubic foot of regulated medical waste that is normally managed in the area for which the kit is provided or 10 gallons, whichever is less.
    - ii. One gallon of disinfectant in a sprayer capable of dispersing its charge in a mist and in a stream at a distance. The disinfectant must be hospital grade and effective against mycobacteria.
    - iii. Enough red plastic bags to enclose 150% of the maximum load accumulated. These bags shall be large enough to over pack any box or other container normally used for regulated medical waste management by that unit.
    - iv. Appropriate personal protective equipment

- v. A first aid kit, fire extinguisher, road hazard reflectors/lights and other appropriate safety equipment
  - h. All areas used to store regulated medical waste must be clean and impermeable to liquids. Carpets and floor coverings with cracks or gaps shall not be used in any storage area. Where tile floors are used and seams are present in the tile, the floor must be sealed with wax or other floor coatings in order to meet this requirement. Vectors shall be controlled.
  - i. Any regulated medical waste stored for more than seven days must be refrigerated at an ambient temperature between 35° and 45° F. No regulated medical waste will be stored for more than 15 days at the site of generation.
2. Each unit must keep the following regulated medical waste related documents in the *Master Environmental File*:
    - a. Disposal manifests
    - b. Final destruction certificates
  3. Disposal of Regulated Medical Waste will be reported on the facility Sustainability Report.

#### G. Clean Air Act

1. Each VADOC organizational unit must comply with all applicable sections of the *Clean Air Act* (CAA), [42 U.S.C. §7401 et seq. \(2013\)](#) and the [Virginia State Air Pollution Control Board \(§9VAC5-5-10 through §9VAC5-540-220\)](#) as applicable.
2. Generators (whether permitted in a DEQ air permit or not)
  - a. Units must record generator operating hours on a rolling calendar year basis using electronic tracking.
  - b. Generators are to be used for emergency purposes only. Each generator cannot be used for more than 500 hours per rolling calendar year (individually) unless permitted for fewer hours of operation.
    - i. If a generator operates for more than 400 hours in any rolling calendar year notify the Infrastructure and Environmental Energy Administrator as soon as practicable.
    - ii. In extreme emergencies, additional run time may be allowed with consent from Regulatory agencies having oversight over the generator.
    - iii. Hours run for an emergency must be noted regarding the nature of the emergency.
  - c. Generators are tested at least weekly and load tested quarterly. Each test run must be of at least 15-minute duration.
  - d. Testing and maintenance operating hours must be noted and cannot exceed 50 hours on a rolling calendar year basis. These hours count towards total annual operating hours.
  - e. Personnel that operate or maintain generators must have documented one-time generator specific training that meets manufacturer's specifications at a minimum, must be documented, and must include trainer name, student name, date, location of training, and agenda/outline of training.
  - f. There must be written operating instructions that minimally meet manufacturer's specifications.
  - g. There must be a maintenance schedule and documentation of all planned and unplanned maintenance.
  - h. Any malfunctions in equipment that allow excess emissions for more than one hour must be recorded.
  - i. A generator that is smoking excessively after startup must be immediately placed out of service. This event should be recorded and reported to the Energy and Environmental Administrator
  - j. Units must maintain copies of all fuel delivery certifications for fuel delivered to generators. Certifications must be delivered at the time of fuel delivery and must include:
    - i. ASTM verification
    - ii. Sulfur content of fuel (Only ultra-low sulfur fuel is permitted to be used in generators.)
    - iii. Amount of fuel delivered and date of delivery



