

REVISION D

**This OSMA Process is NOT a part of the
OSMA ISO 9001 Quality Management System**



Manage NASA Operation and Engineering Panel (OEP) Review

_____/s/
Bryan O'Connor
Chief Safety and Mission Assurance

January 17, 2006
Date

DOCUMENT HISTORY LOG

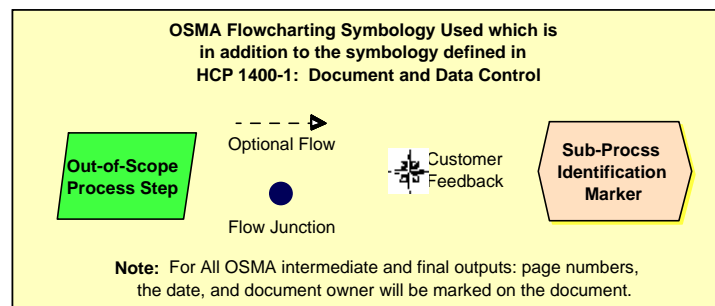
Status (Draft/ Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		January 13, 2000	
Revision	A	April 14, 2000	Editorial corrections to Section 5 flowchart, and steps 6.01, 6.05, 6.07 and 6.09. Modifications to step 6.04.
	B	February 1, 2002	Added customer list, customer feedback to sections 5 & 6.08. Editorial corrections to definition in section 3.4, reference in section 4.2, step 6.04. Removed duplicate form from Appendix B.
	C	March 31, 2004	Title of HOWI changed to reflect new name. Editorial and organizational changes to all sections.
	D	January 17, 2006	

OWI Author: RAD/Arthur Lee and Director, RAD

OSMA Staff Member Responsible for this OWI: OSMA/Bryan O'Connor

Customers for this HOWI: Internal: Chief SMA and Center SMA Directors

External: none



1. Purpose

The purpose of this Office of Safety and Mission Assurance (OSMA) Headquarters Office Work Instruction (HOWI) is to document a consistent process for developing the NASA Operations and Engineering Panel's (OEP's) reports. These reports are a key process in the maintaining of safe facilities and operations within NASA. This OWI also specifies the Quality Records associated with the process.

The NASA OEP is to provide an independent technical engineering and operational review of specifically selected NASA facilities and operations in support of the Office of Mission Assurance (OSMA), the NASA Headquarters Office responsible for institutional management, and the NASA Centers, including Component Facilities. OEP reviews and assesses the effects of changes in the NASA facilities engineering and operations infrastructure on the safety and mission success of NASA programs.

2. Scope and Applicability

This HOWI applies to the OEP Executive Secretary who participates in the generation of the OEP Reports.

