



WFF EM-001C

Effective Date: 09/23/2016

Expiration Date: 09/23/2019

National Aeronautics and
Space Administration

Goddard Space Flight Center

Wallops Flight Facility
Wallops Island, VA 23337

WALLOPS FLIGHT FACILITY ENVIRONMENTAL MANAGEMENT SYSTEM MANUAL

Verify current version before use at:

<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 2 of 20

Wallops Flight Facility Environmental Management System Manual

Reviewed by: _____ _____
Theodore J. Meyer **Date**
Associate Chief of Medical and
Environmental Management Division

Reviewed by: _____ _____
Caroline R. Massey **Date**
Assistant Director of Management Operations

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 3 of 20

Responsible Office: 250/Wallops Environmental Office

Title: Wallops Flight Facility Environmental Management System Manual

TABLE OF CONTENTS

PREFACE

- P.1 PURPOSE
- P.2 APPLICABILITY
- P.3 AUTHORITY
- P.4 APPLICABLE DOCUMENTS
- P.5 CANCELLATION
- P.6 MEASUREMENT
- P.7 DEFINITIONS
- P.8 ACRONYMS
- P.9 RECORDS

GENERAL REQUIREMENTS

1.0 ROLES AND RESPONSIBILITIES

- 1.1 Director of Wallops Flight Facility
- 1.2 Deputy Director of Code 800
- 1.3 WFF Environmental Management Representative
- 1.4 EMS Project Team
- 1.5 WFF Environmental Office
- 1.6 Environmental Program Managers
- 1.7 Wallops Office of Public Affairs
- 1.8 Project Managers
- 1.9 Supervisors
- 1.10 Employees

2.0 PROCEDURES

- 2.1 Environmental Policy
- 2.2 Environmental Aspects
- 2.3 Legal and Other Requirements
- 2.4 Objectives, Targets, and Programs
- 2.5 Resources, Roles, Responsibilities, and Authority
- 2.6 Competence, Training, and Awareness
- 2.7 Communication
- 2.8 Documentation
- 2.9 Control of Documents
- 2.10 Operational Control
- 2.11 Emergency Preparedness and Response
- 2.12 Monitoring and Measurement

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	WFF Environmental Management Manual	WFF EM-001C
EFFECTIVE DATE:	September 23, 2016	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	September 23, 2019	Page 4 of 20

TABLE OF CONTENTS – continued

- 2.13 Evaluation of Compliance
- 2.14 Nonconformities, Corrective Action, and Preventive Action
- 2.15 Control of Records
- 2.16 Internal Audit
- 2.17 Management Review

CHANGE HISTORY LOG

PREFACE

P.1 PURPOSE

This manual defines the requirements and responsibilities for implementing the Environmental Management System (EMS) at the Wallops Flight Facility (WFF) and is intended to meet the EMS documentation requirements of NPR 8553.1. It describes the core elements of the Wallops EMS and explains the EMS documentation.

P.2 APPLICABILITY

This manual applies to all NASA civil service employees at WFF, including the Main Base, Mainland, and Island locations. It also applies to all NASA WFF contractors, tenant organizations, grantees, clubs, and other persons operating under the auspices of Goddard Space Flight Center (GSFC), as required by law, and as directed by contractual, grant, and agreement documents. The scope of the Wallops EMS includes all activities, products, and services that fall under the control of WFF management within the WFF property fence line. This scope does not include government tenant organizations and commercial operations located at WFF.

