NASA Procedural Requirements

COMPLIANCE IS MANDATORY

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Subject: NASA General Safety Program Requirements (w/Change 9 dated 2/08/13)

Responsible Office: Office of Safety and Mission Assurance

| TOC | ChangeLog | Preface | Chapter1 | Chapter2 | Chapter3 | Chapter4 | Chapter5 | Chapter6 | Chapter7 | Chapter8 | Chapter9 | Chapter10-Reserved | Chapter11 | AppendixA | AppendixB | AppendixC | AppendixD | AppendixE | AppendixF | AppendixG | AppendixH | AppendixI | ALL |

Appendix E. Sample Safety and Health Plan for Service or Operations Contracts

A detailed Safety and Health Plan is submitted as part of a Service or Operations contract proposal, showing how the contractor intends to protect the life, health, and well-being of the public, and NASA and contractor employees as well as property and equipment. The plan should 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 safety and health of subcontractor employees should be included in the plan for any proposed subcontract whose value is expected to exceed $1,000,000 including commercial services and services provided in support of a commercial item. An approved Safety and Health Plan will be included as a part of any resulting contract.

If the contractor will conduct work or be located on a NASA site or in a NASA facility, the Safety and Health Plan should discuss measures to be taken to ensure the protection of property, equipment, and the environment in the production of contractor deliverables and/or in the pursuit of any of its activities. An approved onsite contractor will develop and subsequently implement a Safety and Health Program based on the approved plan that will includes policies and procedures for compliance with pertinent NASA policies and requirements, and Federal, State and local regulations for safety, health, environmental protection, and fire protection. The contractor's Safety and Health Program will be used to assure integration of the onsite contractor as a full participant in the Center's Safety and Health Program.

The proposed Safety and Health Plan should contain the information.

CONTENTS OF THE PROPOSED SAFETY AND HEALTH PLAN

1.0 MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION.

1.1 Policy. Provide the contractor's corporate safety policy statement. Compare this policy statement with those of NASA and OSHA and discuss any differences.

1.2 Goals and Objectives. Describe specific goals and objectives of the Safety and Health Plan. Discuss these goals and objectives using the framework of the elements of a safety and health management system described by the OSHA VPP (management leadership and employee involvement; worksite analysis; hazard prevention and control; and safety and health training). Describe the approach (including milestone schedule) to achieve and maintain safety and health management practices according to the criteria outlined in four elements of the OSHA VPP safety and health management in all areas.

1.3 Management Leadership. Describe the process and procedures for implementing management commitments to safety and health through visible activities and initiatives including the exercise of controls to ensure workplace safety and health. Include a statement from the project manager or designated safety official indicating that the plan will be implemented as approved and that the project manager will take personal responsibility for its implementation.

1.4 Employee Involvement. Describe procedures to implement and promote employee (e.g., non-supervisory) involvement in safety and health program development, implementation, and decision making. Describe the scope and breadth of employee participation so that all safety and health risk areas are addressed.

1.5 Assignment of Responsibility. Describe the line and staff responsibilities for safety and health program implementation. Identify any other personnel or organizations that provide safety services or exercises any form of control or assurance in these areas. State the means of communication and interfaces concerning related issues used by line, staff, and others (such as documentation, concurrence requirements, committee structure, sharing of the work site with NASA and other contractors, or other special responsibilities and support). As a minimum, the contractor will identify the following:

a. Safety Representative. Identify, by title, the individual who will be responsible for the contractor's adherence to Center-wide safety, health, environmental, and fire protection concerns and goals, and will participate in meetings and other activities related to the Center's Safety and Health Program.

b. Company Physician. Provide the identification of a company physician to facilitate communication of medical data to the head of the NASA clinic. The contractor shall identify the point of contact by name, address, and telephone number to the NASA Center Clinic. Any changes that occur in the identity of the point of contact will be promptly conveyed to the NASA Center Clinic.

c. Building Fire Wardens. Each building occupied by the contractor will have an assigned individual to facilitate the Center's fire safety program. Duties will include coordination of fire-related issues with the NASA facility manager, and emergency planning and response officials and their representatives. Identify the assigned contractor Building Fire Warden.

d. Designated Safety Official. Identify, by title, the official(s) responsible for implementing the proposed Safety and Health Plan. Identify all formal contacts with regulatory agencies and with NASA.

