

EXAMPLE B

**WORKER SAFETY AND HEALTH PROGRAM
CONSISTENT WITH
DOE INTEGRATED SAFETY MANAGEMENT SYSTEM
AT A DOE NON-NUCLEAR SITE**

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APPENDIX A to EXAMPLE B- SAFETY AND HEALTH MANAGEMENT PROGRAM
MAINTENANCE, CHANGE CONTROL, AND REVIEW PROCESS

APPENDIX B to EXAMPLE B - S&H FY04 CRAD/SSPMS

APPENDIX C to EXAMPLE B – HAZARD IDENTIFICATION AND CONTROL DECISION
MATRIX

ACRONYMS

BSAFE	Behavioral Safety for Everyone
CARs	Corrective Action Reports
CAS	Contractor Assurance System
CRAD	Criteria Review and Approach Documents
DEAR	Department of Energy Acquisition Regulations
DP	Defense Programs
eLMS	electronic Learning Management System
EM	Environmental Management
ER	environmental restoration
ESAP	Environmental Self-Assessment Program
GPP	General Plant Projects
HAZMAT	Hazardous Materials
HPR	Highly Protected Risk
ISMS	Integrated Safety Management System
ISO	International Organization for Standardization
LOTO	lockout tagout
LSO	local site office
NEPA	National Environmental Policy Act
NNSA	National Nuclear Security Administration
MES	Manufacturing Execution System
MOPS	Management Observing & Promoting Safety
MSDS	Material Safety Data Sheet
NFOs	Non-Financial Objectives

PBS	Project Baseline Summary
PHA	preliminary hazard analysis
RTBF	Readiness in Technical Base and Facilities
S&H	Safety and Health
SEN	Secretary of Energy Notices
SHINE	Safety & Housekeeping Implementation Needs Everyone
SME	Subject Matter Expert
SSPM	Site Specific Performance Measures
UNO	United Nations Organization
VPP	Voluntary Protection Program
WRPS	Workload Resources Planning System

B.1 INTRODUCTION

Part 851.13(b) of the Rule indicates that contractors who have implemented a written worker safety and health program, ISM description, or Work Smart Standards process prior to the effective date of the final Rule may continue to implement that program/system so long as it satisfies the requirements of the Rule. Hence, DOE believes that the integration of these existing programs with the worker safety and health program required by the Rule will eliminate duplication of effort and limit any additional burden associated with the Rule.

This Guide provides explanations, with examples, of how to meet the basic requirements for developing and implementing a worker safety and health program. Also included in are two different examples (Examples A and B) of worker safety and health programs. These examples are meant to demonstrate ways in which a worker safety and health program could be constructed. Many other approaches would be equally valid as long as they address all the requirements of the Rule. These examples DO NOT establish any new requirements and are not the only two approaches for describing a worker safety and health program that is compliant with the Rule.

The following example, Example B, consists of a Safety & Health Management Program (Program). It is confined to worker safety and health elements at a DOE non-nuclear site but clearly conveys how the elements link to the DOE integrated safety management system.

This example of a Program was prepared in accordance with the requirements of contract No. DE-xxxx-xxxxxxxxxxx; components of DOE P 450.4, *Safety Management System Policy*; and Department of Energy Acquisition Regulations (DEAR) clause 48 CFR 970.5223-1, *Integration of Environment, Safety and Health into Work Planning and Execution*. The Program establishes commitments by the contractor to integrate S&H requirements into all phases of its activities and to conduct its operations in an environmentally clean manner, protective of its workers, subcontractors, visitors, and the surrounding community, while fulfilling its mission to the National Nuclear Security Administration (NNSA). The Program is updated annually by the contractor and submitted to the NNSA/local site office (LSO) as outlined in Appendix A to Example B of this Guide. The Program defines the integrated safety management system and describes the S&H Management Systems employed to ensure that all applicable standards and criteria are identified, communicated and implemented, and that assessments of S&H programs are conducted and identified deficiencies are corrected.

The contractor has established S&H Management Systems at both its operations. S&H Management Systems are founded on the principles of the International Organization for Standardization (ISO) 14001 Environmental Management System Standard and DOE's Voluntary Protection Program (VPP) guidance. Cross-reference tables are provided in section 3.0 of this plan to correlate Integrated Safety Management System components to the elements of ISO 14001 and VPP. The S&H Management Systems are integrated with the ISO 9001 Quality Management Systems. The Management systems are certified as follows:

- VPP STAR - April 1996,
- ISO 14001 certification - May 1997,
- VPP STAR extension - August 1999
- ISO 14001 certification extension - April 2000
- ISO 14001 certification - June 2001
- VPP STAR extension - August 2002
- ISO 14001 certification extension - May 2003

This S&H Management Program together with the S&H Management System satisfy the components of DOE P 450.4, *Safety Management System Policy* as verified in September 1999 and documented in the Integrated Safety Management (ISM) System Verification Final Report and Declaration dated June 2000.

B.2 SCOPE AND OPERATING BASIS

B.2.1. GENERAL

Operating in several states, the contractor is considered to operate one facility (for the purposes of this Program) whose processes are accepted as “General Industry.” Clarification of the contractor location references and activities are defined as follows:

- Corporate International – All references to Corporate influence or performance expectations are identified as Corporate International.
- The contractor – All references to the contractor are considered inclusive of all of operations at this DOE location.

The site safety assessment for this location, approved by DOE in September 1995 and the Hazards Survey for this location approved by DOE in January 1997 classify both operations as low hazard, non-nuclear. As such, the contractor is authorized to conduct activities as a low hazard, non-nuclear facility. Should new business or modifications to existing processes exceed the identified thresholds, the necessary NNSA review and approvals will be obtained prior to process start-up.

B.2.2. S&H THRESHOLDS

The hazardous materials used or stored at this location are handled in accordance with appropriate federal regulations. Hazardous materials are divided into three categories and thresholds are identified to determine when additional regulatory or program requirements may be needed to ensure operations are within acceptable risk limits. The categories and thresholds for operations are listed below:

Energetic Material: The storage, handling, testing, use and shipping of explosives (energetic materials) by the contractor will be limited to materials shipped as United Nations Organization (UNO) Hazard Class 1, Divisions 3 (1.3) or 4 (1.4). Departmental explosive limits are established by whether the explosive device is non-propagating/non-mass detonating or propagating/mass detonating. If the explosive devices are non-propagating/non-mass detonating, department explosive limits are based on the number of devices needed for production. If a device is propagating/mass detonating, explosive limits are based on containing the maximum credible event within the operating area.

Radiological Material: the contractor operates a non-nuclear, radiological facility. Limited quantities of radioactive material are maintained for equipment calibration, analytical use, non-destructive testing, and incorporation into product at the contractor.

The contractor inventory will not meet or exceed threshold quantities of radionuclides for higher hazard class categories 2 and 3. Table A.1 of the DOE-STD-1027-92 Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Report lists the threshold quantities by radionuclide.

Hazardous Chemicals: The standards establishing hazardous chemical thresholds are OSHA's Process Safety Management (OSHA 1910.119); EPA's Risk Management Rule (40 CFR 68), Regulated HAPs and Accidental Release Chemicals; and the Threshold Planning Quantities listed in 40 CFR 355.

B.2.3. S&H RISK LEVELS

As low hazard, general industry operations, the contractor does not have the high level of risk most sites within the DOE weapons complex or DOE national labs must address. Since completion of the site safety assessment at this location, the contractor has been addressing hazards at the appropriate level using a risk-based, graded approach. The following description outlines this approach.

Catastrophic level or imminent risks (consequence high/frequency likely) have been eliminated from operations. The Preliminary Hazard Assessment (PHA) program is used to review changes and assure that no new imminent risks are introduced to the contractor environment.

Critical level or serious risks (consequence high/frequency unlikely or consequence moderate/frequency likely) have been addressed through the implementation of Job Hazard Analyses. The PHA Program is used to review changes and assure that serious risks are identified and JHAs appropriately applied.

Marginal/Negligible level or serious/de minimis risks (consequence moderate/frequency unlikely or extremely unlikely or consequence low/frequency likely, unlikely or extremely unlikely) are currently addressed through training, job classification specific knowledge, and/or department specific documentation. The contractor associates are talented, experienced, and trained to the general hazards associated with the type of work

they perform. Additional hazard identification should not be a routine requirement prior to these associates performing their normal work activities. However, the contractor recognizes that these associates might encounter higher hazard levels during performance of specific jobs and when warranted will document hazard controls in work directives or offer additional training.

Consequence:		Frequency:	
High	may cause deaths, or loss of the facility/operation, or severe impact on the environment	likely	Probability of occurrence per year > 0.10
Moderate	may cause severe injury, or severe occupational illness, or major damage to a facility/operation, or major impact on the environment	unlikely	Probability of occurrence per year ≤ 0.10 to ≥ 0.001
Low	may cause minor injury, or minor occupational illness, or minor impact on the environment	extremely unlikely	Probability of occurrence per year < 0.001

Continued operation as a low hazard, non-nuclear facility is ensured through the Preliminary Hazard Analysis process. This process requires an S&H review of new or significantly changed operations prior to activity commencement.

B.3 INTEGRATED SAFETY MANAGEMENT

The contractor has established and maintains an S&H management system founded on the principles of integrated safety management (ISM). The S&H management system is certified under ISO 14001 and DOE VPP. The management system is compliant with corporate requirements and expectations and DEAR requirements on Integration of S&H into work planning and execution. These standards and expectations together provide for a formal, organized process whereby the contractor plans, manages, performs, assesses, and improves the S&H aspects of its operations. The S&H management system supports NNSA's commitment to conduct work efficiently and in a manner that ensures protection of workers, the public and the environment commensurate with the work and the associated hazards of operations.

