

**HPI comments are in Blue.**  
**VPP comments are in Red.**

**PREREQUISITE for all LOIs: Evidence of program being in place and implemented for at least 12 months is required.**

### **Lines of Inquiry for HAZ.1 CRAD**

- HAZ.1.Int What is your role and responsibility in performing hazard analysis and identification for your assigned work? HAZ1.2
- HAZ.1.1 What procedures/mechanisms are in place and utilized by personnel to ensure hazards (that potentially impact employees, public, or environment) associated with the work throughout the facility have been identified and analyzed **within the last three years and most hazardous jobs have been evaluated within the last 12 months?** Is the resulting documentation defined, complete, and does it meet DOE expectations? HAZ1.1
- HAZ.1.1(a) Does the execution of these procedures/mechanisms ensure personnel responsible for the analysis of environmental, health and safety concerns are integrated with those assigned to analyze the hazards (that potentially impact employees, public, or environment) for the facility or activity? HAZ1.1
- HAZ.1.1(b) Do these mechanisms ensure direction and approval from line management and integration of the requirements? HAZ1.1
- HAZ.1.2 What procedures/mechanisms are in place and utilized by personnel that describe the interfaces, roles and responsibilities of those personnel who identify and analyze the hazards (that potentially impact employees, public, or environment) for the scope of work. **(Look for Safety and health policy and safety goals and objectives, and that they are easily accessible to employees)** HAZ1.2
- HAZ.1.2(a) Are personnel assigned to accomplish those roles competent to execute those responsibilities. **(Personnel have training and experience commensurate with the job. Personnel understand, at least in general terms, what the safety and health policy, goals and objectives are).** HAZ1.2
- HAZ.1.3 Does the work authorization process ensure that controls and requirements identified during the hazard analysis are included in the work authorization documents? Does the output of AHAs and JHAs adequately identify hazards (that potentially impact employees, public, or environment) and get incorporated into work documents? HAZ1.1

- HAZ.1.4 Does the preparation of a document such as AHA, JHA, or RWP adequately and accurately account for all potential hazards (that potentially impact employees, public, or environment) of the work to be performed? HAZ1.1, HAZ1.2
- HAZ.1.4a Does the preparation of a document such as CHAP, DSA, SAR/TSR, or Criticality Safety Evaluation adequately and accurately account for all potential hazards (that potentially impact employees, public, or environment)? HAZ1.1, HAZ1.2
- HAZ.1.5 Do Pre-Job Briefings, team AHA reviews, ALARA meetings, FOSC meetings, or FRAT reviews adequately and accurately address workplace hazards (i.e. radiological conditions) and potential impacts to the public and environment associated with the work to be performed? HAZ1.1
- PJB.6- Were safety requirements and use of proper PPE discussed in the pre-job briefing? e.g., IH hazards & controls, physical hazards, lifting techniques, barricades, pinch points tripping hazards, L/T, heat stress, fitness for duty, etc.
  - PJB.7- Were radiological conditions and controls discussed in the
    - pre-job briefing? e.g., RWP suspension guides, review of RWP
    - and ALARA if applicable, current and expected radiological
    - conditions, contamination control methods, etc.
- HAZ.1.6 Are all of the necessary subject matter experts (e.g. ECA, QA, IH, Criticality Engineers, etc) properly involved in the hazard analysis process for AHAs and JHAs? HAZ1.2
- HAZ.1.7 When unexpected changes in work activities or scope require re-analysis of hazards (that potentially impact employees, public, or environment), does the worker/planner ensure all of the necessary subject matter experts are involved in the reanalysis? How do the results of the re-analysis get incorporated in the work control documents? HAZ1.1
- PJB.8 - Did the PIC reinforce Timeout for unexpected results, changing conditions, change in work scope, etc.?

### **Lines of Inquiry for HAZ.2 CRAD**

- HAZ.2.Int What is your role and responsibility in identifying and implementing controls for hazards identified in your work area? (verify that employees, including hourly workers, demonstrate ownership of program and use “we” more than “they” when discussing safety)

