Radiation
Health and Safety Plan

Kaiser Aluminum & Chemical Corporation
Thorium Remediation Project
Tulsa, Oklahoma

4000:PA4072
March 2004

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Revision 0
March 2004

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Kaiser Aluminum & Chemical Corporation
Thorium Remediation Project
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Kaiser Aluminum & Chemical Corporation
Baton Rouge, Louisiana

Project No. 4000-PA-4072
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Approval

The plan has been approved by:

	4-1-04
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Vice President of Radiological Services	

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March 2004

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1.0 Purpose

The goals of the Radiation Health and Safety Plan (RHASP) are to minimize the potential exposure to radiation of employees, contractors, visitors, and the general public as a result of working with and around radioactive material (RAM) and to demonstrate compliance with applicable laws and regulations related to radiation protection and control of radioactive materials. This RHASP has been developed to guide implementation of Penn Environmental & Remediation, Inc. (Penn E & R) radiation safety plans and procedures and to ensure that its employees and subcontractors develop implement radiological controls for workers and the general public commensurate with the risks associated with Thorium Remediation Project at the Kaiser Aluminum & Chemical Corporation (Kaiser), Tulsa, Oklahoma facility. Information about the current radiological status of the Kaiser facility is provided in Section 4.0 of the Kaiser Decommissioning Plan and Addendum.

2.0 Scope

This RHASP is designed to supplement an Environmental Health and Safety Plan (HSP) as it applies to all Penn Environmental & Remediation, Inc. (Penn E & R) employees, and Penn E & R subcontractor employees at the Kaiser Tulsa, Oklahoma facility. Kaiser employees, Remedial Construction Services, Inc. (RECON) employees, and any other contractors or subcontractors are subject to their own plans and procedures.

3.0 References

(1) Decommissioning Plan (DP), Tulsa Facility, Tulsa, Oklahoma, Kaiser Aluminum & Chemical Corporation, Revised May 2003.

(2) Decommissioning Plan Addendum, Tulsa Facility, Tulsa, Oklahoma, Kaiser Aluminum & Chemical Corporation, Revised May 2003.

(3) Adjacent Land Remediation Plan for Kaiser Aluminum & Chemical Corporation, Tulsa, Oklahoma, Rev. 1, July 1999.

(4) Environmental Health and Safety Plan, Kaiser Aluminum and Chemical Corporation, Tulsa, Oklahoma, Rev. 3, October 2003.

(5) Quality Assurance Plan, Kaiser Aluminum and Chemical Corporation, Tulsa, Oklahoma, Rev. 2, October 2003.

(6) Title 10, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports for Workers; Inspection and Investigations."

(7) NRC Regulatory Guide 8.7, Rev.1, 1992, " Instructions for Reporting Occupational Radiation"

(8) NUREG-0041, Rev 1, " Respiratory Protection Manual"

(9) NRC Guide 8.13, " Instructions concerning Prenatal Radiation Exposure"

(10) Title 10, Code of Federal Regulations, Part 20, "Standards for Protection against Radiation."

(11) Title 10, Code of Federal Regulations, Part 30, Appendix B, "Quantities of Licensed Material Requiring Labeling "

(12) Title 29, Code of Federal Regulations, Part 1910, "Occupational Safety and Health Standards."

(13) ANSI N323 - American National Standard Institute, "Radiation Protection Instrumentation Test and Calibration," N323B-2003, 2003.

(14) Information Notice 96-28, Suggested Guidance Relating to Development and Implementation of Corrective Action, dated May 1, 1996.

(15) National Council on Radiation Protection and Measurements Report 127, Operational Radiation Safety Program, 1998.

(16) U.S. Nuclear Regulatory Commission, Regulatory Guide 8.36, Radiation Dose to the Embryo/Fetus, July 1992.

(17) U.S. Nuclear Regulatory Commission, NUREG-1460, Guide to NRC Reporting and Recordkeeping Requirements, Rev. 1, July 1994.

(18) U.S. Nuclear Regulatory Commission, Regulatory Guide 8.13, Instruction Concerning Prenatal Radiation Exposure, Revision 3, June 1999.

4.0 ALARA

ALARA stands for "As Low As Reasonably Achievable." It is Kaiser's management policy to maintain radiation exposures to Penn E & R as far below the limits specified in 10 Code of Federal Regulations (CFR) 20 as is reasonably achievable. The ALARA program will be implemented through the training of Engineer's employees, work procedures and practices, safety work permit use, good housekeeping, dust and contamination control practices, and, as necessary, use of personal protective equipment (PPE).

