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Glenn Safety Manual – Chapter 27

Building Emergency Evacuation Plan Program w/Change 2 (9/30/2015)

Approved by QS/Chief, Safety and Health Division

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Change Record

Rev.	Effective Date	Expiration Date	GRC25, Change Request #	Description
B	2/6/2012	2/6/2017	38	Reorganizational changes (SHeD, EMB, & OHB) updating.
Change 1	6/30/2014	2/6/2017	N/A	Administrative change to add front cover and change history log to comply with NPR 1400.1 Deleted "It is GRC management policy that an emergency evacuation plan be established and implemented in accordance with" and inserted "The GRC shall follow the requirements of" in Section 4.0 Policy. Added a bullet to section 5.2: Other than trained professional firefighters, trained volunteers, or emergency response personnel, employees are to not fight fires except in cases where the fire is incipient in nature and the employee has completed fire extinguisher training.
Change 2	9/30/2015	2/6/2017	N/A	Administrative change to remove hyperlinks.

***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 27—Building Emergency Evacuation Program

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 February 2012. The current version is located on the Glenn Research Center intranet within the BMS Library. *Approved by: Chief of Safety and Health Division.*

1.0 PURPOSE

This chapter describes the Glenn Research Center (GRC) Building Emergency Evacuation Plan, including the basic procedures and responsibilities.

2.0 APPLICABILITY

The provisions of this chapter are applicable to all NASA employees and to all other agencies, organizations, and contractor personnel that design, construct, inspect, operate, maintain, or manage facilities or systems within the confines of the GRC at Lewis Field and Plum Brook Station. Evacuation procedures are applicable during fires and other occurrences for which evacuation is appropriate, including low oxygen or toxic spills in buildings. Shelter provisions may be invoked for hazardous conditions outside the building (e.g., weather conditions, chemical spill, security incident, etc.).

3.0 BACKGROUND

Emergency evacuation plans are created to assist occupants in exiting the building by the indicated egress routes. Plans include any procedures for assisting employees with special needs and buildings that might have associated critical operations.

4.0 POLICY

The GRC shall follow the requirements of NASA Procedural Requirement (NPR) 8715.3C, NASA General Safety Program Requirements, and the Occupational Safety and Health and Administration (OSHA) Code of Federal Regulations (CFR) 29 CFR 1910.38.

5.0 RESPONSIBILITIES

5.1 Building Evacuation Wardens and Alternates

Building evacuation wardens and alternates shall direct and supervise the planned and controlled movement of all personnel out of GRC buildings. They shall direct and supervise the planned evacuation and controlled movements of personnel to the muster points. Building evacuation wardens duties are to:

- Ensure that personnel move to the muster point in the event that an evacuation signal or a shelter signal has sounded.
- Ensure the safe flow of personnel along approved evacuation routes.
- Check assigned area to ensure personnel have evacuated the area.
- Assist persons with special needs in accordance with preplanned procedures (see Appendix B).
- Recognize the presence of potential hazards and know the Building Evacuation Plan in order to provide appropriate direction to personnel.
- Once outside, if there are any circumstances that require further assistance in helping occupants out of the building, the evacuation warden will pass that information along to the incident commander.
- If there are no further circumstances and all assigned areas have been checked, proceed to the muster point and wait for further directions from the incident commander.

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- The evacuation warden shall contact their supervisor to inform them of the emergency situation and any known missing persons. At that time, the warden might assist the supervisor in the accountability process.
- Assist Glenn Protective Services personnel in preventing unauthorized entry into buildings and loss or theft of Government and private property. Cooperate with all emergency personnel.