- HAZ.2.1 What procedures/mechanisms are in place to develop, review, approve and maintain current all elements of the facility Authorization Basis Documentation with an integrated workforce?
- HAZ.2.2 What procedures/mechanisms that identify and implement appropriate controls for hazards mitigation within the facility or activity are developed and utilized by workers and approved by line managers. Do these procedures/mechanisms reflect the set of safety requirements agreed to by DOE?
- HAZ.2.3 Are standards and requirements appropriately tailored to the hazards (that potentially impact employees, public, or environment)?
- HAZ.2.4 What procedures/mechanisms are in place to develop, maintain, and utilize Authorization Agreements?
- HAZ.2.5 What procedures/mechanisms are in place to effectively and accurately implement all aspects of the Authorization Basis?
- HAZ.2.6 Does the development, review, and approval of work implementation documents (e.g. RWPs, work packages, procedures) adequately and accurately identify controls to mitigate the hazards identified for the work to be performed? Are competing hazards appropriately addressed? HAZ2.2
- HAZ.2.7 Do management review/oversight meetings (e.g. SIRC and FOSC) adequately address the controls necessary to mitigate hazards identified for the work to be performed? HAZ2.all
- HAZ.2.8 Is the flow down of requirements from Safety Basis documents accurately and adequately addressed in the development of work packages or procedures? HAZ2.5
- HAZ.2.9 Are identified hazard controls, including hazard elimination, engineering controls, administrative controls and PPE, properly implemented in accordance with work control documents? HAZ.2.2, HAZ 2.3
- HAZ.2.10 Do upper tier documents (e.g. AAs, Safety Basis Documents, FHAs) accurately and properly reflect the hazards identified in AHAs and JHAs? HAZ2.4
- HAZ.2.11 Does the identification of controls and the control strategy to mitigate hazards (that potentially impact employees, public, or environment) identified for the work to be performed reflect a hierarchy of hazard elimination, engineering controls, administrative controls, and personnel protective equipment usage? HAZ2.2, HAZ2.3

- PJB.6- Were safety requirements and use of proper PPE discussed in the pre-job briefing? e.g., IH hazards & controls, physical hazards, lifting techniques, barricades, pinch points tripping hazards, L/T, heat stress, fitness for duty, etc.

HAZ.2.12 When unexpected changes in work activities or scope produces new hazards (that potentially impact employees, public, or environment) to be mitigated when performing the work, does the worker/planner ensure that adequate and proper controls are identified and implemented? HAZ2.2

HAZ.2.13 Are ergonomic hazards mitigated at work stations?

HAZ.2.14 Are identified hazards clearly documented and tracked from discovery to corrective action and closure?

**HPI comments are in Blue.**

**VPP comments are in Red.**

**PREREQUISITE for all LOIs: Evidence of program being in place and implemented for at least 12 months is required.**

### **Lines of Inquiry for MG.1 CRAD**

- MG.1.1.Int What are your roles and responsibilities with regard to **identifying and prioritizing** mission-related tasks and processes, modifications, and work items?
- MG.1.C1 Procedures/mechanisms that require **line management to identify and prioritize** mission-related tasks and processes, modifications, and work items are in place and utilized by personnel.
- MG.1.4 Are functions, responsibilities, and authorities documents pertaining to planning and scheduling maintained and up to date?
- MG.1.5 Are interfaces between work groups defined and appropriately implemented?
- MG.1.6 Do the interfaces define roles and responsibilities? Discuss the procedures/mechanisms that are used to define clear roles and responsibilities **(with no gaps or overlaps in these responsibilities)** and to prioritize work –for self performed work and subcontracted work to ensure that safety is maintained at all levels.
- MG.1.11 Are the proper levels of line management and support management involved in work definition, planning and prioritization activities, such as planning meetings and long-range scheduling meetings? (observe)
- MG.1.14 Is work prioritized and scheduled using a project mentality?
- MG.1.15 How well are tasks being prioritized and scheduled being completed according to established schedules?
- MG.1.18 Have work activities and projects **(including environmental protection activities)** been properly planned, reviewed and authorized?

### **APPROACH:**

**Record Review:** Review the facility or activity long-range planning documentation. This should include such items as: summary schedules, plan of the week, long-range maintenance schedules, modification schedule, etc. Review

the procedures and mechanisms that line managers utilize to identify and prioritize mission-related tasks and processes, modifications, and work items.

Interviews: Interview management personnel responsible for the identification and prioritization of work. This should include personnel such as those responsible for long-range planning documentation, schedule preparation, etc.

- MG.1.C2 Procedures/mechanisms in place and utilized by personnel that **define roles and responsibilities for the identification and prioritization** of mission-related tasks and processes, facility or process modification, and other related work items. Personnel assigned to the roles are competent to execute these responsibilities.
- MG.1.7 Give an example of a time when one of your workers exercised “Stop Work” or Time Out authority and explain the impact to your schedule and how it was managed.  
ERT.6 - Can the workers explain when and how to call a Timeout?  
  
ERT. 7 - Do the workers understand why a Questioning Attitude is important?
- MG.1.8 Are responsibilities clearly assigned to assure worker involvement in the work planning? Explain.
- MG.1.9 Are roles and responsibilities of subject matter experts established? Explain.
- MG.1.10 Are authorities integrated into work control and planning procedures of facility managers and other organizations (e.g. ES&H Support orgs, etc)? Explain. Is the right level of authority vested in the right people?
- MG.1.12 Are the proper management levels included in organizational documents that define responsibilities for identification and prioritization of specific mission discrete tasks, mission process operations, modifications and work items?
- MG.1.13 Are the personnel responsible for identification and prioritization of tasks, operations, modifications and work items competent and qualified to do so?
- MG.1.19 Are employees aware of VPP and of their right to express their concerns to management, employee concerns or DOE?