The Core Functions of ISM are:

- Define Scope of Work
- Analyze the Hazards
- Define and Implement Controls

- Perform Work within Controls
- Feedback and Improvement

The adopted standards that form the basis for the S&H Management System are delineated in the DOE VPP guidelines and the ISO 14001 Environmental Management System standard. The following summarizes the correlation of the ISM System components to the elements of ISO 14001 and VPP.

DOE VPP: This recognition substantiates the effectiveness of Health and Safety programs and validates conformance to the major tenets of the VPP, which are:

- Management leadership
- Associate involvement
- Worksite analysis
- Hazard prevention and control
- Safety and Health training

ISM	VPP				
	Management Leadership	Associate Involvement	Worksite Analysis	Hazard Prevention and Control	Safety and Health Training
Define Scope of Work	X				X
Analyze Hazards	X		X	X	X
Define and Implement	X		X	X	X
Perform Work within Controls	X	X		X	X
Feedback and Improvement	X	X			X

Although the recognition of DOE VPP STAR applies only to this location, the VPP principles have been integrated into the contractor operations and a DOE VPP Application has been prepared with VPP Star status expected to be achieved in FY2004.

ISO 14001: These certifications validate that environmental management system is consistent with the principles of this international standard, which are:

- Commitment and policy: General Requirements, Environmental Policy
- Planning: Environmental Aspects, Legal and Other Requirements, Objectives and Targets, Environmental Management Programs
- Implementation and operation: Structure and Responsibility; Training, Awareness and Competence; Communication; Environmental Management System Documentation; Document Control; Operational Control; Emergency Preparedness and Response
- Checking and corrective action: Monitoring and Measurement; Nonconformance and Corrective and Preventive Action; Records; Environmental Management System Audit
- Review and improvement: Management Review

ISM	ISO 14001 Elements																	
	4.1 General Requirements	4.2 Environmental Policy	4.3.1 Environmental Aspects	4.3.2 Legal and Other Requirements	4.3.3 Objectives and Targets	4.3.4 Environmental Management Program(s)	4.4.1 Structure and Responsibility	4.4.2 Training, Awareness and Competence	4.4.3 Communication	4.4.4 Environmental Management System Documentation	4.4.5 Document Control	4.4.6 Operational Control	4.4.7 Emergency Preparedness and Response	4.5.1 Monitoring and Measurement	4.5.2 Nonconformance and Corrective and Preventive Action	4.5.3 Records	4.5.4 Environmental Management System Audit	4.6 Management Review
Define Scope of Work	X			X	X			X										
Analyze Hazards			X					X					X					
Define and Implement		X		X	X			X	X		X					X		
Perform Work within Controls						X	X	X	X	X	X		X		X			
Feedback and Improvement							X	X					X	X	X	X	X	X

The S&H management system describes how the contractor establishes, documents, implements and updates S&H performance commitments consistent with NNSA program and budget guidance and direction.

B.3.1 GENERAL

The contractor designated representative responsible for all S&H issues is the President of the contractor. The location manager, S&H Operations, has primary responsibility for this location S&H activities and reports directly to the contractor president. The contractor manager of S&H, quality and facilities has primary responsibility for the contractor S&H activities and reports directly to the vice president for operations who reports directly to the contractor president.

Leaders and associates at all levels have integrated S&H into their work activities, including business planning and operations. Responsibilities for each level of responsibility are defined as follows:

Who	Responsible/Accountable for...
President	<ul style="list-style-type: none"> • Adopting and ensuring adherence to policies for S&H performance. • Maintaining a work environment wherein S&H performance is recognized as a priority by all associates.
Senior Leadership Team	<ul style="list-style-type: none"> • Building awareness by explaining and communicating its commitment to policies and values relative to S&H performance. • Ensuring that activities conform to S&H related policies, laws, regulations, and internal procedural requirements. • Assigning work and measuring performance.
S&H Management Representative (manager, S&H Operations)	<ul style="list-style-type: none"> • Ensuring that S&H management system requirements are established, implemented and maintained in accordance with VPP and ISO 14001. • Reporting on the performance of the S&H management system to management for review and as a basis for improvement of the system.
Functional managers/ managers/ Team managers (Line Management)	<ul style="list-style-type: none"> • Accepting responsibility and accountability for S&H performance associated with the work performed under their direct supervision, including: <ul style="list-style-type: none"> a) determining and allocating the resources necessary to comply with S&H related policies, laws, regulations, and program requirements; b) ensuring that associates operate in strict compliance with the policies and applicable procedural requirements in command media;

	<ul style="list-style-type: none"> c) making associates aware of their roles and responsibilities relative to the S&H programs, including emergency preparedness and response; d) determining and ensuring completion of training requirements for their associates; e) motivating associates to continually improve through encouragement to make suggestions to improve S&H performance and recognition for effecting associated improvements; and f) controlling processes, including suspension of operations for S&H reasons.
All Associates	<ul style="list-style-type: none"> • Committing and adhering to S&H related policies, values and requirements, by: <ul style="list-style-type: none"> a) accepting accountability, within the scope of their responsibilities, for S&H performance; b) taking responsibility for S&H improvements; c) anticipating and initiating action including suspension of operations to preclude any nonconformance relating to the S&H management system; d) identifying and recording any S&H problems; e) initiating, recommending, or providing solutions to those problems and verifying the implementation of solutions; and f) controlling further S&H program activities related to an area of nonconformance until the deficiency or unsatisfactory condition has been corrected.

The following programs and activities further exemplify the manner and degree to which leaders and associates are involved in S&H program development, implementation, review, and continual improvement at the contractor-managed operations.

- Preliminary Hazard Analysis: This program establishes the requirement that proposed or significantly modified work processes are reviewed for hazard identification and control prior to initiation of the work. The program requires that management or management designees describe and document proposed work

practices for review by S&H subject matter experts. Management is responsible for incorporating recommended controls prior to initiating work.

- **Six Sigma:** Six Sigma is an overall strategy to accelerate process, product and service improvements. This includes S&H and all of the other functions of the contractor. Six Sigma relies on teams to apply various tools to improvement opportunities.
- **Accident/Incident Investigation:** Natural teams of associates investigate all recordable injuries and illnesses.
- **Job Hazard Analysis:** This program establishes the requirement to identify and document work practices requiring JHAs. These work practices are those identified as a serious risk. The program requires development of appropriate JHAs or related documentation to assure hazards are identified and controls are in place and communicated prior to work being conducted.
- **Safety & Housekeeping Implementation Needs Everyone (SHINE)** –This program is one of the elements from this site’s “5S Visual Workplace” (Sort, Store, Shine, Standardize, and Sustain) and establishes a new S&H-related tour. The SHINE program consolidates the Environmental Self-Assessment Program (ESAP), Management Observing & Promoting Safety (MOPS) and Annual S&H Tours into one efficient interactive program.
- **Safety & Health Committees (this location):** These committees, as established for all three shifts and various topical areas, address issues that have global impacts to this location. The use of committees provides an opportunity to: 1) expand involvement in S&H through increased associate participation, 2) facilitate enhanced communication among all parties involved in S&H activities, and 3) guide associated continuous improvement initiatives.
- **S&H Management Audit:** This program requires management to walk their areas periodically to reinforce observed safe behaviors and practices and to facilitate interaction between associates and senior leadership.
- **Safety Process Steering Commission:** a group of senior managers including the Director who meet weekly to oversee S&H activities and review issues.
- **BSAFE (Behavioral Safety for Everyone) Steering Committee:** oversees the implementation and operation of the behavior based safety program.

The ISM Program is defined at various levels: site, facility, department, and task/worker. The site is defined as being inclusive of both NNSA and the contractor. Department level and worker level are where operations work is carried out and the highest risks are incurred. The following sections provide details on how ISM is conducted under each core function at each level.

B.3.2 DEFINE SCOPE OF WORK

B.3.2.a SITE:

Operations at this and one other location are NNSA owned, contractor operated. A mission is assigned to each operation and is defined in the operating contract. Both the LSO and the contractor must operate within the assigned mission and adhere to requirements as defined in the contract. A Performance Evaluation Plan is established between NNSA and the contractor on an annual basis. This plan is then used to evaluate the work accomplished at the operations.

Work is subject to funding through the operating expense budget. NNSA receives a budget from Congress and then must decide the funding level for each operation. LSO and the contractor receive an operating budget and the contractor must then decide how to apply allotted funding. S&H activities may be indirectly funded or may have a direct funding source, depending upon the nature of the activities. The majority of the S&H activities are indirectly funded through the plant's primary funding source, Defense Programs (DP). The labor and operating expenses for DP-funded S&H activities are forecast through internal divisional budgets, which are consolidated into plant operating requirements. The plant operating requirements, capital equipment, and General Plant Projects (GPP), constitutes the plant's DP operating budget.

S&H funding targets are derived for each functional area by forecasting the operating expenses necessary to support all programs. Major budgeting and planning assumptions are defined in applicable budget support documentation. Funds received are allocated to S&H functions as necessary to ensure compliance with all regulatory drivers. The budget formulation process includes the identification of requirements over plant funding targets. If any S&H activities are identified as requirements over target, the functional area responsible for these activities reviews the impact with the manager, S&H Operations and the applicable divisional budget coordinator to assess the associated risk. Total plant requirements over target are reviewed with the Controller and Senior Leadership, prioritized for the plant, and presented as a budget schedule in the operating budget submission.

