

National Aeronautics and  
Space Administration  
John F. Kennedy Space Center

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## Kennedy NASA Policy Directive

**RESPONSIBLE OFFICE:** Director of Spaceport Services

**SUBJECT:** KSC HAZARD COMMUNICATION PROGRAM

**REFERENCES:**

1. [KMI 1800.1 \(as revised\), "KSC Environmental Health Program"](#)
2. [Federal Acquisition Regulation 23.3, "Hazardous Materials Identification and Material Safety Data"](#)
3. FED STD 313C, "Material Safety Data, Transportation Data and Disposal Data Furnished to Government Activities"
4. ANSI Z129.1-2000 American National Standard for Precautionary Labeling of Hazardous Industrial Chemicals"

1. POLICY

It is KSC policy to provide a workplace free from hazards that may cause illness, physical harm, or death. To assure such protection, KSC will maintain a hazard communication program to assure employees are provided the necessary information to work safely with hazardous materials. KSC will comply with Occupational Safety and Health Act (OSHA) hazard communication standards, and will manage and operate a comprehensive program to communicate hazard information, train the workforce in the safe usage of hazardous materials, disseminate material safety data sheet information, and assure the proper labeling of hazardous substances.

2. APPLICABILITY

This Policy Directive applies to all NASA organizations and civil service employees wherever Kennedy Space Center (KSC) has a defined management responsibility, including the Kennedy Space Center, Cape Canaveral Air Force Station, Patrick Air Force Base, Vandenberg Air Force Base, and Secondary and Contingency landing sites, and to their associated contractors and tenants in accordance with the provisions of their respective contracts. This Policy is not intended to relieve contractors of their obligations under the OSHA.

3. AUTHORITY

- a. 29 CFR 1910.1200, "OSHA Hazard Communication Standard"
- b. 29 CFR 1910.1450, "Hazard Communication in Laboratories"
- c. 29 CFR 1926.59, "Hazard Communication"
- d. 29 CFR 1960, "Federal Agency Occupational Safety and Health Programs"

5. RESPONSIBILITIES

- a. The Director, Spaceport Services, is responsible for developing and managing this KNPD; developing and maintaining a database of information on hazardous materials; and providing related medical, environmental, and toxicological data.
- b. The Directors of Shuttle Processing, Spaceport Services, International Space Station/Payloads Processing, and Manager, ELV & Payload Carriers Program Office are responsible for ensuring the development of logistics systems to manage the receipt, distribution, and disposal of hazardous materials and for implementing procedures to accomplish the requirements of this Policy Directive.
- c. The Director, Procurement Office, is responsible for incorporating proper contractual controls in procurements where hazardous substances are identified in accordance with FAR 23.3.
- d. The Director, Spaceport Engineering and Technology, is responsible for developing and managing Chemical Hygiene Plans for NASA civil service laboratory employees, as required by 29 CFR 1910.1450.
- e. Responsibilities are set forth in detail in Attachment C.

6. SUPERSESSON

This Policy Directive supersedes and cancels KMI 1800.2D.

Roy D. Bridges, Jr.  
Director

Attachments:

- A. Definitions
- B. KSC Hazard Communication Program Requirements
- C. Responsibilities
- D. Commodities Which May Contain Hazardous Chemicals

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## DEFINITIONS

1. Container: Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or chemical transfer pipe that contains a hazardous chemical. Engines, fuel tanks, or other operating systems in vehicles are not considered containers.
2. Hazardous Substance: Any chemical, which is a physical or a health hazard. These substances may consist of pure chemicals or mixtures of chemicals.
3. Health Hazard (per 29 CFR 1910.1200): A chemical for which there is statistically significant evidence, based on at least one study conducted in accordance with established scientific principles, that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A of the regulation (29 CFR 1910.1200), provides further definitions and explanations of the scope of Health Hazards covered by this section, and Appendix B describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for the purposes of this standard.
4. Physical Hazard (per 29 CFR 1910.1200): A chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, an explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive), or water reactive.