1.6 Provision of Authority. Compare the provisions and procedures in the proposed Safety and Health Plan with applicable NASA requirements and contractual directions, and applicable Federal, State, and local regulations. Identify the lines of authority and responsibility for each requirement and regulation. Discuss how the subsequent contractor's Safety and Health Program will be controlled to maintain the identified lines of authority and responsibility for the life of the contract.

1.7 Accountability. Describe the procedures for ensuring that management and employees will be held accountable for implementing their tasks in a safe and healthful manner. The use of traditional and/or innovative personnel management methods (including discipline, motivational techniques, or any other technique that ensures accountability) should be referenced, as a minimum, and described, as appropriate.

1.8 Program Evaluation. Describe the method to be used for internal program reviews and evaluations. The program review and evaluation may consist of either (1) participation in OSHA VPP surveys at the request of the Government or (2) described in a written report that documents the methods and procedures for determining the existence and criticality of the contractor's hazardous operations.

If the proposed plan provides for an internal reviews and evaluations other than participation in OSHA VPP surveys, the submitted report should include, but not be limited to, methods and procedures for the following: identification of the contractor's hazardous operations and products; approach to be used for conducting risk evaluations; the approach to be used for risk ranking with respect to consequence severity, risk management techniques to be applied to unacceptable safety risks, and the documentation of the results. The report should also include an identification of the personnel who will conduct the reviews and evaluations, to whom the reports will be made, and the frequency (at least annually) at which the reviews and evaluations will be performed. The reviews and evaluations should include subcontracted tasks. The submitted report should clearly describe the correlation between the proposed program review and evaluation approach and applicable criteria of the OSHA VPP.

When a written program review and evaluation is requested, it should be delivered to the Government no later than 30 days after the end of each contract year or at the end of the contract, whichever is applicable. Distribution of these program reviews and evaluations will be the same as that for the Safety and Health Plan. The OSHA VPP surveys will be scheduled and administered at the discretion of the Government.

1.9 The prospective contractor will describe the approach to be taken to document its safety and health program performance to provide necessary visibility and insight. This description should include: the identification, 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. Electronic access by the Government to this data is preferred as long as Privacy Act requirements are met and the Government safety and health professionals and their representatives have full and unimpeded access for review and audit purposes.

For contractor activities conducted on NASA property, the contractor will identify what records it will make available to the Government in accordance with the Voluntary Protection Program (VPP) criteria of OSHA as implemented in [the local Center's] Requirements Handbook for Safety, Health, and Environmental Protection, as revised. For the

purpose of this plan, safety and health documentation includes, but is not limited to, logs, records, minutes, procedures, checklists, statistics, reports, analyses, notes, or other written or electronic document which contain in whole or in part any subject matter pertinent to safety, health, environmental protection, or emergency preparedness. The contractor will acknowledge the following as a standing request of the Government to be handled as described below.

a. Roster of Terminated Employees. NASA expects the contractor to identify and report terminated employees to the Center occupational health program office. This report should be sent to the Occupational Health Officer no later than 30 days after the end of each contract year or at the end of the contract, whichever is applicable. At the contractor's discretion, the report may be submitted for personnel changes during the previous year or cumulated for all years.

Information required:

(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. Describe the procedure to be used by the contractor to prepare and/or deliver to NASA, Material Safety Data for hazardous materials brought onto Government property or included in products delivered to the Government. These data are required by the Occupational Safety and Health Administration (OSHA) regulation, 29 CFR Part 1910.1200, Hazard Communication, and Federal Standard 313 (or FED-STD-313), Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities, as revised. A single copy of each Material Safety Data Sheet (MSDS) will be sent upon receipt of the material for use on NASA property to the Center's Central Repository, Mail Code ____. Information on new or changed locations and/or quantities of hazardous materials normally stored or used onsite should also be sent to the Center's Central Repository. If the MSDS arrives with the material and is needed for immediate use, the MSDS should be delivered to the Central Repository by close of business of the next working day after it enters the site.

c. Hazardous Materials Inventory. The contractor will be responsible to compile and report the inventory of all hazardous materials within the scope of 29 CFR Part 1910.1200, Hazard Communication, and Federal Standard 313 (or FED-STD-313), Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities, as revised and its located on Government property. The call for this annual inventory will be issued by the [responsible NASA official], Mail Code ____. The inventor should contain the following information:

(1) The identity of the material.