5.2 Individual Employees

Individual employees shall:

- Know the evacuation procedure applicable to each of their work locations to ensure their individual safety in the event of an emergency.
- Know the location of fire alarm pull boxes.
- Have secondary exit route in case primary exit route is blocked.
- When evacuation alarm sounds, stop work and, if applicable and safely able to, turn off computers or any electrical device, and immediately evacuate the building, assisting visitors, interns, etc., along the approved evacuation routes to a safe area. Do not use elevators. Close, but do not lock office doors.
- Other than trained professional firefighters, trained volunteers, or emergency response personnel, employees are to not fight fires except in cases where the fire is incipient in nature and the employee has completed fire extinguisher training.
- Report to your supervisor, building evacuation warden or alternate once outside the building; supervisors have assigned the evacuation wardens for each building.
- Stay at designated muster point until told to report to a shelter area or that the building is safe to reenter by the incident commander or emergency personnel.
- Maintain clear and unobstructed egress routes.
- Review the SHed Web site for evacuation routes for present location.
- If the employee has any visitors, students, interns, or other personnel, be certain to review the evacuation plan with them and assist them out of the building.

5.3 Supervisors

Supervisors shall:

- Review the GRC Building Evacuation Plan with his/her employees.
- Assign building evacuation wardens and alternates for each area and ensure this responsibility is specified in the employee's performance plan.
- Instruct wardens and employees on their responsibilities under the emergency evacuation plan; maintain the records that all of their employees are made aware of their responsibilities.
- Develop an evacuation procedure when a person with special needs is assigned to them. This procedure shall be supplied to and reviewed by the SHed Fire Protection Coordinator (see Section 6.7).
- Ensure that a specific written procedure is developed for any critical operation that would delay evacuation. This procedure shall be supplied to and reviewed by the SHed Fire Protection Coordinator, the Safety Committee Chair, and/or Facility Manager, as appropriate.
- Maintain an up-to-date list of all his/her employees, including name, building, room number, work phone, home phone, and cell phone, to contact and account for all employees.

5.4 Building Managers

Building managers shall:

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- Post evacuation routes throughout the building.
- Post list of building evacuation wardens on the bulletin boards.
- Review the Building Evacuation Plan annually in conjunction with the Safety Training in the Execution of Emergency Procedures (STEEP) exercise.
- Notify the SHed Fire Protection Coordinator of any proposed or planned changes to the building or any activities that may affect the evacuation plan.

5.5 Employees With Special Needs

Employees with special needs shall work with the SHed Fire Protection Coordinator, their representative from the Office of Human Capital Management, and their supervisor to develop an emergency evacuation procedure specific to their needs. Refer to Appendix B for further direction on policy and procedure development.

5.6 Protective Services Force

Protective services force shall:

- Monitor emergency alarms and provide initial response to these alarms.
- Respond to emergencies to provide control of vehicles and personnel.
- Coordinate emergency resources and escort emergency vehicles to the scene.
- Arrive at the scene of the emergency, take charge of the evacuation, provide information to the responding fire department, and coordinate recovery efforts.
- Prevent unauthorized entry into building and loss or theft of Government and private property.
- Once the building has been deemed safe to occupy by the incident commander, notify all of the muster points that it is safe to reenter the building.
- Identify shelter location for inclement weather and coordinate the transportation of occupants.

5.7 SHed Fire Protection Coordinator

SHed Fire Protection Coordinator shall

- Provide overall coordination for evacuation preplanning and preparation of the Building Evacuation Plans.
- Provide consultation for the safety permit program to ensure that any hazards that may affect life safety or any evacuation procedures are addressed in the safety permit.
- Ensure STEEP exercises are conducted with assistance from the building manager annually and maintain records of these exercises.
- Annually review the buildings evacuation plans.

5.8 Contracting Officer's Technical Representative

Contracting Officer's Technical Representative shall ensure that contractor management is aware of GRC's evacuation procedures and the appropriate Building Evacuation Plan.

6.0 REQUIREMENTS

6.1 Building Evacuation Plans (OSHA, 29 CFR 1910.38)

This section specifies the content of the GRC Building Evacuation Plans. A Building Evacuation Plan shall be developed for each building that contains more than 10 employees. A generic evacuation plan is also developed for buildings that contain 10 employees or fewer. The SHed Fire Protection Coordinator, in coordination with area supervisors, building managers, and Office of Protective Services, shall develop Building Evacuation Plans for each facility and/or building. Each plan will take into consideration potential hazards in the area, type of occupancy, research activities, daily activities, and personnel assigned to the area. Once the plan is developed, the Chief of