This location's environmental restoration (ER) activities are direct funded by Environmental Management (EM). EM funded activities are budgeted through the ER Project Baseline Summary (PBS) submitted to DOE. EM funded activities are projected in the plant's Workload Resources Planning System (WRPS) with other non-core stockpile management work and incorporated into the total funding profile for the plant.

The workload prioritization process is conducted consistent with NNSA budget guidance and EM program requirements for submission of an EM Budget Prioritization plan. This process is designed to provide a defensible basis for funding decisions on S&H programs, and to effectively manage risk and achieve compliance. The following prioritization mechanism is applied:

Prioritization of plant operating budgets begins with the call for budget estimates to Divisional Budget Coordinators. This call is based on the latest NNSA budget guidance and is issued from the Finance Administration Division. Budget estimates are prepared based on personnel costs, production schedules, plant issues, known requirements (including S&H regulations & DOE/NNSA directives), and planned projects. The budget estimates are then summarized in report format for Management review. During this Management review, the priorities are established based on the NNSA-HQ DP Budget Guidance. This guidance has as its top priority, "Maintain facilities in a safe, secure, and legal status."

A final budget estimate is prepared and submitted to NNSA. Unfunded needs are reflected on a Schedule 6. The Approved Funding Program/Financial Plan is then received from NNSA.

The S&H organization has a history of having no unfunded requirements. Budget estimates are prepared based on regulatory compliance, significant aspects, policy, and continuous improvement consistent with the S&H Management System.

Current budgeting for S&H falls into the Readiness in Technical Base and Facilities (RTBF) funding mechanism. Implementation Plan data sheets are prepared each fiscal year for Environmental and Safety and Health. Quarterly RTBF reports provide visibility of S&H-driven activities (direct and indirect) throughout the organization which have been funded by Defense Programs

The S&H five-year site plan is prepared annually to document expenditures for S&H and identify upcoming needs. Long term stewardship costs are reflected in the ten-year comprehensive site plan updated annually.

B.3.2.b FACILITY:

Work received at contractor operations is in the form of traditional work or non-traditional work. The Design Agencies or National Laboratories provide the traditional scope of work. This constitutes the major mission function for the contractor. Non-traditional work or new business is subdivided into multiple categories. Reimbursable work can be for other government agencies, commercial industry, or non-routine NNSA work. This work is received with varying levels of scope provided. It might have a detailed scope or might be left to the contractor engineers to define the scope.

The contractor conducts operations at this and one other location under agreed upon DOE and industry standards. These are defined in the operating requirements database. The contractor maintains the database in conjunction with LSO following joint decisions on what requirements need to be documented. This maintenance is a contractual obligation and signatures are required from both parties prior to changes being made to the database.

In the course of transitioning from DOE Orders to industry standards and developing the Operating Requirements database, specific industrial standards could not be identified for

a number of key requirements important to NNSA and the contractor. The following requirements are included in this plan as additional commitments to ensure maintenance of the activities needed to support these value-added requirements and principles.

- The contractor will maintain a level of fire protection sufficient to fulfill the requirements for the best protected class of insurance for industrial facilities, commonly referred to by NNSA and Insurance carriers for purposes of facility classification as Highly Protected Risk (HPR).
- In lieu of the annual site environmental report, the contractor provides an annual environmental summary with references to other reports containing the environmental monitoring data and identifying concerns or issues at this site for public dissemination.
- A contractor Pollution Prevention Program Plan will be maintained and updated on a triennial basis.
- An Annual Report on Waste Generation and Waste Minimization Progress will be prepared and submitted to NNSA.

Annually, Criteria Review and Approach Documents and site Specific Performance Measures are prepared for the contractor (reference Appendix B). These criteria and measures are used by NNSA to assist in evaluating performance with regards to ISM.

Company president and senior leadership, including the manager of S&H operations, develop an annual Strategic Plan. The strategic plan documents the strategies and tactics that will be accomplished to improve performance on the NNSA contract. S&H objectives and targets are then developed to support the Strategic Plan and are derived from consideration of relevant legal and other requirements, environmental aspects, and safety and health focus areas. S&H considers technological options; financial, operational and business requirements; and the views of interested parties prior to finalizing the objectives and targets. Objectives and targets are consistent with policies reflecting commitments to respecting individuals and the environment and the prevention of injuries, illnesses and pollution. These objectives and targets are assigned to the appropriate level and function of the organization. The contractor documents and maintains these objectives and targets and monitors performance against them with regular reviews and revisions to foster desired improvements in S&H performance.

B.3.2.c DEPARTMENT/ACTIVITY:

The scope of work at the department or activity level is generally well defined. The exact format for the scope of work depends on the organization performing the work. The contractor has three basic functions with defined scope of work formats.

Operations performs the manufacturing processes in the facilities. Their work is defined by the PCD Schedule, work authorizations, the design drawings in combination with the

Manufacturing Execution System, Process Engineering Specifications, and General Process Instructions.

Facilities performs maintenance and facility upgrades, including construction, at the contractor operations. Maintenance work is conducted through the MAXIMO maintenance request system. The requestor submits the request and a maintenance planner prepares a work order within the system, including S&H concerns and personal protective equipment needs. Third-party contractors working to a set of design documents typically perform facility upgrades. These design documents, the contractor safety handbooks, and the contractor's job specific safety plan, define the scope of work for these activities.

Laboratory operations within operations perform work to laboratory test requests and follow laboratory test methods. These documents combine to define the scope of work

Other operations performed at this location have a scope of work defined by some type of request specific to the work being performed. The scope may be well defined or may be vague in nature. The PHA process, associate skills, and training are relied upon in these instances to assure safe operations.

B.3.2.d TASK/WORKER:

The contractor has a highly trained and skilled workforce. This training and skill set is relied upon on a daily basis to assure safe operations. The associates are encouraged to question the task assigned to them. The expectation is that each associate should know the scope of the work to be undertaken or should raise the issue to their management. Under the VPP program, associates have the right to stop work if they believe the work is unsafe or could be performed in a safer manner.

The contractor has established an electronic Learning Management System (eLMS) to manage associate training. This system documents training requirements and training history including completion dates for training activities. Associates can be assigned qualification training, which must be completed prior to performing the task at hand. The associate must adhere to a qualification training plan stating the controls in place until the training is completed when requirements are overdue. There is also mandated training, which is training that associates must complete by an assigned date, but is not required to perform the assigned tasks. The third category of training is developmental training. This training is assigned for the benefit of associates to help them further their careers. It is line management's responsibility to monitor associate training records to ensure completion of mandated and qualification training for associates in their organization.

As a final safeguard, managers may conduct safety briefings, job orientations, or tool box talks to assure a complete understanding of the scope of work and to raise awareness to hazards associates might face in performing new, infrequent, or higher risk tasks.

B.3.3 ANALYZE THE HAZARDS

B.3.3.a OPERATION:

This location completed an Operation Safety Assessment and received DOE approval in September 1995. The contractor completed a Hazards Survey and received DOE approval in January 1997. These documents constitute the operation level hazards analysis. Based on these assessments and accident analyses performed at operations, no Technical Safety Requirements, Safety Limits, Limiting Conditions for Operations, or Surveillance Requirements have been defined. Both operations are classified as low hazard, non-nuclear, general industry. New business or modifications to existing processes are reviewed to assure that the operations do not exceed the identified thresholds. If these thresholds are to be exceeded, NNSA review and approval will be obtained prior to process start-up.

operations are both subject to requirements under the National Environmental Policy Act (NEPA). This requirement applies to new operations and activities or changes to existing processes and activities. A NEPA determination to assess environmental impacts must be made prior to funds being expended on the project.

B.3.3.b FACILITY:

The following processes and programs are used to identify and evaluate S&H hazards, risks, and impacts at locations:

- Environmental aspects analysis
- Safety and Health focus areas
- Hazard Survey and Hazard Assessment

The contractor conducts an annual analysis of environmental hazards through the ISO 14001 environmental aspects analysis process. The environmental aspects analysis process uses data from environmental releases to air and water, waste generation, and energy consumption as the basis for a scoring process. The results of the process are a listing of the significant environmental aspects. A team of environmental staff and other functions as needed accomplishes the scoring. The scoring is conducted using the data collected, a set of aspect definition sheets, and a detail and summary scoring sheet. Activities, products, and services are scored for each aspect based on normal and abnormal operations, and scenario notes are kept for the scoring process to document the decisions reached. The scores are tabulated and a significance threshold established by the team. Those aspects scoring above the threshold are considered significant and a business considerations form is completed for each of these. The completed package is then presented to S&H Leadership for a decision on which recommended actions will be pursued. These actions become the established objectives and targets for the next year under ISO 14001.

An analysis of safety and health is also conducted by the contractor to determine the safety and health focus areas for the next year. This process is less formalized but relies

on data from OSHA recordable accidents and first aids. A team analyzes the data to determine where most injuries are occurring. This analysis allows for the establishment of focus areas and potential realignment of resources if necessary.

Emergency planning is conducted based on hazard surveys and a hazard assessment, which are updated annually. These documents review the hazards associated with potential emergency events and assess the possible off-site release of chemicals and impacts to surrounding community members. The documents are then used to plan emergency response actions, train emergency responders, and assure quick and appropriate responses in the event of a real emergency.

B.3.3.c DEPARTMENT/ACTIVITY:

The Hazard Identification and Control Decision Matrix documented on Appendix C, outlines how S&H applies hazard identification to new, modified, or restarts of equipment, processes, or materials. This decision matrix is implemented through an electronic Hazard Identification and Control system. The system is used to accomplish Preliminary Hazard Analysis, NEPA documentation, Exposure Assessments, and on-site reviews.

