



Ames Procedural Requirements

APR 8715.1

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COMPLIANCE IS MANDATORY

Subject: Chapter 2 – Safety and Health Responsibilities

Responsible Office: Code QH / Occupational Safety, Health, and Medical Service Division

CHANGE LOG

Status [Baseline /Revision /Cancelled]	Document Revision	Date of Change	Description
Revision	2	9/3/2019	Changed format to comply with the AMS requirements and added “Document Change Log” and Preface. In section 2.1.3 revised requirement for emergency plans in place of BEAPs. In section 2.2, deleted the Ames Safety Committee, added the Diving Safety Committee, and modified descriptions of other committees to be consistent with their charters.
Revision	3	3/3/2023	Update section 2.4 to clarify contractor Safety and Health Plan requirements to align with contract deliverables and remove reference to NPR 8715.3's sample Safety and Health Plan; other administrative edits.

TABLE OF CONTENTS

PREFACE

- P.1 Purpose
- P.2 Applicability
- P.3 Authority
- P.4 Applicable Documents and Forms
- P.5 Measurement/Verification
- P.6 Cancellation

CHAPTER 2 SAFETY AND HEALTH RESPONSIBILITIES

- 2.1 Safety and Health Responsibilities
- 2.2 Responsibilities of Safety Committees
- 2.3 Union/Management Safety Committee
- 2.4 Contractor Safety

APPENDIX A. DEFINITIONS

APPENDIX B. ACRONYMS

APPENDIX C. REFERENCES

PREFACE

P.1 PURPOSE

a. This chapter assigns safety and health responsibilities to Ames personnel, contractors, and Center-wide Safety and Health Committees.

P.2 APPLICABILITY

a. This directive is applicable to ARC and associated facilities.

b. This directive applies to contractors, grant recipients, or parties to agreements only to the extent specified or referenced in the appropriate contracts, grants, or agreements.

c. In this directive, all mandatory actions (i.e., requirements) are denoted by statements containing the term "shall." The terms "may" or "can" denote discretionary privilege or permission, "should" denotes a good practice and is recommended, but not required, "will" denotes an expected outcome, and "are/is" denotes descriptive material.

d. In this directive, all document citations are assumed to be the latest version unless otherwise noted.

P.3 AUTHORITY

a. NPR 8715.1, NASA Safety and Health Programs

b. NPR 8715.3, NASA General Safety Program Requirements

P.4 APPLICABLE DOCUMENTS AND FORMS

a. NPD 8700.1, NASA Policy for Safety and Mission Success

b. NPD 8710.1, Emergency Preparedness Program

c. NPR 1800.1, NASA Occupational Health Program Procedures

d. NPR 8621.1, NASA Procedural Requirements for Mishap and Close-Call Reporting, Investigating, and Recordkeeping

P.5 MEASUREMENT/VERIFICATION

a. Verification of conformance to requirements in this directive are measured through Center and Responsible Organizational management reviews, self-assessments, and subsequent analysis and reports of conformance to requirements, as well as periodic internal audits.

b. Verification and measurement for compliance to this directive will be tracked through Agency triennial audits.

P.6 CANCELLATION

APR 8715.1 Chapter 2, Safety and Health Responsibilities effective 5/2/2014.

Eugene Tu
Director

DISTRIBUTION STATEMENT:

APR 8715.1 Ames Health and Safety Manual Chapters are made available via procurement website to anyone bidding a job at Ames. The exceptions are Chapter 7 – Ames Radiation Safety Guide, Chapter 10 – Pressure Systems Safety, Chapter 12 – Explosives Safety and Chapter 23 – Control of Narcotics and Other Controlled Drugs, which are not made public but can be viewed onsite.

CHAPTER 2 SAFETY AND HEALTH RESPONSIBILITIES

2.1 Safety and Health Responsibilities

2.1.1 Center Director shall:

- a. Establish safety and mission success requirements for Center operations and activities
- b. Designate a senior manager as the Center safety and health official.
- c. Develop, implement, and maintain an effective safety and health program consistent with NASA and Federal requirements, and with State regulations when applicable.
- d. Use lessons learned to improve operations and activities.
- e. Ensure that all organizations have adequate budgets to carry out safety and health program requirements.
- f. Implement safety and health reporting programs consistent with the requirements and guidance in the following directives:
 - (1) NPD 8700.1, NASA Policy for Safety and Mission Success
 - (2) NPR 8715.3, NASA General Safety Program Requirements
 - (3) NPR 1800.1, NASA Occupational Health Program Procedures
 - (4) NPR 8621.1, NASA Procedural Requirements for Mishap and Close-Call Reporting, Investigating, and Recordkeeping
 - (5) NPD 8710.1, Emergency Management Program

