

KRCEE Environmental, Safety, and Health Provisions

Part 1, General Provisions

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1.0 ZERO ACCIDENT PERFORMANCE

1.1 Objectives

- Strive to eliminate all injuries, illnesses, and adverse impacts to the environment.
- Promote environment, safety, and health (ES&H) objectives as a constant value in designing, planning, training, and executing Work.
- Spread ownership for environment, safety, and health program effectiveness throughout the project team.
- Enhance awareness and involvement in ES&H program implementation.
- Increase consistent use of safe practices in daily work activities.
- Optimize the use of continuous improvement practices as the basis for “Zero Accident Performance” initiatives.
- Demonstrate to DOE that KRCEE is “Dedicated to Safety Excellence.”

1.2 Ownership

- Senior management demonstrates leadership and direction for “Zero Accident Performance” implementation.
- All KRCEE and contractor employees are empowered to implement and consistently strive for the “Zero Accident Performance” goal.
- The KRCEE develops policy, provides technical direction, and coordinates supporting services in partnership with its subcontractors to help achieve safety excellence.

1.3 KRCEE ZERO ACCIDENT PERFORMANCE

KRCEE’s ES&H Plan its commitment to achieving Zero Accident Performance. KRCEE’s ES&H Plan will state how it will incorporate “Zero Accident Performance” philosophy and objectives and define ownership. KRCEE will submit a formal letter to DOE that defines its commitment to and ownership of Zero Accident Performance.

1.4 INTEGRATED SAFETY MANAGEMENT SYSTEM

KRCEE is committed to implementing an Integrated Safety Management System (ISMS) that promotes core values and the principles set forth by the U.S. Department of Energy (DOE). The objective of ISMS is to systematically integrate ES&H protection into management and work practices at all levels so that workers, the public, and the environment are protected while assigned projects are accomplished.

KRCEE will include an ISMS Matrix in the Health and Safety Plan. ISMS matrix will include appropriate sections of its planning documents where the specific ISMS elements are addressed. KRCEE will submit a formal letter to DOE that defines its commitment and ownership of ISMS.

1.5 EMPLOYEE EMPOWERMENT

KRCEE shall empower its Employees and Subcontractors to adhere to all ES&H requirements. KRCEE Employees and Subcontractors shall have the right and obligation to report unsafe conditions and to interrupt or stop Work without fear of reprisal. No Employee or Subcontractor shall be asked to complete a task that an Employee or Subcontractor feels is unsafe or that may endanger the environment.

1.6 EMPLOYEE INVOLVEMENT

KRCEE's ES&H Plan shall describe how worker feedback and involvement in work planning will be used to enhance the safety and efficiency of the Work performed during this task. Processes to consider include the following:

- safety suggestions,
- near-miss reporting,
- safety/toolbox meetings,
- pre-job briefings, and
- employee involvement in activity hazard assessment (AHA)

1.7 KRCEE'S ES&H PLAN

A written ES&H Plan will be developed for this project. The ES&H Plan shall be submitted DOE for review. The ES&H Plan will specify how ES&H requirements will flow down to Employees and KRCEE's subcontractors and the correct practices for onsite Employees, subcontractors, and visitors with respect to protection against toxic and hazardous substances, hazardous site conditions, potentially hazardous work processes, emergency response procedures, and compliance with the ES&H.

The plan will describe how the team will analyze and solve problems, and how improvements in safety conditions affecting implementation of the project will be handled by the team. The plan will describe how feedback occurs. The basic tenets of ISMS will be incorporated into the ES&P.

KRCEE's ES&H Plan incorporates the following management functions:

- a description of how the project will be performed shall be outlined;
- the scope of the project will be clearly understood before it is begun;

- the hazards associated with that project will be identified, analyzed, and clearly understood;
- appropriate standards and requirements will be identified, tracked for changes, and applied so as to control the hazards associated with the project to be performed;
- the project will be performed in accordance with the standards and requirements identified;
- the process for reviewing, addressing, and communicating lessons learned will be in place and used; and
- a process for worker feedback and continuous improvement will be in place and used.