- k. The following maintenance procedures must be documented in detail every 500 hours of operation or annually, whichever comes first:
    - i. Change oil filter
    - ii. Inspect air cleaner for compression ignition engines or spark plugs for spark ignition engines and replace as necessary
    - iii. Inspect hoses and belts and replace as necessary.
  - l. If any compression ignition internal combustion engine is equipped with a diesel particulate filter to comply with the emission standards in *Code of Federal Regulations* §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies personnel when the high backpressure limit of the engine is approached. The Unit must keep records of any corrective action taken after the backpressure monitor has notified personnel that the high backpressure limit of the engine is approached
  - m. All generators regardless of age must have a non-resettable hour meter. No generator will be permitted to run if there is not a non-resettable hour meter, if it is broken, or if it is in need of repair.
  - n. If a generator requires a major repair, a cost analysis must be completed of the repair to determine if the repair would cost greater than 50% of the current stated value of the generator. If this is the case, the Energy and Environmental Administrator is to be notified as additional permitting, recordkeeping, and other requirements may apply.
  - o. Generators may not be used for peak shaving, load sharing, demand response, or for any other financial obligation
  - p. For all generators manufactured after April 1, 2006, the Unit must retain the performance testing data from the manufacturer that indicates that the generator meets emission requirements set by the USEPA for Tier I, II, or III engines.
  - q. Generators, their engines, and any emissions control devices must be installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, emission-related settings may not be modified in a way that is not permitted by the manufacturer.
3. Boilers
- a. There must be written operating instructions that minimally meet manufacturer's specifications.
  - b. There must be a maintenance schedule and documentation of all planned and unplanned maintenance.
  - c. Only approved fuel may be burned in the boilers. No burning of waste, drugs, paper, waste products, or any other unapproved/unpermitted fuel will be permitted.
  - d. Boiler operators must be trained in the proper operation of all such equipment and will be familiarized with the written operating instructions. Training must be documented.
  - e. Copies of all fuel delivery certifications must be maintained for boiler operating fuel. Certifications must be delivered at the time of fuel delivery and must include:
    - i. ASTM/testing verification (only applicable to fuel oil and coal)
    - ii. Sulfur/ash/Btu content of fuel (only applicable to fuel oil and coal)
    - iii. Amount of fuel delivered and date of delivery
    - iv. Other requirements as per individual permit(s).
  - f. Small wood burning boilers, such as those used for heating greenhouses must record the type and amount of fuel used (format to be approved by the Energy and Environmental Administrator).
4. Spray Booths and other emission points
- a. Use of a spray gun operated through the use of compressed air to emit any substance, chemical, adhesive, coating, glue, or otherwise without prior notification and approval from the Energy and Environmental Administrator to ensure a permit is or is not required for such an activity is prohibited.
  - b. There must be written operating instructions for the equipment that minimally meet manufacturer's specifications.

- c. There must be a maintenance schedule and documentation of all planned and unplanned maintenance.
  - d. Staff that operate emission emitting equipment must have documented training which meets manufacture’s specifications at a minimum, documentation must include trainer name, student name, date, location of training, and agenda/outline of training.
  - e. Any malfunctions in equipment that allow excess emissions documented with immediate notification to the Infrastructure and Environmental Management Air Compliance Manager.
  - f. Any change in the originally approved chemicals used in the emissions source must be pre-approved by the Infrastructure and Environmental Management Air Compliance Manager and/or the VADEQ.
  - g. Chemical formulas/SDS sheets must be carefully reviewed at least once annually for chemicals used in the emissions source. Any changes in chemical formulations shall constitute an immediate cease of use of that chemical and notification to the Infrastructure and Environmental Management Air Compliance Manager.
  - h. Additional permit requirements may require more advance recordkeeping and reporting.
5. Section 608 of the Clean Air Act
- a. Only USEPA licensed technicians (Technicians) with a current certification are allowed to purchase refrigerant or substitute refrigerant.
  - b. Technicians must maintain a copy of their certificate at their unit during their employment. Once the employee has vacated the position the certificate must be maintained on file for a period of three years.
  - c. Only Technicians are allowed to work on refrigerant systems, refrigerant recovery devices, or to dispose of appliances containing or once containing greater than five pounds of refrigerant
  - d. Technicians who dispose of mid-sized appliances (holding between 5 and 50 pounds of refrigerant), must keep records of:
    - i. The location, date of recovery, and type of refrigerant recovered for each disposed appliance
    - ii. The quantity of refrigerant, by type, recovered from disposed appliances in each calendar month
    - iii. The quantity of refrigerant, and type, transferred for reclamation or destruction, the person to whom it was transferred, and the date of the transfer
  - e. Technicians must evacuate Ozone Depleting Substances (ODS) or substitute refrigerants before opening or disposing of appliances to the evacuation levels specified in the regulations using certified recovery or recycling equipment.
  - f. Before opening or disposing of motor vehicle air conditioning (MVAC) or MVAC-like appliances (e.g., cars and construction equipment) the Technician must evacuate ODS or substitute refrigerant from the appliance in accordance with 40 CFR Part 82, Subpart B; or reduce the system pressure to below 102 mm of mercury vacuum.
  - g. Leak inspections are required for appliances that have exceeded the applicable leak rate, according to the Leak Inspection Table below. All visible and accessible components of an appliance must be inspected, using a method or methods that are appropriate for that appliance.