3. Definitions

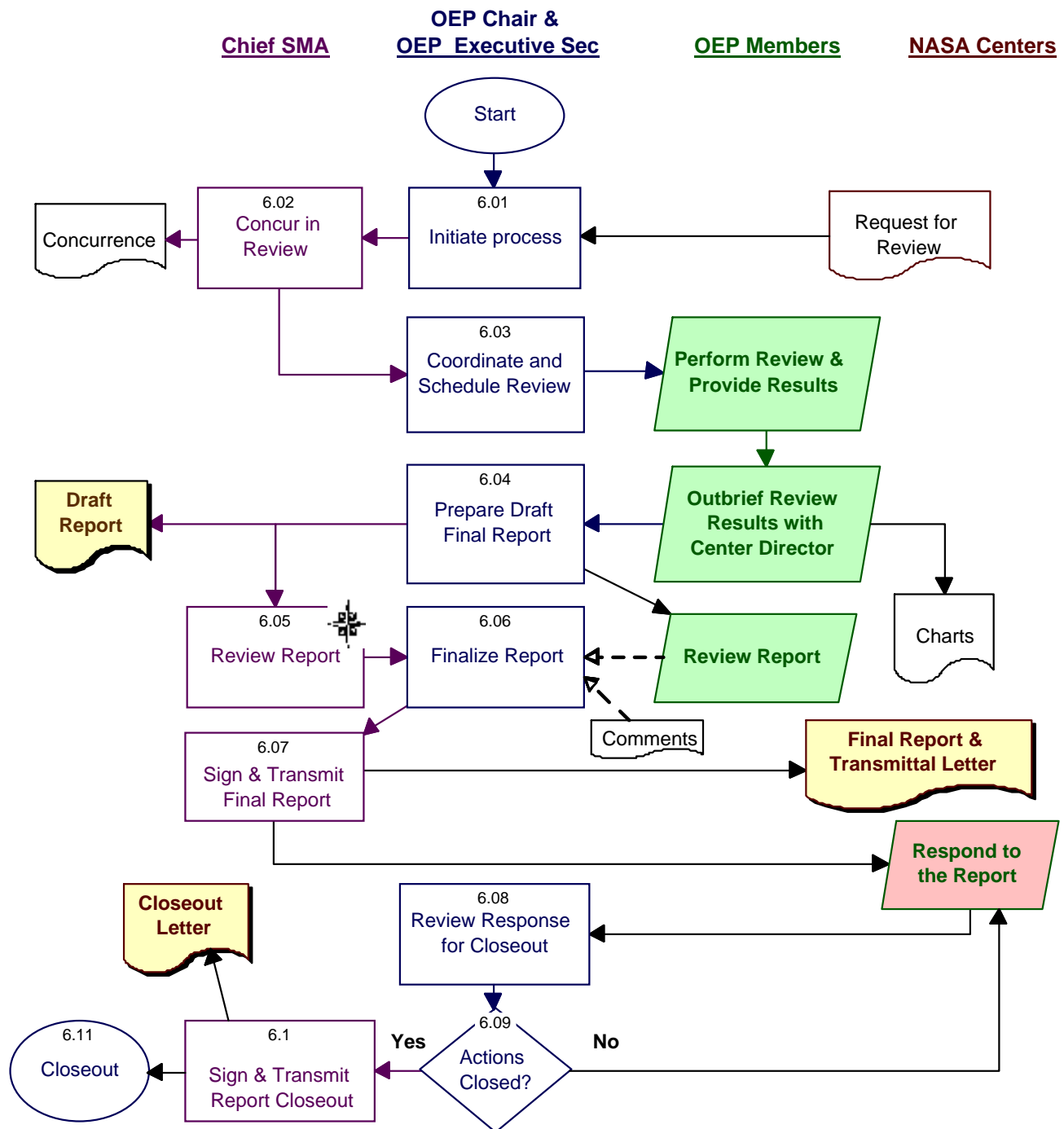
- 3.1. AA: Associate Administrator
- 3.2. CSMA: Chief Safety and Mission Assurance
- 3.3. ES: Executive Secretary
- 3.4. OEP: Operations and Engineering Panel, Defined in Reference 4.2.

4. Reference Documents

The documents listed in this section are used as reference materials for performing the processes covered by the Quality Management System (QMS). Since all NASA Headquarters Level 1 (QMS Manual) and Level 2 (Headquarters Common Processes) documents are applicable to the QMS, they need not be listed in this Section unless specifically referenced in this OSMA OWI.

- 4.1. [NPD 8700.1: NASA Policy for Safety and Mission Success](#)
- 4.2. [NPR 8715.3, NASA Safety Manual, Appendix K](#)
- 4.3. Public Law 90-67

5. Flowchart



6. Procedure

6.01 OEP Chair and OEP Executive Secretary (ES) Initiate Process:

Requests can come from the Chief SMA (CSMA); Mission Directorate Associate Administrator; Director, Facilities Engineering Division; Center Director; etc. Once an area of concern is identified, the OEP Chair is notified. The requests for review will vary in formality from verbal to written. Additionally, the OEP Chair may propose reviews to the CSMA based on previous and similar reviews. A scope and date for a review is determined.

6.02 CSMA Concur in Review:

The CSMA provides concurrence on the Center's facility to be reviewed or modifies the date proposed.

6.03 OEP Chair and OEP Executive Secretary Coordinate and Schedule Review:

Executive Secretary coordinates with the Center to schedule and develop the agenda for the review. Team members are contacted regarding availability and the OEP Chair and Executive Secretary Director provide a written notification to the Team members and the appropriate Center's Facilities and Safety Offices of this review with a CC: to the Center management.

