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John C. Stennis Space Center
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April 2011

COMPLIANCE IS MANDATORY

John C. Stennis Space Center

Operational Readiness Program Procedural

Requirements

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Rev E	2/28/2011	Robert Gargiulo /x83842	Administrative changes and clarification on where data reports will be filed; added Technical Review Process Team concept; updated Appendices.

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PREFACE

P1. PURPOSE

This Stennis Procedural Requirement (SPR) establishes procedures and guidelines for conducting an Operational Readiness Assessment (ORA) at the National Aeronautics and Space Administration, John C. Stennis Space Center (NASA/SSC). An ORA is conducted by the following methods: Operational Readiness Inspection (ORI), Safety Review (SR), or Independent Investigation (II) of facilities, operations, or equipment including special test equipment (STE) in accordance with SPD 8715.1, SSC Operational Readiness Program.

The primary function of an Operational Readiness Assessment shall be to assure all hazards are identified and are eliminated, controlled, or accepted to assure safe operations relative to personnel and property.

P2. APPLICABILITY

- a. This directive is applicable to NASA personnel in all SSC directorate mission support offices.
- b. This directive is applicable to contractors to the extent specific in their respective contracts.
- c. This SPR is applicable to all operational readiness activities associated with new construction or modification of existing facilities, operations, and equipment in support of programs operating in facilities with a Facility Risk Indicator (FRI) of either level 1 or 2 at the SSC. SSC's FRI base line is on file in the SMA website and files in accordance with the Master Record Index.

P3. AUTHORITY

- a. NPR 8715.3, NASA General Safety Program Requirements.
- b. SPD 8715.1, Operational Readiness Program.
- c. NPR 8820.2, Facility Project Requirements
- d. SSP-8715-0001, SSC Safety and Health Handbook
- e. SPR 8715.1, Safety and Health Program Requirements
- f. SPD 7120.1, Institutional Risk Management
- g. SPR 7120.1, Risk Management Procedural Requirements
- h. NPR 8000.4, Risk Management Procedural Requirements
- i. NASA-STD-8719.7, Facility System Safety Guidebook

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- j. SCWI-8710-0001, System Safety and Health
- k. SMRI-1440-QA00, Master Records Index for Office of Safety and Mission Assurance

P4. APPLICABLE DOCUMENTS

NONE

P5. MEASUREMENT/VERIFICATION

Compliance with requirements cited in this document will be measured through successful presentation and documentation of the operational readiness assessments, as well as, the data and decisions presented in support of test readiness reviews and facility activation reviews. The data, reports and presentations shall be filed in Central Engineering Files with a reference copy filed with the applicable test project and/or facility design as warranted.

P6. CANCELLATION

SPR 8715.2 D, dated September 2010



Patrick E. Scheuermann
Director

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CHAPTER 1. ORGANIZATION RESPONSIBILITY

1.1 Manager, Safety and Mission Assurance (SMA)

The SMA Manager shall:

- a. Determine the level of review to be conducted on the facilities, equipment, operations, and/or processes after consulting/coordinating with associated directors/managers of offices/programs/projects,
- b. Assist directors in the identification of facilities, equipment or operations requiring an operational readiness assessment,
- c. Serve on the Operational Readiness Assessment Board (ORAB),
- d. Select an Operational Readiness Assessment (ORA) team chairperson in concert with the appropriate director and the ORAB Chairperson,
- e. Establish functional membership and consultancies in coordination with the chairperson of the ORA team,
- f. Prepare a NASA notice for the approving authority's signature, accompanied by rationale for and recommendation of any chairperson or members without a vested interest in the facility or operation under review,
- g. Provide safety and quality assurance representatives for each Operation Readiness Inspection Committee (ORIC) and Safety Review Team (SRT),
- h. Review findings of all ORA team's subsystem activations with the appropriate operating director, authorizing continuance of operations, or directing appropriate action to disposition outstanding issues.