KRCEE's ES&H Plan shall also demonstrate that these essential functions have been integrated into the project:

- line management responsibility for ES&H;
- clear assignment of roles and responsibilities;
- competence commensurate with responsibilities;
- balanced priorities (i.e., cost and schedule not to take precedence over safety);
- clear identification of appropriate ES&H standards and requirements;
- assurance that all Work has been reviewed and is authorized; and
- hazard controls tailored to the Work being performed.

KRCEE's ES&H Plan shall at a minimum include the following elements as applicable to its project:

- Work Area characterization and description,
- Zero Accident Performance,
- employee empowerment,
- employee involvement,
- KRCEE organization,
- reporting and record keeping,
- medical surveillance/monitoring,
- first-aid and medical services,
- ES&H training,
- ES&H performance measures and incentives,
- ES&H AHA,
- Facility/Site access control,
- environmental protection/compliance,
- emergency management,
- industrial safety requirements,
- industrial hygiene requirements,
- radiation protection requirements,
- radiation and environmental ALARA requirements and performance goals,

- chemical and radiological decontamination requirements,
- monitoring/sampling requirements, and
- pollution prevention requirements

DOE review of KRCEE's ES&H Plan shall relieve neither KRCEE's obligations imposed by law, nor KRCEE's responsibility for the adequacy of its ES&H Plan.

A pre-job review shall be conducted with KRCEE addressing the execution and implementation of KRCEE's ES&H requirements and will be completed before initiating each task, phase, or project.

Prior to submittal of its ES&H Plan to DOE, KRCEE's project team shall review the plan. Any changes to the established ES&H Plan shall be at the direction of KRCEE's Safety Representatives and followed with a review by DOE prior to implementation of the changes. KRCEE's ES&H Representative will be onsite on a full-time basis.

1.8 KRCEE Organization

KRCEE's ES&H Plan will provide clear and unambiguous roles and authority for ES&H, and include an organizational chart delineating lines of ES&H authority onsite.

KRCEE Site Manager. The KRCEE Site Manager (or designated alternate) will be available onsite at all times during work activities and will be responsible for all Site activities related to project implementation. The KRCEE Site Manager will serve as KRCEE's representative and point of contact for all onsite communications. All communications with the KRCEE Site Manager will be considered as communications with KRCEE, including interfacing with DOE and its prime contractor assigned to the project. The KRCEE Site Manager has ultimate onsite responsibility for the safety and health of KRCEE's personnel and for environmental compliance.

KRCEE On-Site Environment, Safety, and Health Site Representative. ES&H Site Representative will be an integral part of the project team for the duration of the project. The ES&H Site Representative will be a full-time position/subcontractor and will carry no other responsibilities. The ES&H Site Representative will be KRCEE's onsite ES&H lead and be responsible for implementing and routinely evaluating the effectiveness of the ES&H Plan. The ES&H Site Representative shall also interact on a day-to-day basis with DOE representatives to correct problems and sustain continuous improvement initiatives during subcontracted activities. The ES&H Site Representative (or approved designated alternate) must be onsite any time hands-on project activities are being performed either by KRCEE or by its subcontractors. The ES&H Site Representative will report to the KRCEE Site Manager on a day-to-day basis. KRCEE shall designate an alternate ES&H Site Representative to be

onsite to carry out requirements of the ES&H Plan whenever the primary ES&H Site Representative is absent from the Site.

1.9 KRCEE ES&H Site Representative Responsibilities

KRCEE's ES&H Site Representative shall have at a minimum the following responsibilities and shall perform the following activities:

