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Glenn Safety Manual – Chapter 2

Safety, Health, and Environmental Training and Certification w/Change 2 (2/29/24)

Approved by: QS/Chief, Safety and Health Division

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Change Record

Rev.	Effective Date	Expiration Date	GRC25, Change Request #	Description
B	5/14/2012	5/14/2017	127	Biannual update
Change 1	5/14/2012	5/14/2017	N/A	Administrative changes to add front cover and change history log to comply with NPR 1400.1, deleted "The authority for the policies and procedures contained in this chapter is derived from the following documents," in Section 4.0 and added "The GRC shall implement requirements of the following documents"
Change 2	9/30/2015	5/14/2017	N/A	Administrative change to remove hyperlinks.
Change 3	5/14/2017	5/14/2018	N/A	Administrative change to extend expiration date for one year to allow more time for chapter revision.
C	4/30/2018	4/30/2023	18-007	Biannual update – Administrative changes. Added section (5.6) on Environmental Management Office responsibilities. Minor formatting and sentence structure changes.
D	3/22/2019	3/22/2024	18-019	Combined Chapter 2 (Safety, Health and Environmental Training and Certification) and Chapter 4 (Student Safety and Health) as part of the Glenn Safety Manual consolidation effort. Removed content not related to training. Minor formatting and sentence structure changes.
Change 1	4/20/2021	3/22/2024	N/A	Administrative changes to update NPR and Neil A. Armstrong Test Facility
Change 2	2/29/24	9/22/2024	N/A	Administrative Change: Extend expiration date from 3/22/2024 to 9/22/24 to complete substantive changes.

***Include all information for each revision. Do not remove old revision data. Add new rows to table when space runs out by pressing the tab key in the last row, far right column.*

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Chapter 2—Safety, Health, and Environmental Training and Certification

NOTE: The current version of this chapter is maintained and approved by the Safety and Health Division (SHeD). The last revision date of this chapter was April 2021. The current version is located on the Glenn Research Center intranet within the Business Management System (BMS) Library. Approved by the Chief, Safety and Health Division.

1.0 PURPOSE

This chapter describes policies and procedures and assigns responsibilities pertaining to safety, health, and environmental (SHE) training for NASA Glenn Research Center (GRC) employees.

NOTE: This chapter is an overview of GRC’s SHE training programs. For specific information about required or recommended training for any particular SHE discipline, please see the SHE Training Matrix (available on the SHeD website) or refer to chapters pertaining to that discipline in the Glenn Safety Manual, the GRC Occupational Health Programs Manual (GLP-QS-1800.1), or the GRC Environmental Programs Manual (GLM-FE-8500.1). These manuals are maintained by the Safety and Health Division and the Environmental Management Office.

2.0 APPLICABILITY

This chapter is applicable to GRC civil servant employees; GRC contractors in accordance with the terms of their contracts; interns who come to GRC for an internship program who are here for 5 days or more; and other Government agency employees who support operations at Lewis Field (LF), Neil A. Armstrong Test Facility (GRC-ATF), and any facility under GRC cognizance.

NOTE: Additional training not specified in this chapter may be required as determined by an employee’s responsibilities and tasks.

In this chapter, 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 expected outcome; and “are” or “is” denotes descriptive material.

3.0 BACKGROUND

Employees have rights and responsibilities regarding their safety and health. Employees shall have appropriate training to perform their work safely and with methods that are protective of the safety and health of the workforce as well as the environment. Occupational Safety and Health Administration (OSHA) regulations pertaining to basic program elements for Federal employees (29 Code of Federal Regulations (CFR) 1960) include provisions for safety and health training for supervisors and employees that are pertinent to the work being performed. In addition, training requirements described by Environmental Protection Agency regulations, as well as NASA environmental policies, apply to certain personnel at GRC. The Federal Advisory Council on Occupational Safety and Health (FACOSH) and OSHA’s Occupational Safety and Health Training Guidelines for Federal Agencies also provide direction for this chapter. This chapter clarifies the responsibilities and requirements pertaining to SHE training at GRC.

