

Minimization of the Use of Oil-Based Paints, Solvents, and Aerosol Products on the NCF Campus

Table of Contents

- Purpose
- Definitions
- Responsibility
- Safety Procedures
- Recordkeeping
- References

Purpose

Provide guidelines to minimize or eliminate oil-based paints, stains, solvents, aerosol products and related materials to reduce the generation of hazardous waste on the New College of Florida Campus.

Definitions

OSHA – Occupational Safety and Health Administration – Federal agency that governs workplace safety.

EPA – Environmental Protection Agency – Federal Agency that governs and regulates environmental issues.

DEP – (Florida) Department of Environmental Protection – The state agency that regulates environmental issues in Florida. DEP has authority to enforce federal environmental regulations in this state.

RCRA – Resource Conservation and Recovery Act – a federal law that regulates the management and disposal of hazardous wastes.

Hazardous Waste – Any waste material that meets any one criteria of flammability, corrosivity, reactivity, fails a TCLP test, or is listed by EPA as a Hazardous Waste.

Flammable Liquid– a liquid that has a flash point of < 100 F.

Combustible Liquid – A liquid that has a flash point between 100 and 200 F

Flash Point - Minimum temperature at which a liquid gives off vapor in sufficient concentration to ignite.

Corrosive Material – A substance that will destroy another material, typically skin or mucous membranes. Acids and bases are examples of corrosive materials.

MSDS – Material Safety Data Sheet – Safety and health information provided by the manufacturer of the product required by OSHA for all chemicals.

PPE – Personal Protective Equipment such as gloves, safety glasses, goggles, hearing protection, etc.

Responsibility

This section sets forth the various responsibilities of individuals involved in the process of implementing and maintaining this program.

1. The President of The NCF has the ultimate responsibility for ensuring that safety and environmental management programs are implemented and adhered to on campus. The individuals listed below are to act as the President's representatives and handle the day to day issues associated with this program.
2. The Provost, Vice President for Finance and Administration, and Department Heads are responsible for ensuring that faculty and staff are provided with resources and support necessary to provide a safe working and teaching environment, and comply with the intent of this program, within the fiscal resources of the College.
3. The Director of Environmental Health and Safety will develop policy and procedure; provide technical support, consultation, information regarding training, and periodic safety and environmental compliance audits.
4. The Faculty and Staff of the College are responsible for oversight of safety and health issues within their areas of responsibility related to the instruction of students.
 - a. Faculty are responsible for ensuring that students attend training and work safely to insure students understand the potential health and physical hazards of the paints and solvents used;
 - b. Explain proper and safe procedures for handling the hazardous substances used;
 - c. Insure students obtain and wear appropriate safety equipment as determined by the job task.
5. Each student, faculty and staff member is expected to attend training and:
 - a. Follow procedures and practices outlined in this training guide;
 - b. Report all accidents, near misses, and potential chemical exposures to the faculty/instructor.

Environmental Procedures

Providing a safe work and learning environment is a fundamental goal of New College, as well as providing an environmentally friendly, safe, and sustainable campus. The use of some paints, solvents, aerosols produce hazardous waste that must be managed and disposed following strict regulations enforced by state and federal regulators. Additionally, many of these products emit volatile organic compounds (VOC's) that are harmful to the external environment, create unhealthy indoor environments, and are not supported by the College's Sustainability initiatives

These following guideline represent a summary of the requirements that must be followed maintain compliance with New College environmental regulations.

Environmental Management of Oil-Based Paints

Painting by Campus Employees & Personnel

1. The use of Oil-based paints and stains for the maintenance of New College buildings and property is prohibited except as provide below.
 - a. The temporary use of any existing supplies.
 - b. Where existing oil paint coatings prevent the application of water based coatings until properly primed using oil-based products.
 - c. On external metal surfaces where the manufacturer requires with out exception the use of a specified oil-based product.
 - d. On external metal surfaces with written justification from the Director of Physical Plant or Director of Housing to the Director of EH&S that oil-based paint is necessary and justified.

Painting by Contract Personnel

1. The use of oil based paints and stains by contract painters in New College facilities is prohibited except as provided below.
 - a. On external metal surfaces where the manufacturer requires with out exception the use of a specified oil-based product.
 - b. On external or internal metal surfaces with written justification from the Director of Physical Plant to the Director of EH&S, that oil-based paint is necessary and justified for the specified applications.
 - c. On other surfaces as necessary to prepare the surface for application of a water-based product, with justification from the Director of Physical Plant.
 - d. All contract painting personnel working at New College must provide evidence of having attended a current course (one year or less) in the identification and management of hazardous waste related to their occupation.
2. The use of oil based paints and stains in new construction of New College facilities is prohibited except as provided below.
 - a. On external metal surfaces where the manufacturer requires with out exception the use of a specified oil-based product.
 - b. On external or internal metal surfaces with written justification from the A/E of Record and confirmed by the Director of Facilities Planning, that oil-based paint is necessary and justified for the specified applications.
 - c. On other surfaces as necessary to prepare the surface for application of a water-based product, with justification from the Director of Physical Plant.
 - d. All contract painting personnel working at New College must provide evidence of having attended a current course (one year or less) in the identification and management of hazardous waste related to their occupation.