The OEP Team performs the review and provide a summary of results based on the review.

The Center Director and Center senior management staff are provided an outbrief by the OEP Chair and Team Members on the review results.

6.04 OEP Executive Secretary with the OEP Chair Prepare Draft Final Report:

The OEP Chair and Executive Secretary prepare the Draft Final Report from the material developed by the Team. The Draft Final Report is forwarded to the Team members and the CSMA for review. Appendices A and B provide samples of the meeting report and requests for action.

6.05 CSMA, OEP Team Members Review Report:

The CSMA and OEP Team Members receive the Final Report from the OEP Chair and Executive Secretary. The report is reviewed for technical accuracy and comments are returned to the OEP Executive Secretary. (Internal Customer Feedback).

6.06 OEP Chair and OEP Executive Secretary Finalize Report:

The report is finalized by incorporating comments, signed by the OEP Chair, and reproduced. A cover letter is prepared for the CSMA for transmittal.

6.07 CSMA Sign and Transmit Final Report:

The CSMA signs and transmits the Final Report with a cover letter to the Center Director and the NASA Headquarters Office responsible for the institutional management of the Center that was reviewed. The Final Report is filed as a Quality Record.

The Project Office at the Center will prepare a response to each "Request for Action" in the OEP Report. The response will be forwarded to the OEP Executive Secretary for review.

6.08 OEP Executive Secretary with the OEP Team Review Response for Closeout

The OEP Executive Secretary will have the OEP Team review the responses from the Center that was reviewed. If the individual action is closed, then the OEP Chair will sign the action as closed.

6.09 OEP Executive Secretary Actions Closed?

If all of the actions are closed, then the OEP Executive Secretary prepares a closeout letter for the CSMA to sign. If there are remaining open actions or responses are not adequate to close, then the process loops back to waiting for the Center's responses.

6.10 CSMA Sign and Transmit Report Closeout:

The CSMA signs a letter and sends it to the Center Director stating that all OEP Requests for Action have been closed, and the report is being closed out.

6.11 OEP Executive Secretary Closeout:

This Executive Secretary is responsible for retaining all OEP records, files, technical reports, and meeting minutes. This closes out the process.

7. Quality Records

Record ID	Owner	Location	Media Electronic /hardcopy	Schedule Number & Item Number	Retention & Disposition
Draft Report	OEP ES	RAD OEP Files	Hardcopy	Schedule: 1 Item: 14.B.2	Keep until Final Report issued then destroyed
Final Report and Transmittal Letter	OEP ES	RAD OEP Files	Hardcopy	Schedule: 1 Item: 14.B.1.A	Keep as long as report has reference value then destroyed
Closeout Letter	OEP ES	RAD OEP Files	Hardcopy	Schedule: 1 Item: 22.A	Retire to FRC when 5 years old in 5 year blocks, then retire to NARA when 10 years old

Appendix A: Sample Meeting Minutes:

May 28, 2004

AD60

TO: Distribution
FROM: Chairperson, Operations and Engineering Panel
SUBJECT: NASA Operations and Engineering Panel Review at Stennis Space Center

The NASA Operations and Engineering Panel (OEP) met at Stennis Space Center (SSC), Bay St. Louis, Mississippi during February 24-27, 2004. The purpose was to perform a review of the E-1 Test Complex assuring that management, safety, environmental, occupational health and operational issues are being addressed adequately for the E-1 Test Facility and to look for lessons learned which might improve the management and operations of NASA future projects. The OEP team included: Chairman, In addition, ... were invited as technical observers to the OEP Review. Enclosure 1 is the agenda for the review. Enclosure 2 is the list of attendees.

Miguel Rodriguez/SSC - Director, Propulsion Test Directorate (PTD), introduced David Throckmorton, SSC Deputy Center Director. Mr. Throckmorton welcomed the OEP members and informed the Panel on the preliminary results of a fire that occurred at the E-1 Test Complex over the weekend. Miguel Rodriguez followed by presenting an overview of the E-1 Test Facility, which included discussions of its relationship to meeting the NASA strategic mission requirements and goals.

