Chapter 15 - Emergency Response (REDACTED)

15.1 Applicability

This instruction is applicable to all civil servant and contractor employees, and tenant personnel at Ames Research Center (Ames), Moffett Federal Airfield (MFA), and Crows Landing Flight Facility.

15.2 Purpose

This chapter prescribes the roles and responsibilities for the management of emergency situations that may involve the threat of harm to persons, property, or the environment arising from an uncontrolled release of a hazardous material. This chapter applies primarily to situations defined in the Ames Emergency Services Handbook as "routine emergencies." Emergency situations that are of sufficient magnitude to result in activation of the Ames Emergency Operations Center are beyond the scope of this document but are addressed in AHB 1600.4.

15.3 Policy

It is the policy of the Ames Research Center to:

1. Comply with all pertinent statutory and regulatory requirements and Executive Orders related to hazardous materials emergency response. Ames recognizes and will comply with applicable Federal, state, and local regulations.
2. Consult, as appropriate, with Federal, state, and local agencies about the best techniques and methods to manage hazardous material emergencies.
3. Promote employee awareness of the Center's emergency response capabilities and enhance preparedness through training and active information dissemination.

15.4 Authority

All relevant Federal, state, and local laws and regulations pertaining to hazardous materials emergency response including, but not limited to:

1. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. 9601 et seq.), including the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 11001 et seq.)
2. Executive Order 12088, amended by Executive Order 12580, Federal Compliance with Pollution Control Standards
3. Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 and the Water Quality Act of 1987 (33 U.S.C. 1251 et seq.)
4. Public Law 101-380, Oil Pollution Act 1990
5. Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Public Resources Code Section 8574.1)
6. State and local laws and regulations related to pollution abatement, prevention, and control:
    - California Code of Regulations, Title 26, Toxics
    - California Code of Regulations, Title 19, Office of Emergency Services
    - California Health and Safety Code, Chapter 6.95
    - Santa Clara County Hazardous Material Storage Ordinance
    - Santa Clara County Toxic Gas Ordinance

7. 29 Code of Federal Regulations (CFR), Part 1910, Occupational Safety and Health Standards
8. NASA Policy Directive 8800.16, NASA Environmental Management
9. Environmental Excellence for the Twenty-First Century, NASA Strategy Document
10. NASA Emergency Preparedness Program Plan, QS-EPP-92-001, NASA, 1992
11. Ames Management Instruction 8800.4, Ames Environmental Programs
12. Uniform Fire Code and National Fire Protection Association Standards

15.5 Responsibilities

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15.6 Definitions

15.6.1 Acutely Hazardous Material

A substance or combination of substances which, if human exposure should occur, may likely result in death, disabling personal injury, or serious illness caused by the substance or combination of substances because of its quantity, concentration, or chemical characteristics. A substance that is listed on the Environmental Protection Agency's List of Extremely Hazardous Substances, 40 CFR, Part 355, Appendix A.

15.6.2 Building Emergency Action Plan (BEAP)

A plan required for facilities storing, handling, or dispensing hazardous materials at the Ames Research Center that describes the chemicals stored and used, their locations, building hazards, building escape routes, and procedures to respond to hazardous materials releases.

15.6.3 Extremely Hazardous Material

A substance or combination of substances which, if human exposure should occur, may likely result in death, disabling personal injury, or serious illness caused by the substance or combination of substances because of its quantity, concentration, or chemical characteristics. A list of these substances can be found in 40 CFR, Part 355, Appendix A, included as Appendix A to Chapter 3, Hazardous Materials Management. This list of chemicals has been adopted by both the state and the county as their list of acutely hazardous or extremely hazardous materials.

15.6.4 Facility Response Plan (FRP)

A plan stating specific procedures to be followed in response to a petroleum fuel or oil spill. Please refer to Chapter 13, Spill Prevention Control and Countermeasures and Facility Response Plan, for more information.

15.6.5 Hazardous Material

As defined in Section 25501 of Chapter 6.95 of the California Health and Safety Code, any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment.

15.6.6 Hazardous Materials Inventory Statement

An annual report filed with Santa Clara County that delineates the type, quantity, and location of hazardous materials stored or handled at the center.

15.6.7 Material Safety Data Sheet (MSDS)

Documentation prepared by the manufacturer or distributor of a hazardous material that describes the product and its use; identifies and describes any hazardous ingredients; describes the physical and chemical characteristics of the material; explains any special hazards (such as fire, explosion, polymerization), health hazards, the reactivity of the product, precautions for safe handling and use, and any necessary control measures to minimize exposure. Please refer to the Ames Health and Safety Manual, Chapter 24, Chemical Hazard Communication Plan, for more information.

15.6.8 Personal Protective Equipment (PPE)

Appropriate spill response equipment that must be available wherever hazardous materials are used or stored. Please refer to the Ames Health and Safety Manual, Chapter 33, Personal Protective Equipment (PPE) Hazard Assessment and Selection, for more information.

15.6.9 Secondary Containment

An impermeable, chemically compatible container (e.g., bermed pad, tray, or overpack drum) used to contain spills and leaks from primary containers. The secondary container must be equal to or greater in volume than 110 percent of a single container; or 10 percent of the aggregate volume of multiple containers stored therein; or 150 percent of the largest container. It must be able to contain a 20-minute fire sprinkler release, if open to such a system, and accommodate a 24-hour rainfall as determined by a 100-year storm, if open to rainfall.

15.6.10 Spill Prevention Control and Countermeasures Plan (SPCC)

The Spill Prevention Control and Countermeasures Plan (SPCC) focuses on procedures to prevent and control spills of petroleum products from aboveground tanks and outdoor drum storage areas. Please refer to Chapter 13, Spill Prevention Control and Countermeasures and Facility Response Plan, for more information.

15.7 Affected Operations

Any operation causing or having the potential to cause an uncontrolled release of a hazardous material is subject to the requirements of this chapter. Emergency response organizations that must equip and train staff to respond properly to hazardous material incidents are also affected by this chapter. Examples of some hazardous materials include lead, copper, mercury, zinc, oils, paints, and solvents. Hazardous materials become hazardous waste when they are spilled or released. Refer to Chapter 4.0, Hazardous Waste Management, for detailed definitions of hazardous waste and descriptions of hazardous waste management requirements.

15.8 Emergency Identification and Initial Response Actions

Hazardous materials spills shall be cleaned up only by personnel familiar with the hazards of the material and trained in chemical incident emergency response. Any spill or release of an extremely or acutely hazardous material, or any spill large enough to take 2 people more than 30 minutes to control and clean up, should be handled by the Environmental Office.

15.9 Response Initiated by 9-1-1 Calls

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15.10 Disaster Assistance and Rescue Team

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15.11 Postemergency Actions

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15.12 Sources of Additional Information or Assistance

1. Building Emergency Action Plans (BEAPs)
2. Environmental Office (Code QE, **REDACTED**)
3. Environmental Office (WWW home page at http://dq.arc.nasa.gov)
4. AHB 1700.1 Ames Safety Manual
5. SPCC Plan and FRP (incorporated as part of the SPCC) at the Ames Library

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