The Preliminary Hazard Analysis process constitutes the change management function for S&H and is the cornerstone for department or activity level hazards assessment at the contractor. A requestor or associate wanting to add or modify equipment, facilities, processes, or materials can submit a PHA to S&H staff for review. At this location this is the electronic Hazard Identification and Control system. The contractor uses a paper based request system. S&H staff will review the request and determine what hazards might be present and the controls necessary to minimize risk associated with these hazards. Implementation of the controls or elimination of the hazard are then the responsibility of the requestor or operating department with support from S&H staff. Information related to the identification of S&H hazards, risks and impacts is kept current through PHA reviews of new or modified processes, equipment and hazardous materials.

The Job Hazard Analysis (JHA) program and documents identify hazards and controls that associates will encounter as they perform higher risk activities at the contractor. JHAs offer guidance to line management in establishing training requirements for associates who are responsible to perform these tasks. Associates reading and following the guidance provided in the JHA can then control these risks through application of engineering controls, administrative controls, or wearing of personal protective equipment. These JHAs are provided to the workers electronically and are linked directly to the Manufacturing Execution System (MES) at this location simply by clicking a button. The MES provides electronic instructions on how to perform the various manufacturing, testing and assembly operations within this location.

The location Industrial Hygiene department completed a documented Hazard Assessment for each operating, maintenance, and laboratory department. These assessments are housed in the Hazard Identification and Control system and are maintained by the

Industrial Hygiene department. These assessments provide a consistent tool for documenting hazards and controls within these departments.

Various exposure assessments, surveys and evaluations have been conducted and/or are periodically performed, including but not limited to assessment of the following types of S&H hazards, risks and impacts:

- Noise
- Lead in construction/maintenance
- Drinking water quality
- Asbestos
- Confined spaces
- Musculo-skeletal disorders
- Beryllium and other carcinogenic materials

These assessments are conducted to assure that the hazard analysis is adequate and that no changes have impacted the analysis.

B.3.3.d TASK/WORKER:

The contractor relies on the S&H staff to analyze hazards at the outset of operations as part of the PHA process. Other associates are expected to utilize the S&H staff in hazard analysis when needed. The contractor S&H staff is highly qualified. S&H personnel have the education, training, experience, and professional certifications to provide effective support to operations. In-house resources are augmented with subcontract personnel to meet certain requirements or special needs. Appropriate selection criteria are developed and applied to ensure that all subcontractors hold the appropriate accreditations, licenses, certifications, or other prerequisite qualifications.

Under the VPP Program at the contractor, every associate has the right to question the scope of work or the hazards analysis prior to the commencement of work. They have the right to participate in Safety and Health issues including the hazard analysis, demonstrate continuous improvement, and become actively involved.

Associates have access to the on-line Material Safety Data Sheet (MSDS) system. This system is updated through the PHA process whenever new chemicals are brought into the operation. Associates can look up MSDSs for chemicals they will be in contact with and use the data to help analyze the hazards.

The contractor relies on the skill of the craft, training, and experience of associates to perform a final analysis of the hazards prior to performing the tasks.

B.3.4 DEFINE AND IMPLEMENT CONTROLS

B.3.4.a SITE:

The contractor operating requirements database lists the laws, regulations, DOE Orders and industry standards, including ISO 14001 and VPP that collectively define the S&H operating requirements for this location. This list defines the controls that must be adhered to the controls are then implemented at the facility, department/activity, and task/worker levels.

B.3.4.b FACILITY:

The definition of controls at the highest level can be found in the applicable policies. The contractor senior management has defined and adopted policies relative to S&H performance that:

- are appropriate to the nature, scale and S&H impacts of its activities, products or services.
- include a commitment to comply with relevant legislation and regulations and with other S&H requirements to which the contractor subscribes.
- include commitments to prevention of injuries, illnesses and pollution.
- include commitments to continuous improvement.

The contractor has established the following Operating, Quality and S&H policies to document its commitments relative to S&H.

<i>This location OPERATING POLICY</i>	<i>The contractor OPERATING POLICY</i>
<p><i>We will be preeminent in:</i></p> <ul style="list-style-type: none"> • <i>Providing products and services valued by our customers;</i> • <i>Complying with regulations and requirements;</i> • <i>Respecting individuals and the environment by preventing injury, illness and pollution; and</i> • <i>Continuously improving all processes.</i> 	<p>The contractor commits to:</p> <ul style="list-style-type: none"> • Being preeminent in providing products and services valued by our customers, • Respecting individuals, • Protecting the safety and health of our associates by integrating safety and environmental protection into our business processes, • Minimizing our environmental footprint, • Complying with regulations and requirements and • Assessing performance for continual improvement.

S&H requirements are identified to facilitate regulatory compliance and conformance with the S&H policy. S&H requirements originate from many sources, including, but not limited to—

- DOE and NNSA Orders and Secretary of Energy Notices (SEN)
- Federal, State and local laws and regulations including Executive Orders, permits and compliance agreements
- Officially adopted industry standards (recognized industry/national standards to which the contractor has subscribed and committed)

These requirements are incorporated into documented procedures to assure facility level compliance.

Facility level compliance is controlled by a set of documents collectively titled Command Media. This S&H Management Program, the S&H Management System Manual, the S&H Process, the S&H Program Model and supporting detail documents found within Command Media provide the basis of the S&H Management System.

The S&H Program Model describes functional areas within S&H. Each of these functional areas contains detail documents called process descriptions and work instructions. A *'Process Description'* describes a single process with sufficient detail to establish 'what' is to be accomplished. *'Work Instructions'* describe 'how' specific details of that process are to be accomplished. Associated documents, records and forms provide a mechanism for recording required data. These documents are established to implement legal, regulatory and other S&H requirements to which the contractor subscribes and that are applicable to its operations and activities.

A numbering system has been devised to identify command media documents. Each document is identified by a sequence of four (Process Description) or five (Work Instruction) sets of digits.

xx.xx.xx.xx.xx

|||||__ __ __ Identifies *Work Instruction*

||||__ __ __ __ Identifies *Process Description*

||__ __ __ __ __ Identifies Business Process

||__ __ __ __ __ Identifies Business Function

|__ __ __ __ __ __ Identifies Functional Business Area

The components of the Command Media system are numerically differentiated to distinguish between the governing contractor Business Model and the subsidiary Functional Areas of the S&H Program Model. The Functional Business Areas of the

contractor Business Model are assigned a '00' series (e.g., 01, 02, 03), whereas the corresponding elements of the S&H Program Model are assigned a '20' series (e.g., 21, 22, 23).

When copies of the electronic command media; S&H management program, process descriptions, or work instructions, are printed from the on-line display system, each page has a system-generated header including the document number, a statement of currency and a page number. *It should be noted relative to use of material printed from this system that the electronic system/database is the official reference.*

The Command Media system is supported by job aids and other types of controlled documents to support the management system. These documents are used as resources and tools.

As discussed in Section 3.1, Facility level objectives and targets are established and tracked. These can be considered controls for S&H as they direct completion of certain projects and activities designed to lesson S&H impacts.

The contractor has established and maintains a Records Management process that has been certified under ISO 9001 and ISO 14001 that describes procedures for identifying, collecting, indexing, accessing, filing, storing, maintaining, and disposing of records. The Records Management Handbook, as controlled by the Records Management process, establishes the minimum required retention period for records across the full spectrum of business activities and record-specific retention times are established and recorded. Record legibility, identification to the activity, process or program involved, and storage arrangements are the responsibility of each respective department.

Records (in various types of media) are maintained to demonstrate conformance to specified requirements and the effective operation of the S&H management system. Records associated with S&H programs are defined and controlled in accordance with the Records Management process. Included in this process are results of S&H compliance monitoring activities. These activity results include monitoring data, compliance inspection and self-assessment results; internal/external complaints regarding S&H; S&H hazards, risks and impacts; legal and other S&H requirements such as regulations and permits; accident/incident investigations; associate medical data; and emergency preparedness and response records.

All records are legible and are stored and retained in a way that they are readily retrievable in facilities that provide a suitable environment to prevent damage or deterioration and to prevent loss.

B.3.4.c DEPARTMENT/ACTIVITY:

Department/activity level controls are defined and implemented with the applicable work directive systems including MES, Maximo, Laboratory Test Methods, JHAs, chemical carcinogen control plans, chemical hygiene plans, WACs, and WITs.

MES Work Directives have links from the MES system to the JHAs based on the department performing the task. The MES work directives also contain warnings and some controls for associates to follow while manufacturing product. Maximo work orders contain controls in the form of instructions for identified hazards and personal protective equipment to be worn while performing the maintenance work. Laboratory test methods have limited controls built into the test methods to prevent serious chemical reactions, chemical burns, inhalation of vapors, and other related safety and health concerns.

The JHAs define hazards and the controls to be implemented during the task performance. These are documented in the electronic JHA system accessible from computers throughout the locations. Hazards and associated controls covered in the JHAs include training needed, personal protective gear to be worn, chemical warnings, proper equipment to be used, etc.

Controls for chemicals are established within Carcinogen Control Plans and Chemical Hygiene Plans. The carcinogen plans are documented within the JHA system. Chemical Hygiene plans pertain mainly to laboratory operations and are paper based.

Operational controls have been established within Process Descriptions and Work Instructions and routine monitoring is performed relative to S&H hazards, risks and impacts as discussed in Section 3.5.

B.3.4.d TASK/WORKER:

Workers are expected to adhere to the controls defined in the department/activity level documentation. Part of this documentation includes LOTO equipment specific sheets, internal permits (Hot Work, Electrical Safety, Excavation, Aisle Impairment, etc.), and check sheets.

