

SECTION J – ATTACHMENTS

ATTACHMENT 2 - SAFETY AND HEALTH PLAN INSTRUCTIONS

The offeror shall submit a detailed safety and health plan showing how they intend to protect the life, health, and well being of the public, NASA, and contractor employees, as well as property and equipment. The plan shall include detailed discussions of the policies, procedures, and techniques for all anticipated working conditions that will be encountered throughout the performance of the contract. The contractor shall address how the safety and health plan will be implemented and enforced on the prime contract and any subcontracts. This plan as approved by the Contracting Officer, or designated official, will be included in any resulting contract. The contractor shall continually update the plan when necessary. As a minimum, the plan shall address the following areas, (offerors may also view the sample provided in Appendix E of NPR 8715.3, General Safety Program Requirements):

1.0 MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION

1.1 Policy. The contractor's corporate safety policy statement.

1.2 Goals and Objectives. Description of specific goals and objectives of the Safety and Health Plan. (Reference Langley Policy Directive (LaPD) 1700.1, "LaRC Safety Program.")

1.3 Management Leadership. Description of management's commitment to safety and health through visible activities and initiatives including the exercise of controls to ensure workplace safety and health.

1.4 Employee Involvement. Description of employee (non-supervisory) involvement in safety and health program development, implementation, and decision-making.

1.5 Assignment of Responsibility. Description of line and staff responsibilities for safety and health program implementation, including the identification of personnel and/or organizations that provide safety services, to include, but not be limited to the following (Reference LaPD 1700.2, " Safety Assignments and Responsibilities."):

a. Safety Representative to be responsible for the adherence to Langley Research Center (LaRC) Center-wide safety, health, environmental, and fire protection concerns and goals, and participation in meetings and other activities related to the LaRC Safety and Health Program.

b. Company Physician (identified by name, address, and telephone number) to facilitate communication of medical data to the head of the LaRC clinic pertaining to physical protocols, injuries, illnesses or other incidents requiring medical treatment.

c. Designated Safety Official responsible for implementing the proposed Safety and Health Plan.

1.6 Provision of Authority. Identification of the lines of authority and responsibility for compliance with applicable NASA requirements, contractual directions, and applicable Federal, State, and local regulations.

1.7 Accountability. Description of management and employee accountability for implementing assigned tasks in a safe and healthful manner, including discipline, motivational techniques, or any other technique that ensures accountability.

1.8 Program Evaluation. Description of internal written program for reviews and evaluations to include, but not be limited to, methods and procedures for the identification of hazardous operations and products; approach for conducting risk evaluations; and approach for risk ranking. The written report shall identify individuals responsible for conducting the reviews and evaluations and their frequency (a least annually).

1.9 Identification and description of acquisition and processing of safety and health data; development of procedures; recordkeeping; statistical analyses including metrics; and the furnishing of data and reports to the Government, as follows:

a. Roster of Terminated Employees to include: (1) Date of report, contractor identity, and contract number; (2) For each person listed: provide name, social security number, assigned Center badge number, and date of termination; (3) Name, address, and telephone number of contractor representative to be contacted for questions or other information.

b. Material Safety Data Sheets. Description of procedure for preparing/delivering Material Safety Data Sheets (MSDSs) for hazardous materials used on LaRC in accordance with OSHA 29 CFR Part 1910.1200, "Hazard Communication," and Langley Procedural Requirement (LPR) 1710.12, "*Potentially Hazardous Materials - Hazard Communication Standard*" AND Center Interim Directive (CID) 1710.13, "*Chemical Hygiene Plan*".

2.0 WORKPLACE ANALYSIS

2.1 Hazard Identification. Describe the procedures and techniques to be used to compile an inventory of hazards associated with the work to be performed on the contract, as well as the hazards associated with operations and work environments in close proximity to contract operations.

2.2 Inspections. Procedures and frequency for regular inspections and evaluations of work area hazards and who will be accountable for implementing corrective measures.

2.3 Employee Reports of Hazards. Describe methods for employees to report (reprisal-free) hazardous conditions (e.g., close calls).