Use of Oil Paints and Solvents for Academics/Instruction

The use of oil-based paints and solvents in teaching, research, and instruction is essential to the academic mission of the college. However, the proper management of the chemicals and products used and waste materials generated is mandatory and required by state and federal regulations. All persons using these materials, including

faculty and students, should familiarize themselves with the appropriate regulations governing the use and disposal of these products. As part of the educational process and instruction, consideration for the use of alternative and less hazardous materials should be considered as recommended by EPA guidance materials for academic institutions.

Use of Fiberglass and Polyester Resin Kits

Fiberglass and polyester resin kits are used for making molds and waterproof repairs to tanks. The kits are complete with a catalyst (hardener) that reacts with the resin to begin the polymerization. The catalyst is typically an organic peroxide, known as MEKP (methyl ethyl ketone peroxide). Even though these products can be bought and shipped as a unit, the use and storage of these products within the regulated work environment becomes problematic. Under the OSHA Hazard Communication Standard, OSHA Lab Standard, and State and Federal environmental regulations, these two products are considered "incompatibles" and must be stored separately. The resin is a flammable liquid and must be managed and stored as such. The MEKP is an organic peroxide, and must be stored separately from all other incompatible materials, essentially only with other organic peroxides.

Due to the regulatory burden and liability of these materials, New College is limiting the use of this material only to areas where use is justified.

1. The use of Resin Kits must be justified in writing by the Department Head to the Director of EH&S indicating the specific use, application, and need for the material.
2. Where permitted, Resin kits will be separated immediately upon arrival and products stored according to hazard class.
3. The Resin catalyst (MEKP or other oxidizer) will be stored in a separate sealed containment with a minimum of secondary containment provided, and then stored away from other materials. (A small tube may be placed in a small jar, then in a small plastic container to achieve proper containment.)
4. Label all containers properly.
5. Note that any spill or residue resulting in the clean-up of these products are hazardous waste and must be managed as such.

Use of Aerosol Products

Aerosol containers must be managed as hazardous waste when depleted. Regardless of the contents, aerosol containers contain a flammable or halogenated product, or a flammable or halogenated propellant, or both. This makes proper management under the RCRA regulations subject to much interpretation. Therefore, New College will make every effort to eliminate the use of aerosol products where possible.

1. Eliminate and minimize the purchase of aerosol products where alternative, non-aerosols exist.
 - a. Use pump- spray window cleaners
 - b. Use pump-spray pre-mixed pesticides.
 - c. Eliminate the use of aerosol air fresheners
 - d. Eliminate the use of aerosol oven cleaners.
 - e. Use non-aerosol and non-solvent based parts cleaners

Where no other alternative exists, aerosol cans must be disposed as hazardous waste by placing them in a closed container, labeling them with the words "HAZARDOUS WASTE – SPENT AERSOL CANS", and following all the hazardous waste management rules set by state and federal regulations.

Environmental Management and Hazardous Waste

1. Maintain MSDS's for all products in each room so that they are readily available.
2. All products must be in their original container or labeled as to their contents. No unlabeled containers.
3. All containers must be closed when not actively being used.
4. Where "non-approved" products are permitted on a given project, maintain and manage the work area so that any waste generated is contained within the individual's workspace.
5. All flammable and combustible products must be stored in designated FLAMMABLE STORAGE CABINETS when not in use. The cabinets shall be kept closed and latched.
6. Under no circumstances shall hazardous materials including oil paints and solvents be poured down the sink drains.
7. Spent shop rags (paper towels/paint rags) that have been used with oil paint, heavy metal paint, or to wipe solvents are considered to be hazardous waste and must be managed as such. Spent SHOP RAGS must be placed in the metal closed cans immediately.
8. Used brushes, rollers, disposable trays, drop cloths and related materials used with solvent based materials must be managed as hazardous waste.
9. Spills of oil paint, solvent, or other hazardous material must be immediately cleaned up and managed as hazardous waste, labeled, and stored in the Satellite Accumulation Area (SAA).
10. All faculty, staff, and students working for New College who use oil paints, solvents, and other hazardous materials and generate hazardous waste, must receive annual hazardous waste awareness training as required by state and federal RCRA regulations.
11. Students who are not employed by the college shall receive safety and environmental awareness training through appropriate instruction, syllabus, or course work prior to beginning work in the assigned class.

Recordkeeping

1. Training records for employees shall be maintained in the Office of EH&S for a minimum of three years, or in accordance with State or Federal record retention laws.
2. Safety-related training materials used for student instruction shall be maintained on file with the appropriate course materials and shall be easily and readily retrievable.

References

1. Governors Executive Order 2000-292
2. OSHA 29 CFR 1910
3. NCF Safety Policy Statement
4. NCF Environmental Policy Statement

5. NCF Safety Programs as listed on web: <http://www.ncf.edu/campus-directory/administrative-offices/human-resources/environmental-health--saftey/safety--environmental-compliance>
6. F.S 403.721 Standards, requirements, and procedures for generators and transporters of hazardous waste and owners and operators of hazardous waste facilities
7. FAC 62-730 Hazardous Waste
8. American College and University, President's Climate Committee