APPROACH:

Record Review: Review organizational documentation to determine the personnel positions with responsibility associated with this objective. Review the position description for those positions. Review the personnel records that identify the individual qualifications that meet the elements of the position descriptions.

Review any training or qualification material including in training and qualification manuals that support gaining or verifying competence to fill the positions.

Interviews: As appropriate

Observations: Observe work definition and planning activities such as plan of the week meetings, long-range scheduling meetings, etc

MG.1.C3 Are procedures/mechanisms in place and being utilized by personnel that ensure identified work (i.e., mission-related tasks and processes, processes or facility modification, maintenance work, etc.) **can be accomplished within the standards and requirements (including manufacturer recommendations)** identified for the facility? (If not already provided, obtain copy)

MG.1.16 Are Pre-Job Briefings effective in communicating work scope, prerequisites (including training), and permit requirements to all workers? Are job-specific and area hazards adequately communicated by management to all workers before the start of work?

ERT.4 - Do the workers use the correct Three -Way Communication technique?

- Sender speaks to receiver
- Receiver repeats-back
- Sender acknowledge

MG.1.17 Is an effective process defined and implemented that describes the interface requirements between facility managers, operations, support organizations and maintenance to ensure that identified work does not overlap and cause conflict?

#### APPROACH:

Record Review: Review the procedures and/or mechanisms that are utilized by the facility or activity to ensure that identified work is accomplished in accordance with established standards and requirements.

Interviews: As appropriate

Observations: As appropriate

Examples of types of records to be reviewed:

- Manual 1Y, Procedure 8.20, Work Control Procedure
- Manual 2S, Procedure 5.1, Conduct of Operations
- Long-Range Summary Schedules: facilities or areas
- Plan of the Week: facilities or areas
- Work Window Schedule: facilities or areas
- Shift Orders: facilities or areas
- Pre-job briefing documents
- ALARA review documents
- Area Management process documents/Technical Works Documents/approved work packages
- Facility-specific guidance for work prioritization: facilities or area
- Area specific organization charts: facilities or areas
- Facility documentation that identifies personnel responsible for work prioritization and implementation: facilities or areas
- TRAIN history or other training documentation for selected personnel responsible for work prioritization and implementation: facilities or areas
- Training requirements for personnel responsible for work prioritization and implementation: facilities or areas

Examples of types of interviewees:

- President
- Executive Vice President, Business
- Executive Vice President, Operations
- Vice President, Site Integration
- Vice President, Nuclear Materials Operations
- Director, Savannah River National Laboratory
- Manager, Special Projects
  - Selected Facility Managers
- Work Management Center Manager

Examples of types of observations:

- Senior Management Staff Meeting
- President's Zero Incident Council Meeting
- Scheduled Meetings: facilities or areas
- Pre-job briefings
- ALARA reviews
- Work Windows Critique
- Post-job reviews and/or Fact Finding Meetings
- Long-Range Scheduling Meetings: facilities or areas

## Lines of Inquiry for MG.2 CRAD

- MG.2.1.Int What are your roles and responsibilities with regard to ensuring that safety is maintained for all work?
- MG.2.C1 **Procedures and or mechanisms are in place that define clear roles and responsibilities within the facility or activity to ensure that safety is maintained at all levels.**
- MG.2.5 Has the responsibility for determining facility-operating limits, based on hazard analysis processes, been assigned?
- MG.2.6 Are senior managers walking their spaces in the work area?
- MG.2.7 Are stop work responsibilities clearly defined and communicated? When and how frequently?
- MG.2.11 How often do you see members of management above First Line Managers in the field observing work?

### APPROACH:

**Record Review:** Review facility or activity manuals of practice that define roles and responsibilities of personnel responsible for safety. Review position descriptions and other documentation that describe roles and responsibilities related to ensuring safety is maintained. The review should consider personnel in line management and staff positions and should evaluate whether line managers are responsible for safety.

**Interviews:** Interview selected personnel at all levels of facility or activity management who are identified by the record review above. Verify their understanding and commitment to ensuring that safety is maintained for all work at the facility or activity.

**Observations:** As appropriate

- MG.2.C2 Facility or activity **procedures specify that line management is responsible for safety.**
- MG.2.12 Do weekly planning meetings, PODs, event fact finding meetings, safety training sessions, and safety meetings demonstrate that clear roles and responsibilities are established and understood. Are line managers actively involved with decisions affecting safety, and that managers and workers are competent to perform their duties?

**FFM.1 - Do the Fact Finding Directors schedule and invite the necessary participants per 2S, Procedure 5.2?**

FFM.2 - Do the Fact Finding Directors evaluate and identify aspect using the Anatomy of An Event (AOE)?

- Initiating Actions
- Error Precursors
- Flawed Defenses
- Latent Organizational Weaknesses (If possible)

FFM.3 - Are the results for the Fact Finding Meeting being tracked in the STAR system?

FFM.4 - If Corrective Actions are identified, are they being processed by Manual 1-01, Procedure 4.23, Corrective Action Program?