4.0 POLICY

It is GRC policy to ensure that GRC personnel are trained commensurate with the applicable SHE requirements that pertain to their jobs. Effective training ensures that the operation methodologies implemented are safe. Compliance with the responsibilities and requirements of this chapter are measured and verified through the use of programmatic self-assessments, regulatory and Agency audits, and internal field inspections. GRC shall follow the requirements of the following documents:

- a. Public Law 91-596, Occupational Safety and Health Act of 1970

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- b. Executive Order 12196, Occupational Safety and Health Programs for Federal Employees
- c. 29 CFR 1910, Occupational Safety and Health Standards
- d. 29 CFR 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters, Subpart H
- e. NASA Procedural Requirement (NPR) 1800.1, NASA Occupational Health Program Procedures
- f. NPR 8621.1, NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping
- g. NPR 8715.1, NASA Safety and Health Programs
- h. Glenn Procedural Requirement (GLPR) 8553.1, GRC Environmental Management System (EMS) Policy

5.0 RESPONSIBILITIES

Per NPR 8715.1, 4.3.5, Education and Training,

- a. 4.3.5.1 Each Center shall establish and maintain a safety training and certification program to implement Federal regulations and NASA requirements to ensure workers are trained and medically able to safely perform their jobs and identify and control hazards associated with their tasks.
- b. 4.3.5.2 Each Center shall train all managers and supervisors on their roles and responsibilities for ensuring employee safety and health and developing a positive safety culture.
- c. 4.3.5.3 Each Center shall ensure employees are aware of the Center's safety and health management program and their roles and responsibilities for ensuring safety and health.

5.1 Supervisors

In general, supervisors shall be primarily responsible for providing their personnel with a safe working environment, recognizing potential hazards in their areas, and budgeting resources for training for their employees. GRC Supervisors shall

- a. Determine training needed for their employees by periodically completing the SHED Training Needs Assessment (available on the SHED website)
- b. Ensure that SHE training courses needed by civil servant employees are listed in employees' individual development plans and/or performance plans
- c. Ensure that their employees register for and complete required SHE training and obtain required certifications to perform their job assignments
- d. Ensure that system safety training is available to meet the needs of programmatic activities
- e. Ensure that all of their personnel engaged in physical work are instructed in accident prevention and are fully informed of the hazards involved
- f. Support mentors hosting interns

NOTE: Contractors' supervisors are responsible for ensuring that their employees receive all required training.

5.2 Office of STEM Engagement (OSTEM) Designee

Office of STEM Engagement (OSTEM) designee shall

- a. Reinforce policy to interns by supporting federally mandated training
- b. Provide SHED with a list of mentors and interns for training and tracking purposes

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5.3 Employees and Interns

All employees and interns shall

- a. Attend any required SHE training courses
- b. Successfully complete all required training within required deadlines
- c. Complete all requirements of required certifications such as training, medical surveillance or clearance, and on-the-job training components
- d. Comply with GRC SHE policies

5.4 Mentors

Mentors shall

- a. Complete the Intern Safety Course for Mentors prior to their interns' enter on duty date, and at least every 3 years
- b. Ensure interns complete all required training

5.5 Safety and Health Division Chief or Designee

Operations at GRC shall be reviewed annually to ensure that the implemented safety training program is working effectively. As such, SHeD has an assessment and oversight role for safety and health training efforts at GRC. The SHeD Chief or Designee shall

- a. Perform internal compliance evaluations in order to track the effectiveness of safety and health programs. Regarding safety and health training, this may include, but is not limited to, reviewing training requirements, courses, training records, and other documentation. Any findings noted by SHeD as part of this assessment process shall be tracked until they are considered to be resolved, and actions will be taken in order to prevent recurrences, as necessary.
- b. Work closely with HCDD and have a role in the continued development of safety and health training. In addition, SHeD may develop and present safety and health training courses and materials, as needed. Subject matter experts within SHeD may provide guidance regarding training requirements and may provide training for specific safety and health topic areas.
- c. Ensure, in accordance with NPR 8621.1, that GRC employees are familiar with the roles and responsibilities documented in the Center Mishap Preparedness and Contingency Plan and the NPR
- d. Utilize subject matter experts to perform the role of the Certifying Official for certifications
- e. Assist mentors in identifying training for interns
- f. Maintain the SHeD Training Needs Assessment (a tool used to identify training needs) and update as necessary
- g. Maintain the SHE Training Matrix (a list of SHE training which includes course numbers and descriptions)
- h. Maintain CERTrak

5.6 Environmental Management Office Chief or Designee

The Environmental Management Office Chief or Designee shall

- a. Ensure that environmental training listed on the SHE Training Matrix is updated as needed
- b. Ensure that the environmental portions of SHE training courses are updated as needed

5.7 Human Capital Development Division (HCDD) Chief or Designee

The HCDD Chief or Designee shall

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- a. Coordinate training courses with requestors
- b. Interpret SHed Training Needs Assessment results
- c. Arrange for training sessions according to the needs assessment

NOTE: Training may be obtained through a variety of sources, including onsite and offsite training courses, academic instruction, topic-related conferences, web-based instruction, and on-the-job training. For assistance with coordinating training courses, contact HCDD.