2.4 Address process for immediate reporting of all serious accidents, injuries, and close calls to the Safety and Facility Assurance Branch (SFAB), Safety and Mission Assurance Office (SMAO) in accordance with Langley Management System (LMS)-Center Procedure (CP) -4760, "Reporting Injuries, Illnesses, Compensation Claims and Unsafe Working Conditions". This process shall include the contractor's written procedure for informing employees that the LaRC has the right, and intends to perform drug testing on any individual or group of individuals involved in any serious accident resulting in an injury, illness, close call, or equipment/property damage.

3.0 MISHAP INVESTIGATION AND RECORD ANALYSIS

3.1 Mishap Investigation and Reporting. Description of methods to ensure investigations and the reporting of mishaps are conducted and corrective actions are implemented in accordance

LMS-CP-8621, "Reporting, Investigating, and Recordkeeping for Mishaps, Close Calls, and Previously Unidentified Serious Workplace Hazards."

3.2 Trend Analysis. Description used to perform trend analysis of data concerning occupational injuries and illnesses; facilities, systems, and equipment performance; maintenance findings; etc., including methods to identify and abate common cause failures or occurrences indicated by the trend analysis.

4.0 HAZARD PREVENTION AND CONTROL

4.1 Appropriate Controls. Description for identifying and accepting residual risks relating to hazardous chemicals, equipment, discharges, waste, energies, etc. through the implementation of controls and their effectiveness.

4.2 Hazardous Operations. Description of method for identifying hazardous operations associated with the work to be performed throughout the performance of the contract and the method for notifying personnel of the hazardous operations. Written procedures shall be developed for all hazardous operations, including testing, maintenance, repairs, and handling of hazardous materials and hazardous waste. The contractor may implement this requirement by identifying their existing company policies and procedures relating to hazardous operation procedures together with a statement that LaRC will have access, upon request, or by identifying the method whereby the contractor will identify and submit hazardous operations procedures to the SFAB, SMAO for review and approval.

NOTE: Refer to LPR 8717.1, "Job Hazard Analysis Program," and LPR 1740.4, "Facility System Safety Analysis and Configuration Management" for LaRC procedures pertaining to the work environments described in 4.1 and 4.2 above. If this item is not applicable to the contract stating not applicable in the safety and health plan is acceptable.

4.3 Personal Protective Equipment. Describe personal protective equipment program and its usage and maintenance in accordance with OSHA 29 CFR 1926 Subpart E, LPR 1710.4, "Personnel Protection - Clothing and Equipment," and LPR 2710.1, "LaRC Noise Control and Hearing Conservation Program." If this item is not applicable to the contract stating not applicable in the safety and health plan is acceptable.

4.4 Fall Protection. Description of method to ensure compliance with the requirements of OSHA 29 CFR 1926.500 through 1926.503 pertaining to fall protection systems and in accordance with LPR 1710.4, "Personnel Protection - Clothing and Equipment." If this item is not applicable to the contract stating not applicable in the safety and health plan is acceptable.

4.5 Scaffolding. Description of method to ensure scaffolding is designed, constructed and assembled in accordance with the requirements of OSHA 29 CFR 1926.450 through 454 and LPR 1740.2, "Facility Safety Requirements." If this item is not applicable to the contract stating not applicable in the safety and health plan is acceptable.

4.6 Hazardous Operations Permits. Identify facilities, operations, and/or tasks where hazardous operations permits will be required, such as:

- a. Operations Involving Potential Asbestos Exposures, including training.
- b. Operations Involving Exposures to Toxic or Unhealthful Materials.

c. Operations involving Confined Space Entry, including training, obtaining a Confined Space Entry Permit, and process for initial and hourly readings in accordance with OSHA 29 CFR 1910.146.

NOTE: Refer to LPR 1740.2, "Facility Safety Requirements" for LaRC procedures pertaining to the 4.6 a, b, and c above and LPR 1710.12, "Potentially Hazardous Materials – Hazard Communication" for b. above.

d. Operations Involving New or Modified Emissions/Discharges to the Environment.

e. Operations Involving Hazardous Waste.