MG.2.13 Are proper follow-up actions being implemented for injuries?

MG.2.14 Are injury reports for the past year analyzed to determine commonality?

MG.2.15 Do corrective actions taken in response to injuries address root causes of the injuries and address site wide implications?

CAP.3 - Are the CAs adequate for the issues and will they prevent recurring problems?

#### APPROACH:

**Interviews:** Interview a selected number of supervisors and workers to determine their understanding of competency requirements and their commitment to performing work safely.

**Observations:** Observe scheduled activities that demonstrate that clear roles and responsibilities are established and understood, that line managers are actively involved with decisions affecting safety, and that managers and workers are competent to perform their duties. Activities such as weekly planning meetings, plans of the day, event critiques, safety training, and safety meetings are typical events that may provide good examples of the safety training and decision-making process.

MG.2.C3 Procedures and or mechanisms are in place that ensure personnel who **supervise work have competence commensurate with their responsibilities.** (Look at top management through first line supervisors)

MG.2.9 What defines minimum competency requirements for your position? What are those minimum requirements?

## APPROACH:

Review the procedures established to ensure that managers and the work force is competent to safely perform work.

Record Review: Review the procedures established to ensure that managers and the work force is competent to safely perform work.

Review the records of qualification and certification as applicable.

Interviews: Interview selected personnel at all levels of facility or activity management who are identified by the record review above. Verify their understanding and commitment to ensuring that safety is maintained for all work at the facility or activity. Interview a selected number of supervisors and workers to determine their understanding of competency requirements and their commitment to performing work safely.

Observations: As appropriate

MG.2.C4 Procedures and/or mechanisms are in place that ensure **personnel performing work are competent** to safely perform their work assignments.

MG.2.9 What defines minimum competency requirements for your position? What are those minimum requirements?

MG.2.8 **(Moved to MG.3)** How are corrective actions developed and implemented in response to an injury? How are these corrective actions communicated?

CAP.4 - Are CAs implemented as scheduled and in a timely manner?

CAP.5 - Are the CAs achievable, measurable, and closeable and do they clearly state the deliverable?

CAP.6 - Is the closure statement sufficiently detailed to allow an independent reviewer to come to similar conclusion?

CAP.7 - Does the objective evidence for closure adequately address the CA and is it attached or referenced in the STAR system?

## APPROACH:

Record Review: Review the records of qualification and certification as applicable.

Interviews: Interview selected personnel at all levels of facility or activity management who are identified by the record review above. Verify their understanding and commitment to ensuring that safety is maintained for all work at the facility or activity. Interview a selected number of supervisors and workers (see definition) to determine their understanding of competency requirements and their commitment to performing work safely.

Observations: As appropriate

Examples of types of records to be reviewed:

- Manual IY, Procedure 8.20, Work Control Procedure
- Manual 2S, Procedure 5.1, Conduct of Operations
- Facility-specific documents that define roles and responsibilities for personnel responsible for safety: facilities or areas
- Facility-specific Training requirements/Procedures
- TRAIN history or other training documentation for:
  - Shift Managers
  - Operations First Line Managers
  - Radiological Control First Line Managers
  - Maintenance Managers
  - Construction Foremen
  - Operators
  - Radiological Control Inspectors
  - Maintenance Mechanics, Three Construction Craft, and
  - Subcontractors personnel

Examples of types of interviewees:

- Vice President, Operations
- Selected Facility Managers
- Selected Operations Managers
- Radiological Control Manager
- Maintenance Manager
- Selected Construction Foremen
- Selected Operations Shift Managers
- Selected Cognizant Engineers
- Selected Operations First Line Managers
- Selected Radiological Control First Line Managers
- Selected Maintenance First Line Managers
- Selected Operators
- Maintenance Mechanics
- Radiological Control Inspector
- Industrial Hygienist
- Representatives from Construction Crafts
- Subcontractor personal

Examples of types of observations, if available:

- Facility/Area safety meetings
- Facility Manager staff meetings
- A ConOps pause
- A facility time-out
- Plan of the Day meeting/Pre-job briefing
- Work Windows Critique
- ALARA reviews
- Fact Finding Meeting
- Injury follow-up actions taken

### Lines of Inquiry for MG.3 CRAD

- MG.3.1.Int    What are your role and responsibility in providing feedback and continuous improvement progress?
- MG.3.C1      Procedures and/or mechanisms are in place and utilized by personnel to **collect feedback** information such as self assessment, monitoring against performance objectives, occurrence reporting, and routine observation. Personnel assigned these roles are **competent** to execute these responsibilities.
- MG.3.6        Are managers, workers and subcontractors held accountable for ES&H performance through established and meaningful performance indicators?
- MG.3.12      Are procedures/mechanisms in place and being used that define a feedback process for self-performed work and subcontracted work to ensure that safety is maintained at all levels?
- MG.3.14      Are responsibilities clearly assigned to assure worker involvement in the feedback process?
- MG.3.15      Are roles and responsibilities of subject matter experts established in the feedback process?
- MG.3.17      How are management and workers both providing feedback information as appropriate to ensure continuous improvement?
- MG.3.19      Are managers, workers and subcontractors held accountable for providing continuous improvement feedback?