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SHed approves it. The SHed Fire Protection Coordinator and the building manager review the plan every year as a mandatory part of the STEEP exercise. The building manager is responsible for informing the SHed Fire Protection Coordinator of any proposed or planned changes to the building or activities that may affect the evacuation plan, including any plans for lockdown of facilities for classified programs. The Building Evacuation Plan shall include the following:

- Evacuation diagram illustrating the primary and alternate routes to an exit
- Alarm system used to notify personnel to evacuate the area
- Locations of alarm pull boxes and fire extinguishers
- Muster point outside the building where all personnel will gather and be accounted for
- Muster point inside in the event of a tornado or other shelter in place event (if applicable)
- List of evacuation wardens and their alternates
- Identification of assigned areas for each evacuation warden and their alternates
- Identification of special evacuation procedures and/or shutdown requirements

6.2 Evacuation Signals

An evacuation alarm sounding within a building always means that employees shall evacuate the building or facility immediately. In simple buildings (such as a gate house) where there are no evacuation alarm pull boxes, a direct voice communication, a shout of “Emergency! Get out!,” will be used instead of an alarm.

6.3 Escape Procedure and Routes

In general, when the evacuation alarm is heard, a fire is seen, or another emergency condition becomes known, employees shall promptly secure the equipment in use and vacate the premises to the designated muster point where they will remain until released by the incident commander or emergency personnel. They will take the designated safe route to an exit, warning others along the way. The first to arrive at an evacuation alarm pull box or exit will sound the alarm and proceed to a muster point. The route followed during evacuation will be in accordance with the designated Building Evacuation Plan or as directed by a building evacuation warden.

6.4 Critical Operations

Employees may be required to shut down gas and/or electrical systems and other special equipment that could be damaged if left operating or could create additional hazards to emergency responders (such as releasing hazardous materials). Any delay in evacuation for a critical operation (other than staying to secure an operation that will result in only a very short delay) will be preplanned and covered by a specific procedure that is approved by the supervisor, Safety Committee Chair, and SHed Fire Protection Coordinator. Copies of the approved procedure shall be included in the Building Evacuation Plan.

6.5 Occupant Accountability

Upon arrival at the designated muster point, each evacuation warden shall verify that all employees of their organizational component have reached safety. Names and last known location of missing employees will be reported to their supervisor for relay to the incident commander (if requested) or any other onsite response personnel.

6.6 Preferred Means of Reporting

Any person who discovers a fire or other emergency shall, from a safe location, immediately dial 911 on the nearest internal GRC telephone to report the fire and assistance needed. The caller will state his or her name, location, type of help needed, and stay on the telephone until released by the dispatcher. Telephones will have stickers indicating the emergency number. Personnel utilizing cell phones or outside phones will call 216-433-8888 at Lewis Field and 419-621-3222 at Plum Brook Station. This phone number will ring directly to the Glenn Emergency Dispatcher.

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6.7 Emergency Evacuation Procedures for Employees with Special Needs

6.7.1 Special-Needs Employees Emergency Evacuation Plan

- A written emergency evacuation plan shall be developed for all employees who have declared themselves to have a physical disability identified by the Americans with Disabilities Act (ADA). The employee’s supervisor, in consultation with SHeD and their representative from the Office of Human Capital Management, shall prepare the specific evacuation plan (see example in Appendix B). The plan shall define provisions for emergency egress, including the method of egress, route of egress, area of rescue assistance, contingency route(s), and duties of other employees assisting the individual.
- Upon approval of the plan by the SHeE Fire Protection Coordinator, copies will be on file in SHeD and with the employee’s supervisor.
- All individuals involved with the special needs evacuation plan will be given a copy of the plan by the individuals’ supervisor.
- Wherever possible, such persons shall have their normal duty station located on the ground-floor level of buildings.
- If the employee must work alone, an appropriate level of the “Buddy System” (Glenn Safety Manual, Chapter 22) shall be used. This should be outlined in the employee’s Special Needs Employee Emergency Evacuation Plan.
- The Special Needs Employee Emergency Evacuation Plans shall be updated when there is any change to the plan.