Equipment	Full Charge	Frequency of Leak Inspections
Commercial Refrigeration and Industrial Process Refrigeration (IPR)	>500 lbs	Once every three months until the owner/operator can demonstrate through leak rate calculations that the leak rate has not exceeded 20% (commercial refrigeration) or 30% (IPR) for four quarters in a row.
	50 to 500 lbs	Once per calendar year until the owner/operator can demonstrate through the leak rate calculations that the leak rate has not exceeded 20% (commercial refrigeration) or 30% (IPR) for one



		year.
	50 or more lbs	Once per calendar year until the owner/operator can demonstrate through the leak rate calculations that the leak rate has not exceeded 10% for one year.

- h. Initial and follow-up verification tests of leak repairs are required for appliances that exceed the applicable leak rate (from above Leak Inspection Table). The verification tests must demonstrate that leaks were successfully repaired.
  - i. An initial verification test must be performed before any additional refrigerant is added to the appliance.
  - ii. A follow-up verification test must be performed only after the appliance has returned to normal operating characteristics and conditions.
  - iii. Contractor technicians are required to provide service invoices and records of the results of leak inspections or verification tests to owners/operators.
  - iv. If either the initial or follow-up verification test indicates that repairs were not successful, additional attempts to conduct repairs and verification tests may be conducted within the 30 day time frame from the discovery of the leaking unit. The repair period is extended to 120 days if an industrial process shutdown is required. If it cannot be properly repaired within this timeframe, the Infrastructure and Environmental Management Air Compliance Manager must be immediately notified and an USEPA report must be developed and submitted.
  - v. If a unit is retired or retrofitted that has a full charge capacity of over 50 pounds of refrigerant the Infrastructure and Environmental Management Air Compliance Manager must be immediately notified as a retirement/retrofit report to the USEPA may be required.
- i. Only USEPA certified recovery devices compatible with the type of refrigerant being used and/or recovered shall be used.
- 6. All air emissions operating data must be delivered electronically to the Environmental Energy Administrator by January 31<sup>st</sup> of each calendar year to include data from the previous calendar year on all emission points at the unit relative to the reporting requirements of the DEQ Annual Air Emissions Update.
- 7. No emissions control devices will be permitted to be purposefully bypassed at any time without prior consent from the Infrastructure and Environmental Management Air Compliance Manager in coordination with the DEQ. Notification will be immediately conveyed to the Infrastructure and Environmental Management Air Compliance Manager of any emissions control device bypassed in error or emergency.
- 8. All records must be maintained for a period of five years.
- 9. The Environmental Programs implementation will address all applicable sections of the CAA and State Air Pollution Control Board regulations and designate the Unit Environmental Coordinator and one other authorized designee as the Air Emissions Coordinator. The Environmental Programs implementation establishes procedures for the following:
  - a. Maintenance of the air emissions subfolder within the *Master EHS File*.
  - b. Examining throughput and operating limitations to ensure compliance with permit and state and federal regulations on a regular basis.
  - c. Ensuring the prompt filing of fuel certifications.
  - d. Ensuring the prompt recordation of generator operating hours.
  - e. Ensuring prompt recordkeeping of other emission point operating and emission data
  - f. Immediate notification to the Infrastructure and Environmental Management Energy and Environmental Administrator of proposed emission source modifications, malfunctions, noncompliance, and announced or unannounced air inspections by state or federal authorities.
  - g. Maintaining copy of any permits, exemptions, *Notices of Violations*, etc.
  - h. Scrutiny of emission sources and data to ensure perpetual permit compliance and compliance with





state and federal requirements on an ongoing basis.