1.2 Directors/Managers of Offices/Programs/Projects

Directors/Managers of offices/programs/projects shall:

- a. Identify existing or proposed hazardous or programmatically important equipment, facilities, or operations requiring an operational readiness assessment,
- b. Identify facilities, equipment, or operations requiring an operational readiness assessment in a timely fashion so the assessment can be conducted without undue interference with scheduled use or operation and can be completed prior to facility activation,
- c. Provide chairperson, members, recorders, and consultants (recorders shall be provided by the organization responsible for the facility/equipment/operation or process under review); and identify to the SMA Manager any of the above individuals with a vested interest in the assessment,

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- d. Serve as point of contact for the ORA team during the inspection, or designate an individual to serve in his/her place,
- e. Implement ORA team recommendations and provide a valid rationale when recommendations cannot or should not be followed,
- f. Assure requirements for analysis and supporting documentation/information are included in facilities or operations planning so data is available to support ORA team needs in a timely manner,
- g. Provide to the chairperson of the ORA team a periodic status of action being taken on recommendations,
- h. Assure appropriate analyses are accomplished when facility, procedures, and equipment modifications are made. Report changes or modifications that create new hazards to SMA,
- i. Provide the ORA team with a review plan identifying the facility or operations requirements, documentation to satisfying the general requirements of this SPR, and a schedule for submittal of the documentation,
- j. Provide for implementation of the intent of this SPR in all efforts,
- k. Review all SRTs and IIs findings with the applicable operating director and authorize continuance of operations or direct appropriate action to disposition outstanding issues.

1.3 SSC Organizational Elements or Employees

SSC organizational elements or employees shall:

- a. Provide all necessary information or assistance requested by the ORA teams,
- b. Participate on ORA teams as requested.

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ORGANIZATION	IDENTIFY REVIEW FACILITIES/SYSTEMS	DETERMINE DRA REVIEW LEVEL	NOMINATE DRA CHAIR	SELECT DRA CHAIR	NOMINATE DRA CHAIR	PROVIDE DRA PERSONNEL	SELECT DRA TEAM	PREPARE DRA TEAM	AUTHORIZE DRA TEAM MEMBERSHIP	DEVELOP DRA TEAM DESIGNATION LETTER	ASSURE COMPLETION OF APPLICABLE ANALYSES	UPDATE DRA TEAM MILESTONES	IMPLEMENT FRI INDEX	PROVIDE DRA RECOMMENDATION	AUTHORIZE DRA RECOMMENDATION	REVIEW SRT & II FINDINGS	AUTHORIZE SRTM "OK TO PROCEED"	RECOMMEND SRTM "OK TO PROCEED"	AUTHORIZE SSC READY TO TEST	RELEASE DRA TEAM	ASSESS DRA POLICIES, PLANS & PROCEDURES	
S&MA		X		X	X	X	X	X	X	X	X	X	X	X	X							X
OPERATING DIRECTORATE	X	X	X	X	X	X	X		X	X		X	X	X	X							
CTR. OPS.			X		X				X													
ORA CHAIR						X		X														
ORAB									*	X					X	X	X		*			
CENTER DIRECTOR																			X			

* ORAB CHAIR ACTION

Figure 1.0 ORA Responsibility Matrix

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CHAPTER 2. OPERATIONAL READINESS ASSESSMENT REVIEW CRITERIA

ORAs shall be performed through an Operational Readiness Inspection (ORI), a Safety Review (SR) and/or an Independent Investigation (II). The decision to use either an ORI, SR or II shall be based upon the complexity, scope and inherent risks of the project, test, operation or facility.

- a. Operational Readiness Inspection (ORI): An ORI shall be conducted for new construction and/or reactivation of FRI level 1 facilities or operations/tests with significant increases in operational risk. Example: Facility upgrade of solid propellant test facility to process liquid propellants.
- b. Safety Review (SR): An SR shall be conducted for new construction and/or reactivation of FRI level 2 facilities or modification of FRI level facilities resulting in FRI sub-level changes. Example: High pressure liquid oxygen (LOX) and rocket propellant test adds ultra high pressure hydrogen capability (FRI 1C changes to FRI 1A).
- c. Independent Investigation (II): An II shall be conducted for modifications to FRI level 1 and 2 facilities not resulting in a FRI sub-level change. Facility changes are within established facility capability. Example: Minor programmatic Special Test Equipment (STE) changes that do not exceed facility capabilities.

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CHAPTER 3. OPERATIONAL READINESS ASSESSMENT MEMBERSHIP

3.1 Operational Readiness Assessment Board (ORAB)

An ORAB shall be established to provide guidance to the ORA teams and to advise the Center Director on the outcome and recommendations of the ORA. The ORAB shall be responsible for:

- a. Performing status reviews and evaluations of the assessment team activities and providing recommendations for additional activities determined necessary,
- b. Specifying the degree of approval authority granted to the assessment team(s) for activation milestone events,
- c. Conducting a final review to evaluate and assure adequacy of the total operational readiness assessment effort, including appropriate documentation,
- d. Reporting the readiness of the facility/operation to the Center Director, providing supporting data for imposed restrictions and limitations, and recommending authority to proceed.