Unless otherwise stated, all references herein to the Environmental Office refer to the Wallops Environmental Office. The Office maintains a comprehensive Web site at:
<http://sites.wff.nasa.gov/code250/>

P.3 AUTHORITY

National Aeronautics and Space Act, 51 U.S.C. §20 101-64, et seq
 NPD 8500.1 NASA Environmental Management

P.4 APPLICABLE DOCUMENTS

- a. NPD 1440.6, NASA Records Management
- b. NPD 8500.1, NASA Environmental Management
- c. NPR 1441.1, NASA Records Retention Schedules
- d. NPR 7120.5, NASA Space Flight Program and Project Management Requirements

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 5 of 20

- e. NPR 7120.8, NASA Research and Technology Program and Project Management Requirements
- f. NPR 8580.1, NASA National Environmental Policy Act Management Requirements
- g. NPR 8715.2, NASA Emergency Management Program Preparedness Procedural Requirements
- h. NPR 8553.1, NASA Environmental Management System (EMS)
- i. GPD 8500.1, Environmental Policy and Program Management
- j. GPR 1410.1, Directives Management
- k. GPR 1410.2, Configuration Management
- l. GPR 1440.8, Records Management
- m. GPR 8500.1, Environmental Planning and Impact Assessment
- n. GPR 8500.3, Waste Management
- o. GPR 8500.4, Air Quality Management Program
- p. GPR 8500.5, Water Management
- q. GPR 8500.8, Site Investigation and Remediation
- r. GPR 8710.2, GSFC Emergency Management Program Plan
- s. GPR 8730.1, Metrology and Calibration
- t. GPR 9980.1, Internal Audit System
- u. WFF Integrated Contingency Plan

P.5 CANCELLATION

WFF-EM-001B, Wallops Flight Facility Environmental Management Manual

P.6 MEASUREMENT

Compliance with the requirements contained in this document will be verified through audits, observations, and self-assessments.

P.7 DEFINITIONS

Unique, specific terms used in this directive are described below. See NPR 8553.1 for other relevant definitions.

1.1 EMS Project Team – A group of WFF personnel including managers, supervisors, and subject-matter experts that assist with the sustainment and continual improvement of the WFF EMS, with roles and responsibilities defined by WFF senior management and described under General Requirements.

1.2 EMS Audit – A review of the Wallops EMS, following EMS audit principles and techniques.

1.3 Environmental Functional Review (EFR) – an audit of WFF’s compliance with applicable requirements and regulations and conformance of the Wallops EMS to NPR 8553.1. The audit is conducted by NASA Headquarters Environmental Management Division.

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 6 of 20

1.4 Environmental Management Program (EMP) – An action plan which describes the steps, responsibilities and timelines required to meet the environmental objectives and targets of a significant environmental aspect. The EMPs are the vehicles used to deliver continual improvement in environmental performance.

1.5 Environmental Program Manager – A staff member who has responsibility for managing the implementation of compliance activities for a given environmental program.

1.6 Environmental Management System (EMS) – An EMS is a system that incorporates people, procedures, and work practices in a formal structure to ensure that the important environmental impacts of the organization are identified and addressed, promotes continual improvement by regularly evaluating environmental performance, involves all disciplines throughout the Facility as appropriate, and actively involves WFF senior management.

1.7 Operational Controls – The documented procedures and work instructions that describe how operations and tasks are conducted on a day-to-day basis.

1.8 Project Manager – Any person who manages a project as defined in NPR 7120.5.

P.8 ACRONYMS

EFR	Environmental Functional Review
EMP	Environmental Management Program
EMS	Environmental Management System
GPD	Goddard Policy Directive
GPR	Goddard Procedural Requirements
GSFC	Goddard Space Flight Center
HPEA	High Priority Environmental Impact
HQ EMD	Headquarters Environmental Management Division
ICP	Integrated Contingency Plan
WFF	Wallops Flight Facility

P.9 RECORDS

No.	Record Title	Record Custodian	Retention
1	Environmental Aspects and Impacts Evaluation with resulting list of significant environmental aspects	Environmental Office	*NRRS 8500/23.5A13a Destroy 3 years after superseded or when no longer needed, whichever is later.
2	EMS Legal Requirements Register, permits, notices, communications with regulatory agencies	Environmental Office	* NRRS 8500/23.5A13a Destroy 3 years after superseded or when no longer needed, whichever is later.