- conduct daily (documented) ES&H inspections of work activities and conduct joint weekly inspections with DOE personnel;
- stop work and remove personnel from the Site if the safety or health of personnel is jeopardized by work activities;
- ensure that a daily pre-job briefing and weekly toolbox safety meeting have been conducted;
- provide project-specific training for new employees and visitors;
- establish and implement applicable ES&H procedures;
- ensure compliance with Site warning systems for the project (including evacuation alarms, accountability rosters, assembly points, etc.);
- participate in plan-of-the-day meetings;
- maintain and post emergency response telephone numbers for the Site near all telephones;
- ensure that the Site map includes safety information such as locations of fire extinguishers and eye wash stations, and ensure that the first-aid kits are kept current;
- ensure that proper chemical and safety postings are in place and legible;
- ensure that all operations are conducted so as to mitigate adverse environmental impacts (e.g., spill containment, erosion control, etc.);
- maintain and communicate employee right-to-know information;
- establish and maintain the hazard communications program (including Material Safety Data Sheets, training, etc.);
- evaluate the Site for any hazards not identified in the AHA, initiate safety measures required to protect personnel, and revise documents accordingly;

- ensure that all wastes generated are managed in compliance with applicable state and federal laws and requirements;
- establish and maintain programs required to mitigate hazards identified in the AHA and initiate safety measures required to protect personnel, the public and the environment and revise documents accordingly;
- maintain first-aid and OSHA 300 logs, report accidents and injuries through the appropriate channels, and conduct accident/incident investigations as required, including the completion of appropriate forms; and
- coordinate with offsite emergency responders and medical service organizations to establish provided services and verify that phone numbers, addresses, and contacts are current and accurate.

1.10 Incident Reporting

KRCEE will immediately notify DOE and its prime contractor regarding an event or condition that adversely affects, or may adversely affect personnel, the public, property, the environment, or DOE's mission. This could include employee injury/illness and any accident, incident, near-miss occurrence, accident precursor that could result in bodily injury/illness or damage to equipment and facilities, potential Price Anderson Amendment Act (PAAA) noncompliance, environmental release, or any other unplanned event that may be a violation of a regulatory requirement or that may be viewed negatively by the public, or DOE. In situations where any of the conditions mentioned above occur, the scene may not be changed without DOE's concurrence unless it is to mitigate an immediate hazard or stop a spill in progress. KRCEE and subcontractor personnel shall jointly investigate each injury/illness, accident, incident, near miss occurrence, or environmental noncompliance. Incident reports and other applicable reports (i.e., First Reports of Injury and DOE 5484.3 Reports) shall be completed and submitted to DOE.

KRCEE shall provide a complete Accident/ Incident Investigation Report of any incident, outlining the causes, corrective actions, and measures taken to prevent recurrence of similar incidents. KRCEE's subcontractors shall assist KRCEE's Project Manager in the preparation of reports (including Occurrence Reporting and offsite notifications) related to this project.

KRCEE shall collect and maintain all data and records specified by regarding reporting and/or notifications of incidents.

1.11 ES&H Records

All ES&H documents and records generated from the requirements of this project shall be maintained at the Jobsite and made immediately available for inspection by DOE.

2.0 KRCEE INTERFACES

2.1 Interfaces with DOE ES&H

DOE's ES&H personnel will perform both announced and unannounced ES&H oversight assessments, and/or audits of KRCEE's activities to verify compliance with the requirements of KRCEE's ES&H Plan.

3.0 Protection of Workers, the Public, and the Environment

3.1 Standards

KRCEE will provide adequate protection for the anticipated hazardous conditions, activities, or issues associated with the project Scope of Work.

The completed ES&H plan ties each hazard to the applicable KRCEE's procedures in the scope of work. KRCEE shall look for additions or changes based upon its approach to executing the work and work site conditions and shall develop the necessary hazard controls for inclusion in the ES&H Plan. KRCEE will work with DOE and its prime contractor to maintain the ES&H Plan as a complete and agreed-upon set of requirements for the duration of the project. KRCEE is responsible for its subcontractor compliance with the agreed upon standards. The ES&H Plans is used to accomplish four ISMS functions: "Define Work," "Analyze Hazards," "Develop/Implement Controls," and provide "Feedback/Improvement."

An ES&H Crosswalk may be used to assess hazards:

1. KRCEE and its subcontractors will identify hazards associated with the scope of work. These are checked in the first column of the ES&H Crosswalk.
2. KRCEE's scope of work will be conducted to ensure compliance with 10 CFR Part 835 and applicable OSHA requirements.
3. KRCEE will identify additional hazards associated with KRCEE's scope of work, and revise the ES&H Crosswalk, as appropriate.