## KSC HAZARD COMMUNICATION PROGRAM REQUIREMENTS

The following requirements are mandated for the KSC Hazard Communication Program:

1. Employee Training:
  - a. All employees are required to have hazard communication training upon job placement and every two years thereafter. Required training will depend on assigned duties and work location.
  - b. NASA employees assigned to work in or requiring regular access to NASA shops and labs or who may otherwise be required to use hazardous materials in the course of their work are required to attend QG210JBO 'HAZARD COMMUNICATION' provided by the JBOSC Technical Training upon job placement and view XG160KSC-REV1189 'OSHA HAZARD COMMUNICATION PROGRAM (REVISED)' as refresher training thereafter.
  - c. NASA employees assigned to work in contractor-operated facilities are required to attend the contractor Hazard Communication training such as:
    - SFOC – QG 280USA, USA Hazard Communications
    - SFOC Refresher – QG 235USA, Hazard Communication (Video)
  
    - PGOC – QG 309MDA, OSHA Hazards Communication (Initial)
    - PGOC – QG 241MDA, Hazards Communication Refresher
  - d. All other NASA employees, including clerical and administrative staff that may have only incidental contact with hazardous materials or work in areas where hazardous materials are used or stored are required to view XG160KSC-REV1189 'OSHA HAZARD COMMUNICATION PROGRAM (REVISED)'.
  - e. The work area supervisor is responsible for ensuring the appropriate hazard communications training is a part of the employee's training plan as a part of the mandatory safety and health training requirement.
  - f. The PM50 training database will be used to track this required training.
2. Material Safety Data Sheets:
  - a. Work area supervisors are responsible for ensuring NASA employees have access to the Material Safety Data Sheet (MSDS) for any hazardous material in the employee's assigned work areas. OSHA regulations require that every employee have "prompt access" to these MSDSs. To meet this requirement, MSDS's for hazardous materials used by NASA and NASA contractors are available online on the KSC MSDS Archive located at <http://msds/>. The archive is accessible from any networked computer workstation at KSC equipped with an internet browser. If an employee does not have access to a networked computer workstation, it is the responsibility of the work area supervisor to provide an alternate means to provide requested MSDSs to employees, such as

maintenance of a binder with MSDSs of materials used at that work location. Supervisors are responsible for ensuring that access to the MSDS Archive or other MSDS information is available for use by employees at any time they are in the work area.

- b. In some work areas, NASA employees may be required to work in the vicinity of contractor operations in which hazardous materials are being used. NASA employees may review the MSDSs for these materials by either accessing the KSC MSDS Archive or by requesting the MSDS from the contractor organization responsible for the operation.
- c. Occasionally materials are received at KSC with an MSDS that may be illegible or incomplete. If this occurs, please notify the KSC MSDS Coordinator at 867-7797 so that the problem can be corrected Centerwide.
- d. An MSDS may identify safety measures that seem inappropriate for the chemical's use (manufacturers often recommend protective measures based on worst-case use conditions), or require safety measures that aren't available. If this occurs, the work area supervisor (or designee) may request clarification on appropriate protective measures by contacting the JBOSC Environmental Health Office at 867-2400.
- e. Supervisors of NASA shops and labs are responsible for ensuring the availability and currency of MSDSs for hazardous materials ordered for their organization. Where an MSDS of a hazardous material is not available in the KSC MSDS Archive, the work area supervisor or designee is responsible for coordinating with the KSC MSDS Coordinator at 867-7797 to obtain the MSDS and have it added to the Archive for Centerwide use.
- f. Payload customers are required to submit MSDSs to the Launch Site Support Office at least 60 days prior to the arrival of the hazardous materials at KSC. The payload customers must ensure that MSDSs are available at the KSC locations where the hazardous materials are used. Payload customers are not required to submit MSDSs for hazardous materials supplied by NASA/KSC for KSC tenant contractors.

3. Container Labeling:

OSHA requires that the manufacturers, formulators, and importers of hazardous materials provide proper labeling of any containers shipped to downstream users. OSHA also requires that if a material is transferred from the original container into another container, the new container must have an appropriate label. NASA tenants, contractors, and civil service organizations are responsible for ensuring the proper labeling of containers under their control.

Where a NASA contractor is a manufacturer or formulator as defined in 29 CFR 1910.1200, container labels or placards will be prepared in accordance with ANSI 129.1-2000.

In NASA operated shops and labs, the work area supervision is responsible for ensuring that all containers of hazardous materials in their area have adequate labeling. If labels on existing containers are missing or illegible, replacement labeling must be obtained and applied to the container. Requirements for labeling containers of chemicals used in laboratories are found in 1910.1450. These labeling requirements must be addressed in the laboratory Chemical Hygiene Plan.

If you need assistance in replacing inadequate, damaged, or missing labels, notify the appropriate contractor or tenant safety organization or the KSC Industrial Hygiene Officer (867-6342).