5.0 Radiation Safety Organization and Responsibilities

5.1 Quality Assurance Coordinator (QAC)/Project Manager

The QAC/Project Manager is responsible for planning, managing, and coordinating all Penn E & R activities in accordance with the approved written procedures. The QAC/Project Manager will report to the Kaiser Site Administrator and will ensure that Final Status Survey activities meet the established environmental, health and safety, QA requirements, technical performance, budgeting, and scheduling criteria. The QAC/Project Manager will be authorized to stop any activity that may be unsafe or is in violation of a regulatory requirement.

5.2 Data Manager/Health Physics (HP) Supervisor

The Data Manager/HP Supervisor will be responsible for implementing measures that provide safe and healthy work conditions, for assuring radiation exposures are maintained ALARA, and for minimizing release of radioactive material to the environment. The Data Manager/HP Supervisor may delegate responsibilities, including stop work authority; to the Health Physics Technician in is absence or unavailability on site.

5.3 Health Physics Technician

Each Health Physics Technician (HPT) assigned to the project is responsible for demonstrating familiarity with the radiation protection program, for strict adherence to the radiation protection rules and regulations, and for minimizing radiation exposure to the maximum extent practical. Flagrant or willful disregard of radiological protection rules, regulations, or practices shall result in disciplinary action. Each technician shall be provided training and, at the discretion of the QAC/Project Manager or Kaiser's Radiation Safety Officer (RSO), successfully demonstrate competence through testing on the requirements of the radiation safety program.

All technicians working in the restricted area shall have a working knowledge of the radiological protection rules, regulations, and procedures. This knowledge shall be obtained through current training and instruction/briefings commensurate with the individual's work assignment.

The Safety Work Permit (SWP) is the one document that the individual must be most familiar with for radiological conditions and precautions in the individual's work area. Each technician working in areas covered by a SWP must read, comply with, and obey all requirements of the SWP and attend a pre-job SWP briefing when stipulated by the SWP.

Each technician must report unusual conditions or circumstances involving radioactive material that may lead to a hazardous condition or noncompliance with safe radiological work practices.

5.4 Visitors

Persons visiting or conducting work at the Kaiser facility in Tulsa, Oklahoma are required to be familiar with RECON's health and safety requirements of the site. Visitors will be required to read and understand RECON's Visitor Health and Safety Plan Synopsis, sign in and out on the Visitor Log, and be accompanied by facility personnel while on the site.

6.0 Radiation Protection Program Elements in Penn E & R's (Engineer) Radiological Plans

This section contains elements and guidance that shall be addressed in the Engineer's RHASP, procedures, and work plans.

6.1 Plans and Procedures

Penn E & R's radiological plans and procedures are consistent with health and safety protection measures and policies as expressed in the appropriate Kaiser Environmental Safety and Health Plan, Kaiser QA Plan, Kaiser DP, Kaiser site manuals and procedures.

6.2 Training

Penn E & R will maintain a training program to meet the applicable training requirements specified by the NRC and Occupational Safety and Health Administration (OSHA). Penn E & R employees will also receive training on the Decommissioning Plan (DP) to ensure that all personnel understand the objectives of the plan and the routine operations and precautions to meet the plan objectives. The training program will include general radiation safety training/monitoring, site orientation, site-specific training, and training verification and documentation.

6.2.1 General Radiation Safety Training/Monitoring

At a minimum, Penn E & R personnel will be required to have radiation safety training commensurate with the radiological hazards that they will encounter and be required to wear radiation-monitoring devices. The Owner of the Facility will provide radiation dosimeters to Penn E & R employees and any subcontractors to Penn E & R who enter restricted areas.

6.2.2 Site Orientation

Prior to entry into any restricted area of the Kaiser site, Penn E & R personnel will be given a site and radiological orientation. Objectives of this orientation will be to familiarize personnel and visitors to:

- recognize labeled or posted radioactive materials and understand the meaning of radiological warning signs;
- understand that as long as radiological control procedures and limits are followed, potential harmful effects to personnel and the environment from radioactivity will be minimized; and
- Recognize and understand the meaning of, and proper response to, emergency signals.

6.2.3 Site-Specific Training

Site-specific training will be required of all Penn E & R personnel involved in day-to-day operations of the remediation project prior to being allowed unescorted access to the site. Each individual shall demonstrate a basic knowledge of radiation worker training.

Radiation safety training for technicians will be commensurate with their duties and responsibilities and the magnitude of the potential exposure to direct radiation and contamination in accordance with 10 CFR Parts 19 and 20.