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 7 of 20

3	Environmental Objectives, Targets and supporting Environmental Management Programs (plus approvals and status review documentation)	Environmental Office	* NRRS 8500/23.5A13a Destroy 3 years after superseded or when no longer needed, whichever is later.
4	Records of Personnel, Contractor, and Partner Communications	Environmental Office	*NRRS 3300/19 PASR. Paper records are retained on site and are destroyed or transferred in accordance with the specific record series identified in this schedule.
5	Records of External Inquiries Received Regarding Environmental Issues, Responses Made, and Actions Taken	Wallops Office of Public Affairs	*NRRS 1382/49A1 Destroy 2 years after date of reply.
6	Environmental Risk/Impact Assessments Associated with New Missions or Projects	Environmental Office	8500/23.5A1 Cut off annually. Destroy 10 years after cutoff or when no longer needed, whichever is later.
7	Environmental Monitoring Data and Measurement Data as described in Section 5.1	Environmental Office and Supervisors	* NRRS 8500/23.5A13a Destroy 3 years after superseded or when no longer needed, whichever is later.
8	Nonconformance, Corrective and Preventive Action Register in the environmental database	Environmental Office	Close file at end of survey/audit at end of fiscal year.
9	EMS Review Plans and Results of EMS Reviews and EFRs	Environmental Office	Close file at end of survey/audit at end of fiscal year.
10	Documentation of decisions regarding external communication of significant environmental aspects	Environmental Office and Wallops Public Affairs	* NRRS 8500/23.5A13a Destroy 3 years after superseded or when no longer needed, whichever is later.
11	Results of tests of emergency response procedures	Environmental Office and WFF Fire Department	*NRRS 1040/4. Destroy when 3 years old, or 1 year after completion of next exercise, whichever is later.
12	Environmental Management Review decisions and action items	Environmental Office	Retire to WFF Storage Archive as appropriate.

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 8 of 20

13	EMS Awareness training course materials	Environmental Office	*NRRS 3400/33B2 Destroy when superseded or obsolete.
14	Training records, training material, training sign-in sheets, and proof of competence (e.g. certificate of qualification, education, or training)	Employee's Supervisor	*NRRS 3400/33C Destroy or delete 5 years after separation of employee or when no longer needed, whichever comes first.

*NRRS – NASA Records Retention Schedules ([NPR 1441.1](#))

GENERAL REQUIREMENTS

In this document, a requirement is identified by “shall,” a good practice by “should,” permission by “may” or “can,” expectation by “will,” and descriptive material by “is.”

1.0 ROLES AND RESPONSIBILITIES

1.1 The Director of Wallops Flight Facility shall be responsible for:

- a. Conforming with Roles and Responsibilities described in NPD 8500.1, NPR 8553.1, and GPD 8500.1;
- b. Providing environmental commitment and leadership;
- c. Designating responsibility and authority for environmental management and EMS implementation;
- d. Serving as the final environmental risk acceptor/disposition official for EMS activities; and
- e. Supporting headquarters Environmental Management Division led Environmental Functional Review (EFR) to ensure that the Center’s programs, projects, facilities, systems, and operations comply with all environmental requirements.

1.2 The Deputy Director of Code 800 shall be responsible for:

- a. Conforming with Roles and Responsibilities described in GPD 8500.1;
- b. Providing commitment and leadership with respect to the EMS;
- c. Facilitating top management visibility, involvement, and support for the EMS; and
- d. Reporting to WFF senior management on the progress of the EMS.

1.3 The Environmental Management Representative shall be responsible for:

- a. Acting as liaison between the Environmental Office and WFF senior management regarding the EMS;
- b. Facilitating interaction among personnel/tenants regarding the implementation of the EMS;
- c. Sharing information, expertise, and resources to promote the integration of environmental management activities; and
- d. Ensuring the implementation and maintenance of the WFF EMS.

1.4 The EMS Project Team shall be responsible for:

- a. Reviewing and commenting on objectives, targets, conformance, nonconformance, and Environmental Management Programs (EMPs);
- b. Reviewing the EMS metrics; and
- c. Providing input on current and future activities, products, and services to sustain the EMS.