2.1.2 Designated Safety and Health Official (Director of Code Q) shall:

- a. Provide resources, guidance, and direction for implementing ARC's safety and health program.
- b. Ensure that ARC has an organization to carry out its safety and health program. This organization must include the following:
 - (1) Safety and health officials at appropriate levels.
 - (2) Adequate personnel to carry out ARC's safety and health program.
 - (3) Specialized expertise from other sources such as other agencies, professional groups, consultants, universities, labor organizations, and safety and health committees.
- c. Ensure that ARC has requirements, policies, and procedures to carry out ARC's safety and health program.
- d. Ensure that ARC has goals and objectives to reduce occupational mishaps.
- e. Ensure that ARC has methods to evaluate the effectiveness of its safety and health program.
- f. Ensure that priorities for correcting workplace hazards are established.
- g. Ensure that the safety and health program is reviewed.
- h. Serve as the Authority Having Jurisdiction (AHJ), and thereby implementing safety provisions with authority for "approving/concurring" safety related installations, procedures, and equipment. Exceptions include:

- (1) The Ames Fire Marshall shall serve as the Authority Having Jurisdiction for fire prevention and protection activities.
- (2) The Chief, Facilities Engineering Branch shall serve as the Authority Having Jurisdiction for electrical safety and serve as the Chief Building Official to authorize building occupancy.
- (3) The Ames Chief Engineer, who has authority over certain safety, reliability and risk management processes defined in APR 1120.2, "Engineering Technical Authority."

Note: The Director of Code Q is the designated safety and health official. Various other health and safety personnel and officers have been delegated specific program authority under the direction of the safety and health official as delineated within the chapters of this manual.

2.1.3 Supervisors, regardless of level, shall:

- a. Participate in the Ames Safety Accountability Program.
- b. Exemplify safe and healthful work practices.
- c. Put into practice the five "Ames Safety Principles:"
 - (1) Safety is Everyone's Responsibility
 - (2) Safety is Vital to NASA Missions
 - (3) Risks Can and Will be Managed
 - (4) Injuries Can be Prevented with Training, Preparation, and Awareness
 - (5) Management is Accountable for Ensuring a Safe Work Environment
- d. Ensure that employees are informed of NASA safety and health programs and protection afforded to employees through these programs.
- e. Inform employees of the location of the nearest medical facility, procedures for obtaining emergency medical care, and methods for reporting occupational injuries or illnesses.
- f. Instruct employees to report hazardous conditions immediately to their supervisors.
- g. Take immediate action to protect and/or evacuate employees in imminent-danger situations.
- h. Furnish a safe and healthful place of employment and ensure that identified hazards are eliminated or controlled.
- i. Inform employees of specific hazards associated with their workplace and duties.
- j. Ensure the use of appropriate personal protection equipment.
- k. Train employees in a manner that will ensure their safety and health.
- l. Ensure that employees are informed of their specific responsibilities and rights under the OSHA Act, Executive Order 12196, and 29 CFR Part 1960 and the way they may participate in the program.
- m. Cooperate with and assist safety and health personnel while they are performing their duties.
- n. Be familiar with all known facility hazards for your work area.

- o. Ensure that all hazards that are listed in the Ames Hazard Tracking System for your work area are posted near the hazard.
- p. Ensure that any employees returning to work to resume normal duties after an occupational injury or illness, or returning to work after 5 or more days of sick leave for a non-occupational injury, report to the Ames Health Unit.
- q. Participate in a safety review of your organization at least annually.
- r. Ensure that occupational safety and health as well as system safety are appropriately considered during the initial establishment of each project, and that adequate safety and health resources have been included in all project, facility, or operational/research area budgets.
- s. Ensure that all contractors within their organization do the following:
 - (1) Follow and use all applicable chapters of the Ames Safety and Health Manual, as required by their contract.
 - (2) Meet all safety requirements delineated in their contracts with NASA.
 - (3) Have the ability and means to recognize, evaluate, and control recognized hazards in their work with NASA.
 - (4) Comply with all applicable Safety and Health regulations.
 - (5) Provide training that meets NASA and/or Federal/State requirements.
 - (6) Provide personal protective equipment to their employees when required.
- t. Ensure all required occupational medical exams are completed.

2.1.4 Safety and Mission Assurance Directorate (Code Q) shall:

- a. Provide guidance, consultation, and direction for implementing NASA and Ames Safety and Mission Assurance policies and standards.
- b. Keep Center management apprised of the risks associated with the day-to-day Center activities.
- c. Perform surveys to determine the degree of compliance of Ames organizations with established SMA policies, regulations, and procedures.
- d. Serve as the regulatory agency liaison for inspections by Federal, State, and local agencies with jurisdiction over industrial safety, occupational health, and radiation safety compliance.