10. Advanced notification to the Environmental and Energy Administrator of the proposed addition, deletion, or modification of any emission sources/points onsite including any changes to chemicals used in existing emission points onsite. This requirement applies to internal and external agency and Unit projects.
11. If a permit has opacity requirements, staff onsite will maintain Method 9 Certification through VADEQ. Trained staff will be related to the operation of the emission point with the opacity requirement. For example, if VCE operations has a spray booth that is allowed no more than 5% opacity, a member of staff onsite from VCE will obtain certification. If the boiler plant onsite also has an opacity requirement a member of Infrastructure and Environmental Management staff onsite will also obtain certification, if a Unit's emission point has an opacity requirement a member of the Unit staff will also obtain certification.
12. The following documents must be kept in the unit *Master EHS File*:
  - a. DEQ Air Permit(s)
  - b. Rolling calendar year generator operating hours and maintenance and testing hours spreadsheets for each generator onsite (regardless of its location/affiliation with another Unit)
  - c. Operator training records - to include rosters and agendas
  - d. Written operating instructions
  - e. Fuel certifications
  - f. Emission source maintenance records
  - g. Monthly operating data, throughputs, and emissions data as required
  - h. USEPA Licensure for refrigerant technicians
  - i. Section 608 recordkeeping
  - j. Engine manufacturer performance certifications
  - k. Emissions testing data/reports
  - l. Documentation between unit and VADEQ/USEPA with proof of delivery
13. Energy and Heat Production data will be reported on the facility Sustainability Report
14. Each unit must designate specific positions responsible for the above listed regulatory requirements.

## DEFINITIONS OF TERMS USED IN THIS OPERATING PROCEDURE

**Aboveground Storage Tank (AST)** - Any one or combination of tanks, including pipes, used to contain an accumulation of oil at atmospheric pressure, and the volume of which, including the volume of the pipes, is more than 90% above the surface of the ground ([9VAC25-91-10](#))

**Compost** - A stabilized organic product produced by a controlled aerobic decomposition process in such a manner that the product can be handled, stored, and/or applied to the land without adversely affecting public health or the environment.

**Composting** - The manipulation of the natural process of decomposition of organic materials to increase the rate of decomposition.

**Department of Environmental Quality (DEQ)** - Virginia state agency tasked to protect human health and the environment; this agency oversees the implementation of Virginia's Solid Waste Management regulations.

**Discharge** - means any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

**Environmental Management Assessment** - A systematic, periodic internal review to measure environmental management plan effectiveness and determine corrective actions that will increase effectiveness

**Environmental Management Assessment Team** - A group assembled within a unit to conduct environmental management assessments; members are selected on the basis of their expertise and knowledge of the process or operation under review.





**Environmental Management Plan** - A formal plan to integrate pollution prevention, water conservation, and energy conservation with quantifiable results allowing management review to drive continual reassessment and improvement

**Feasibility and Cost/Benefit Analysis** - The evaluation of waste reduction options by technological, economical, and environmental criteria

**Institutional Safety Specialist (ISS)** - The individual whose full time duties are to coordinate, monitor, and evaluate the facility's safety functions and advise management on recommended action to enhance safety programs; the institutional safety specialist will serve as a member of the facility executive team and shall report to the Warden or Assistant Warden.

**Master Environmental, Health and Safety File** - An electronic folder located on the shared drive of each unit where related environmental documents are to be stored. Designated unit and Infrastructure and Environmental Management staff have read or read/write access to this file.

**Oil Discharge Contingency Plan (ODCP)** - Regulatory requirements as outlined under 9VAC25-91 which applies to units with oil storage capacity in tanks of 660 gallons or greater, exceeding 25,000 gallons total, in aggregate.

**Open Dump** - A site, on which any solid waste is placed, discharged, deposited, injected, dumped or spilled so as to present a threat of a release of harmful substances into the environment or present a hazard to human health.