Pete Allen, OEP Chairman, introduced the OEP members to the SSC E-1 Test Facility Team and provided a discussion of the OEP objectives and procedures for the E-1 Test Complex review. The OEP was to provide an independent review of the facility system safety, facility operations and maintenance, fire protection, emergency preparedness, occupational health and safety, and environmental compliance in support of the Office of Safety and Mission Assurance (OSMA), Institutional Program Offices (IPOs), and Center Director to ensure the Safety, Reliability, Maintainability and Quality (SRM&Q) of the E-1 Test Facility at SSC. Also, the OEP was to look for lessons learned that might improve management and operations, both at SSC and other NASA Installations. The main focus for this review was to ensure the safety of the facilities and its operations.

..., gave a detailed background of the

The subject areas presented during the review included a description and history of the A set of the SSC presentations to the OEP can be obtained by contacting

Based on the review of the E-1 Test Facility, sixteen specific requested actions items were presented by the OEP to the E-1 Test Facility Team with an additional twenty-one OEP observations for SSC to consider and nine commendations.

Areas of concern include:

1. Pressure Vessels/Systems (PV/S) were found to be unlabeled at multiple SSC locations. SSC needs to label all PV/S as required per NPD 8710.5.

2. Static grounds on SSC test stand are not marked with the next test date being stenciled. All static grounds needs to be routinely tested, identified, and marked.
3. Many of the SSC personnel presenting at the OEP Review were not aware of the details of the Johnson Space Center (JSC), Building 37-Electrocution Report. It is recommended that the executive summary and recommended corrective actions be reviewed by SSC senior managers, E-1 Test Facility Staff, and other SSC leadership, as necessary, to help assure preventative measures are in place at SSC to prelude a like recurrence.
4.

Observations made by the OEP include:

1. SSC should consider conducting an independent benefit-cost analysis, of providing LN₂, LO_x, LH₂ consumable, by production facilities on-site, owned by the Government, operated by contractor.
2. The schedulers' role, Test Preparation Sheets (TPS), test, etc. require that hazards and employee protection be identified. One way to help ensure employee uses proper PPE at SSC is to attach (as appropriate) the MSDS's for each specific job that they are working on.
3. For Discrepancy Reports (DR's) at SSC, one might consider the utilization of a risk matrix approach to address DR's that are accepted without action to allow the test to run. SSC should provide a systematic 5X5 matrix approach that is a documented risk evaluation, which supports the determination of its "Go/No-Go" tests.
4.

Based on the OEP Review and tour of the E-1 Test Complex facilities and operations, the OEP complimented SSC Propulsion Test Director and his team for their outstanding job to address the OEP questions by ensuring all concerns were addressed adequately. In addition, the initiative taken by the SSC Propulsion Test Director to invite the Center's Safety Organization to participate in all aspects of their Propulsion Test Operations is very commendable and should be a model Agency-wide. SSC appears to have an excellent collaborative relationship with their tenants.

Enclosure 3 is the official copy of the total Review Finding Items (RFI's) for the E-1 Test Facility at SSC. Draft copies of the RFI's were provided to the E-1 Test Facility Project Team at the end of the OEP Review. The E-1 Test Facility Project Team was requested to provide responses for the RFI's to the OEP by July 16, 2004.

The next OEP visit is tentatively scheduled for September 23-26, 2004 for reviewing the Jet Propulsion Laboratory - Deep Space Network 70 Meter Antenna, Barstow, California. Future OEP Reviews that are being planned include: Goddard Space Flight Center/Wallops Flight Facility, Wallops, Virginia (TBD) and Glenn Research Center/Plum Brook Station, Sandusky, Ohio (TBD).

