

VA CHEMICALS MANAGEMENT AND POLLUTION PREVENTION

1. **REASON FOR ISSUE:** This handbook prescribes the goals and objectives, procedures, and requirements for chemicals management and pollution prevention within the Department.
2. **SUMMARY OF CONTENTS:** This handbook outlines the procedures, processes, and other key elements necessary to facilitate VA's continual improvement of chemicals management and pollution prevention performance.
3. **RESPONSIBLE OFFICE:** Assistant Secretary for Management (004), Office of Asset Enterprise Management (044), Green Program Management Service (044E).
4. **RELATED DIRECTIVE:**
 - a. VA Directive 0057, Environmental Management Program.
 - b. VA Directive 0059, Chemicals Management and Pollution Prevention.
5. **RESCISSION:** None.

CERTIFIED BY:

**BY DIRECTION OF THE SECRETARY
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VA CHEMICALS MANAGEMENT AND POLLUTION PREVENTION

1. PURPOSE

a. The mission of Department of Veterans Affairs (VA) is to fulfill President Lincoln's promise "To care for him who shall have borne the battle, and for his widow, and his orphan" by serving and honoring the men and women who are America's Veterans. The goal of the Green Management Program Service within VA's Office of Asset Enterprise Management (OAEM) is to lead the Department in becoming a fully sustainable organization. This supports the mission by making more resources available for Veterans' care and optimizing VA's stewardship of public resources. The purpose of this handbook is to establish VA program objectives, strategies and tools for continual improvement of chemicals management and pollution prevention performance.

b. This guidance is provided to assist VA offices in implementing the requirements of VA Directive 0059, VA Chemicals Management and Pollution Prevention, and developing uniform, effective internal procedures.

2. SCOPE

a. The provisions of this handbook apply to all VA offices that purchase, store, handle, use, and dispose of hazardous chemicals/materials.

b. The provisions of this policy do not apply to the procurement, use, generation, storage, processing, disposal, or management of radioactive materials.

3. PROGRAM OBJECTIVES AND PROCEDURES

a. The roles and responsibilities of VA Administrations and staff offices regarding the objectives of chemicals management and pollution prevention are defined in VA Directive 0059.

b. VA shall reduce or eliminate the quantity of hazardous chemicals and materials acquired, generated, used, and/or disposed, to the extent possible.

c. The Administrations and staff offices shall comply with Section 6602 (b) of the Pollution Prevention Act. This section establishes a national policy that encourages reducing or eliminating the generation of hazardous waste as expeditiously as possible wherever feasible. Any waste generated shall be treated, stored, and disposed of in ways that minimize future threats to human health and the environment. Pollution prevention priorities are ranked from preferred to least preferred as follows:

(1) Pollution should be prevented or reduced at the source whenever feasible. Source reduction can be achieved by equipment or technology modification, process or procedure modification, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control;

(2) Pollution that cannot be prevented shall be recycled in an environmentally safe manner whenever feasible;

(3) Pollution that cannot be prevented or recycled shall be treated in an environmentally-safe manner whenever feasible; and

(4) Disposal or other release into the environment shall be employed only as a last resort and shall be conducted in an environmentally safe manner.

d. The Administrations and staff offices shall ensure that facilities that use, store, and/or handle hazardous chemicals/materials develop and implement a chemical management and pollution prevention (CMPP) plan. A CMPP plan identifies hazardous chemicals/materials, provides management requirements, assigns responsibilities for management, and establishes local operating procedures. The CMPP plan elements may be addressed in a stand-alone document or may be included in other plans (i.e., Chemical Hygiene Plan; Chemical Agents Plan; Hazardous Communication Plan; Integrated Contingency Plan; Spill Prevention, Control and Countermeasures Plan; Environmental Management System; or Waste Minimization Plan). CMPP plan elements include the following:

(1) Strategy for complying with applicable laws and regulations;

(2) Spill prevention and emergency response;

(3) Personnel and fire safety practices;

(4) Procedures to obtain and comply with any permits required for hazardous chemical/material storage or use;

(5) Handling and storage requirements;

(6) Hazardous chemical/material disposal procedures;

(7) Procedures for procuring hazardous chemicals/materials;

(8) Employee training requirements;

(9) Spill control equipment requirements and procedures;

(10) Emergency preparedness/response protocols;

(11) If applicable, copies of the Spill Control and Countermeasures Plan and/or contingency/spill plan;

(12) List of required equipment and spill response supplies to be maintained at all hazardous waste accumulation and storage sites; and

(13) Procedures to evaluate substitutes for newly introduced chemicals or hazardous materials to new or existing process.