(2) The location of the material onsite by building and room.

(3) The quantity of each material normally kept at each location.

1.10 Government Access to Safety and Health Program Documentation. The contractor shall recognize in its plan that it will be expected to make all safety and health documentation (including relevant personnel records) available for inspection or audit at the Government's request.

1.11 The contractor may be requested to participate in the review and modification of safety requirements that are to be implemented by the Government including any referenced documents therein. This review activity will be implemented at the direction of the NASA Contracting Officer's Technical Representative in accordance with established NASA directives and procedures.

1.13 Procurement. Identify procedures used to assure that the contractor's procurements are reviewed for safety considerations and that specifications contain appropriate safety criteria and instructions. Set forth authority and responsibility to assure that safety tasks are clearly stated in subcontracts.

2.0 WORKPLACE ANALYSIS. Describe the method and techniques the contractor will use to systematically identify the hazards within the workplace for the duration of the contract. The discussion should describe the information collection process including a combination of surveys, analyses, inspections of the workplace, investigations of mishaps and close calls, and the collection and trend analysis of safety and health data such as records of occupational injuries and illnesses; findings and observations from preventive maintenance activities; reports of spills and inadvertent releases to the environment; facilities-related incidents related to partial or full loss of systems functions; and employee reports of hazard. Every hazard identified by any of the techniques given below shall be ranked and processed in accordance with Center procedure. All hazards identified on NASA property that are immediately dangerous to life or health should be reported immediately to the NASA safety office and to the Contractor's President/Program Manager in order to ensure that proper attention and correction is given to these hazards. All safety engineering products, which address operations, equipment, and other aspects of safety

engineering, on NASA property will be subject to the review and concurrence of the NASA Safety Office unless otherwise specified in the approved safety and health plan. The contractor is expected to have processes to address similar instances in contractor facilities utilizing contractor resources to manage such instances.

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 this contract. This inventory of hazards shall address the work specified in the contract as well as the hazards associated with operations and work environments in close proximity to contract operations. The hazard inventory results will be reported to the Government in a manner suitable for inclusion in facilities baseline documentation as a permanent record. Specific techniques to be considered include:

a. Comprehensive Survey. A "wall-to-wall" engineering assessment of the work site including facilities, equipment, processes, and materials (including waste).

b. Change Analysis. Address modifications in facilities, equipment, processes, and materials (including waste); and related procedures for operations and maintenance. Periodic change analyses will be driven by new or modified regulatory and NASA requirements.

c. Hazard Analysis. Address facilities, systems/subsystems, operations, processes, materials (including waste), and specific tasks or jobs.

2.2 Inspections. This paragraph should include the procedures and frequency for regular inspections and evaluations of work areas hazards and who will be accountable for implementing of corrective measures. The contractor will describe administrative requirements and procedures for the control of regularly scheduled inspections for fire and explosive hazards. The contractor has the option, in lieu of the above detail, to identify policies and procedures with the stipulation that the results (including findings) of inspections conducted on NASA property or involving Government furnished equipment will be documented in safety program evaluations or monthly Accident/Incident Summary reports. Inspections will identify the following:

a. Discrepancies between observed conditions and current requirements.

b. New (not previously identified) or modified hazards.

2.3 Employee Reports of Hazards. The contractor will identify the methods to be used to encourage employees to report hazardous conditions (e.g., close calls) and analyze/abate hazards. The contractor will describe steps to be taken to create reprisal-free employee reporting with emphasis on management support for employees and describe methods to be used to incorporate employee insights into hazard abatement activities.

3.0 MISHAP INVESTIGATION AND RECORD ANALYSIS.

3.1 Mishap Investigation and Reporting. The contractor will identify the methods to assure that the investigations and reporting of mishaps including corrective actions to be implemented to prevent recurrence. The contractor will describe the methods to be used to investigate and report on NASA property and on contractor or third party property. The contractor will describe procedures for implementing the NASA mishap investigation and reporting forms or use alternate contractor forms with emphasis on the timely notification of NASA. The contractor discussion should include: investigation procedures; exercise of jurisdiction over a mishap investigation involving NASA and other contractor personnel; follow up of corrective actions; communication of lessons learned to NASA; and solutions to minimize duplications in reporting and documentation including use of alternate forms or other solutions. The contractor will discuss its procedures for the immediate notification of fires, hazardous materials releases, and other emergencies. The contractor will include appropriate details to address the use of Incident Reporting Information System, including 24-hour and ten-day mishap reports to the Occupational Safety Office, mail code ___.