#### APPROACH:

**Record Review:** Review the performance monitoring documentation for the feedback and continuous improvement process. This should include such documents as occurrence reports, shift orders, deficiency reports, post-job

reviews, safety observer reports, employee concerns programs, and reports of self assessments.

Interviews: Interview personnel responsible for administering the feedback and continuous improvement progress. This should include personnel such as those responsible for occurrence reporting, lessons learned preparation, shift orders preparation, worker concerns program, self assessment, and oversight.

Observations: As appropriate

MG.3.C2 Procedures are in place to develop feedback and improvement information opportunities at the site and facility levels as well as the individual maintenance or activity level. The information that is developed at the individual maintenance or activity level **utilized to provide feedback and improvement** during future similar or related activities.

MG.3.10 Are functions, responsibilities and authorities documents pertaining to feedback and improvement maintained and up to date?

MG.3.11 Are feedback interfaces between work groups defined and appropriately implemented? Do the interfaces define roles and responsibilities?

MG.3.20 Are Pre-Job Briefings effective in communicating feedback from Post-Job **Reviews** of similar tasks?

PJB.5 - Did the PIC discuss if we had performed the task before, what the critical steps were, what mistakes might happen, and what kind of defenses should be considered?

MG.3.21 Do workers understand that feedback is an integral part of all five ISM Core Functions?

MG.3.22 Do workers understand what feedback mechanisms are available to them in the field?

#### APPROACH:

Record Review: Review procedures for work to determine that adequate feedback and improvement mechanisms are in place at the individual maintenance or activity level.

Interviews: Interview personnel responsible for capturing and utilizing feedback and improvement information during individual maintenance or other work activities.

Observations: Observe development and utilization of feedback and continuous improvement activities. This should include such things as conducting post-job critiques, monitored evolutions, post ALARA reviews, conducting a self-assessment or independent assessments, etc

MG.3.C3 Procedures and/or mechanisms are in place and utilized by managers to **identify improvement opportunities**. Evaluation and analysis mechanisms should include processes for translating operational information into improvement processes and appropriate lessons learned

MG.3.7 Does line management use performance metrics and feedback processes to hold support organizations, as well as individuals, accountable for ES&H performance?

MG.3.8 Are lessons learned, including near miss information and post-job reviews, consistently and appropriately incorporated into subsequent training and work documents, as well as the work control process?

QET.1 - Did the worker check for lessons learned/operator experience on this task before performing it?

MG.3.9 Are lessons from operating experiences within and outside the contractor organization developed and communicated for use in work planning and performance?

MG.3.18 How are senior managers coaching and providing feedback in the work area?

MG.3.23 Do Post-Job **Reviews**, monitored evolutions, post-ALARA reviews, self-assessments and independent assessments develop and utilize feedback and continuous improvement activities?

#### APPROACH:

Record Review: As appropriate

Interviews: As appropriate

Observations: As appropriate

MG.3.C4 Procedures and/or mechanisms are in place and being utilized by managers to **consider and resolve recommendations for improvement**, including worker suggestions.

MG.3.13 Do workers and managers understand what “Stop Work” authority means? Give an example of a time when one of your workers exercised “Stop Work” authority and explain how feedback was

- provided to make improvements for the next iteration of the same task. Is feedback on stop work clearly communicated back to the field (closing the loop on issues)?
- MG.3.24 Do organizational and manual/procedure changes made at the facility level as part of the hazard tailoring effort correlate to deficiencies noted in internal and external assessments/evaluations?
- MG.3.25 Does performance monitoring documentation for occurrence reporting, shift orders, deficiency reporting, post-job reviews, safety observer reporting, employee concerns program, FEB ISMEs and self-assessments adequately and accurately reflect the feedback and continuous improvement process?
- MG.2.8 How are corrective actions developed and implemented in response to an injury? How are these corrective actions communicated?

CAP.4 - Are CAs implemented as scheduled and in a timely manner?

CAP.5 - Are the CAs achievable, measurable, and closeable and do they clearly state the deliverable?

CAP.6 - Is the closure statement sufficiently detailed to allow an independent reviewer to come to similar conclusion?

CAP.7 - Does the objective evidence for closure adequately address the CA and is it attached or referenced in the STAR system?

#### APPROACH:

Record Review: As appropriate

Interviews: As appropriate

Observations: As appropriate

- MG.3.C5 Procedures and/or mechanisms are in place, which include a process for **oversight that ensures that regulatory compliance is maintained.**
- MG.3.16 Are authorities integrated into feedback processes and procedures of facility managers and other organizations (e.g., ES&H Support) such that improvements can effectively be implemented?

MG.3.26 Does data from operations procedures, maintenance procedures and work package instructions and RadCon procedures adequately reflect the effectiveness of implementation of these processes?