e. The Administrations and staff offices shall develop written goals and support actions to identify and reduce the release and use of toxic and hazardous chemicals and materials, including ozone-depleting substances (ODSs) and other pollutants that may result in significant harm to human health or the environment. In developing these goals, the Administrations and staff offices shall consider:

- (1) Quantity of the toxic chemicals or hazardous materials being used;
- (2) Human and/or environmental toxicity of the chemical(s);
- (3) Potential for human and/or environmental exposure to the chemical(s) or material;
- (4) Potential harm to the environment associated with the use or release of the chemical(s) or material, including impacts to air quality, surface water, groundwater, soils/land, and climate systems;
- (5) Longevity of the chemical(s) in the environment;
- (6) Availability of controls to manage identifiable risks;
- (7) Impacts on mission capability and business costs;
- (8) Existing environmental hazard lists such as priority chemicals identified by the U.S. Environmental Protection Agency (EPA) Resource Conservation Challenge and any agency-specific toxic or hazardous chemicals lists;
- (9) The available substitutes for ODSs identified by the EPA Significant New Alternatives Policy (SNAP) program; and
- (10) Where appropriate, regional- and watershed-based environmental improvement efforts such as the Chesapeake Bay Prioritized Chemicals of Concern Program, the Great Lakes Bi-national Strategy, or local watershed efforts.

f. The Administrations and staff offices shall include efforts to reduce and/or control hazardous chemical/material purchases in their affirmative procurement and green procurement programs when and where applicable, in accordance with laws, regulations, and executive orders.

g. The definition of hazardous chemicals/materials varies by federal, state, and local regulations. The Administrations and staff offices shall check regulations to ensure the most accurate definition.

h. The Administrations and staff offices shall maintain a current list of hazardous chemicals/materials by conducting chemical inventories twice a year. Inventories shall be accessible either through a Department-wide chemical inventory tracking system, or in a database that can be easily downloaded to a Department-wide chemical inventory tracking system.

i. The Administrations and staff offices shall transport hazardous chemicals/materials over public highways and on-site areas accessible to the general public in accordance with the Hazardous Materials Transportation Uniform Safety Act (49 U.S. Code (USC) 5101), and applicable state and local regulations. Transportation of hazardous chemicals/materials at on-site areas will be conducted in a manner to preclude spills or releases to the environment, and to enhance personnel safety.

j. The management, use, disposal, and cleanup of polychlorinated biphenyls (PCBs), asbestos, and lead-based paint must comply with 40 Code of Federal Regulations (CFR) 761, 29 CFR 1926.1101, 29 CFR 1910.1001; 40 CFR 763; and 40 CFR 746. The Administrations and staff offices shall manage PCBs, asbestos, and lead-based paint in place locally unless operational, economic, or regulatory considerations justify removal. Economic analysis will include potential environmental damage. Small PCB capacitors that preserve the integrity of the container shall be disposed intact as opposed to crushing or other processes that may result in a release of PCBs.

k. Each Administration and staff office shall ensure that it maximizes the use of safe alternatives to ODSs, as approved by the EPA's SNAP program. Administration and staff office reduction program requirements and procedures include the following steps:

(1) Identify all Class I and Class II ODSs and the processes that use these substances; and

(2) Develop a plan to phase out the procurement of Class I ODSs for all non-excepted uses. Plans to replace ODSs shall target cost effective reduction of environmental risk by eliminating the use of ODSs in new equipment and facilities, and by phasing out ODS applications as the existing equipment using those substances reaches its expected service life. In developing ODS-related actions, the Administrations and staff offices shall consider:

(a) Proper maintenance of equipment to prevent leaks;

(b) Repair equipment leaks as they occur; and

(c) Replace leaking equipment when repair is no longer cost-effective or when it is life-cycle cost-effective to replace.

l. Each Administration and staff office shall ensure that accumulation and storage sites are sited in locations that facilitate compliance and are constructed to prevent releases into the workplace and/or environment. The Administrations and staff offices shall assign an individual to manage each accumulation and storage site. This individual must be trained in the proper management of the accumulation or storage site.

m. The Administrations and staff offices shall annually verify permits and licenses for treatment, storage and disposal facilities that receive hazardous wastes.

4. REPORTING

The Administrations and staff offices shall submit all data as requested by OAEM, including but not limited to:

- a. Status of plan to eliminate Class I ODSs;
- b. Pollution prevention initiatives undertaken during the past year along with results of the initiatives; and
- c. Percent of reduction in the quantity of hazardous chemicals and materials acquired, used, or disposed of.