3.2 ORAB Membership

The ORAB full membership shall consist of the following members:

Chairperson: Deputy Center Director

Members: Director, Center Operations Directorate**

Director, Engineering and Test Directorate

Director, Project Directorate

Manager, Propulsion Test Program Office

Manager, Safety and Mission Assurance Office

General Manager, Test and Technical Support Contractor

General Manager, Facility Operations Support Services Contractor

** Alternate Chairperson

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For SRs and IIs, the ORAB may consist of a smaller team of directors/managers depending on the complexity of the ORA. The Manager of SMA shall determine the composition of the ORAB for SRs and IIs.

3.3 Operational Readiness Assessment Team (ORA team)

The ORA team(s) for ORI, SR, or an II shall:

- a. Review and inspect the assigned equipment, facilities, or operations and associated operating procedures,
- b. Assess the risk and hazards associated with all aspects of the activity; inspect and recommend changes or controls as necessary to certify operational readiness of the equipment, operation, or facility,
- c. Keep the SMA Manager and the management of the cognizant organizational element informed of progress,
- d. Ensure discrepancies are documented using a SSC Form 649, Review Item Discrepancy (RID),
- e. Prepare and submit a final report of findings and recommendations as required by this document,
- f. Submit all files, records and final report to the Central Engineering Files (CEF) for retention,
- g. Ensure all RIDs are either closed out or elevated for resolution to the ORAB for ORIs or to the SMA Manager for SRs and IIs.

3.4 Operational Readiness Inspection Committee and Safety Review Team

ORIs and SRs shall be performed by an Operational Readiness Inspection Committee (ORIC) and by a Safety Review Team (SRT), respectively.

- a. The ORIC shall consist of a chairperson, a recorder, and a minimum of five other members to assess all functional areas and to submit the findings and conclusions to the ORAB.
 1. The chairperson shall confer with SMA and the applicable project/operations office and establish the assessment areas and primary focus of the ORA. Chapter 5 of this SPR provides guidance on the type systems, data, analyses and procedures the operational readiness assessment team shall review.
- b. The SRT differs from the ORIC in that it may involve fewer members. SRT shall submit their findings and conclusions to the SMA Manager and the appropriate operating director.

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- c. A representative of the SMA office shall serve as a consultant to the ORIC and SRT to assure a complete and thorough review.

3.5 ORIC and SRT membership

The ORIC and SRT shall normally include members from:

- a. Appropriate operating directorate (e.g., Engineering & Test and Project),
- b. Center Operations/Project Management Division,
- c. Independent safety representative,
- d. Appropriate laboratory, operating, or staff elements,
- e. Independent consultant (e.g. a Marshall Space Flight Center propulsion engineer, a hydrogen peroxide expert).

3.6 Independent Investigation

An II is performed by an II Investigator(s). The II Investigator shall typically be a single member; however, more than one individual may be assigned. II Investigators shall be assigned on an ad hoc basis by the SMA Manager. Requests made by other offices to have an II performed shall be brought to the SMA Manager, who shall sanction such reviews.

The specific areas of the II shall be defined by the SMA Manager along with the appropriate operating director. As with the SRT, findings and conclusions shall be presented to the SMA Manager and the appropriate operating director.

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CHAPTER 4. OPERATIONAL READINESS ASSESSMENT EVENT TIME-LINE

The following is a general time-line reference to the integration between a test project and the operational readiness assessment process (See Figure 2.0, below). The general amount of time required at each phase of the review process is also provided.