4. KRCEE shall specify the work controlling documents that it will use to control each hazard associated with the scope of work. Appropriate work controlling documents include, but are not limited to the following:
 - Work Plan,
 - Health and Safety Plan,
 - Waste Management,
 - Quality Assurance Project Plan,
 - Work instructions, and
 - Work permits.

6. KRCEE shall submit the completed the ES&H Crosswalk to DOE for review before beginning Work.

When complete, the ES&H Crosswalk will correlate:

- the anticipated hazardous conditions, activities, or issues associated with the Scope of Work with
- the applicable standards that, if satisfied, will afford adequate ES&H protection, and
- the work controlling documents that will be implemented by KRCEE to meet the applicable standards and ensure safety.

3.2 Work Standards Matrix

KRCEE will generate a set of standards and requirements that will be in place throughout performance of the project.

KRCEE is responsible to be alert to the existence of additional hazards or for improvements needed in the standards or work controlling documents. KRCEE shall notify DOE of needed changes, recommend changes, and obtain review before implementing changes. The continuance or start of Work, as applicable, will be determined as follows:

- If KRCEE recognizes that work controlling documents or standards provide unnecessary or inefficient requirements, the necessary changes shall be made to the applicable documents and reviewed.
- If KRCEE recognizes additional hazards or that the standards or work controlling documents provide inadequate safety, KRCEE will, for continuous operations, implement interim measures that will allow operations to continue safely while the standards are being revised. For other activities, the KRCEE will stop Work, pending review of needed changes.

KRCEE may be reimbursed for Work stoppage costs when DOE imposes additional standards or required for the scope of work.

3.3 KRCEE's Subcontractor's

KRCEE subcontractors shall comply with KRCEE's ES&H Plan, Work Plan, and other documents to implement the scope of work for this project. KRCEE will be responsible for ensuring that its subcontractors work within the requirements of the project documents. KRCEE will require all subcontractors submit a letter confirming their commitment to comply with the requirements of the work controlling documents including KRCEE's ISMS Program. A copy of this letter will be provided to DOE.

KRCEE shall provide to DOE, as part of its written ES&H Plan, a description of how KRCEE will establish and maintain an agreed-upon set of standards and requirements with KRCEE's subcontractors.

3.4 ES&H Compliance

KRCEE shall promptly evaluate and resolve any noncompliance with the ES&H requirements of this project by its employees and subcontractors. If KRCEE fails to provide resolution, or if at any time KRCEE's or KRCEE's subcontractors acts or failure to act causes substantial harm or imminent danger to the environment or safety and health of employees or the public, DOE may issue an order stopping Work in whole or in part. In the event that DOE issues a Stop Work order, an order issued by DOE authorizing the resumption of Work must be issued before Work is restarted.

3.5 Evaluation

Periodic audits/assessments will be conducted to ascertain ES&H compliance.

3.6 Noncompliance

If an apparent violation of standards, regulations, or work plan procedures is observed during assessments or monitoring activities, DOE may issue a "Confirmation of Noncompliance with ES&H Requirements" to KRCEE.

3.7 Imminent Danger Violation

If an imminent danger situation is identified, KRCEE and DOE will take the following action:

- Work shall be immediately stopped, and KRCEE will remove all personnel from the area if required to preclude death or serious injury.

- DOE management shall be immediately notified.
- Resumption of Work shall not be permitted until corrective action has been taken by KRCEE to eliminate the unsafe situation and verified by DOE.
- A Confirmation of Noncompliance will be issued to KRCEE by DOE's STR and monitored to ensure a timely response.

3.7 Serious Violation

In the event a serious violation is observed, DOE will take the following action:

- DOE shall immediately notify KRCEE, who shall cease Work and remove all personnel from the area if required to preclude possible physical harm.
- DOE management shall be immediately notified.
- Verification that corrective action is complete is a prerequisite to resumption of Work in that area.
- A Confirmation of Noncompliance will be issued to KRCEE by DOE and monitored for a timely response.