## RESPONSIBILITIES

1. The Director of Spaceport Services, is responsible for:
  - a. Evaluating hazards associated with the use of toxic chemicals.
  - b. Supporting and directing management of Material Safety Data Sheets (MSDSs) for NASA at KSC.
  - c. Providing medical and environmental health support.
  - d. Providing toxicity and toxicology data on toxic chemicals.
  - e. Determining those hazardous substances to be restricted with regard to procurement and disposition.
  - f. Designating a point of contact to coordinate the resolution of issues involving the implementation of this program.
  - g. Determining and updating the content of any required training and providing it to the organization providing the training.
2. The Directors of Shuttle Processing, Spaceport Services, International Space Station/Payloads Processing, and Manager, ELV & Payload Carriers Program Office are responsible for:
  - a. Ensuring proper labeling of incoming hazardous substances.
  - b. Acquiring Material Safety Data Sheets (MSDSs) for items identified in Federal Standard 313C or otherwise listed in Appendix D.
  - c. Ensuring hazardous materials are maintained and distributed in compliance with 29 CFR 1910.1200.
  - d. Providing Hazard Communication information to purchasers/downstream users of excess property.
  - e. Determining those hazardous substances to be restricted with regard to procurement and disposition, because of industrial hygiene considerations.
  - f. Ensuring tenant organizations who are provided laboratory use for pre- and post-flight processing operations have a written Chemical Hygiene Plan, when required by 29 CFR 1910.1450.
3. The Chief Counsel is responsible for providing legal advice with regard to liability, applicability, and jurisdictional matters.
4. The Director, Workforce and Diversity Management Office, is responsible for providing hazard communication program training to Government employees.

5. The Chief, Public Communications Division is responsible for coordinating release of hazardous substances information to the public and local community.
6. NASA Directors are responsible for:
  - a. Assisting in the determination, coordination, and communication of hazardous substances information and procedures.
  - b. Ensuring hazard communication information is incorporated into operating procedures.
7. Supervisors are responsible for:
  - a. Performing workplace safety walkdowns to identify employees who use or may otherwise be exposed to hazardous materials identified in Attachment D of this KNPD.
  - b. Providing access to MSDSs for those hazardous materials.
  - c. Reviewing the hazards associated with those materials with their employees.
  - d. Ensuring hazard communications training is included as a part of the employee's training plan.
  - e. Ensuring compliance with safe use provisions identified on the MSDS or otherwise required by KSC fire, safety, or environmental health organizations.
  - f. Ensuring hazardous materials are kept in manufacturer's labeled containers, or when transferred, kept in containers meeting the labeling requirements of 29 CFR 1910.1200.
8. All KSC civil service employees are responsible for:
  - a. Becoming familiar with the hazard information provided on the material safety data sheets (MSDSs) for hazardous materials with which they work or to which they otherwise may be exposed.
  - b. Taking necessary precautions including use of protective equipment, and following safe work practices and procedures, when working with or around hazardous materials.
  - c. Reporting all potential problems, workplace hazards, and hazardous substance usage needs to their immediate supervisors.

COMMODITIES WHICH MAY CONTAIN HAZARDOUS CHEMICALS

Abrasives	Laboratory Reagents
Acids	Lubricants
Adhesives	Metal Powder
Antifoaming Agents	Metal Salts
Antifreeze Agents	Metal Stock
Anti-oxidants	Oils
Asphalts	Oxidizers
Batteries	Paints
Bleaches	Paint Removers
Catalysts	Pesticides
Caustics	Photocopy Chemicals
Chelating Agents	Photographic Chemicals
Cleaning Agents	Pigments
Compressed Gases	Plasters
Concrete Mixes	Plasticizers
Corrosion Inhibitors	Plastic Resins
Cryogenic Liquids	Polishes
Curing Agents	Preservative Chemicals
Degreasing Agents	Propellants
Desiccants	Protective Coatings
Dyes	Refrigerants
Electroplating Chemicals	Rust Removers
Emulsifying Agents	Sanitizing Agents
Explosives	Scrap Metal
Fertilizers	Sealants
Fire Extinguishing Chemicals	Solders
Fire Retardant Chemicals	Solder Fluxes
Foaming Agents	Solvents
Fuels	Sterilizing Agents
Fumigants	Tars
Fungicides	Thermal Insulation
Galvanizing Agents	Vulcanizing Agents
Glues	Waterproofing Agents
Heat Transfer Fluids	Water Treatment Chemicals
Herbicides	Waxes
Hydraulic Fluids	Welding fluxes
Hypergolic Chemicals	Welding Rods
Inks	Wood Preservatives

Excepted Items	
Cosmetics	Office Supplies
Prescription Drugs	Personal Consumer Products
Foods	
Note: This exclusion applies only to those items that do not expose employees to hazards under their normal conditions of use. The exclusion does not apply when these items are used in large quantities or when used in repetitive operations in such a manner to create a hazard to the user.	