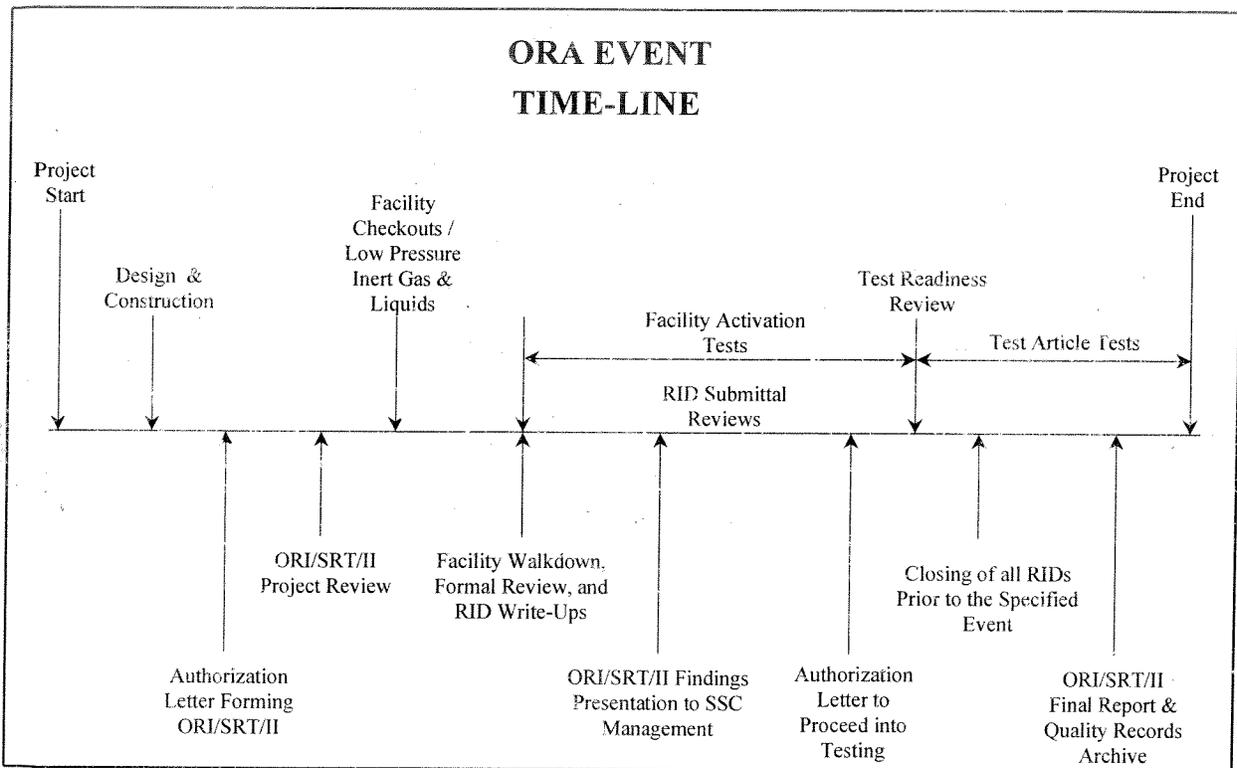


Figure 2.0 ORA Event Timeline

4.1 ORA Team Authorization Letter

When the test project has completed the design work and construction activities are nearing completion, a letter forming the ORA team shall be written per SPR 8715.1 (See Appendix B). The chairperson, any review members, and the scope of the review shall be identified in the SMA prepared letter.

4.2 Project Informational Review

The chairperson shall request the needed project information and provide it to the review team members. Depending on the complexity of the project, this shall be started generally two weeks to one month prior to the facility walk-down and the formal test/project readiness review. For

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very large or complex projects/programs, the chairperson shall coordinate with the appropriate operating directorate point of contact to schedule the facility walk-down and formal review.

4.3 Facility Walk-down and Formal Readiness Review

A facility walk-down and formal readiness review shall be conducted after construction is completed but prior to high-risk facility activation tests. Facility checkouts with inert gases and liquids at low pressures are generally not considered high risk, and completion of these activities provides needed operational readiness information to the review team. The facility walk-down shall be followed by a formal readiness review where the Project Office, Operations, Safety, and the test article representatives present the configuration, current status, hazard analysis, planned activation, and test article testing. The walk-down and formal readiness review generally takes one to two days to complete. A Technical Review Process Team (TRPT) shall be formed to investigate and resolve major technical issues uncovered in ORAs. A TRPT is a multifunctional, multidiscipline team to address complex, technical findings. Individuals assigned to the TRPTs will be chosen from those available and technically competent in the issues being investigated by the directors and managers who have cognizance over the projects / facilities / processes under review.

4.4 ORA Team RIDs

Following the completion of the facility walk-down and formal readiness review, the ORA team(s) shall reconvene to compile all RIDs. The RIDs shall concisely describe the problems, the risk if left uncorrected, what is needed to correct the problem (tangible proof), and the deadline for correction (prior to what event). The ORA team chairperson shall oversee the RID compilation to eliminate duplication and to present the compiled RIDs to the appropriate Operating Directorate point of contact and Project Office Manager. RID compilation generally takes half a day.