Again the contractor relies on the skill of the craft, training, and experience to protect workers at this level. The workers have the right to stop work and question the controls.

B.3.5 PERFORM WORK WITHIN CONTROLS

B.3.5.a SITE:

NNSA-LSO and the Corporate Leadership Team are responsible for assuring that the locations are operated in a safe and environmentally protective manner. It is their expectation that all associates are responsible for their safety and the protection of the environment. This is reflected in the roles and responsibilities outlined in this plan.

B.3.5.b FACILITY:

The S&H Management Representative, currently the manager, S&H Operations, is appointed by the President, who has delegated authority and responsibility for ensuring the S&H system requirements are established, implemented, and maintained in accordance with the standards of VPP and ISO 14001. The S&H Management Representative reports on the performance of the S&H management system to the

President, staff, and NNSA for review and as a basis for continuous improvement. The S&H Management Representative reports to and has direct access to the President in matters relating to the S&H management system. Specific responsibilities of the S&H Management Representative include:

- ensuring that S&H Executive Committee meetings are convened;
- participating in the Management Reviews;
- overseeing the identification of S&H objectives and targets, administration of S&H programs, preparation and implementation of plans to change the management system, and reporting on S&H performance;
- ensuring that trained personnel and adequate resources are available to manage and maintain the S&H management system in a certifiable condition at all times;
- ensuring that all associates understand the S&H management system at a level appropriate to job requirements; and
- ensuring liaison is maintained with customers, regulatory bodies, NNSA, Corporate, and the ISO registrar on matters that relate to the S&H management system.

The S&H Management Representative and the S&H organization have the organizational authority and responsibility to:

- Administer and maintain the S&H management system and associated programs.
- Initiate action to prevent non-conformance relating to the S&H management system by notifying appropriate associates.
- Identify and record S&H management system problems.
- Initiate, recommend, or provide solutions through designated channels.
- Verify the implementation of solutions.
- Suspend an operation in the event of an out-of-control process, or to control further program activities related to an area of non-conformance until the deficiency or unsatisfactory condition has been corrected.

Line Management and associates are held accountable for S&H at this location. S&H requirements are communicated to associates and management through site-specific S&H Process Descriptions and Work Instructions. These on-line documents identify accountability and assigned responsibilities for associates and management as necessary to effect and maintain S&H compliance. Identified deficiencies or non-compliant S&H items are assigned to the responsible organization for corrective action.

Responsibility and accountability for S&H performance at the contractor is further reinforced through the following means.

- Objectives & Targets: the contractor establishes, documents, maintains and monitors performance toward S&H objectives and targets at all levels of the organization from senior management through the relevant functional departments and individuals with associated accountability for S&H performance. S&H expectations, goals, and objectives are documented through senior leadership Non-Financial Objectives (NFOs and the Annual Operating Plan). Senior leadership through the use of performance measures monitors performance and progress on S&H objectives and targets.
- IPMD: Salaried associates' performance appraisals are conducted through the IPMD, which addresses individual performance relative to S&H goals and behaviors.
- Associate Handbook: All associates can electronically access an Associate Handbook specific to their operation, which contains the disciplinary policy. Examples of unacceptable S&H conduct that could result in disciplinary action are identified in these documents, including:
 - a) Non-compliance with S&H policies, regulations, rules and work instructions;
 - b) Contributing to the falsification of records;
 - c) Failure to observe good housekeeping practices; and
 - d) Taking a negative action against an individual for exercising his/her right and responsibilities to report legitimate concerns, especially in the area of ethics, EEO, S&H, and security.
- Collective Bargaining Agreements: Collective Bargaining Agreements, applicable only to this location, require that all represented associates comply with S&H requirements. Furthermore, collective bargaining unit contracts and the Labor Relations Manual describe general and specific provisions for progressive and non-progressive disciplinary actions for S&H reasons.
- Self-Assessment: Management and associates participate in periodic S&H self-assessment activities to ensure their areas and operations are properly maintained (see Section 3.5).
- Job Descriptions: S&H responsibility is incorporated into all job descriptions for bargaining unit and salaried associates.

New associates, visitors, and subcontractors at the contractor are provided general site orientation and/or other information relative to S&H as summarized below:

- **Visitor Orientation:** Visitors to this location receive a brochure that covers security, safety and health, emergency evacuation routes, general plant information, pollution prevention, and emergency and useful telephone numbers. A video is available that summarizes this information. Visitors at the contractor receive an orientation, which covers similar topics. The visitor's host is responsible to assure this communication is completed.
- **New Hire Orientation:** New hire orientation is provided to all newly hired/rehired the contractor associates including a general S&H overview including information on the OSHA Hazard Communication Standard, Lockout Tagout (LOTO), emergency telephone numbers, appropriate responses to emergency announcements and property damage reporting. orientation also includes ISO 14001 and VPP information at this location.
- **Subcontractor Safety:** S&H requirements for construction and service subcontractors are summarized in Construction, Service Subcontract, and contractor Safety Handbooks as provided to subcontractors performing work at the contractor. Construction and service subcontractors at both locations are given safety orientations, which include construction safety, in-plant vehicle safety, LOTO, evacuation, and emergency procedures. All subcontractors at this location also receive an annual refresher on LOTO.

Current versions of approved documents are available in close proximity to functions and/or operations where they are essential to the effective functioning of the S&H management system. When documents are not directly distributed to functions and or operations, they are made available at centralized locations. Obsolete documents retained for legal and/or knowledge preservation are identified as obsolete or inactive for current use. Responsibility for control of obsolete documents is delegated to each system where these documents and data are promptly removed from all points of issue or use to prevent unintended use.

B.3.5.c DEPARTMENT/ACTIVITY:

The responsibility, authority, and interrelationship of all associates who manage, perform, and verify work affecting S&H performance is defined and documented in Section 3.0. managers carry the following responsibilities:

Who	Responsible/Accountable for...
Functional managers/ managers/ Team managers (Line Management)	<ul style="list-style-type: none"> • Accepting responsibility and accountability for S&H performance associated with the work performed under their direct supervision, including: <ul style="list-style-type: none"> a) determining and allocating the resources necessary to comply with S&H related policies, laws, regulations, and program requirements; b) ensuring that associates operate in strict compliance with the policies and applicable procedural requirements in command media; c) making associates aware of their roles and responsibilities relative to the S&H programs, including emergency preparedness and response;

	<ul style="list-style-type: none"> d) determining and ensuring completion of training requirements for their associates; e) motivating associates to continually improve through encouragement to make suggestions to improve S&H performance and recognition for effecting associated improvements; and f) controlling processes, including suspension of operations for S&H reasons.
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The contractor has established and maintains ongoing S&H programs and implements projects to ensure that activities are carried out under specified conditions by:

- establishing and maintaining procedures to cover situations where their absence could lead to deviations from the S&H policies and S&H objectives and targets;
- stipulating operating criteria in procedures; and
- establishing and maintaining procedures related to the identified significant S&H hazards, risks and impacts of goods and services used by the organization and communicating relevant procedures and requirements to suppliers and contractors.

These activities cover operations, maintenance, capital projects, process changes, resource management, property management, new products and business, packaging and shipping, and management.

Procedures associated with each of the established S&H Programs are delineated in on-line Process Descriptions and Work Instructions in Command Media, including but not limited to the following topics.

• Accident/Incident Investigation	• Affirmative Procurement	• Workers' Compensation
• Combustible & Flammable Materials	• Chemical Carcinogen Control	• Dose Limits, Occupational Exposure & ALARA
• Electrical Safety	• Confined Spaces	• Emergency Wash Stations
• Ergonomics	• Emergency Management	• Equipment Safety
• Explosives	• S&H Command Media	• S&H Committees
• Hand/Portable Power Tools	• Fall Protection	• Fire Protection
• Hoisting & Rigging	• Hazard Abatement	• Hazard Communications
• Ladder Safety	• Job Hazard Analysis	• Laboratory Safety
• Lockout/Tagout (LOTO)	• Laser Safety	• Lessons Learned
• Noise Control & Hearing Conservation	• Machine Guarding/Tagging	• Personal Protective Equipment
• Pesticides/Toxic Substances	• Occupational Medicine	• Pressure Safety
• Respiratory Protection	• Risk Management Pre-Planning (PHA)	• Safety Tags
• Sanitation & Health	• Service contractor Safety	• Temperature Extremes
• Vehicles	• Ventilation	•

Additionally, the contractor has a series of internal permits to assure control of specific hazards during performance of work. Most of these permits are used exclusively at this location but a few are also used. The permits at both operations require S&H approval prior to the work being performed. Permits in use include:

• excavation permits	• permit for energized electrical task	• construction safe work permit
• hot work permit	• life safety aisle/exit impairment permit	• fire protection shutdown request
• confined space permit	• unattended equipment operating permit	• Beryllium work permit
• safety monitoring system permit	• High Voltage Pre-Job Safety Briefing Check sheet	

B.3.5.d TASK/WORKER:

The responsibility, authority, and interrelationship of all associates who manage, perform, and verify work affecting S&H performance is defined and documented in Section 3.0. All associates carry the following responsibilities:

Who	Responsible/Accountable for...
All Associates	<ul style="list-style-type: none"> • Committing and adhering to S&H related policies, values and requirements, by: <ul style="list-style-type: none"> a) accepting accountability, within the scope of their responsibilities, for S&H performance; b) taking responsibility for S&H improvements; c) anticipating and initiating action including suspension of operations to preclude any nonconformance relating to the S&H management system; d) identifying and recording any S&H problems; e) initiating, recommending, or providing solutions to those problems and verifying the implementation of solutions; and f) controlling further S&H program activities related to an area of non-conformance until the deficiency or unsatisfactory condition has been corrected.