Pete Allen, Chairperson

Arthur Lee, Executive Secretary

Enclosures (3)

DISTRIBUTION:

M-4/D. Hamilton
OJE/R. Wickman
OJE/M. Schoppet
OJX/E. Hubbard
OJX/H. Kass
QS/J. Mullin
QV/A. Lee
RT/R. Dilustro
SZ/G. Albright
YF/L. Schuster
ARC/213-8/E. Jennings
DFRC/FM/G. Spencer
GRC/21-2/R. Danks
GSFC/500/M. Brown
JPL/156-225/F. Mortelliti
JSC/JC/B. Fischer
JSC/JC/G. Wessels
KSC/QA-C/H. Delgado
 /TA-E2/W. Kee
LaRC/436/Dr. R. Rooker
MSFC/AD-60/P. Allen
SSC/RA-10/K. Miller
 /QA-00/M. Smiles
 /VA-00/M. Rodriguez
WFF/803/T. Potterton

bcc:

OSMA/B. O' Connor
 J. Lloyd
ASAP/M. Erminger

Appendix B: Sample Request for Action:

NASA OPERATIONS & ENGINEERING PANEL		
REVIEW FINDING ITEM (RFI)		
FACILITY: E-1 Test Facility (E1TF)	LOCATION: Stennis Space Center (SSC)	
REVIEW DATE: February 25, 2004	FINDING NUMBER: SE1TFC-01	
SUBMITTED BY: Pete Allen/MSFC		
FINDING:	ACTION	OBSERVATION
		COMMENDATION <input type="checkbox"/>
<p>While there are several opportunities for improvement, the electronic Work Control System (WCS) is very impressive. It is suggested that SSC consider using the WCS throughout the Propulsion Test Operations.</p>		
REASON/JUSTIFICATION:		
ASSIGNED TO:		RESPOND BY:
PROJECT RESPONSE AND/OR ACTION PLAN:		

		Project Manager		Date
DISPOSITION:		ACTION CLOSED: [] YES		[] NO
<hr/> Submitter		<hr/> Date		<hr/> Chairman, Operations & Engineering Panel
				Date
<p>Please Return Form To: Arthur Lee, OEP Executive Secretary NASA Headquarters Code QV 300 E Street, SW Washington, D.C. 20546</p>				
<p>To the Reviewed Project:</p> <p>Please fill in the following sections: Assigned to, Project Response, <u>Project Managers Signature</u> and send the signed original to the above address.</p>				

To the Submitter:

Please review the Project Response:

If the response adequately resolves the issue, check the "yes" block for Action Closed, under "Disposition" and provide signature.

If the response is not adequate, work with the Project Manager to resolve the issue. If agreement is not reached, refer the issue to the OEP Chairman for resolution.

To the OEP Chairman:

Please confirm that the actions are acceptable and sign under "Disposition" to complete the closed action.

Provide the completed form to the OEP Executive Secretary for filing.

NASA OPERATIONS & ENGINEERING PANEL			
REVIEW FINDING ITEM (RFI)			
FACILITY: E-1 Test Facility (E1TF)		LOCATION: Stennis Space Center (SSC)	
REVIEW DATE: February 25, 2004		FINDING NUMBER: SE1TFC-01	
SUBMITTED BY: Pete Allen/MSFC			
FINDING: ACTION <input type="checkbox"/> OBSERVATION <input type="checkbox"/> COMMENDATION <input checked="" type="checkbox"/>			
While there are several opportunities for improvement, the electronic Work Control System (WCS) is very impressive. It is suggested that SSC consider using the WCS throughout the Propulsion Test Operations.			
REASON/JUSTIFICATION:			
ASSIGNED TO:		RESPOND BY:	
PROJECT RESPONSE AND/OR ACTION PLAN:			
		_____	_____
		Project Manager	Date
DISPOSITION:		ACTION CLOSED: [] YES	
_____		_____	
Submitter	Date	Chairman, Operations & Engineering Panel	Date

Please Return Form To: Arthur Lee, OEP Executive Secretary
NASA Headquarters
Office of Safety and Mission Assurance
Review and Assessment Division
300 E Street, SW
Washington, D.C. 20546

To the Reviewed Project:

Please fill in the following sections:

Assigned to, Project Response, Project Managers Signature and send the signed original to the above address.

To the Submitter:

Please review the Project Response:

If the response adequately resolves the issue, check the "yes" block for Action Closed, under "Disposition" and provide signature.

If the response is not adequate, work with the Project Manager to resolve the issue. If agreement is not reached, refer the issue to the OEP Chairman for resolution.

To the OEP Chairman:

Please confirm that the actions are acceptable and sign under "Disposition" to complete the closed action.

Provide the completed form to the OEP Executive Secretary for filing.