4.5 ORA Team Management Presentation and Authorization

The chairperson shall coordinate with SMA and the SSC management to present the ORI/SRT/II findings. This shall be a formal presentation describing what was reviewed, general observations, noted high-risk areas, and the current status of the RID list. Not all RIDs are closed prior to the presentation to management. The chairperson shall draft their recommendations and, if warranted, an authorization letter to proceed/commence operations (test, facility activation, etc) for management's signature. The authorization letter is typically contingent upon the closure of all RIDs prior to the specified event. This letter shall be presented to management for their consideration after the formal presentation. The presentation normally takes approximately one hour.

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4.6 System Activation/Operational Releases

The RIDs shall be written against a specific system and shall require closure or resolution prior to a specified event. This allows work to be completed on other systems in meeting schedules while the RIDs are addressed. Prior to the presentation to management, the ORA team chairperson shall release non-safety critical systems for activation/operation as the RIDs against the system are closed. The chairperson shall coordinate the presentation of findings with SMA and the SSC management as soon as possible after completing the review. This presentation shall occur before test article testing starts and before operation of any system(s) having a high Risk Assessment Code (hazards analysis risk assessment). After the presentation of findings with SMA and the SSC management and the authorization to proceed into testing has been granted, the chairperson shall carry out any additional management directives provided.

The ORA team chairperson shall work closely with the appropriate Directorate Point of Contact and Project Office Manager to disseminate notifications of system releases in a timely manner. The chairperson shall make sure all RID(s) are closed prior to completing the ORI/SRT/II Final Report.

4.7 RID Closures

The chairperson shall oversee the review of submittals for RID closures. The RID list status shall be formally tracked and updated. Updates shall be provided to the appropriate Directorate Point of Contact and to the Project Office Manager. The RIDs and the associated approved submittals for closures are formally filed. Depending on how many RIDs are written, review of RID submittals may be needed on and off over a course of several months.

After authorization is granted to proceed into testing/operation/activation, the chairperson shall oversee the review of submittals and timely RID closures for all remaining open items. Operations personnel shall provide timely submittal of RID closure information and make sure the RID(s) are closed prior to proceeding into the specified operation.

4.8 Final Report

After all RIDs are closed, the chairperson shall generate a final report in accordance with Section 6.2 of this SPR. The chairperson shall also ensure all ORA review information, presentations, authorization letters, RIDs, associated closure information, and a copy of the final report are filed in the CEF. Finalizing a report usually takes a few days. Routing the report for signature by the review members and gathering the information for the archives takes the operational readiness assessment team secretary several weeks.

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CHAPTER 5. REVIEW AREAS

The following lists required and recommended review areas for ORA of facilities, systems, tests and operations. The chairperson shall consider other areas as applicable and necessary. The chairperson shall use these descriptions to create a review matrix illustrated below in Table 1 as a roadmap for the operational readiness assessment review.

Table 1. ORA Review Matrix

ORI/SRT/II Review Matrix

Systems Review Areas	Propellants						Pneumatics						Miscellaneous					
	Oxygen	Liquid Hydrogen	Liquid Hydrogen Peroxide	RP-1	JP-8	Other	Air	GN	GH2	GHe	GOX	UHP GN	UHP GH	Hydraulics	Fire/Deluge	Power Systems	Lasers	Other
Program Reqts																		
STE																		
Construction																		
Operations																		
Safety Sys																		

5.1 Specified Review Areas

- a. Project Requirements: The ORA team shall review the Facility Capabilities Document (FCD), Facility Requirements Document (FRD), Project Requirements Document, and/or Systems Requirements Document (SRD) to understand the project/program/test/facility requirements. The requirement documents provide pertinent information such as interfaces between the test article and the facility, operational/performance requirements, mandatory operating conditions for start up and shut down of systems, etc. The requirement documents shall be used to scope the ORA.