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 10 of 20

1.5 The Environmental Office shall be responsible for:

- a. Developing, interpreting, and communicating environmental policy, requirements, and standards;
- b. Developing and maintaining EMS Awareness Training;
- c. Communicating the content and spirit of GPD 8500.1 to employees;
- d. Implementing regulatory and other requirements;
- e. Soliciting Project Team representation from supervisors of organizations who could have environmental knowledge, expertise, and influence on WFF's activities, products, and services;
- f. Assessing and supporting EMS implementation and maintenance by WFF Directorates;
- g. Interfacing with HQ EMD on environmental issues;
- h. Providing a WFF resource for EMS expertise, training, personnel development, and lessons learned; and
- i. Routinely assessing performance measures of the EMS, providing guidance on improvements, and reporting results to WFF senior management.

1.6 Environmental Program Managers shall be responsible for:

- a. Identifying applicable legal and other requirements and interpreting how the requirements apply to WFF activities, products and services;
- b. Communicating environmental, legal, and other requirements to relevant WFF personnel;
- c. Providing technical and regulatory support to WFF personnel; and
- d. Developing and implementing EMPs for programmatic areas.

1.7 The Wallops Office of Communications shall be responsible for providing support in all areas of internal and external environmental communications (e.g., with local communities or the media).

1.8 Project Managers shall conform with Roles and Responsibilities described in GPD 8500.1 and consider and accommodate environmental issues when planning and implementing new projects.

1.9 Supervisors shall be responsible for:

- a. Conforming with Roles and Responsibilities described in GPD 8500.1;
- b. Ensuring their areas of responsibility function with minimal impact on the environment;
- c. Implementing regulatory and other requirements;
- d. Emphasizing sound environmental practices to their employees;
- e. Providing the required personnel to implement and maintain the EMS; and
- f. Ensuring employees receive the required environmental training and maintaining training records.

1.10 Employees shall be responsible for:

- a. Conforming with Roles and Responsibilities described in GPD 8500.1;
- b. Understanding and conforming with GPD 8500.1 and the Wallops EMS;
- c. Understanding environmental impacts and what can be done to minimize impacts;

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 11 of 20

- d. Completing the required environmental training and becoming competent in the operational controls for those work areas that have a significant impact on the environment;
- e. Reporting any unsound environmental practices or concerns to their supervisor, and taking corrective/preventive action as appropriate; and
- f. Participating in environmental activities, when required.

2.0 PROCEDURES

2.1 Environmental Policy

GPD 8500.1 states the GSFC environmental policy and defines the Center’s environmental values and commitments, which are consistent with those in NPD 8500.1. The Center’s policy is the foundation of the Wallops EMS, and it steers the design and implementation of the EMS at WFF. It is accessible to relevant stakeholders at: <http://sites.wff.nasa.gov/code250/ems.html>

2.2 Environmental Aspects

Using the procedure for environmental aspects and impacts outlined in NPR 8553.1, the Environmental Office, Environmental Program Mangers and the Project Team identify and prioritize, on an annual basis, the impacts that WFF has on the environment with the involvement of subject matter experts from WFF areas of operation, as necessary. The Environmental Office shall create a list of significant environmental aspects, considering all activities, products, and services under WFF control, including those pursuant to the WFF mission. Each fiscal year, High Priority Environmental Aspects (HPEAs) will be selected from the significant environmental aspects. All directorates at WFF shall support this process by providing information as requested.

2.3 Legal and Other Requirements

The Environmental Program Managers shall identify applicable federal, state, local, facility-specific, and permit-driven regulatory requirements, executive orders, and NASA-wide and Center environmental agreements and commitments, along with proposed changes to existing requirements. They may use the following tools:

- Register of applicable legal requirements, including citations and updates;
- Executive orders, NPRs, and regulatory support information from HQ EMD;
- Regulatory Web sites (e.g. Environmental Protection Agency, or Virginia Department of Environmental Quality); or
- Membership in professional organizations, subscriptions and meetings.