3.8 Non-Serious Violation

DOE will take the following action with regard to non-serious violations:

- KRCEE will be informed of the violation as soon as practicable.
- A Confirmation of Noncompliance will be issued to KRCEE and monitored for a timely response.
- If the condition is not corrected within the time stipulated in the notice, the KRCEE Site Manager will be contacted to resolve the matter.
- If the safety violation is not corrected after a second notice, or if KRCEE has continued to repeat violations, the Work is to be stopped. The situation will be referred to DOE management.

3.9 CONTRACTOR-PROVIDED MEDICAL SERVICES

KRCEE and its subcontractors shall send their Employees that have suffered a job-related injury or illness to the designated DOE medical facility for medical treatment. KRCEE's designated personnel who are trained and qualified in First Aid and CPR can administer minor first-aid treatment. KRCEE is required to report all job-related injuries and/or illnesses immediately to DOE. The

appropriate medical forms and accident investigation report must be completed within 24 hours after occurrence and submitted to DOE.

3.10 MEDICAL SURVEILLANCE

KRCEE's site-specific medical surveillance requirements for workers and visitors shall comply with the applicable regulatory requirements for medical surveillance and shall include any special medical prerequisites for performing specific tasks associated with the Work Plan. Certification shall be in a format such as the Training/Medical Surveillance Certification Report.

A Training/Medical Surveillance certification report form must be prepared for each KRCEE employee and subcontractor employee. The form shall be completed by KRCEE to reflect the appropriate medical surveillance requirements, training, and other requirements. Each form must be reviewed by the KRCEE's ES&H Representative. KRCEE is responsible for maintaining the actual documentation that supports this certification (i.e., training certificates, physician's statements, etc.) as part of its project files.

KRCEE will verify compliance with applicable medical qualification requirements. Copies of these medical records, including physicians' statements, must be made available for review by DOE and its consulting physician if requested. Individuals who are determined not to be in compliance with applicable requirements will be immediately removed from the Facility/Site. Any expense resulting from these removal actions will be borne by KRCEE.

3.11 ES&H TRAINING FOR SITE ACCESS

Certain minimum training requirements are set that allow workers access to various work areas at the Paducah Gaseous Diffusion Plant, such as Security Controlled Areas, Radiologically Controlled Areas, and other posted areas with radiological hazards. Certification shall be in a format such as the Training/Medical Surveillance Certification Report (Appendix G-4). Differing levels of training are required depending on the area to be entered and the reason for entry. This section briefly describes general training required for all workers and the requirements to obtain and display Site Access Cards. KRCEE shall comply with DOE procedures, "Radiation Safety Training," and, "Radiological Access Requirements and Site Access Cards." Other types of training, as described in Attachment 1, Part II, may be required depending on KRCEE's scope work.

3.11.1 Access to Security Controlled and Radiologically Controlled Areas at Paducah

At a minimum, Site Access Orientation Training is required. Site Access Orientation consists of reading a short pamphlet that discusses various safety topics. Proof that the worker has read and understands the training is retained by DOE via a signed acknowledgement statement. Site Access Orientation is provided by DOE. Individuals who complete only Site Access Orientation require escort 100 percent of the time by a person having a minimum of General Employee Training.

Workers requiring unescorted access must complete General Employee Training. General Employee Training is provided by DOE.

3.11.2 Site Access Cards

Site Access Cards contain training qualifications and expiration dates for General Employee Training, Radiological Worker Training, HAZWOPER Training, and Respirator Training and fit testing. Baseline bioassay requirements are also specified on the Site Access Cards. Workers requiring any of these training qualifications or who are required to participate in the bioassay program will be issued Site Access Cards by DOE. These cards shall be prominently displayed (in the same manner as Security Badges) by all KRCEE Employees and subcontractors to whom the cards are issued. The Site Access Cards are a mechanism used by DOE to hold workers accountable for maintaining their required training current. Workers will be denied access to areas when their level of training does not meet the minimum requirements for the area to which they desire access.