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Chapter 10.4 Facility Safety Management Process Documentation (FSMPD) Requirements for Critical, Complex, or Hazardous Facilities

10.4.1 Applicability of this chapter

10.4.1.1 You are required to follow this chapter if you are:

- a. A facility operations manager of a facility described below or on the list of facilities requiring FSMPD at the following URL:
http://www6.jsc.nasa.gov/safety/FacMgr/List_of_FBD_Facilities.pdf.
- b. An appointed safety coordinator in facilities described below or on the list at the URL in subparagraph a.
- c. A director at JSC and have facilities described below or on the list at the URL in subparagraph a.

10.4.2 What facilities require FSMPD

10.4.2.1 "Facility," as used in this chapter, may be a building, a work area in a building such as a laboratory, or an outside work area. A facility shall have FSMPD if it:

- a. Is critical to JSC's overall mission, such as:
 - (1) Unique, irreplaceable facilities that support manned space flight activities.
 - (2) Facilities directly supporting those unique, irreplaceable facilities that provide water, electrical, heating and cooling, and computer services.
- b. Contains historically significant national treasures, including, film, video, and scientific specimens that are irreplaceable.
- c. Is hazardous, such as:
 - (1) Facilities, by their standard operation or mission, subject personnel to risks or hazards that are not normally seen in the standard workplace environment, such as high voltage or current electricity, plasmas, vacuum environments, hypobaric or hyperbaric test chambers, cryogenics, and human suited operations
 - (2) Facilities housing or using explosive, flammable, toxic, caustic, radioactive, or oxidizing materials.
- d. Has very complex operating systems, such as those:
 - (1) Requiring multiple organizations to conduct its operations.
 - (2) Requiring extensive employee training to operate.
 - (3) Having internally and externally integrated systems using specialty and prototype equipment.
 - (4) Containing specifically designed and high value equipment.
 - (5) Housing special communications and telemetry systems that interface with other NASA centers, international organizations, and the Department of Defense (DOD).

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- e. Is listed in the table at the following URL:
http://www9.jsc.nasa.gov/safety/FacMgr/List_of_FBD_Facilities.pdf. Organizational directors may propose addition or deletion of facilities subject to these requirements to the Safety and Test Operations Division. The list of applicable facilities is subject to change considering the scope of this chapter and risk to life, safety, mission, property, or the environment.

10.4.3 FSMPD requirements

10.4.3.1 If your facility meets the above criteria or is listed above, you shall develop, validate, and maintain a set of FSMPD for your facility as required by a readiness review per chapter 10.3 of this handbook before beginning operations and through the life cycle of the facility. The contents of FSMPD chapter 8 of NPR 8715.3 and are as follows:

a. **Configuration control documentation** as follows:

- (1) Have a documented system to identify and control your facility's configuration that meets JPD 8820.3, "Facility Configuration Management Program."
- (2) Document your configuration control system in your general operating documentation, described in sub-paragraph b below.

b. **General operating documentation:**

- (1) Containing your basic policies.
- (2) Describing your facility organization and its functions and responsibilities.
- (3) Describing how you collect and control your facility baseline documentation.

NOTE: This documentation may be included in test plans, operating plans, readiness reviews or inspections, work instructions, management system documents, or customer agreements, provided all elements are addressed and revised as appropriate as conditions change.

- c. **Detailed procedures** describing how you operate machinery or systems, conduct tests, and control resources and schedules. Include limitations, controls, and requirements associated with sub-paragraph b, above, and sub-paragraph d, below, as necessary to assure that hazards and key operating conditions are fulfilled. Either develop these procedures yourself or use manufacturers' procedures when available.
- d. **Safety documentation** assessing risks associated with the facility, identifying and tracking hazards, and verifying hazard resolution.
- e. **Training documentation** defining the minimum training and certification needed to qualify personnel to operate equipment or systems, or to be a member of a test team.
- f. **Maintenance documentation** describing how you maintain the facility, facility systems, and facility equipment in a safe working order, and show maintenance history. You may use manufacturers' maintenance manuals.
- g. **Other documentation such as:**
 - (1) Records from a readiness review, such as an operational readiness inspection or a user readiness review that approved your facility, if such a review was done.

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(2) Records documenting operational decisions or critical operations in the facility.

NOTE: See the checklist at URL <http://www9.jsc.nasa.gov/safety/Checklists/docs/Facility/NS-PA-CH07-FacBaselineDocChecklist.docx> for a list of possible FSMPD items for the facility.

10.4.4 Maintaining FSMPD

Follow NPR 1441.1, “NASA Records Retention Schedules” (current version), for keeping, archiving, or destroying records.

10.4.5 Responsibilities for FSMPD

a. As an **organizational director**, you are responsible for:

- (1) Deciding which of your facilities needs to follow the requirements in this chapter and notifying the Safety and Test Operations Division of any additions or deletions to the list.
- (2) Making sure each facility or laboratory manager has the required FSMPD.
- (3) Reviewing the status of your FSMPD during readiness reviews or inspections to make sure it meets this chapter. If your facility is used continuously or frequently, you may define prescribed intervals for review based on maintenance requirements or change milestones.
- (4) Bringing any discrepancies found during your review to the attention of the responsible facility or laboratory manager for corrective action.
- (5) Providing FSMPD to the Safety and Test Operations Division during its assessments.
- (6) Assessing laboratories and facilities for applicability of this chapter, and to direct the appropriate facility or laboratory manager to develop or upgrade FSMPD to conform to these requirements.
- (7) Periodically self-assessing FSMPD using the checklist at URL: <http://www9.jsc.nasa.gov/safety/Checklists/docs/Facility/NS-PA-CH07-FacBaselineDocChecklist.docx>. Tailor the checklist to the documentation required by the readiness review. Send completed checklists to the Safety and Test Operations Division for an evaluation of compliance. You may use data from other assessments, inspections and audits to fulfill FSMPD requirements

b. The **Safety and Test Operations Division** is responsible for:

- (1) Assessing the risk associated with facilities identified as hazardous, critical, or complex as listed at URL: http://www9.jsc.nasa.gov/safety/FacMgr/List_of_FBD_Facilities.pdf.
- (2) Developing a schedule of facilities to be assessed annually, considering operational objectives, scheduling impacts, age, changes in mission scope. Compliance with this chapter and risks associated with these facilities may also be assessed during the course of readiness reviews, facility inspections, internal or external audits .
- (3) Assessing the adequacy of Directorate Reviews through evaluation of supporting information.