2.1.5 Civil Service Personnel (including Ames Associates and NASA Exchange Employees) shall:

- a. Put into practice the five "Ames Safety Principles."
- b. Comply with safety and health standards.
- c. Report suspected safety or health hazards according to NASA procedures.
- d. Immediately report all occupational injuries/illnesses to your supervisor and the Health Unit.
- e. Report to the Ames Health Unit before returning to work to resume normal duties after an occupational injury or illness, or after 5 or more days of sick leave for a non-occupational injury.
- f. Cooperate with safety and health personnel during inspections, surveys, and investigations.

- g. Use personal protective and safety equipment when necessary and/or when required by health standards, or when directed by supervisors or the Safety Division.
- h. Attend all safety, health and environmental training required by your supervisor.
- i. Complete all required occupational medical exams.

2.1.6 Contractors while Working at Ames Facilities (each company or organization providing services under contract to NASA) shall:

- a. Ensure the safety and health of their employees regardless of where they work (i.e., Ames-owned or -leased facilities, with government equipment, or together with government employees).
- b. Provide a safety and health plan, as required by its contract with NASA.
- c. Notify the Contracting Officer if NASA facilities or NASA operations are not in compliance with 29 CFR 1910 (General Industry Standards) or 29 CFR 1926 (Safety and Health Regulations for Construction).
- d. Ensure that employees are informed of NASA safety and health requirements.
- e. Inform employees of the location of the nearest medical facility, procedures for obtaining emergency medical care, and methods for reporting occupational injuries or illnesses.
- f. Instruct employees to report hazardous conditions immediately to their supervisors.
- g. Take immediate action to prevent and/or evacuate employees in imminent-danger situations.
- h. Furnish a safe and healthful place of employment and ensure that identified hazards are eliminated or controlled.
- i. Inform employees of specific hazards associated with their workplace and duties.
- j. Ensure the use of appropriate personal protective equipment.
- k. Train employees in a manner that will ensure their safety and health.
- l. Exemplify safe and healthful work practices.
- m. Cooperate with and assist safety and health personnel while they are performing their duties.
- n. Follow all applicable safety and health regulations as well as all chapters of the Safety and Health Manual as required by the contract.

2.2 Responsibilities of Safety Committees

2.2.1 Executive Safety Committee (ESC)

2.2.1.1 An Executive Safety Committee (ESC) reports to the Center Director. The Deputy Center Director chairs the ESC. Members include Organizational Directors from each code, as well as the Chief of the Occupational Safety, Health, and Medical Service Division (Code QH). Additional Safety Committees are chartered by the Executive Safety Committee. Mission statements and membership are stated in approved charters.

2.2.1.2 The ESC performs the following functions:

- a. Provides leadership and direction for safety and health at Ames.
- b. Provides unified policy decisions, approves all safety initiatives and strategies to reduce injuries, and assures the overall performance of the Center's safety and health program.
- c. Reviews and produces decisions on major and health issues concerning the Center.
- d. Reviews corrective actions and closeout data from major mishaps.

2.2.2 Aircraft and Ground Safety Committee

The Aircraft and Ground Safety Committee is responsible for reviewing ground operations of aircraft in order to detect and reduce safety hazards to persons, aircraft, and ground support equipment. The scope of committee activities includes hangar and ramp safety, personnel activities, and employment of equipment in support of aircraft operations. Chairperson will meet with Deputy Center Director on a quarterly basis or as needed to discuss issues that require attention.

2.2.3 Airworthiness and Flight Safety Review Board (AFSRB)

The AFSRB has the overall responsibility to ensure the Center has a strong and viable flight safety program, and that formulation and implementation of Center Flight operations policy is consistent for all flight activities managed by the Center. The Board has the authority to authorize a project to proceed or require changes, further documentation, or demonstration to satisfy the Board's Airworthiness and Flight Safety concerns.

2.2.4 Field Research Safety Review Board (FRSRB)

The FRSRB shall have the authority to review, approve and monitor all off-site field conditions that lack the infrastructure commonly available to support NASA researchers and/or that may expose the field team to unique occupational hazards not typically encountered in domestic, urban, or laboratory field research activities. The scope of the FRSRB is the overview of the project's safety plan, medical certifications, training requirements and compliance. The FRSRB will provide support for the development of these elements into a final plan for the project. Special skills training support, e.g., (wilderness first aid, techniques development, hazard management) will be provided, as required. The board will have authority for final authorization to proceed.