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- b. Design: The ORA team shall review the following design, interface, and data requirements, as applicable. The ORA team chairperson shall ensure a record of reviewed data is kept.
1. Material compatibility and cleaning requirements for instrumentation, components, equipment and piping systems.
 2. Equipment operating ranges and margins to include stress analysis, control functions, thermocouple ranges, pressure sensors, relief devices, and pressure vessels. This includes verifying the equipment is properly sized/ designed for the operation and calibrated (current). This also includes verifying equipment and components are properly rated for their operating environment, such as explosion proof/intrinsically safe electrical equipment in hazardous classification areas.
 3. Data acquisition and controls configuration to highlight single-point failures and system safety interlocks.
 4. Approved deviation/waivers on the existing or modified systems/facilities/operations. The chairperson shall request deviations/waivers from the Configuration Management Office.
- c. Regulatory Agency Requirements: The ORA team shall verify the proper permits, licenses, agreements, and concurrences are filed or obtained with headquarters NASA and the local, state, and federal agencies, as applicable. These include such permits, licenses and agreements as: Federal Aviation Administration (FAA) notice of construction, lighting and marking, and/or Restricted Area permit; Environmental Protection Agency (EPA) permits/licenses for emissions/releases; Nuclear Regulatory Commission (NRC)/state radioactive material permits; laser operating permits; installation compatible use zone studies; etc.
- d. Activation/Operations: The ORA team shall review the following areas for activations/operations, as applicable. The chairperson shall ensure a record of reviewed activation/operations data is kept.
1. Personnel qualifications: Verification that the team proposed to perform the work has been trained and/or has the experience to complete the project.
 2. Safety critical procedures: Review of the procedures used to run the operations. This can be a sampling to verify that the process for the correct integration between all disciplines and the customer are complete.
 3. Critical system operations: Review of the planned abort process, deluge, purges, and controls systems in the event of a failure.
 4. Configuration control: Process verification for configuration control of hardware and software.

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5. Redline/blueline system: Review of the blueline (initiation/startup parameters) and redline (shutdown/termination parameters) integration with controls and operations to verify system reliability.
 6. Support systems: If applicable, the interaction of the support systems shall be reviewed. Examples of support systems are programmable logic controllers (PLC), low speed and high speed data acquisition systems (LSDAS/HSDAS), communications, visual/and audio warning systems, and emergency response systems (deluge, infrared cameras, fire detection, gas detection, etc).
- e. Safety systems/data/analyses: The ORA team shall review the following safety systems, data and analyses, as applicable. The chairperson shall ensure a record of reviewed safety data is kept.
1. Hazard analyses: The ORA team shall review the hazard analyses and the disposition of identified risks. The ORA team shall verify risks have been accepted or mitigated to an acceptable level. Outstanding recommendations for mitigating significant risks shall be conveyed to senior management.
 2. Hazardous operations procedures: For hazardous operations, the ORA team shall verify hazardous operation procedures exist and are followed. Hazardous operation procedures shall identify the appropriate engineering, administrative and personal protective equipment controls. Inclusive of hazardous operations is process safety management (PSM) documentation and procedures as applicable.
 3. Maximum Credible Event (MCE)/Quantity Distance (QD): For systems/operations in which the potential for explosions/rapid ignition exists, the operational readiness assessment team shall review the MCE/QD analyses and verify proper controls and safe distances are met.
- f. Specified System Review: The ORA team shall ensure the following typical systems are reviewed, if applicable. This does not limit the chairperson from considering other systems.
1. Propellants
 - (a). Liquid Oxygen (LOX)
 - (b). Liquid Hydrogen (LH)
 - (c). Gaseous Hydrogen (GH)
 - (d). Rocket Propellant (RP-1)
 - (e). Hydrogen Peroxide (H₂O₂)
 - (f). Jet Propellant (JP-8)

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(g). Isopropyl Alcohol (IPA)

2. Pneumatics

(a). Air

(b). Gaseous Nitrogen

(c). Gaseous Hydrogen

(d). Helium

(e). Gaseous Oxygen

3. Miscellaneous Systems

(a). Hydraulics

(b). FIREX/Deluge

(c). Electrical Systems

(d). Lasers

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CHAPTER 6. REPORTING REQUIREMENTS

6.1 Discrepancies and Recommendations

All discrepancies and recommendations shall be recorded on an SSC Form 649, Review Item Discrepancy (RID). A control number shall be assigned to each discrepancy/recommendation for disposition. Recommendations shall be deliberated in a meeting with all members of the ORA team before forwarding to the ORAB, the SMA Manager, and the Director of Rocket Propulsion Test, Engineering & Test, or Center Operations.