**APPROACH:**

Record Review: Review actual data from these processes to evaluate the effectiveness of the implementation of these mechanisms.

Interviews: As appropriate

Observations: As appropriate

Examples of types of records to be reviewed:

- SIRIM Reports
- Fact Finding Report
- Shift Orders,
- Issue Reports
- Post-Job Reviews
- ALARA Reviews
- BBS Observations
- Employee Concerns
- Self-Assessments
- FEB ISME Reports
- Lessons Learned reports
- Performance Analysis Reports
  - SRNS Internal
  - DFNSB
  - DOE
- STAR
- Selected Self-Assessments
- Take 5 On Line reports
- Facility Manager Forum Minutes
- Management Field Observations/Management Evolution Reports
- Selected Operations Procedures (involving transfers of radiological material, operation of Safety Basis equipment, handling of radiological or hazardous material, etc.): facilities or areas
- Selected Maintenance Procedures or Work Package Instructions (involving calibration of Safety Basis equipment, maintenance of critical equipment, decommissioning of facility equipment): facilities or areas
- Selected Radiological Control Procedures (involving source check of radiological monitoring equipment, etc.): facilities or areas
- Injury reports for the past year
- Specific corrective actions taken in response to the injuries
- Selection of organizational and manual/procedure changes at the facility level made as part of the hazard tailoring effort

Examples of types of interviewees:

- Lessons Learned Coordinator (site-wide and facility/area)
- SIRIM Reporting Official (site-wide and facility/area)
- Employee Concerns Manager
- Self-Assessment Coordinator
- FEB Manager
- HPIJ' VPP/BBS leads/coordinators
- Operations Manager
- Work control planner
- Maintenance Manager
- Maintenance First Line Manager
- Maintenance mechanic
- Radiological Controls Manager
- Radiological Control Inspector
- Radiological Controls First Line Manager
- Construction Forman
- Construction Craft personnel
- Cognizant Engineer
- Operations First Line Manager
- Operator
- Industrial Hygienist
- Subcontractor personnel

Examples of types of observations

- Facility Manager Forum
- Post-job briefing
- Fact Finding meeting
- Senior Management staff meeting
- Facility Manager staff meeting
- President's Zero Incident Council meeting

**HPI comments are in Blue.**

**VPP comments are in Red.**

**PREREQUISITE for all LOIs: Evidence of program being in place and implemented for at least 12 months is required.**

### **Lines of Inquiry for OP.1 CRAD**

- OP.1.1      What procedures/mechanisms are in place to ensure that work planning is integrated at the individual maintenance or activity level fully analyzes hazards and develops appropriate controls? (If not already provided, obtain copy)
- OP.1.2      What procedures/mechanisms are in place which ensure that there is a process used to confirm that the facility or activity and the operational work force are in an adequate state of readiness prior to authorizing the performance of the work? (If not already provided, obtain copy)
- OP.1.3      What procedures/mechanisms are in place which ensure that there is a process used to gain authorization to conduct operations? (If not already provided, obtain copy)
- OP.1.4      What procedures/mechanisms are in place which ensure that safety requirements are integrated into work performance? (If not already provided, obtain copy)
- OP.1.5      What procedures/mechanisms are in place which ensure that adequate performance measures and indicators, including safety performance measures are established for the work? (If not already provided, obtain copy) **Are operating procedures reviewed and updated, as necessary, at least annually?**
- OP.1.6      Do workers (see definition) actively participate in the work planning process?
- OP.1.7      What procedures/mechanisms demonstrate effective integration of safety management? (If not already provided, obtain copy)
- OP.1.8      What is your understanding of your role in authorizing, performing and measuring the performance of work?
- OP.1.9      What is your understanding of HPI principles and how HPI principles are integrated into the performance of work?

ERT.2 - Can the workers identify the error reduction tools for the site?

ERT.3 - Was Self Checking (STAR) used during the task?

- Stop
- Think
- Act
- Review

ERT.4 - Do the workers perform the Peer Checking observes before and during execution?

ERT.5 - Do the workers verify that the procedure is the correct revision of the procedure, and that the steps can be follow as written?

ERT.6 - Verify that the workers are using Phonetic Alphabet when communicating equipment operations.

ERT.7 - Do the workers use Place Keeping during procedure performance?

OP.1.10 What is your role in ensuring proper hazard control of work is in place in your facility? (ask for examples)

OP.1.11 How do you measure safe work?

OP.1.12 What is your role in preparing and ensuring lockouts for work in your area?

OP.1.13 What is your role in ISM integration of work practices in your area of responsibility? Did that role change with organizational realignment following SRNS transition to the M&O contractor? If so, how seamless or smooth was the transition change?