Corporate has established clear expectations for associates to follow the documented procedures to assure compliance with S&H requirements and the protection of associates, the plant, the community, and the environment. Associates have expectations established in their job descriptions that state:

"Conducts activities in a safe and healthy manner and works in accordance with established S&H requirements to ensure protection of associates, the public, and the environment. Takes actions necessary to "stop" work when an unsafe condition or action is identified. Every associate has the right and responsibility to stop work when unsafe conditions or actions are identified."

The contractor is committed to providing a safe and healthy environment for its associates. Associates are trained to do their jobs correctly, to use required safety and health equipment properly, and to perform work in a safe manner. Associates must follow S&H regulations and work rules. S&H work rules are found in the Associate Handbook and Command Media. Additional rules are found in other job instructions such as, JHAs, Process Engineering Specifications (PES), General Process Instructions (GPI), job aids, Travelers, Material Safety Data Sheets, high voltage work switching instructions, and manufacturer's operating instructions.

Disciplinary action – up to and including termination – may be taken for violations of S&H regulations and work rules. The severity of the discipline is discretionary and will depend on many factors including the nature and cause of the violation.

These expectations align with the Secretary of Energy's "Zero-Tolerance" policy for accidents resulting in life-threatening injuries or serious environmental impact. Additional information regarding S&H responsibilities and accountability is included in Section 3.0.

Personnel whose work relates to significant S&H hazards, risks, and impacts have received appropriate training. Line management determines required training with the assistance of S&H subject matter experts. The competency of personnel performing tasks that relate to significant S&H hazards, risks and impacts is established on the basis of appropriate education, training, and/or experience and associated training records are maintained.

This location associates have been trained and performed skills practice on intervention skills and expectations. The focus of this training program was to assure associates knew that safety intervention was a management expectation and that they were capable of giving and receiving this information.

Behavior based safety, titled BSAFE (Behavioral Safety for Everyone) is a proactive program where associates observe other associates regularly and observe specific on the job behaviors that have the potential to be precursors to accidents and injuries. A "no name, no blame" system, these observations strive to encourage safe behaviors and discourage at risk behaviors. In this way, positive reinforcement is given with the intention to prevent accidents before they happen.

B.3.6 FEEDBACK AND IMPROVEMENT

B.3.6.a SITE:

NNSA provides a Performance Evaluation Report annually with interim reports also provided to the contractor. These reports provide feedback at the site level detailing any problems, concerns, or issues and also document accomplishments.

DOE and NNSA audit the operations for S&H compliance and Integrated Safety Management implementation. These audits are performed by various organizations including Office of Oversight and Performance Assurance and contractor Performance Assessments.

B.3.6.b FACILITY:

The contractor is in the process of defining a contractor Assurance System (CAS) as required by NNSA. S&H has provided substantial input and models for this system, which is based on Command Media and the processes defined within Command Media. A flow model was prepared for each business function within the Command Media structure and each process has been evaluated under the CAS requirements to identify a risk and control level. The higher risk processes were subsequently analyzed to assure that adequate controls (metrics, assessments, reviews) are in place to assure NNSA that the high risk processes are controlled. Modifications have been made to Command Media to allow linkages, input of data, and tracking and trending of performance. The contractor is continuing to develop the CAS model. while awaiting final guidance from NNSA

Corporate completes an Assurance Tool and Letter process annually for all operations including this location and the contractor. The Assurance Tool is a questionnaire, completed through an Internet application. The Tool has questions in various categories including environmental, safety, and health. The questions are based on regulatory and corporate expectations. Upon completion of the questionnaire, the contractor submits these questionnaires to Corporate. Then an Assurance Letter is prepared and signed by the contractor president. This letter outlines any compliance issues at operations. This is submitted to the Strategic Business Unit leader for forwarding to Corporate.

As a business driver S&H has established key performance indicators around safety and health, waste generation, environmental performance, and property loss. These measurements and associated trend data are reviewed regularly by the senior leadership in the monthly S&H Executive Committee and through the semi-annual management review process.

Senior leadership reviews the S&H management system, to ensure its continuing suitability, adequacy, and effectiveness through monthly S&H Executive Committee meetings as well as twice each year through the Management Review process conducted at each location. These reviews involve the collection of the information necessary to allow management to carry out this evaluation and records of this review are documented.

S&H Executive Committee meetings are conducted each month involving S&H leadership, divisional S&H representatives, bargaining unit leadership and contractor senior leadership staff. The contractor participates in this meeting via teleconference. Information relating to the S&H management system is presented at these meetings to provide the foundation for review and its continual improvement. Consideration is given, but is not limited to, the items from the following list in selecting topics to be discussed at the S&H Executive Committee meetings.

- S&H Management System and changes to the system,*
- S&H requirement changes,
- S&H performance data relative to objectives, targets and metrics,*
- changes to S&H programs,
- changes in the contractor activities effecting S&H programs,
- corrective action and lessons learned from S&H incidents,*
- advances in S&H technologies,
- internal audit results,*
- concerns of customers or other interested parties,* and
- S&H awards and recognition.

(* Mandatory topics to be addressed at least twice each year)

Minutes and associated records of the S&H Executive Committee meetings are maintained.

Twice a year at each location, the contractor also holds Management Review meetings as required by ISO 9001 & 14001. The general purpose of these reviews is to assess and report on the performance of the management systems to senior leadership, to ensure the continued suitability and effectiveness of the systems in satisfying requirements and to serve as the basis for continuous improvement of the systems. Summary results of the S&H Executive Committee meetings are integrated into the management reviews. Assessment of the continued suitability, adequacy, and effectiveness of the S&H management system is included within the overall systems evaluation in this management review. Continuous improvement activities for both systems are identified and tracked.

The Management Review process is documented in Section 5.6 of this location's ISO 9001 *Quality Manual* and section 4.1.3 of ISO 9001 *Quality Manual*. Records of these management reviews are also maintained in accordance with the Records Management

process. Minutes of each meeting are distributed along with action items assigned during the meeting.

The contractor plans, performs, and documents S&H management system audits in accordance with established procedures. These processes cover the audit scope, frequency and methodologies, as well as the responsibilities and requirements for conducting audits and reporting results. These audits are carried out to—

- Determine whether or not the S&H management system:
 - a) conforms to planned arrangements for S&H management including the requirements of ISO 14001 and VPP;
 - b) has been properly implemented and maintained; and
- Provide information on the results of the audit to management for review.

An audit schedule is maintained to ensure ongoing evaluation of the S&H management system.

Assessment of the S&H management system is also performed at the contractor through the following programs and processes:

- VPP program self evaluations,
- subcontract third-party assessments of specific functions including ISO 14001 certification/periodical audits,
- evaluation of specific S&H programs,
- Corporate International audits including HS&E compliance audits and HS&E management system reviews, and
- third party assessments funded by Corporate International.

The contractor has established and maintains procedures, programs and other formal mechanisms for internal and external communications regarding its S&H management system, S&H program, and associated hazards, risks and impacts. These mechanisms facilitate:

- internal communication between the various functions and levels of the organization, and
- external interactions, including receipt, documentation and response to communication received from external interested parties.

Internal and external communication is accomplished using the following approaches:

- S&H Concern Lines ({816} 997-3181 at this location and {505} 844-2009 at the contractor) which allow associates to express concerns or ask questions regarding S&H issues. Questions and/or concerns received via the concern line are forwarded to the appropriate S&H professional for response and feedback.
- Emergency management, which communicates hazard assessment results, emergency plans and toxic release reports to local agencies, response organizations and community planning committees.
- S&H committees, which address S&H issues that impact the contractor. These committees provide an opportunity to expand associate involvement and facilitate communication among all parties involved in S&H activities
- DOE VPP administered by a joint labor-management team that works to increase the collective understanding and awareness of S&H throughout this location.
- Accident/Incident Investigation Program: Results of accident and incident (injury/illness, property damage, and near miss) investigations are shared with the appropriate target audiences through a lessons learned program.
- S&H Web page: The S&H web page is located on the contractor Intranet. This resource provides access to listings of S&H services, S&H information, command media, lessons learned, safety performance data, safety alerts, S&H plans, an S&H calendar, presentations, and S&H contacts. It also provides a mechanism for associates to provide feedback to S&H.
- Emergency hotlines: At this location, hotline numbers are provided for spills (7745 or "SPIL") and other emergencies (3600 to reach Patrol HQ) which are answered 24 hours a day to facilitate immediate emergency response actions. Security and S&H pager numbers are provided at the contractor for 24-hour notification and assistance.
- Information centers and Federal bulletin boards: S&H posters and information are displayed in information centers located throughout this location including:
 - a) Poster for "Occupational Safety and Health Protection for DOE contractor employees at government-owned contractor-operated facilities" which identifies associates' rights to report unsafe acts or conditions without fear of reprisal,
 - b) Posters for state worker's compensation programs encouraging associates to contact the state with concerns related to occupational injuries/illnesses including:
 - State Department of Labor and Industrial Relations Division of Workers' Compensation (this location)

- State Worker's Compensation Commission, and
- c) The Corporate Commitment to Health, Safety & the Environment.
 - Complaints: If associates feel their concerns are not being adequately answered, they may either file a written complaint to the local NNSA office and/or telephone the Office of the Inspector General and the Chief Health, Safety and Security Officer, in Washington, D. C. (1-800-541-1625)
 - Contractor Safety Symposium: All active contractors and those who are interested in working at this location are invited to an S&H symposium. Accident data is discussed as well as presentation of other S&H topics including VPP and ISO 14001. These events also include issuance of a contractor Safety and Health award.
 - Various other S&H communication activities are also coordinated by the Public Affairs organization, including, but not limited to:
 - a) Community relations, involving public release of information about environmental concerns including publication of a quarterly *Focus* newsletter, which is widely distributed throughout the local community and made available to associates;
 - c) Internal communication, including *Newsbreak* and *Quest* publications, closed-circuit TV, a face-to-face 'Two-Way Communication' program, information centers and bulletin boards located throughout the plant, and *Comments, Please!*, an anonymous associate concern line;
 - d) Media relations, involving communication with external news media, including Emergency Press Center capabilities for emergency operations; and
 - e) Periodic special events such as Earth Day activities and other community involvement and awareness campaigns.