The Environmental Program Managers shall then assess the applicability and impact of the regulations on WFF, and take actions to ensure WFF’s ongoing compliance. The Project Managers shall also communicate the applicable environmental requirements to relevant WFF personnel, and ensure that they are aware of the actions needed to maintain WFF’s ongoing compliance.

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 12 of 20

Project Managers, with the assistance of Environmental Program Managers, shall identify regulatory requirements that are permit driven.

The Environmental Office shall also ensure that these requirements are made available to appropriate individuals and shall maintain an up-to-date Environmental Programs Register for their program area on the Environmental Office internal server.

2.4 Objectives, Targets, and Programs

The Environmental Office, Environmental Program Mangers and the Project Team shall develop and establish objectives and targets for the HPEAs. The objectives and targets shall be consistent with GPD 8500.1 and should drive continual improvement in environmental performance.

If it is determined that HPEAs cannot be addressed because they are technically unfeasible or economically unreasonable, the Environmental Office shall document the rationale behind this determination for review by WFF senior management.

In setting the objectives and targets, WFF shall consider:

- Legal and other requirements (when applying the process for determining significant aspects);
- Available technological options and infrastructure (when developing EMPs);
- Operational and mission-related activities (when WFF senior management defines priority for implementing actions in EMPs);
- Financial resources (when WFF senior management defines priority for implementing actions in EMPs); and
- Interests and views of stakeholders (relevant stakeholders are involved in the definition and in support to implementation of EMPs).

The objectives and targets shall be reviewed by the Environmental Office, Environmental Program Mangers and the Project Team annually and updated as necessary. The Environmental Office presents them to WFF senior management at the annual EMS Management Review for their review, concurrence and implementation. Once approved, the WFF Senior Manager shall ensure their implementation.

The Environmental Office shall maintain EMPs which identify the actions required to achieve the environmental objectives and targets. The EMPs shall also document the responsibilities and timeframes for achieving each action item. Staff from other organizations support the EMPs, as appropriate.

The Environmental Office tracks and updates the status of the EMPs on a semi-annual basis but prefers to meet on a quarterly basis, to confirm progress towards the objectives and targets.

The Environmental Office, Environmental Program Mangers and the Project Team shall review the appropriateness and effectiveness of the EMPs at least annually.

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 13 of 20

2.5 Resources, Roles, Responsibilities, and Authorities

Roles and responsibilities for the implementation of the EMS were summarized in Section 1.0 of this document. Further details are provided in the directives referenced in this document.

2.6 Competence, Training, and Awareness

All supervisors (civil servant and contractor) shall ensure that employees whose jobs have the potential to impact the environment are trained and competent to perform their tasks. Supervisors shall also ensure that effective and timely training is provided and shall maintain training records. All employees engaged in activities associated with environmental aspects or compliance activities shall receive the appropriate training as defined in NPR 8553.1.

All employees shall complete EMS Awareness Training through SATERN at the onset of employment and at least once every three years thereafter. If an employee does not have access to a computer, supervisors shall ensure that employees are provided computer access for training on-line at: <http://sites.wff.nasa.gov/code250/ems.html> or by providing their employees with a paper version.

All employees shall be aware of the importance of conformity with the GSFC environmental policy and procedures affecting their activities.

All employees shall be aware of the following areas, as appropriate based on activities they are engaged in:

- Adverse environmental impacts associated with the HPEAs of their work and the environmental benefits of improved personal performance; and
- Requirements of the EMS applicable to their work and awareness of consequences associated with their deviation from these requirements.

Wallops onsite contractors shall ensure that any subcontractors (through subcontract requirements or other means) with onsite access are aware of any environmental responsibilities associated with their activities at WFF.

EMS awareness information is available for all personnel, and non-WFF personnel, including suppliers, vendors, visitors, or other individuals whose on-site activities could impact the WFF environment at <http://sites.wff.nasa.gov/code250/ems.html> .