OP1.14 Is command and control present with the line organization during Facility Shift Turnover meetings? (observe)

OP.1.15 Is line management involved in prioritization of work activities commensurate with facility resources during Facility Schedule meetings? (observe)

OP.1.16 Are all of the Core Functions of ISM well integrated into the conduct of Pre-Job Briefings? Does the operations or maintenance work force demonstrate readiness to perform the authorized task?(observe)

- OP.1.17 Are the roles and responsibilities of work performance properly aligned with facility needs during the facility work scheduling process? (observe)
- OP.1.18 Is the proper line management involved during the Facility Work Authorization process? Is the operations or maintenance work force ready to perform task prior to authorization of task?(observe)
- OP.1.19 Is proper Facility configuration control/status maintained by the proper command authority during Facility maintenance work/procedure performance? (observe)
- OP.1.20 Are workers adequately involved and engaged in LSIT/BBS and HPI initiative activities? (observe)
- QET.1 - Do the workers understand what the worst thing is that could happen during this job?
- QET.2 - Can the workers identify any barriers or defenses in place for this work that helps prevent an event?
- QET.3 - Can the workers identify the critical steps in this job and how we ensure they are performed correctly?
- QET.4 - During the pre-job brief or prior to starting the job, were any error-precursors/ error likely situations identified? Was anything done to mitigate them?
- OP.1.21 Is there visible evidence of BBS/HPI culture during field activities? If so, is the evidence aligned with Site goals? (observe)
- ECR.1 – Do the workers identify errors in the field? How do these errors get communicated and documented?
- ECR.2 - Are the workers using the error coding and reporting processes to identify errors in the workplace?
- OP.1.22 Is management actively involved during Facility performance meetings? (observe)
- OP.1.23 Are company oversight activities (e.g., IH, Safety Engineer, RadCon, QA, STR, etc.) **including IH monitoring and sampling**, adequately engaged during in-process work activities? (observe)
- OP.1.24 Are the Core Functions of ISM integrated into work performance during remote worker activities? (observe)

- OP.1.25 Is proper worker protection ensured during LO/TO authorization, installation, and holder acceptance for control of hazardous energy? (observe)
- OP.1.26 Are safety requirements adequately integrated into work performance during the work authorization process? (observe)
- OP.1.27 Are workers adequately involved in each step of the work planning, authorization and performance during PODs and Pre-Job Briefs? (observe)
- OP.1.28 Is the division of responsibility, worker involvement, and work authorization adequate during the planning, authorization and conduct of work for individual maintenance and activity level tasks? (document review)
- OP.1.29 Are the performance measures and performance indicators being used direct indicators of how safely work is being performed? Is line management properly involved in the development and use of performance indicators? (document review/observe)
- OP.1.30 Do the mechanisms used to prepare authorization agreements and protocols adequately demonstrate effective integration and that proper procedures are followed to prepare, review and approve them? (document review)
- OP.1.31 Are all appropriate disciplines integrated into the development and approval process for work packages? (document review)
- OP.1.32 Are proper controls of work scope, hazards identification and mitigation, and feedback processes for work performance included in Facility Pre-Job Briefing documents? (document review)

PJB.1 - Do the lead or primary operators/mechanics/workers participate in an interactive briefing discuss their role/responsibility in the activities?

PJB.2 - Do the workers perform a task preview aimed at systematically identifying error-likely situations before starting field execution of a task? (SAFER)

- Summarize error-likely steps
- Anticipate error-likely situations
- Foresee consequences
- Evaluate defenses
- Review lessons learned

PJB.3 - Did all required personnel attend the pre-job briefing? e.g., OPS, RCO, Maintenance, E&I, Construction, Engineering, Waste, Safety, IH.

PJB.4 - Did the Person-In-Charge (PIC) discuss the scope and complexity of work in the pre-job briefing? e.g., review status of equipment/facility, review technical work documents, permits procedures and work instructions.

OP.1.33 Do radiation Work Permits contain adequate controls? (document review)

OP.1.34 Do the output documents and requirements from approved Assisted Hazard Analyses and Job Hazard Analyses adequately incorporate identification of hazards and control of hazards into work control documents? (document review)

OP.1.35 Are the proper development, reviews and documented references and walkdowns included in approved LO/TO orders? (document review)

OP.1.36 Is the Facility implementing an HPI Plan? If so, what is the implementation strategy to capture Site HPI initiatives? (document review)

OP.1.37 Are LSIT/BBS plans being sustained in the area/facility? (document review)

OP.1.38 Do Confined Space Permits have proper review and approval? (document review)

OP.1.39 Are there no serious preventative maintenance or hazard prevention backlogs?