NOTE: Refer to LPR 8500.1, "Environmental and Energy Program Manual" for LaRC procedures pertaining to the 4.6 d and e above.

f. Operations involving Hot Work (*Welding*), in accordance with LPR 1710.11, "Fire Protection Program."

g. Operations requiring the issuance of a LaRC Safety Permit in accordance with LPRs 1710.12, "Potentially Hazardous Materials - Hazard Communication Standard," LPR 1710.5, "Ionizing Radiation," and LPR 1710.8, "Nonionizing Radiation."

4.7 NASA LaRC Lockout/Tagout System. Description of method for compliance with LPR 1710.10, "Langley Research Center Energy Control Program (Lockout/Tagout)" and LPR 1710.6, "Electrical Safety." If this item is not applicable to the contract stating it is not applicable in the safety and health plan is acceptable.

4.8 Ionizing and Non-Ionizing Radiation. Description of method for ensuring employee awareness training of radiation symbols and when they are used in accordance with LPR 1710.5, "Ionizing Radiation" and LPR 1710.8, "Non-Ionizing Radiation." If this item is not applicable to the contract stating not applicable in the safety and health plan is acceptable.

4.9 Potentially Hazardous Materials. Description of method for ensuring employee awareness training for LaRC's hazardous materials program in accordance with LPR 1710.12, "Potentially Hazardous Materials - Hazard Communication Standard").

4.10 Safety Meetings. Identify plan for conducting regular safety meetings in accordance with LPR 1740.3, "Facility Safety Head and Facility Coordinator Guide."

4.11 Crane Certification. Describe process for ensuring that all mobile/truck-mounted cranes brought on site by the prime or subcontractors have a current "Annual Certification of Load Test." Include crane location identification for crane certifications to facilitate inspections upon request by NASA Inspector or SFAB, SMAO. If this item is not applicable to the contract stating it is not applicable in the safety and health plan is acceptable.

4.12 Pressure Vessels. Describe process for ensuring compliance with LPR 1710.40, "LaRC Pressure Systems Handbook" and LPR 1710.42, "Safety Program for the Maintenance of Ground-Based Pressure Vessels and Pressurized System," pertaining to the design, procurement, fabrication, modification, repair, operation, and/or recertification of pressure systems. If this item is not applicable to the contract stating it is not applicable in the safety and health plan is acceptable.

5.0 BASELINE DOCUMENTATION

Description of method for maintaining facility baseline documentation tasks in accordance with LPR 1740.4, "Facility System Safety Analysis and Configuration Management." If this item is not applicable to the contract stating it is not acceptable in the safety and health plan is acceptable.

6.0 PREVENTIVE MAINTENANCE

Description of approach to be used for preventive maintenance, including scope, frequency, and supporting rationale for the preventive maintenance program including facilities and/or equipment to be emphasized or de-emphasized.

7.0 MEDICAL PROGRAM

Description of medical surveillance program equivalent to the LaRC Physical Protocols, which have been established to evaluate personnel and workplace conditions to identify health issues and potential occupational exposures for employees working with hazardous materials (chemicals), ionizing and non-ionizing radiation, lead, asbestos, crane and forklift operations, and employees working at heights in excess of 25 feet.

8.0 EMERGENCY RESPONSE

Describe approach for emergency preparedness and contingency planning that addresses fire, explosion, inclement weather, environmental releases, etc, discussing the establishment of pre-planning strategies through procedures, training, drills, or other mechanisms. Discuss methods to verify emergency readiness. (Refer to LPR 1710.11, "Fire Protection Program." and LPR 1046.1, "Emergency Management Plan")

9.0 SAFETY AND HEALTH TRAINING

Description of training and certification program, including the identification of individuals responsible for training employees in safe work practices, hazard recognition, and appropriate responses, such as protective and/or emergency countermeasures. Address the management techniques used to identify and utilize any Center training resources (such as asbestos worker training/certification, hazard communication, confined space entry, blood borne pathogens, lockout/tagout, or other), as appropriate, with particular emphasis on programs designed for the multiple employer work environment on NASA property. Discuss personnel certification programs to include documentation that training requirements have been satisfied/validated by a physical examination, testing, on-the-job performance, or other. All training materials and training records shall be in accordance with LPR 1740.6, "Personnel Safety Certification" and be provided to LaRC for review upon request.