5. STRATEGIES AND TOOLS

- a. Finding Public Information on Chemicals

EPA, along with other federal and international agencies, maintains the location of sites showing where to find information on (1) whether and how chemicals are regulated, (2) what chemicals are in your community, and (3) what EPA and other agencies know about the health and environmental effects of specific chemicals.

(<http://www.epa.gov/opptintr/existingchemicals/pubs/findinfo.html>)

- b. New Chemicals Program Policies

EPA has established information sources on the New Chemicals Program. The Web site offers information on how the premanufacture notice process works and other related programs. (<http://www.epa.gov/oppt/newchems/>)

- c. Existing Chemicals

On this Web site, citizens, businesses and government regulators can find basic information on EPA's Chemical Management Program, managing chemical risks, sources for finding public information on chemicals, collecting and assessing information on chemicals, and related EPA and international activities.

(<http://www.epa.gov/opptintr/existingchemicals/>)

- d. Priority Chemicals

EPA manages information on the National Waste Minimization Program, which focuses efforts on reducing 31 priority chemicals found in our Nation's products and waste by finding ways to eliminate or substantially reduce their use in production.

(<http://www.epa.gov/osw/hazard/wastemin/priority.htm>)

- e. Resource Conservation Challenge (RCC)

The EPA RCC Web site contains basic information on how to conserve natural resources and energy by managing materials more efficiently. It also identifies national priorities or focus areas for the RCC. (<http://www.epa.gov/waste/rcc/basic.htm>)

f. Pollution Prevention

The EPA Pollution Prevention Web site contains tools and information on chemical and chemical processes, environmentally preferable products, resource conservation, publications, outreach material, and all EPA databases and software.

(<http://www.epa.gov/p2/>)

g. Green Landscaping

EPA Region 3 guidance includes designing and maintaining beautiful yards, gardens, and larger landscapes to reduce harm to the environment; saving time and money with lower maintenance; and having healthier places to work and play.

(<http://www.epa.gov/reg3esd1/garden/>)

h. GreenScaping: The Easy Way to a Greener, Healthier Yard

EPA developed a brochure for homeowners and is a joint effort of the EPA Office of Solid Waste, Office of Water, and Office of Pesticide Programs. The brochure addresses how to plant right for the site, conserve water, reduce yard waste, and use pesticides wisely.

(http://www.fedcenter.gov/Bookmarks/index.cfm?id=5850&pge_prg_id=21181&pge_id=1861).

i. Integrated Pest Management (IPM)

IPM minimizes the use of chemical substances by utilizing routine monitoring to determine if pest control measures are necessary. IPM also employs educational methods to control pest populations. Application of least hazardous chemicals is used as a last resort. IPM can be used to control pests such as rodents, insects, fungi, weeds, and other vegetation, thereby reducing the use of rodenticides, insecticides, fungicides, and herbicides.

(http://www.fedcenter.gov/Bookmarks/index.cfm?id=794&pge_prg_id=21181&pge_id=1861).

j. Landscaping with Native Plants

Landscaping with native plants improves the environment. Native plants are hardy because they have adapted to the local conditions. Once established, native plants do not need pesticides, fertilizers, or watering.

(<http://www.epa.gov/glnpo/greenacres/index.html>)

k. Organic Materials and Composting

Earth 911 offers information on the benefits of and “how-tos” of composting as well as grass-cycling and vermiculture. (<http://earth911.com/recycling/garden/composting/>).

6. REFERENCES

a. Environmental Laws and Regulations

There are a multitude of environmental regulations and requirements that apply to facilities, operations, and locations within VA. A complete listing of all the applicable environmental regulations is too expansive to enumerate here. Federal laws and regulations are available through web-based resources such as Government Printing Office (GPO) Access, <http://ecfr.gpoaccess.gov/cji/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl>. Most environmental-related regulations can be found in CFR Titles 29, 40, and 49. Hardcopy is available from the GPO. State and local regulations are typically available through state and local environmental agencies.

b. Executive Orders (EOs)

The EOs with significant implications to chemicals management and pollution prevention in effect (at the time this handbook was drafted) are EOs 13423 and 13514. A complete list of all environmental EOs is too expansive and fluid to be included herein. A complete listing of EOs can be found through the National Archives accessible at:

<http://www.archives.gov/federal-register/executive-orders/disposition.html>.

c. VA Environmental Directives

(1) VA Directive 0057, Environmental Management Program, establishes VA environmental policies. It sets forth a comprehensive Department-wide environmental management policy to comply with Federal mandates and achieve internal goals. It provides direction to the Administrations and staff offices in developing and administering their specific environmental programs. The directive establishes policy in the areas of environmental compliance, green purchasing, chemicals management and pollution prevention, electronics stewardship, waste prevention and recycling, and environmental management systems. It also includes reporting requirements and roles and responsibilities. Directive 0057 establishes that detailed, subject oriented directives and handbooks, such as this Directive 0062, will be promulgated.