6.0 REQUIREMENTS

6.1 Determination of Training Needs (GLPR 8715.1)

Organizational and individual needs, type and complexity of research or equipment operation, availability of courses and instructors, and budget constraints determine necessary training. Training may address hazards of the job; safe work practices; hazards of the work environment; use and care of personal protective equipment (PPE); first aid procedures; and reporting of injuries, illnesses, and hazardous conditions. The following process shall be followed to determine required training needs:

- a. Supervisors review their employees' training requirements and add or delete training courses as necessary.
- b. Supervisors periodically complete the SHed Training Needs Assessment.

6.2 Target Groups

Appropriate instruction and job-related SHE training shall be required for all employees at GRC. Additional training may be required for the following individuals:

- a. Supervisors
- b. Collateral duty safety personnel and area safety committee members (see Chapter 1A of the Glenn Safety Manual)
- c. Employee representatives
- d. Certified personnel
- e. Interns

6.2.1 Supervisors (CFR 1960, Subpart H)

Supervisors shall complete all required training as specified in the SHE Training Matrix.

6.2.2 Collateral Duty Safety Personnel and Area Safety Committee Members (29 CFR 1960, Subpart H)

Upon appointment to a collateral duty safety position, such as a directorate safety point-of-contact, or to a safety committee, an employee will be provided with appropriate training commensurate with the scope of the assigned responsibilities. Training shall include NASA procedures for reporting, evaluating, and abating hazards; NASA procedures for reporting and investigating allegations of reprisal; recognition of hazardous conditions and environments; identification and use of occupational safety standards; and other appropriate rules and regulations.

6.2.3 Employee Representatives (29 CFR 1960, Subpart H)

GRC personnel who are representatives of employee groups, such as collective bargaining units, shall receive training information and materials that enable such groups to ensure safe working conditions and practices in the workplace.

6.2.4 Certified Personnel (NPR 8715.1)

Individuals performing certain tasks may require training over and above minimal safety and health awareness. These tasks include, but are not limited to, hearing conservation, respiratory protection, cranes and lifting devices,

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and material handling equipment. Additional tasks may require specific certification dependent on Federal or state standards. See specific requirements within NPR 8715.1. The GRC uses a web-based tool, “CerTrak”, to help supervisors and employees manage the requirements of a certification. When the employee has completed all requirements of a certification to a supervisor’s satisfaction, the supervisor will submit a request to the Certifying Official within the SHED through CerTrak. The Certifying Official reviews the requirements of the certification for completeness and issues the certification.

NOTE: In addition to NPR 8715.1 , see the GLP-QS-1800.1, GLP-QS-8715.1, or GLM-FE-8500.1 for training and certification requirements related to specific topic areas.

6.2.5 Interns

Interns shall complete all required training as specified in the SHE Training Matrix.

7.0 RECORDS

Records are maintained as follows:

- a. Civil servant employee training records are stored within the System for Administration, Training, and Education Resources for NASA (SATERN); maintained and tracked by HCDD.

NOTE: Training attendance and any associated test results for training that is not web-based can be uploaded to SATERN.

- b. Civil servant employee Safety and Occupational Health certifications are maintained in CerTrak.
- c. Support service contractor training records; maintained and tracked by the applicable contractor organization.
- d. Test customer and outside contractor training and medical records.—Maintained by NASA project manager or prime contractor.

8.0 REFERENCES

Document number	Document name
Public Law 91-596	Occupational Safety and Health Act of 1970
Executive Order 12196	Occupational Safety and Health Programs for Federal Employees. Feb. 26, 1980
29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1960	Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters
29 CFR 1960, Subpart H	Training
NPR 1800.1	NASA Occupational Health Program Procedures
NPR 8621.1	NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping
NPR 8715.1	NASA Safety and Health Programs
GLPR 8715.1	Glenn Research Center Safety and Health Management System
GLPR 8553.1	GRC Environmental Management System
GLP-QS-1800.1	GRC Occupational Health Programs Manual
GLM-FE-8500.1	GRC Environmental Programs Manual

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APPENDIX A. ACRONYMS

BMS	Business Management System
CFR	Code of Federal Regulations
EMS	Environmental Management System
FACOSH	Federal Advisory Council on Occupational Safety and Health
GLM	Glenn Manual
GLP	Glenn Procedure
GLPR	Glenn Procedural Requirement
GRC	Glenn Research Center
GRC-ATF	Neil A. Armstrong Test Facility
HCDD	Human Capital Development Division
LF	Lewis Field
NPR	NASA Procedural Requirement
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
SATERN	System for Administration, Training, and Educational Resources for NASA
SHE	Safety, Health, and Environmental
SHeD	Safety and Health Division
STD	Standard

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