2.2.5 Diving Control Board (DCB)

2.2.5.1 The Diving Control Board (DCB) shall have the authority to review, approve and monitor diving-related activities (including SCUBA, surface-supplied, and free diving) that are part of any NASA-Ames funded research project.

2.2.5.2 The DCB charter shall be separate from the responsibilities for the Field Research Safety Review Board. However, certain research locations and/or logistics of diving-related projects may require the review of both boards.

2.2.6 Explosives Safety Committee

2.2.6.1 This committee is chartered to implement, maintain, and monitor an explosives safety program for Ames Research Center in compliance with NASA-STD-8719.12. This includes the development of an Explosives Safety Site Plan to prevent or minimize the exposure of personnel and facilities to explosives hazards when performing NASA program activities.

2.2.6.2 The committee, with the help of the Explosives Safety Officer, shall:

- a. Audit facilities that house explosives.
- b. Provide training.
- c. Review operating procedures, facility construction plans, transportation routes, additional storage and handling needs.
- d. Provide written direction to supervisors.
- e. Interpret the guidelines specified in applicable NASA, NFPA, DOD, and any other federal, state, or local requirements.

2.2.7 Institutional Biosafety Committee (IBC)

2.2.7.1 The purpose of the IBC is to protect the health of workers and the public at Ames from the risks associated with the use of hazardous biological agents, by ensuring that appropriate hazard controls are established for specific research projects. The IBC shall:

- a. Administer a program to review, approve, and monitor all Ames research projects involving biological/biohazardous materials.
- b. Review all proposed research activities with recombinant molecules, organisms and animals that may pose safety, health, or environmental risks.
- c. Serve as a forum to review, make recommendations to appropriate stakeholders, and raise awareness related to biosafety concerns, institutional needs, emerging biosafety issues, and new biosafety requirements.
- d. Review and approve implementation of required biosafety controls (e.g., facility safeguards, safety equipment, and microbiological practices) that protect laboratory workers, the environment, and the public from exposure to infectious materials that are handled and stored in the laboratory.
- e. Review Ames biosafety policies and make recommendations for revision.
- f. Support Ames's Public Information Office responses to IBC-related inquiries from the public or external entities.
- g. Review violations or incidents, and determine levels of significance and required reporting.
- h. Report annually to the Executive Safety Committee.

2.2.8 Human Occupancy Review Board

The Human Occupancy Review Board evaluates the operational readiness of test facilities that involve occupation by humans. The board certifies that a facility can begin operation, or continue operation after a significant modification, preventing the exposure of any unacceptable risks to human occupants.

2.2.9 Ionizing Radiation Safety Committee

2.2.9.1 The Ionizing Radiation Safety Committee was established in accordance with 10 CFR pt. 30 to supervise the purchase of and to approve all use of radioactive materials under the license issued to the Center by the Nuclear Regulatory Commission (NRC) and in accordance with agreements between the Center and the NRC. The Committee also approves all use of ionizing radiation producing equipment at the Center.

2.2.9.2 The Committee has the responsibility for providing radiological advice to the Director and technical assistance to users. The fundamental responsibility for seeking this assistance and advice remains with the individual users under whose supervision radioactive byproduct materials and ionizing radiation-producing equipment are used. No use of ionizing radiation is allowed at NASA Ames Research Center without written permission from the Ionizing Radiation Safety Committee.

2.2.10 **Lifting Devices and Equipment Committee**

The Lifting Devices and Equipment Committee (LDEC) shall ensure NASA-STD-8719.9 is understood and applied across all organizations at Ames Research Center and to resolve any issues and provide a forum to exchange information. The LDEC is chaired by the Lifting Devices and Equipment Manager (LDEM). The LDEC represents the interests of NASA Ames Research Center and interfaces with the NASA Headquarters Lifting Devices and Equipment program and its representatives.

2.2.11 **Nanomaterials Safety Committee**

The Nanomaterials Safety Committee is responsible for defining safety and health procedures for the use of nanoparticles in research laboratories. These procedures will represent minimum safety precautions applicable when these materials are used at Ames Research Center. The committee also advises the Executive Safety Committee regarding potential nanoparticle safety, health, and environmental risks or compliance issues that may impact the research programs at ARC.