2.7 Communication

2.7.1 Internal Communications

The Environmental Office shall communicate with WFF organizations to ensure that personnel are aware of environmental issues and requirements. Standard methods of communication include:

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 14 of 20

environmental training, management meetings, staff meetings, new employee briefings, bulletin boards and posters, facility-wide email, newsletters, fact sheets, special announcements, and outreach events. Specific methods of communicating across WFF are as follows:

- Meet with its contract support to coordinate environmental activities;
- Document applicable EMS requirements within contracts no later than the time of the next recompetition;
- Extend its communication programs to WFF's partners, as appropriate;
- Communicate with management through meetings and monthly Division Status Reviews; and
- Coordinate environmental communications through the Wallops Office of Communications to the maximum extent practicable.

2.7.2 External Communications

General environmental information such as the Center's environmental policy shall be made available to members of the public through the WFF Internet home page, which satisfies the requirements stated in the Freedom of Information Act. Other external communications are managed through the Wallops Office of Communications.

The Office of Communications shall be responsible for receiving and responding to inquiries and concerns on a case by case basis, involving the Environmental Office as appropriate. The Office of Communications shall keep records of all inquiries received, responses made, and actions taken. In addition, the WFF Office of Communications maintains documented procedures for environmental external communications, which include restoration activities and facility operations at WFF.

2.8 Documentation

WFF establishes and maintains documents for environmental practices and information specific to the Facility. The Environmental Office shall ensure that WFF documents do not conflict with NASA Headquarters EMD documents or State and Federal regulations and requirements. The EMS and related documents provide mandatory requirements and references for environmental responsibilities and a mechanism to assist in maintaining employee awareness of WFF environmental policy, procedures, and objectives.

2.9 Control of Documents

Documents that define the operation of the EMS are available electronically through the Environmental Office shared computer drive. These documents are developed, maintained, and controlled in accordance with GPR 1410.1, GPR 1410.2 and 250-PG-1410.2.1. Obsolete documents shall be removed or clearly marked as obsolete, and maintained as records.

Procedures shall be established and maintained for general processes and activities affecting the environment. When necessary, specific procedures shall be established and maintained for the processes and activities associated with significant environmental aspects. Documented requirements shall be

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 15 of 20

developed and implemented to describe the procedures and requirements necessary to control operations to:

- Ensure compliance with the GPD 8500.1 and regulatory requirements;
- Control significant environmental aspects; and
- Effectively manage key environmental issues.

2.10 Operational Control

The Environmental Office shall maintain operational control procedures for the environmental programs that it oversees and manages (such as required regulatory plans). In addition, it shall maintain procedures defining how these documents are managed and controlled.

Where operational controls are the responsibility of WFF contractors, WFF management shall ensure that environmental requirements are communicated and agreed with its contractors, either through the contract, memoranda of agreement, or correspondence, and shall include these requirements in the contract no later than the next re-competition.

Contractors shall maintain procedures to manage their environmental impacts, in keeping with their own operational controls and management systems.

Project Managers shall assess the environmental impacts associated with their projects, beginning in the early planning phase, and shall ensure that appropriate environmental operational controls are implemented. Details of their requirements are described in GPR 8500.1, NPR 7120.5, and NPR 7120.8. The Environmental Office is available to assist Project Managers. The Environmental Office shall update relevant EMS documents accordingly.

The Environmental Office shall participate in monthly mission planning meetings, pre-construction meetings, and engineering meetings, where appropriate. Review of the monthly facility project status reports for new construction and modifications, to identify potential environmental concerns and to coordinate environmental protection measures is also conducted.

2.11 Emergency Preparedness and Response

The WFF Integrated Contingency Plan (ICP) is maintained by the Environmental Office and defines the process to prevent, prepare for, and respond to emergencies such as spills and accidental releases. The ICP shall be consistent with the requirements in NPR 8715.2. Other procedures are available for responding to hurricane and flood related environmental emergencies.

The ICP shall be under configuration control by the Environmental Office. The ICP shall be posted and available on the WFF internal web page: <http://sites.wff.nasa.gov/code250/> for internal view only. The ICP shall be reviewed by the Environmental Office at least annually.