Positive feedback for following S&H requirements, as well as helping to develop or improve S&H programs, is provided on both a formal and informal basis. All associates are eligible to receive any of a number of substantial awards under rewards and recognition program. S&H performance and contributions are among the eligibility criteria for various types of the awards, including the following:

• Special Recognition	• Above and Beyond
Jack A. Knuth Award •	• Spot Recognition

<ul style="list-style-type: none">• Associate Recognition	<ul style="list-style-type: none">• Significant Technical Achievement Rewards and Recognition (STARR) program
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B.3.6.c DEPARTMENT/ACTIVITY:

The Quality Assurance program also includes auditing of S&H programs and activities and operations. This program includes independent oversight audits of S&H activities and operations to assess adequacy and conformance to established requirements, procedures, specifications, and quality objectives. The frequency of these audits is based on applicable requirements, the importance of the activity concerned, identified needs of the organization to be audited, and the results of previous audits.

The auditing organization is independent of organizations having direct responsibility for the activity being audited. Each activity is audited against requirements found in the Operating Requirements Database. Audit results are documented in formal reports and associated records are maintained. Both management and responsible associates are notified of audit results and timely cause analysis and corrective action is required for deficiencies. When corrective action is required, follow-up verification audit activities record the implementation and effectiveness in accordance with documented processes.

Corrective actions from compliance monitoring activities and S&H management system self-assessments are formally identified, tracked and documented through the Corrective and Preventative Action Process. This process provides for team-based Root Cause Analysis, identification of related issues through assessment of global impacts, and the issuance and tracking of Corrective Action Reports (CARs) through closure. S&H program revisions and projects initiated as a result of audits, inspections, self-assessments and/or to close-out associated CARs are administered through the requirements identification and communication, prioritization, and financial systems as needed to ensure compliance with applicable S&H requirements. Furthermore, all assessment results and associated corrective action initiatives are made available to the NNSA.

The contractor has established and maintains procedures, and defined responsibility and authority, for handling and investigating nonconformance, taking action to mitigate any impacts caused, and for initiating and completing corrective and preventive action. These procedures, including Hazard Abatement process, make provisions for taking corrective or preventive actions as necessary to eliminate the causes of actual and potential nonconformance to the degree appropriate to the magnitude of problems and commensurate with the S&H impact encountered.

Procedures for corrective action include:

- effective handling of customer complaints and reports of S&H nonconformities;

- investigation of the causes of nonconformities relating to accidents/incidents, property damage, permit excursions, spills, beneficial occupancy inspections, annual S&H inspections, internal/external audits, associate concerns/near misses, customer complaints and trends identified during the management review process;
- determination of the corrective action needed to eliminate the cause of nonconformity; and
- application of controls to ensure that the corrective action is taken and that it is effective.

Procedures for preventive action include:

- use of appropriate sources of information as needed to detect, analyze, and eliminate potential causes of nonconformities using a formal lessons learned process that ties to the DOE-wide lessons learned system;
- determination of the steps needed to deal with any problems requiring preventive action;
- initiation of preventive action and application of controls to ensure that it is effective; confirmation that relevant information on action taken is submitted for management review; and
- classification of nonconformities based on severity to ensure that corrective actions are commensurate with the impact to the associates, facility, public, and environment.

Associated nonconformance and corrective and preventive action records are maintained.

Formal S&H programs, as addressed below, include many types of surveys and inspections conducted against the Operating Requirements and designed to measure conformance and monitor activities relative to S&H hazards, risks and impacts.

Noise Evaluation: Specific locations requiring use of hearing protection have been identified. Furthermore, routine annual monitoring is performed in all production areas and after any change in production, process or equipment which could significantly change noise exposure. Monitoring results can initiate the requirement for additional area mapping or personal dosimetry to be performed.

Lead in Construction/Maintenance: At this location, comprehensive surveys and monitoring are conducted to assess exposure potential to lead from maintenance and construction activities. Results of the assessment are utilized to ensure identification and proper use of personal protective equipment or that engineered controls are implemented.

Safety & Housekeeping Implementation Needs Everyone (SHINE): An effort is underway to consolidate annual S&H Inspections, Environmental Self Assessment

Program checks, and Management Observing and Promoting Safety tours into one program called SHINE. This new tool will be simpler while providing a better understanding of facility hazards and opportunities for intervention. These inspections are to be conducted by a multidisciplinary team of S&H, Management, operations, and hourly associates. These inspections include a walk-through of departments and areas to review the physical condition of the area and equipment. A formal report is issued, and the specific departments respond to corrective actions.

Subcontractor Safety: Oversight, coordination and enforcement of subcontractor safety are handled by S&H at this location. The subcontractor is also required to perform job-site inspections and to correct any violations.

On site Reviews/Beneficial Occupancy Inspections: After the completion of major renovations or construction projects, a multidisciplinary S&H inspection is performed prior to occupancy.

Ventilation Reviews: Ventilation systems used for health protection are surveyed for adequacy by the Safety & Health departments.

Medical Surveillance Examinations: Medical surveillance examinations are conducted to address a variety of potential occupational exposures. In addition, consistent with the Americans with Disabilities Act requirements, physical examination and worksite evaluations ensure that work can be performed in a safe manner. The following are examples of surveillance examinations conducted:

- Beryllium
- Chromium,
- Hazardous Materials (HAZMAT),
- Laser Eye,
- Lead,
- Methylenedianiline (MDA),
- Respirator Approval,

Exposure Assessments: Contractor operations, changes in processes, equipment and chemical use, as identified through the PHA process, are subject to an exposure assessment. This process assesses the potential for associate exposure to chemical/physical hazards and identifies necessary controls such as PPE, engineering controls and/or personnel monitoring.

Environmental Monitoring: Routine monitoring is conducted with respect to environmental program activities at this location, including:

- hazardous waste storage,
- wastewater discharges,
- air emissions, and
- groundwater contamination.

Equipment used for S&H monitoring and measurement purposes, including various instruments, tools, equipment, and systems is calibrated in accordance with associated work instructions and process descriptions and corresponding records are retained.

Associates can call extension 3999, Comments Please, and leave a message for senior leadership team response. These questions can pertain to anything including S&H issues. The message can be left anonymously or with a name for a personal response.

Annually, a review of occupational injuries/illnesses is also conducted to determine countermeasures needed to reduce injury/illness rates.

B.3.6.d TASK/WORKER:

Associates are empowered to take immediate action to correct identified hazardous conditions, stop work, and to notify line management. Associates have the option of reporting through the S&H Concern/Near-miss telephone line, providing input via the S&H web page, or submitting a written report to S&H or line management.

Maintenance associates have the opportunity to provide feedback on each maintenance work order within Maximo. At the completion of a work order, a feedback screen is available to the associates to input any issues, concerns, or suggestions that could be addressed the next time the work is to be completed.

Associates are required to complete an annual review of all JHAs that apply to their work. As part of this review they have the ability to provide suggestions for modifications to assure the JHA adequately covers the hazards and controls of the specified task.

Anytime there is an S&H concern, associates are encouraged to contact S&H directly or through their management, the S&H Concern Line, or the S&H Web Response Page. S&H tracks and assures responses are made when concerns are received.

B.4 REFERENCES

DOE P 450.4, *Safety Management System Policy*, dated 10-15-96.

48 CFR (DEAR) 970.5204-2, *Integration of Safety, and Health into Work Planning and Execution*, August 1997.

The International Standard ISO 14001, September 1, 1996.

DOE/EH-0433 Voluntary Protection Program (VPP) - Part I: Program Elements, October 1994.

APPENDIX A to EXAMPLE B

ENVIRONMENT, SAFETY AND HEALTH MANAGEMENT PROGRAM MAINTENANCE, CHANGE CONTROL, AND REVIEW PROCESS

This example of a contractor “S&H Management Program” was developed, maintained, reviewed and approved in accordance with the requirements of contract No. DE-xxxx-xxxxxxxxxx. The following process documents the methodology by which the contractor maintains the “S&H Management Program” (Program).

A. Program Maintenance

1. The Program will be maintained in accordance with established procedures and controls outlined in the contractor business model and contractual requirements.
2. The Program will be revised to reflect the contractor operations risk to the environment and safety and health of associates and the public, as necessary.
3. Revisions and/or modifications to the plan will be reviewed and approved by the contracting officer or his/her delegated representative prior to incorporation.
4. This location S&H Organization is accountable for maintaining the Plan.

B. Program Modification

1. Revisions to the Program will be made, as appropriate, during the Fiscal Year to reflect ongoing modifications of the contractor S&H Management System.
2. Annually, the S&H Organization will perform a comprehensive review of the contractor Management Systems to ensure the Program adequately reflects operations and controls.