2.2.12 **Non-Ionizing Radiation Safety Committee**

2.2.12.1 The Non-Ionizing Radiation Safety Committee (NRSC) is responsible for the following:

- a. Advising the Center Director on matters concerning nonionizing radiation safety.
- b. Establishing and maintaining adequate policies and regulations for the control of nonionizing radiation hazards in conformance with applicable regulations and reliable technical guidelines.
- c. Approving and authorizing all projects (as defined in APR 8715.1 Chapter 8) involving the use of nonionizing radiation devices.
- d. Approving the construction and operating procedures for fixed, nonionizing radiation facilities and activities.
- e. Investigating nonionizing radiation accidents and reporting findings to the Center Director.
- f. Designating and approving the qualifications of Authorized Laser Users and Authorized Users of Microwave/RF equipment.

2.2.13 **Traffic Safety Committee**

2.2.14 The Traffic Safety Committee promotes and enhances pedestrian, bicycle, and vehicular safety on the Center's roadways. The committee will address comments, suggestions, and concerns from the Center regarding traffic signs, markings, and road conditions and hazards.

2.2.15 **Directorate Leaders Safety Committee**

2.2.15.1 The primary purpose of Directorate Leader Safety Committee is to act on all matters of Safety and Health. The members will execute these primary responsibilities:

- a. Maintain Voluntary Protection Program (VPP) Certification.
- b. Act as Center safety leader on all matters of Safety and Health.

- c. Act as the primary lead for Safety/Health within their Directorate.
- d. Manage Ames Safety Awards Program (ASAP II).
- e. Ensure HQ Safety and Occupational Health audits are successful (Fully participate/Close Findings, etc.).
- f. Ensure successful implementation of the HQ Safety Culture survey/results and training.

2.3 Union/Management Safety Committee

The Center and the Union have agreed to work together to improve the Ames Safety Program. The Ames Union/Management Safety Committee serves as the primary vehicle for the exchange of information under the VPP and supports the Center's and Union's commitment to safety. This committee functions as a subcommittee of the Ames Research Center Partnership Council and reports its progress on VPP and other safety matters to the Council.

2.4 Contractor Safety

2.4.1 A detailed Safety and Health Plan is submitted as part of a Service or Operations contract proposal, showing how the contractor intends to protect the life, health, and well-being of the public, and NASA and contractor employees as well as property and equipment. The plan should include detailed discussions of the policies, procedures, and techniques for all anticipated working conditions that will be encountered throughout the performance of the contract. The safety and health of all subcontractor employees should be included in the prime contractor's plan for any proposed subcontract, including commercial services and services provided in support of a commercial item. An approved Safety and Health Plan shall be included as a part of any resulting contract or as a data deliverable under the contract.

2.4.2 If the contractor will conduct work or be located on a NASA site or in a NASA facility, the Safety and Health Plan should discuss measures to be taken to ensure the protection of property, equipment, and the environment in the production of contractor deliverables and/or in the pursuit of any of its activities. An approved onsite contractor will develop and subsequently implement a Safety and Health Program based on the approved plan that will include policies and procedures for compliance with pertinent NASA policies and requirements, and Federal, State, and local regulations for safety, health, environmental protection, and fire protection. The contractor's Safety and Health Program will be used to assure integration of the onsite contractor as a full participant in the Center's Safety and Health Program.

APPENDIX A. DEFINITIONS

Safety and Health Plan A written document that describes the process for identifying the physical and health hazards that could harm workers, procedures to prevent accidents, and steps to take when accidents occur.

APPENDIX B. ACRONYMS

AFSRB	Airworthiness and Flight Safety Review Board
ARC	Ames Research Center
CFR	Code of Federal Regulations
DCB	Diving Control Board
ESC	Executive Safety Committee
FRSRB	Field Research Safety Review Board
IBC	Institutional Biosafety Committee
LDEC	Lifting Devices and Equipment Committee
LDEM	Lifting Devices and Equipment Manager
NASA	National Aeronautics and Space Administration
NRSC	Nonionizing Radiation Safety Committee
NPD	NASA Policy Directive
NPR	NASA Procedural Requirement
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
VPP	Voluntary Protection Program

APPENDIX C. REFERENCES

- C.1 Rules of General Applicability to Domestic Licensing of Byproduct Material, 10 CFR pt. 30
- C.2 Occupational Safety and Health Standards, 29 CFR pt. 1910
- C.3 Safety and Health Regulations for Construction, 29 CFR pt. 1926
- C.4 Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters, 29 CFR pt. 1960
- C.5 Occupational Safety and Health Programs for Federal Employees, E.O. 12196 (1980)
- C.6 APR 1120.2, Ames Engineering Technical Authority
- C.7 APR 8715.1 Chapter 8, Laser, Microwave, and Other Nonionizing Radiation Safety
- C.8 NASA-STD-8719.9, Lifting Standards
- C.9 NASA-STD-8719.12, Safety Standard for Explosives, Propellants, and Pyrotechnics