3.2 Trend Analysis. The contractor will describe the approach to be used to perform trend analysis of data (occupational injuries and illnesses; facilities, systems, and equipment performance; maintenance findings; etc.). The discussion should include methods to identify and abate common cause failures or occurrences indicated by the trend analysis. The contractor should discuss the following methods of providing data, in support of site-wide trend analysis to be performed by the Government. Further, the contractor should describe how the results of these trend analysis will be shared with employees so that they are aware of potential safety problems or hazards.

a. Accident/Incident Summary Report. The contractor will describe how monthly Accident/Incident Summary Reports are prepared and delivered, as specified on [specify locally used format]. All new and open mishaps, including vehicle accidents, incidents, injuries, fires, and any close calls will be described in summary form along with their current status. Negative reports are also required monthly; date due is the 10th day of the month following each month reported. Reports will be delivered to the Center Safety Office, mail code _____.

b. Log of Occupational Injuries and Illnesses. For each location on or off NASA property that performs work on this contract, the contractor will deliver to the Government (under separate contractor's cover letter), a copy of an annual summary of occupational injuries and illnesses (or equivalent) as described in 29 CFR Part 1904.32, Annual Summary. If contractor is exempt by regulation from maintaining and publishing such logs, equivalent data in the contractor's format is acceptable (such as loss runs from insurance carrier). This data will be compiled and reported each calendar year and provided to the Government within 45 days after the end of the year to be reported (e.g., not

later than February 15 of the year following).

4.0 HAZARD PREVENTION AND CONTROL. Identified hazards must be eliminated or controlled. In the multiple employer environment of the Center, it is required that hazards including discrepancies and corrective actions be recorded in the Center's information data system (provide name of system here) for risk management purposes. Describe the approach to implementing this requirement.

4.1 Appropriate Controls. Discuss the approach to be used for considering and selecting controls. Discuss the use of the hazard reduction precedence sequence. Discuss the approach to be used to identify and accept any residual risk. Discuss the implementation of controls including verifying their effectiveness. Discuss the scope of coverage (hazardous chemicals, equipment, discharges, waste, energies, or other). Discuss the need for coordination with safety, health, environmental service, and emergency authorities at NASA.

4.1.1 Hazardous Operations. Establish methods for notifying personnel when hazardous operations are to be performed and when hazardous conditions are found to exist during the course of this contract. NASA policy will serve as a guide for defining, classifying, and prioritizing hazardous operations. Develop and maintain a list of hazardous operations to be performed during the life of this contract. The list of hazardous operations will be provided to the contracting officer as part of the safety and health plan for review and approval. The contracting officer and the contractor will decide jointly which operations are to be considered hazardous, with the contracting officer having final authority. Before hazardous operations commence, the contractor will provide a schedule for the development of written hazardous operations procedures with particular emphasis on identifying the safety steps required. The contractor may implement this requirement as follows:

a. Identify contractor policies and procedures for the management and implementation of hazardous operations procedures together with a statement that NASA will have access, on request, to any contractor data necessary to verify implementation; or

b. In lieu of contractor management and development of such procedures, identify the method whereby the contractor will identify and submit hazardous operations procedures to the NASA Occupational Safety Office for review and approval.

4.1.2 Written Procedures. Provide methods to assure that relevant hazardous situations and proper controls are identified in documentation such as inspection procedures, test procedures, or other, and other related information. Describe methods to assure that written procedures are developed for all hazardous operations, including testing, maintenance, repairs, and handling of hazardous materials and hazardous waste. Procedures will be developed in a format suitable for use as safety documentation (such as a safety manual) and be readily available to personnel as required to correctly perform their duties.

4.1.3 Protective Equipment. Describe procedures for obtaining, inspecting, and maintaining protective equipment, as required, or reference written procedure pertaining to this subject. Describe methods for keeping records of such inspections and maintenance programs.