C. Program Revision and Approval

1. The manager, S&H Operations, will review and approve all modifications to the Program prior to submittal to NNSA.
 - a. Minor revisions - Editorial or minor process improvements that do not change context or concept will be reviewed, approved, and incorporated to the Program without NNSA approval. Reference to these changes/revisions will be identified and communicated to the NNSA during the annual Program review process.

- b. Major revisions – Significant operational changes and/or issues impacting approved S&H Thresholds will require written NNSA contracting officer approval.
 - c. Annual review – In accordance with contractual requirements, the Program will be reviewed and submitted for NNSA contracting Officer approval annually.
2. The manager, S&H Operations, will transmit major revisions and annual Program updates to the NNSA-LSO for review and approval.
- a. Major revisions – Operational modifications or management system modifications that impact S&H Thresholds or represent significant risk will be formally transmitted to NNSA for review and approval prior to implementation. The transmittal will include a summation of the process modification or operational change and mitigating factors and plans.
 - b. Annual review – The S&H Organization will perform the annual Program review and submit the draft Program to NNSA/LSO by July 15 of each year. The final Program will be submitted by September 1.

APPENDIX B to EXAMPLE B

ES&H FY04 CRAD/SSPMs

(Criteria Review and Approach Documents (CRAD)/site Specific Performance Measures (SSPM))

Integrated Safety Management (CRAD)

OBJECTIVE

The contractor ensures that the Integrated Safety Management System (ISMS) is maintained, current, and effective and that information is readily available for NNSA review.

Criteria

1. The Operating Requirements Database is updated annually and maintained throughout the year, and all changes to the database have contracting Officer written approval.
2. The S&H Management Program is submitted on schedule and reflects accurate, current conditions.
3. Indicators of ISM system effectiveness are maintained, accurate, and current. Relevant records reflect continuous improvements under ISMS.
4. Support is provided for the annual ISMS update process.
5. Work activities reflect effective implementation of the five functions and seven principles of ISMS. Hazards are analyzed and controls are developed and implemented. Personnel are trained commensurate with their responsibilities.
6. Priorities are balanced within the ISMS and accurately reflect commitments made within the S&H budget submission.
7. Roles and responsibilities are clear and line management is responsible for S&H.
8. An effective process for S&H self-assessment, feedback and improvement is maintained.
9. Work occurs within the established thresholds and contractor authorization systems, in accordance with the approved S&H Management Plan.
10. Effective corrective actions to DOE-cited S&H issues are developed and implemented.

Fire Protection (SSPM-1)

OBJECTIVE

The contractor complies with contractually mandated fire protection laws, codes, standards, regulations, and the applicable portions of mandated DOE Orders relating to fire protection.

Criteria

1. A Fire Protection Program is in place that ensures compliance with contractually mandated laws, codes, standards, regulations, and the applicable portions of mandated DOE Orders.
2. Assessments are performed on design modifications and new facilities to ensure compliance with mandated codes.
3. Adequate evaluation will be accomplished to ensure that managed and operated facilities maintain a preferred or improved risk status as defined by Factory Mutual or other competent organization.
4. Members of the fire response organization are provided with refresher training specific to their assigned duties.
5. Detection and suppression systems are maintained in accordance with mandated codes.

Industrial Safety (SSPM-2)

OBJECTIVE

The contractor complies with contractually mandated Industrial Safety laws, codes, standards, regulations, and the applicable portions of mandated DOE Orders relating to industrial safety.

Criteria

1. An Industrial Safety Management Program is in place that ensures compliance with mandated codes, standards, and regulations.
2. An effective and efficient S&H Self Assessment process or an integrated set of processes is implemented to identify, fix less than acceptable S&H conditions, and provide feedback.
3. Design modifications are evaluated for compliance with applicable codes and mandated DOE Orders.

4. Management is actively involved in oversight and evaluation of safe working conditions and actions. S&H organization is staffed and structured to support management.
5. Upper-level Management actively and positively reinforces proper safety behavior and practices through the Management Observing and Promoting Safety program, or substantially equivalent programs, and maintains a visible S&H presence in plant and facility operating areas.
6. Third parties are effectively used in the primary evaluation of safety program performance.
7. Oral notifications and written submission of incident reports and injury/illness notifications are accomplished in accordance with mandated requirements.

Construction Safety (SSPM-3)

OBJECTIVE

The contractor complies with contractually mandated Construction Safety laws, codes, standards, regulations, and the applicable portions of mandated DOE Orders relating to construction safety. The contractor additionally ensures that all reasonable steps are taken to set and communicate expectations for subcontractor safety performance to drive toward "world class."

Criteria

1. A construction safety management program is in place to ensure compliance with mandated codes and standards.
2. An effective and efficient self-assessment process or an integrated set of processes is implemented to find, provide feedback, and fix less than acceptable S&H performance by both the contractor and its subcontractors.
3. Design modifications and new construction projects are evaluated for sound construction principles, maintainability, and code compliance.
4. Management is actively involved in oversight and evaluation of working conditions.
5. Oral notifications and written submission of incident reports and injury/illness notifications are accomplished in accordance with mandated requirements.

Explosives Safety (SSPM-4)

OBJECTIVE

The contractor complies with contractually mandated Explosives Safety laws, codes, standards, regulations, and DOE Orders and the applicable portions of the DOE Explosive Safety Manual relating to explosives safety.

Criteria

1. An Explosives Safety Program is in place to ensure compliance with contractually mandated laws, codes, standards, regulations, DOE Orders, and the applicable portions of the DOE Explosive Safety Manual.
2. Assessments are performed on new explosives facilities, modifications to existing explosives facilities, and new or changed explosives operations to ensure compliance with mandated codes.
3. Explosives workers and supervisors are provided with appropriate training commensurate with their responsibilities.
4. Management is actively involved in oversight and evaluation of working conditions.
5. Oral notifications and written submission of incident reports and injury/illness notifications are accomplished in accordance with mandated requirements.

Firearms Safety (SSPM-5)

OBJECTIVE

The contractor complies with contractually mandated Firearms Safety laws, codes, standards, regulations, and the applicable portions of mandated DOE Orders relating to firearms safety.

Criteria

1. A Firearms Safety Program is in place to ensure compliance with contractually mandated laws, codes, standards, regulations, and the applicable portions of mandated DOE Orders.
2. Appropriate training is provided to all personnel who handle, maintain or use firearms.
3. Management is actively involved in oversight and evaluation of working conditions.

4. Oral notifications and written submission of incident reports and injury/illness notifications are accomplished in accordance with mandated requirements.

Industrial Hygiene (SSPM-7)

OBJECTIVE

Chemical, biological, physical, and ergonomic stresses arising in the workplace are identified, evaluated and controlled.

Criteria

1. Exposure assessments are performed based on recognized exposure assessment methodologies and using accredited industrial hygiene laboratories.
2. Industrial Hygiene instrumentation is calibrated, maintained, and operated in a manner that facilitates accurate and precise measurement of personal exposure and work areas.
3. Occupational health exposures are minimized through an appropriate combination of engineering controls, administrative controls, and personnel protective equipment.
4. An internal self-assessment program is maintained for evaluating the effectiveness of the Industrial Hygiene Program.
5. Effective worker education, training and involvement is provided to ensure that associates understand the hazards they may encounter while performing their assigned tasks and know the precautions that must be taken to perform the tasks safely.
6. Records are maintained in accordance with applicable requirements and this information is readily accessible.

Occupational Medicine (SSPM-8)

OBJECTIVE

The contractor workforce is provided with health care commensurate with industry standards.

Criteria

1. An awareness of the work environment is maintained by conducting periodic worksite visits, establishing a way to obtain hazards information and participating in safety and other occupational health related meetings.

2. An assessment of the relationship between the potential job hazards and the physical and mental capabilities of employees is performed to determine the appropriate placement of employees in work that is consistent with the American's with Disabilities Act (ADA) of 1990.
3. Initial and continual assessment of the health of employees is performed for the purpose of providing early detection, treatment and rehabilitation of employees who are ill, injured or otherwise impaired.
4. The privacy of employees and the confidentiality of their medical records are maintained.
5. Emergency and disaster preparedness is provided and integrated with both the Area Hospital Association (AHA) Disaster Plan and comparable local disaster plans in this State.
6. A competent staff of professionals and support personnel is provided to meet the plant's need. Local, state, and federal licensing and continuing medical education requirements are met.

Emergency Management (SSPM-9)

OBJECTIVE

The contractor complies with applicable emergency management laws, regulations, and the DOE Order on Occurrence Reporting. Each respective facility will follow individualized Industrial Standards Emergency Management plans.

Criteria

1. An Emergency Management Program is in place to ensure compliance with applicable federal, state and local regulations.
2. The site Hazard Assessment, Emergency Plan, and Command Media (Work Instructions and Process Description) are reviewed annually and updated. Emergency Management Vital Records for contractor managed facilities are part of the Emergency Plan. Emergency Management documents for lower hazard level facilities will be reviewed and updated every 3 years.
3. Drills are conducted annually and full participation exercises are conducted every other year (for this location) with lessons learned reports developed, distributed, and used to improve the Emergency Management Program.
4. Members of the Emergency Response Organizations are provided with refresher training.

5. Oral notifications and submissions of Daily Operations and Event Reports (DOER) and Occurrence Reporting and Processing System (ORPS) reports are timely. ORPS reporting will meet the DOE O 232.1A and site specific criteria.
6. The annual Emergency Readiness Assurance Plan (ERAP) is published in a timely manner (September of each year).

APPENDIX C to EXAMPLE B
HAZARD IDENTIFICATION AND CONTROL DECISION MATRIX