The ORA team shall review proposed recommendations with the appropriate operational personnel to assure the recommendations are understood and the ORA team has not acted on inaccurate or incomplete information. The ORA team shall establish time or event deadlines associated with each recommendation or discrepancy.

6.2 Final Written Report

- a. The ORA team shall maintain records of all proceedings and prepare a report. For ORIs, distribution shall include the ORAB members and ORA team members. For SRs and IIs, distribution shall include the SMA Manager, the director of the Engineering & Test Directorate, the Project/Program Manager, and the applicable operating directorate. The operational readiness assessment team chairperson shall send the original material to the CEF. Unofficial copies can be filed in the SMA Data repository and/or the applicable project design/data repository for archiving.
- b. The report will be prepared in two parts as follows:
 1. Part I shall be an executive summary. It shall include:
 - (a). A copy of the letter establishing the ORIC/SRT/II,
 - (b). A brief summary of the ORA team activities (number of meetings, presentations, etc),
 - (c). Identification of the number of action items and status,
 - (d). A list of the significant residual risks, conclusions, recommendations,
 - (e). A signature page for each of the ORIC/SRT/II members.
 2. Part II shall include the supporting data, analyses and information. It shall include minutes of meetings, presentation charts, directly related correspondence, and other information judged to be appropriate to support any future investigation or review.

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APPENDIX A. ACRONYMS

CEF	Central Engineering Files
EPA	Environmental Protection Agency
E&TD	Engineering and Test Directorate
FCD	Facility Capabilities Document
FIREX	Fire Extinguishing System
FRD	Facility Requirements Document
FRI	Facility Risk Indicator
GH	Gaseous Hydrogen
HSDAS	High Speed Data Acquisition System
II	Independent Investigation
IPA	Isopropyl Alcohol
LH	Liquid Hydrogen
LOX	Liquid Oxygen
LSDAS	Low Speed Data Acquisition System
MCE	Maximum Credible Event
NASA	National Aeronautics and Space Administration
ORA	Operational Readiness Assessment
ORAB	Operational Readiness Assessment Board
ORI	Operational Readiness Inspection
ORIC	Operational Readiness Inspection Committee
OSHA	Occupational Safety and Health Administration
PLC	Programmable Logic Controller
PRD	Project Requirements Document
QD	Quantity-Distance
RPT	Rocket Propulsion Test Directorate
RID	Review Item Discrepancy
SCWI	SSC Common Work Instruction
SMA	Safety and Mission Assurance
SPD	SSC Policy Directive
SPR	SSC Procedural Requirements
SR	Safety Review
SRD	Systems Requirement Document
SRT	Safety Review Team
SSC	Stennis Space Center

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STE
TRPT

Special Test Equipment
Technical Review Process Team

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APPENDIX B. ORA TEAM AUTHORIZATION LETTER (SAMPLE)

Date

TO: Distribution

FROM: Appointing Official

SUBJECT: Operational Readiness Inspection (ORI) of BB Engine Test Program

Per agreement with (contributing Directorates and/or Offices), and in accordance with SPR 8715.2, the following personnel are assigned to the Operational Readiness Inspection Committee and will perform a safety review of Stennis Space Center's BB Engine Test Program.

Safety Review Team (SRT)

Chairperson	Name	Org
Member	Name	Org
Member	Name	Org
SMA Representative	Name	Org
Board Secretary	Name	Org

Incremental findings for the system activation will be presented to the ET&D director and SMA Manager prior to each phase of activation.

The review team will present its findings to the Operational Readiness Assessment Board.

Name
Appointing Official

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APPENDIX C. ACTIVATION APPROVAL LETTER (SAMPLE)

DATE

TO: Director

FROM: Chairman, Operational Readiness Assessment Board (ORAB)

SUBJECT: XYZ Test Project

The Operational Readiness Assessment Board (ORAB) has reviewed the findings of the Operational Readiness Inspection Committee (ORIC). Currently there are ___ open Review Item Discrepancies (RIDs) affecting XYZ Test Project. The RIDs are as follows XYZ-ORI-CI: 001, 002, 003, 004, 005, 006, 007, 008, 011, 012, 013, 014, 015, 017, 019, 020, 021, and 022. On closure of all open RIDs to the satisfaction of the ORIC, the ORAB recommends that the Test Stand be authorized to begin operations for XYZ testing.

Name
ORAB Chairman

Concurrence:

Name
Director

Date