4.1.4 Hazardous Operations Permits. Identify facilities, operations, and/or tasks where hazardous operations permits will be required as specified in the Center's local requirement. Describe the process to be used to ensure guidance adherence to established NASA Center procedures. Clearly state the role of the safety group or function to control such permits.

a. Operations Involving Potential Asbestos Exposures. Describe methods for assuring compliance with the Center's Asbestos Control Program as established in local policy.

b. Operations Involving Exposures to Toxic or Unhealthful Materials. Such operations must be evaluated by the NASA Occupational Health Office and must be properly controlled as advised by same. Describe the process to be used to notify the NASA Occupational Health Office prior to initiation of any new or modified operation potentially hazardous to health and safety.

c. Operations Involving Hazardous Waste. Identify procedures to be used to manage hazardous waste from the point of generation through disposal. Clearly identify divisions of responsibility between contractor and NASA for hazardous waste generated throughout the life of the contract. Operations which occur on site must also be evaluated by the Center environmental services office and must be properly controlled as advised by same. Describe the process to be used to notify the Center environmental services office prior to initiation of any new or modified hazardous waste operation on site.

d. Operations Involving New or Modified Emissions/Discharges to the Environment. Describe methods for identifying new or modified emissions/discharges and coordinating the results with the Center environmental services office. Discuss procedures to minimize or eliminate environmental pollution. Address the management of hazardous materials; substitution of non-hazardous or less hazardous materials for hazardous materials; proper segregation of hazardous wastes from non-hazardous wastes; and other methods described by NASA. Emphasis shall be placed on providing sufficient lead-time for processing permits through the appropriate State agency and/or the Environmental Protection Agency.

4.2 Discuss responsibilities for maintaining facility baseline documentation in accordance with Center requirements. The contractor will implement any facility baseline documentation tasks (including safety engineering) as provided in the contractor's safety and health plan approved by NASA or as required by Government direction.

4.3 Preventive Maintenance. Discuss the approach to be used for preventive maintenance. Describe scope, frequency, and supporting rationale for the preventive maintenance program including facilities and/or equipment to be emphasized or de-emphasized. Discuss methods to promote awareness in the NASA community (such as alerts, safety flashes, or others) when preventive maintenance reveals design or operational concerns in facilities and equipment (and related processes where applicable).

4.4 Medical Program. Discuss the medical surveillance program used to evaluate personnel and workplace conditions, identify specific health issues, and prevent degradation of personnel health as a result of occupational exposures. Discuss the approach for using cardiopulmonary resuscitation, first aid, and emergency response.

5.0 EMERGENCY RESPONSE. Discuss the approach to be used for emergency preparedness and contingency planning that addresses fire, explosion, inclement weather, environmental releases, etc. Discuss compliance with 29 CFR Part 1910.120, Hazardous Waste Operations and Emergency Response, and the role the contractor will play in the local Incident Command System. Discuss methods to be used for notification of Center emergency forces including emergency dispatcher, safety hotline, director's safety hotline, or other. Discuss the establishment of pre-planning strategies through procedures, training, drills, or other. Discuss methods to verify emergency readiness.

6.0 SAFETY AND HEALTH TRAINING. Describe the contractor's training program including the identification of responsibility for training employees in safe work practices, hazard recognition, and appropriate responses (including 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, lockout/tagout, or other), as appropriate, with particular emphasis on programs designed for the multiple employer work environment on NASA property. Describe the approach to be used for training personnel in the proper use and care of protective equipment. Discuss tailoring of training towards specific audiences (management, supervisors, and employees) and topics (safety orientation for new hires, specific training for certain tasks or operations). Discuss the approach to ensure that training is retained and practiced. Discuss personnel certification programs. Certifications should include documentation that training requirements have been satisfied and learning validated by one or more of the following: physical examination, testing, on-the-job performance, or other. All training materials and training records will be provided for NASA review upon request.

| TOC | ChangeLog | Preface | Chapter1 | Chapter2 | Chapter3 | Chapter4 | Chapter5 | Chapter6 | Chapter7 | Chapter8 | Chapter9 | Chapter10-Reserved | Chapter11 | AppendixA | AppendixB | AppendixC | AppendixD | AppendixE | AppendixF | AppendixG | AppendixH | AppendixI | ALL |

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