10. NOTICE OF VIOLATION

Describe the response process to any Notice of Violations issued for safety violations by the prime contractor and/or its subcontractors, including the cause for violation; mitigation of impact, if applicable; planned prevention of recurrence; timing of response to ensure compliance within LaRC's three working day response time requirement; and the process for delivery of the response to the issuer of the Notice of Violation.

Langley Research Center Document Internet Links

All LaRC documents identified throughout these requirements are available via the following internet links:

CID 1710.13, Chemical Hygiene Plan -

LMS-CP -4760, Reporting Injuries, Illnesses, Compensation Claims and Unsafe Working Conditions -
<https://lms.larc.nasa.gov/admin/documents/4760.pdf>

LMS-CP-8621, Reporting, Investigating, and Recordkeeping for Mishaps, Close Calls, and Previously Unidentified Serious Workplace Hazards -
<https://lms.larc.nasa.gov/admin/documents/8621.pdf>

LaPD 1700.1, LaRC Safety Program -<https://lms.larc.nasa.gov/admin/documents/LAPD1700-1.pdf>

LaPD 1700.2, LaRC Assignments and Responsibilities -
https://lms.larc.nasa.gov/admin/documents/LAPD_1700-2.pdf

LPR 1710.4, Personnel Protection - Clothing and Equipment -
<https://lms.larc.nasa.gov/admin/documents/LPR1710-4.pdf>

LPR 1710.5, Ionizing Radiation - https://lms.larc.nasa.gov/admin/documents/LPR_1710-5.pdf

LPR 1710.6, Electrical Safety - https://lms.larc.nasa.gov/admin/documents/LPR_1710-5.pdf
LPR 1710.8, Nonionizing Radiation - https://lms.larc.nasa.gov/admin/documents/LPR_1710-8.pdf

LPR 1710.10, Safety Clearance Procedures (Lockout/Tagout) - LPR 1710.11, "Fire Protection Program - https://lms.larc.nasa.gov/admin/documents/LPR_1710-12.pdf

LPR 1710.12, Potentially Hazardous Materials - Hazard Communication Standard -
https://lms.larc.nasa.gov/admin/documents/LPR_1710-12.pdf

LPR 1710.40, LaRC Pressure Systems Handbook - https://lms.larc.nasa.gov/admin/documents/CID_1710-40.pdf

LPR 1710.42, Safety Program for the Maintenance of Ground-Based Pressure Vessels and Pressurized System - https://lms.larc.nasa.gov/admin/documents/LPR_1710-42.pdf

LPR 1740.2, Facility Safety Requirements -
<https://lms.larc.nasa.gov/admin/documents/LPR1740-2.pdf>

LPR 1740.3, Facility Safety Head and Facility Coordinator Guide -
https://lms.larc.nasa.gov/admin/documents/LPR_1740-3.pdf

LPR 1740.4, Facility System Safety Analysis and Configuration Management -
https://lms.larc.nasa.gov/admin/documents/LPR_1740-4.pdf

LPR 1740.6, "Personnel Safety Certification -
https://lms.larc.nasa.gov/admin/documents/LPR_1740-6.pdf

LPR 2710.1, LaRC Noise Control and Hearing Conservation Program -
https://lms.larc.nasa.gov/admin/documents/LPR_2710-1.pdf

LPR 8717.1, Job Hazard Analysis Program -
<https://lms.larc.nasa.gov/admin/documents/LPR8717-1.pdf>

LPR 8500.1, Environmental and Energy Program Manual -
https://lms.larc.nasa.gov/admin/documents/LPR_8500-1.pdf

NPR 8715.3C, NASA General Safety Program Requirements, Appendix E -
http://nodis3.gsfc.nasa.gov/displayDir.cfm?Internal_ID=N_PR_8715_003C_&page_name=AppendixE