6.7.2 Special Needs Responsibilities

- SHeD shall be responsible for monitoring the locations of all employees with special needs at the Center and to ensure that proper alarm devices and safety procedures are provided to accommodate safe egress.
- The supervisor shall develop the written evacuation plan and advise the building evacuation wardens, building manager, and any others involved, of the specific evacuation procedures for these persons.
- The employee shall be responsible for knowing and understanding GRC emergency evacuation procedures in general and his/her specific emergency evacuation plan. The employee is responsible for making his/her whereabouts known at all times. The employee will notify their supervisor of any change in his/her condition that could affect his/her performance during an emergency.

6.8 Training

6.8.1 Supervisors

The supervisors shall receive training from the code Q or QS representative on their responsibilities during an emergency evacuation. When changes or additions to the procedures are made, the Q or QS representative shall review them with the supervisors.

6.8.2 Building Evacuation Wardens and Alternates

Building evacuation wardens and alternates shall receive annual on-the-job training in evacuation procedures from their supervisor. This training shall be documented by their supervisor.

6.8.3 Individual Employees

Upon initial assignment, the immediate supervisor shall review with each individual employee those parts of the Glenn Emergency Evacuation Plan that the employee must know to protect him or herself in the event of an emergency. The supervisor shall also review with the employee any changes in the employee’s responsibilities or any designated actions under the plan. When present, employees shall participate in all STEEP exercises at their location as though the incidents were real.

6.0 Verification of compliance with these requirements is done by SHeD during periodic evaluation and audits. Each year the supervisors are offered training on the evacuation plan to prepare them for what actions to take during an emergency. The actions are then evaluated during the STEEP drills. Any discrepancies are entered and resolved in SHEtrak.

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7.0 RECORDS

STEEP drill records.—Maintained by SHed Fire Protection Coordinator.

Supervisor training records.—Maintained by the Human Capital Development Branch.

Building Evacuation Plans.—Maintained by SHed Fire Protection Coordinator.

Special needs evacuation plans.—Maintained by the employees’ supervisor.

Critical operation plans.—Maintained by that operation’s supervisor.

Warden training documentation.—Maintained by the supervisor.

Employee training documentation on the evacuation procedure.—Maintained by the supervisor.

8.0 REFERENCES

Document Number	Document Name
29 CFR 1910.38	Occupational Safety and Health Administration Standard “Emergency Action Plans”
28 CFR Part 36	Americans with Disabilities Act Glenn Emergency Preparedness Plan, Chapter 4
GLM-QS-1700.1	NASA Glenn Safety Manual, Chapter 31, Fire Protection
8715.3C	NASA Procedural Requirements (NPR) NASA General Safety Program Requirements

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APPENDIX A.—DEFINITIONS AND ACRONYMS

Americans with Disabilities Act (ADA)

Code of Federal Regulations (CFR)

Glenn Research Center (GRC)

NASA Procedural Requirement (NPR)

Occupational Health and Safety Administration (OSHA)

Safety and Health Division (SHeD)

Safety Mission Assurance Directorate (SMAD)

Safety Training in the Execution of Emergency Procedures (STEEP).—An unannounced exercise of evacuation and other procedures related to an emergency.

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APPENDIX B.—SPECIAL NEEDS PLAN

Name: _____ Location: _____ Phone Number: _____

Nature of Special Need: _____

Supervisor's Name: _____ Location: _____ Phone Number: _____

Individuals assisting individual with Special Needs: _____

Primary: _____ Location: _____ Phone Number: _____

Secondary: _____ Location: _____ Phone Number: _____

Building Manager: _____

Primary Exit route from bldg:

Secondary Exit route from bldg:

Contingency Plan: (Example: if located on other than first floor of multi-story bldg. how will egress be accomplished, roles of responding personnel.)

Comments:

Note: Individuals assisting an individual with special needs will help the person out of the building or assist them to the area of rescue assistance during the evacuation of the building.

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SIGNATURE PAGE

**Individuals with Special Needs
Evacuation Plan**

Individual with Special Needs: _____ Date: _____

Supervisor: _____ Date: _____

Individuals assisting the individual with special needs:

Primary: _____ Date: _____

Secondary: _____ Date: _____

Bldg. Manager: _____ Date: _____

SHED Representative: _____ Date: _____

Review Date: _____

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