(2) VA Directive 0058, Green Purchasing, establishes VA green purchasing policies. VA will ensure the preferred acquisition of environmentally preferable goods and services.

(3) VA Directive 0061, Electronics Stewardship, establishes VA electronics stewardship policies. In managing the Department's electronic assets, VA will buy Electronic Product Environmental Assessment Tool (EPEAT)-registered electronic products, enable the Energy Star features on agency computers and monitors, establish and implement policies to extend the useful life of its electronic equipment, and use environmentally sound practices with respect to the disposition of electronic equipment that has reached the end of its useful life.

(4) VA Directive 0062, Chemicals Management and Pollution Prevention, establishes VA chemicals management and pollution prevention policies. It is VA policy to reduce or eliminate the quantity of toxic and hazardous chemicals and materials acquired, generated, used, and/or disposed, to the extent possible.

(5) VA Directive 0063, Waste Prevention and Recycling, establishes VA waste prevention and recycling policies. It is VA policy to reduce, reuse, and recycle materials and waste, and to maintain life-cycle cost-effective waste prevention and recycling programs.

d. Federal Property Management Regulations (FPMR) 101-42, Utilization and Disposal of Hazardous Materials and Certain Categories of Property

FPMR 101-42 lists most categories of chemicals and hazardous materials handled throughout the Federal government and directs agencies on how to handle each category of material.

7. DEFINITIONS

a. **Environmentally Preferable.** Products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

b. **Hazardous Chemicals/Materials.** For the purposes of this handbook, a hazardous or regulated chemical or material is:

(1) Any chemical or material defined as hazardous in 29 CFR 1910 or 1926;

(2) Any item or chemical which is reportable or potentially reportable as inventoried under the requirements of the hazardous chemical reporting (i.e., 40 CFR 355, 370 and or 372); and

(3) Any item or chemical which, when being transported or moved on public roads, is a risk to public health or safety or an environmental hazard and is regulated by the Department of Transportation Uniform Safety Act (49 CFR 100-185) as amended;

c. **Ozone-Depleting Substance.** An ODS is any substance designated as a Class I or Class II substance by the EPA in 40 CFR 82. Examples include the following:

(1) Class I ODSs include any substance designated as Class I by the EPA pursuant to 42 USC 7671(a), including but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; and

(2) Class II ODSs include any substance designated as Class II by the EPA pursuant to 42 USC 7671(a), including, but not limited to, hydrochlorofluorocarbons.

d. **Pollution Prevention.** “Source reduction” as defined in the Pollution Prevention Act of 1990 (42 USC 13102), and other practices that reduce or eliminate the creation of pollutants through:

(1) Increased efficiency in the use of raw materials, energy, water, or other resources, or

(2) The protection of natural resources by conservation.

While the term pollution prevention is often used interchangeably with waste minimization, there are some differences. Pollution prevention is a broader term in that pollution prevention encompasses all pollutants, including air emissions, wastewater and solid wastes; energy and water consumption; and initial product design. In addition, while both terms encompass source reduction, certain types of recycling are considered waste minimization, but not pollution prevention. Generally, only closed-loop recycling, where chemicals are recycled or reused without being removed from the process, is considered pollution prevention. Off-site recycling, where wastes are taken from the process and recycled at another facility or a different area of the same facility, falls within the definition of waste minimization, but is not considered pollution prevention.

e. **Recovered Material.** Waste materials and by-products recovered or diverted from solid waste, excluding those materials and by-products generated from, and commonly reused within, an original manufacturing process.

f. **Solid Waste.** Any discarded material as defined according to 40 CFR 261.2 or, where applicable, each State’s solid waste management rules and regulations.

g. **Source Reduction.** Source reduction does not entail any form of waste management (e.g., recycling and treatment). Source reduction includes equipment or technology modifications; process or procedure modifications; reformulation or redesign of products; substitution of raw materials; and improvements in housekeeping, maintenance, training or inventory control and is any practice that:

(1) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, and disposal; and

(2) Reduces the hazards to public health and the environment associated with the release of hazardous substances, pollutants, or contaminants.

h. **Waste Minimization.** Waste minimization is the practice of source reduction or recycling. Waste minimization does not include waste treatment or transfer of waste constituents from one environmental medium to another.

i. **Waste Prevention.** Any change in the design, manufacturing, purchase, or use of materials or products, including packaging, to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.