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 16 of 20

Employees shall be trained, on emergency preparedness and response requirements associated with the environmental aspects and impacts of their jobs.

Emergency preparedness and response procedures for the Fire Department are developed and maintained by the WFF Fire Department, in keeping with regulatory requirements.

2.12 Monitoring and Measurement

WFF shall apply suitable methods for monitoring and, where applicable, measurement of EMS performance, conformance with operational controls, and the achievement of objectives and targets. These methods shall demonstrate the ability of the processes to achieve planned results.

The Environmental Office shall monitor and measure significant environmental aspects and progress towards meeting the objectives and targets through quarterly monitoring of metrics and action items in the EMPs. The Environmental Office shall track requirements associated with the EMS operational controls for the WFF activities and assess effectiveness and adequacy of those controls during planned internal assessments.

Operational controls or operating procedures addressing equipment calibration requirements, as appropriate, and records of environmental monitoring and measurement data shall be maintained. Equipment used for collecting environmental data shall be calibrated and records of calibration retained in accordance with GPR 8730.1.

2.13 Evaluation of Compliance

WFF shall evaluate compliance with all applicable legal and other requirements through an internal compliance evaluation. The internal compliance evaluation shall be conducted over a 3-year period to review compliance with all requirements (as identified in Section 2.3). One portion of the internal compliance evaluation shall include the Environmental Functional Review (EFR), held every 3 years and led by NASA Headquarters Environmental Management Division. WFF shall review the requirements evaluated by the EFR and conduct additional internal compliance evaluations to ensure that all requirements are met over a 3-year period. Internal evaluations may include the results of compliance evaluations conducted by federal, state, or local authorities, in addition to evaluations conducted by competent WFF personnel. Records shall be maintained to document the process utilized to ensure compliance with legal and other regulatory requirements and for evaluation of results. Any corrective actions shall be documented as described in Section 2.14.

2.14 Nonconformities, Corrective Action, and Preventive Action

Findings resulting from compliance or conformance audits, or as a result of management reviews, daily operations, and employee observations shall be documented, analyzed to determine a root cause, and tracked. Corrective and preventive action shall be properly developed in response to nonconformances. As appropriate, procedures or programs shall be modified or revised based on the results of the nonconformance root cause analysis. Any changes to the documented procedures as a result of

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 17 of 20

corrective or preventive actions shall be recorded. As appropriate, EMPs shall be developed to provide formal corrective action.

Following an environmental incident, the Environmental Office shall facilitate the investigation process with the participation of relevant stakeholders. The Environmental Office shall ensure that appropriate corrective/preventive actions are defined, agreed upon, and implemented.

The Environmental Office shall review all nonconformance databases at least annually to ensure the timely and effective completion of actions and to identify any trends. Results of these reviews shall be a part of the EMS Management Review.

2.15 Control of Records

EMS Records shall be managed in accordance with relevant federal and state regulations, NPR 1441.1, NASA Records Retention Schedules and GPR 1440.8, Records Management.

EMS records are identified on the Environmental Office shared computer drive.

2.16 Internal Audit

An internal audit of the Wallops EMS is conducted annually to confirm that the EMS conforms to the requirements of NPR 8553.1. The audit shall take into consideration the results of previous audits. The NASA HQ EMD conducts an EFR and EMS Conformance Review on a 3-year cycle. The results of the audit, along with recommendations for improvement, shall be communicated to WFF senior management.

2.17 Management Review

WFF senior management shall review the status and viability of the EMS, to evaluate its ongoing suitability, adequacy, and effectiveness. The Environmental Office shall ensure that the necessary EMS information is collected and reported to Senior Management at least annually and that management review meeting results are communicated to Wallops personnel as appropriate. The EMS Management Review shall include but is not limited to:

- Assessing the need for changes to the environmental policy and environmental objectives and targets;
- Results of internal audits and evaluations of compliance with legal requirements and other requirements;
- Communication from external parties, including complaints;
- Environmental performance and the extent to which objectives and targets have been met;
- Status of corrective and preventive actions;
- Follow-up actions from previous EMS Management Reviews;
- Changing circumstances, including developments in legal and other requirements; and
- Recommendations for improvement.