**Organizational Unit** - A DOC unit, such as a correctional facility, regional office, probation and parole office, Virginia Correctional Enterprises (VCE), Academy for Staff Development, Corrections Construction Unit, Agribusiness Unit, and individual headquarters unit (i.e. Human Resources, Offender Management, Internal Audit)

**Organizational Unit Head** - The person occupying the highest position in a DOC unit, such as a correctional facility, regional office, probation and parole office, Virginia Correctional Enterprises (VCE), Academy for Staff Development, Corrections Construction Unit, Agribusiness Unit, and individual headquarters unit (i.e. Human Resources, Offender Management, Internal Audit)

**Pollution Prevention** - The use of materials, processes, or practices that reduce or eliminate the creation of pollutants or wastes at the source, to minimize the pollution that is discharged to air, water, or land

**Regulated Medical Waste** - any solid waste that is capable of producing an infectious disease or likely to be contaminated by an organism likely to be pathogenic to healthy humans, not freely available in the community and present in sufficient quantities and virulence to transmit disease.

**Solid Waste** - Any garbage or refuse, sludge from a wastewater treatment plant, water supply treatment plant or air pollution control facility and other discarded material, resulting from industrial, commercial, mining, agricultural or community activities; wastes that are recycled or remanufactured are excluded from Solid Waste Regulations.

**Spill Prevention Control and Countermeasure Plan (SPCC)** - the document required by [§40CFR 112.3](#) that details the equipment, workforce, procedures, and steps to prevent, control, and provide adequate countermeasures to a discharge

**Sustainability Report** - Quarterly report due to Sustainability Administrator that captures environmental usage and waste data in order to establish trends and track progress on agency initiatives.

**Unit Environmental Coordinator (UEC)** - The individual designated by the Organizational Unit Head to coordinate the organizational unit's environmental program functions as a collateral duty.

**Unit Safety Coordinator (USC)** - The individual who has been designated by the Organizational Unit Head to coordinate the organizational unit's safety functions as a collateral duty; generally, such positions occur at DOC field units, Community Corrections facilities, P&P Offices, and administrative offices where there are no full time, classified safety positions.

**USEPA** - United States Environmental Protection Agency

**Virginia Environmental Excellence Program (VEEP)** - A program established by the Virginia Department of Environmental Quality to encourage superior environmental performance through the development and



implementation of environmental management systems and pollution prevention efforts; the Environmental Enterprise (E-2) level of participation is for those organizations that are interested in beginning or are in the early stages of implementing an environmental management system. The Exemplary Environmental Enterprise (E-3) level of participation is for those organizations with a fully-implemented EMS, pollution prevention program, and demonstrated environmental performance.

**Waste Stream** - Aggregate flow of solid waste material from generation to treatment to final disposition (ex. Generation to disposal of paper, food, chemicals, batteries or anything else intended to be discarded).

## REFERENCES

[§9VAC5-5-10 through §9VAC5-540-220, Virginia State Air Pollution Control Board](#)

[§9VAC20-81-310, Solid Waste Management Regulations, Applicability.](#)

[§9VAC 20-120, Virginia Regulated Medical Waste](#)

[Clean Air Act \(CAA\), 42 U.S.C. §7401 et seq. \(2013\)](#)

[Resource Conservation and Recovery Act \(RCRA\), 42 U.S.C. §6901 et seq. \(1976\)](#)

[Emergency Planning and Community Right-to Know Act \(EPCRA\), 42 U.S.C. §11001 et seq. \(1986\)](#)

[Pollution Prevention Act of 1990 42 U.S.C. §13101 et seq.](#)

[Code of Federal Regulations, 40 CFR 112](#)

[Code of Federal Regulations, 40 CFR 60.4204](#)

[Code of Federal Regulations, 40 CFR 262.15 \(5\) \(i-ii\)](#)

[Code of Federal Regulations, 40 CFR 273.14 \(a-e\)](#)

[Virginia Department of Environmental Quality - Virginia Environmental Excellence Program \(VEEP E-2\)](#)

Operating Procedure 302.3, *Sustainability Plan*

Operating Procedure 740.2, *Infectious Waste Management and Disposal*

## ATTACHMENTS

Attachment 1, *Environmental Management Plan Example*

Attachment 2, *Aspect Significance Rating Worksheet*

Attachment 3, *Aspect Significance Rating Worksheet - Instructions*

Attachment 4, *Common Environmental Program Documents*

Attachment 5, *Daily Aboveground Storage Tank (AST) Inspection Form*

Attachment 6, *Waste Stream Analysis*

Attachment 7, *Weekly/Monthly AST Inspection*

## FORM CITATIONS

None