OP.1.40 Is there a system in place to ensure personnel are adequately trained commensurate with their assigned responsibilities? (document review)

OP.1.41 Is there a system in place to ensure personnel are qualified to perform assigned responsibility? (document review)

**HPI comments are in Blue.**  
**VPP comments are in Red.**

**PREREQUISITE for all LOIs: Evidence of program being in place and implemented for at least 12 months is required.**

### **Lines of Inquiry for SUB.1 CRAD**

- SUB.1.Int What are your role and responsibility relative to subcontracting or flowdown of requirements?
- SUB.1.1 Are procedures/mechanisms in place and being utilized that provide for flowdown of DEAR 970.5223-1, "Integration of Environment, Safety and Health into Work Planning and Execution," requirements into subcontracts at any tier to the extent necessary to ensure compliance with the requirements? (If not already provided, obtain copy)
- SUB.1.1(a) Are procedures/mechanisms in place and being utilized that provide for flowdown of appropriate safety and health requirements (e.g. 10 CFR 851) to all subcontract work? (If not already provided, obtain copy)
- SUB.1.1(b) Do these procedures/mechanisms provide for flowdown of appropriate quality and engineering requirements to subcontractors at all levels for materials, equipment and services? For environmental requirements?
- SUB.1.2 Are procedures/mechanisms in place and being utilized by personnel that describe the interfaces, roles and responsibilities of those personnel who identify and analyze the hazards of the scope of work for subcontracted work? (If not already provided, obtain copy)
- SUB.1.2(a) Do personnel assigned to accomplish those roles demonstrate competence to execute those responsibilities?
- SUB.1.3 Are procedures/mechanisms in place and being utilized that include a process for oversight of subcontracted work that ensures that compliance is maintained? (If not already provided, obtain copy, and observe oversight activities)
- SUB.1.3(a) Are observations identified during oversight activities managed to ensure deficiencies are corrected?
- SUB.1.3(b) Is performance by subcontractors reviewed (i.e. observations) periodically to identify broader issues affecting ISMS functions and principles for corrective action?

- SUB.1.4 Do STRs understand their role and responsibility in ensuring hazard mitigation is in place for the work they are controlling?
- SUB.1.5 Do remote workers understand their role and responsibility to maintain a safe and injury-free work environment?
- SUB.1.5(a) How is coordination or integration with other contractors and agencies on site managed for awareness of remote worker activity?
- SUB.1.6 Is work properly authorized and are required contractor, facility and/or functional interfaces maintained by subcontractors and STRs, including but not limited to Environmental Monitoring activities? (observe)
- SUB.1.7 Is subcontractor work performed in accordance with approved worker safety plans as accepted by SRNS? (observe)
- SUB.1.8 Is subcontractor hazard identification and control performed properly? (document review, observe)
- SUB.1.9 Do subcontractor workers have qualifications commensurate with their responsibilities? (document review)
- SUB.1.10 Do subcontractor employees at all levels believe that their safety performance was important in their selection for the subcontract? (interview)

### **Lines of Inquiry for SME.1-QA**

- SME.1-QA.Int      What is your role and responsibility in relation to Quality Assurance?
- SME.1-QA.1      Are procedures/mechanisms in place and being utilized for Quality Assurance that require adequate planning of individual work items to ensure that hazards are analyzed and controls are identified? (If not already provided, obtain copy)
- SME.1-QA.2      Are procedures/mechanisms in place and being utilized for Quality Assurance that contain clear roles and responsibilities? (If not already provided, obtain copy)
- SME.1-QA.2(a)    Is Quality Assurance effectively integrated with line support managers to ensure that line managers are responsible for safety?
- SME.1-QA.3      Are procedures/mechanisms in place and being utilized for Quality Assurance that require controls to be implemented, that these controls are effectively integrated, and readiness is confirmed prior to performing work? (If not already provided, obtain copy)
- SME.1-QA.4      Are procedures/mechanisms in place and being utilized for Quality Assurance that require that personnel who are assigned to Quality Assurance have a satisfactory level of competence? (If not already provided, obtain copy)
- SME.1-QA.5      Are procedures/mechanisms in place and being utilized for Quality Assurance that require that within Quality Assurance feedback and continuous improvement results? (If not already provided, obtain copy)
- SME.1-QA.6      Are procurement processes defined and being implemented within the site/facility Quality Assurance Program that include provisions for supplier qualification, receipt inspection, and document management?
- SME.1-QA.7      Are responsibilities, authorities and the organizational structures for the procurement of safety equipment, materials and services established by formal procedures? (If not already provided, obtain copy)
- SME.1-QA.8      Are components and services procured for safety systems obtained in accordance with the site/facility Quality Assurance Program?
- SME.1-QA.9      Are critical or important acceptance parameters and other requirements specified in design documentation and included in procurement

requisitions and flowed down to subcontractors and suppliers of items and services?

- SME.1-QA.10 Is a process in place and being utilized for dedicating commercial grade components for safety-related applications? Are appropriate qualified personnel performing the commercial grade dedication?
- SME.1-QA.11 Is a process in place and being utilized that includes controls to prevent the introduction of suspect or counterfeit items into essential safety systems?
- SME.1-QA.12 Does the development of a procedure, development of a hazards analysis, development of work packages, or approval processes for individual work tasks include interactions with personnel from Quality Assurance? (observe/document review)
- SME.1-QA.13 Have lessons learned been effectively assessed and used in the Quality Assurance area? (document review)