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 18 of 20

Upon review of the EMS information provided by the Environmental Office, senior management shall approve significant aspects and provide guidance to the Environmental Office on possible changes to ensure EMS continual improvement.

Relevant information about the review, decisions, and follow-up actions shall be recorded. Corrective actions shall be documented. This information is communicated by the Director of Wallops Flight Facility through a Declaration of Conformance memorandum to the GSFC Center Director.

TITLE:	WFF Environmental Management Manual	WFF EM-001C
EFFECTIVE DATE:	September 23, 2016	FILE NO.: 91.10.EM-001C
EXPIRATION DATE:	September 23, 2019	Page 19 of 20

CHANGE HISTORY LOG

Revision	Effective Date	Description of Changes
Baseline	03/24/2008	Initial Release
A	02/01/2010	All changes made from baseline. Formatting and grammatical changes throughout. Modified to align with NPR 8553.1.
A	08/23/2010	<p>Formatting and grammatical changes throughout.</p> <p>Section 2.5 The following sentences were changed.</p> <ul style="list-style-type: none"> • “Staff from other organizations may be invited to support the EMPs, if appropriate.” Now reads, “The Environmental Office, Environmental Program Managers and the Project Team shall review the appropriateness and effectiveness of the EMPs at least annually.” • “The Environmental Office, Environmental Program Managers and the Project Team shall review the appropriateness and effectiveness of the EMPs with WFF senior management at least annually, and each time that the objectives and targets are changed, or after any significant change in activities, products or services.” Now reads, “The Environmental Office, Environmental Program Mangers and the Project Team shall review the appropriateness and effectiveness of the EMPs at least annually.” <p>Section 2.15 The following sentences were changed.</p> <ul style="list-style-type: none"> • “The Director of Wallops Flight Facility shall review the status and viability of the EMS, to evaluate its ongoing suitability, adequacy, and effectiveness.” Now reads, “The Wallops Flight Facility Senior Management shall review the status and viability of the EMS, to evaluate its ongoing suitability, adequacy, and effectiveness. “ • “Upon review of the information provided by the Environmental office, Senior Management shall provide guidance direction to the Environmental Office on possible changes to the EMS to ensure its commitment to continual improvement.” Now reads, “Upon review of the information provided by the Environmental office, Senior Management shall provide guidance to the

Verify current version before use at:
<http://sites.wff.nasa.gov/code250/>

TITLE:	<u>WFF Environmental Management Manual</u>	WFF EM-001C
EFFECTIVE DATE:	<u>September 23, 2016</u>	FILE NO.: <u>91.10.EM-001C</u>
EXPIRATION DATE:	<u>September 23, 2019</u>	Page 20 of 20

		Environmental Office on possible changes to the ensure EMS continual improvement.”
A	1/7/2011	<ul style="list-style-type: none"> • Review • Grammatical changes • Addition Table of Contents • Roles and Responsibilities--Renaming of Core Team to Project Team • Title change for Carolyn Turner
A	1/20/2011	Revision A Release
B	9/6/2013	<ul style="list-style-type: none"> • Added Sections 1.1e and 2.12.3 to address Evaluation of Compliance • Changed P.4 References to Applicable Documents and revised • Changed 1.8 and 2.8.2 to Office of Communications • Revised 2.7 Training to include training location on SATERN • Corrected 2.13 Records typo • Revised 2.15 Management Review wording
	9/16/2013	Revision B Release
C	9/8/2016	<p>Review</p> <p>Revised date, document number and title</p> <p>Title change for Theodore J Meyer</p> <p>Revised P.9 RECORDS section to reflect most recent edition of the NASA Records Retention Schedule (NRRS) 1441.1A format</p> <p>Restructured the section headings to align with NPR8553.1</p>
C	9/23/2016	Revision C release