Prior to the initiation of daily work activities, the Data Manager/HP Supervisor will hold a "kick-off" meeting to familiarize technicians with the day's activities and their associated procedures, SWPs and safety requirements. A roster will be maintained for each daily meeting. Changes to standard procedures as a result of unique project conditions will also be discussed during these "kick off" meetings. Procedure retraining will be provided as necessary prior to implementation.

6.2.4 Training Verification and Documentation

Penn E & R personnel working on site will present evidence of general radiation safety training and past exposure history in accordance with 10 CFR Parts 19 and 20 and pertinent refresher training (e.g., training certificates, letter of certification) prior to performing work in restricted areas of the site. Initial and annual refresher training shall include instruction in the fundamentals of radiation protection. The degree of instruction will be determined by work assignment and will ensure that workers understand how radiation protection relates to their jobs. The minimum training provided to any worker will include, but not necessarily be limited to, the following subjects:

- Radiation monitoring techniques
- Radiation monitoring instrumentation
- Emergency procedures
- Radiation hazards and controls
- Concepts of radiation and contamination
- Provisions of applicable sections of 10 CFR Parts 19 and 20
- Responsibilities of workers and supervisors
- Reporting requirements for workers
- ALARA and exposure control procedures
- PPE
- Biological effects of radiation
- Radiation control zone procedures

- Safety Work Permits

Records of individual training and qualifications will be maintained at the site until the completion of all remediation activities and will include the trainee's name, training date, subjects covered during training, written test results, and the instructor's name.

All Penn E & R personnel will be required to have OSHA 1910.120 training and any subcontractor shall meet all the requirements in OSHA 1910.120. Penn E & R shall provide evidence of this training for each worker. In addition, all site personnel shall sign a statement certifying and acknowledging that they have received site-specific training and that they understand the potential site hazards and the necessary control measures to reduce and/or eliminate those hazards. Training documentation, including the content of site-specific training and any other subsequent training (e.g., periodic safety meetings and specific task safety meetings), will be submitted to Kaiser's SA and will be maintained by Penn E & R for a suitable period to be specified by Kaiser.

NRC Form 3 shall be conspicuously posted in a sufficient number of places to permit employees working in or frequenting restricted areas to have access to a copy on the way to or from their place of work.

6.3 Work Zones and Access Control Points

In accordance with approved RECON plans, temporary work zones and control points shall be established as necessary by RECON at the boundary of restricted and unrestricted areas to control radiation exposure and limit the spread of radioactive material.

Personnel entering a restricted area shall have received the appropriate training or be escorted by trained personnel. Personnel entering a restricted area shall read and sign the appropriate SWP which acknowledges their understanding of and adherence to the requirements set forth in the applicable SWP.

A restricted area may include control points containing a step off area (pad) that separates the two sides. A personnel survey meter (frisker) will be available to be used for individuals to perform the required personnel survey upon exiting the control point.

Support zone/clean areas are to consist of areas of the site which are not contaminated and are not being used for the contamination reduction area. Effort will be undertaken to prevent the contamination of

clean areas and the support zone/clean area. Personnel, equipment, and samples that enter the support zone/clean area after having been in the control zone or contamination reduction area will be surveyed and decontaminated by the RECON, if necessary. Soil samples will be surveyed for loose contamination on the outside of the sample container, and, if radiologically clean will be released for laboratory analysis.

6.4 Radiation Exposure Control

Remediation activities at the Kaiser site will be controlled such that no occupationally exposed worker will exceed any 10 CFR 20 occupational limits set forth in 10 CFR 20 Subpart C and shall be kept ALARA. These limits apply to all Radiation Workers 18 years of age or older. Internal dose to a specific organ is given as Committed Dose Equivalent (CDE), while the internal dose relative to a whole body exposure is given as Committed Effective Dose Equivalent (CEDE). External dose is expressed as Deep Dose Equivalent (DDE), Shallow Dose Equivalent (SDE) and Lens of the eye Dose Equivalent (LDE).

The annual occupational exposure limits from 10 CFR 20 are as follows:

- TEDE (CEDE + DDE) 5 rems (0.05 Sv)
- Lens of Eye (LDE) 15 rems (0.15 Sv)
- Other Organs (CDE + DDE) 50 rems (0.5 Sv)
- Skin or Extremity (SDE) 50 rems (0.5 Sv)

The dose to an embryo/fetus due to occupational exposure of a woman who has voluntarily declared her pregnancy in writing is limited to 0.5 rems (0.005 Sv) TEDE during the entire pregnancy. Data relating to dose to the embryo/fetus of a declared pregnant worker or former declared pregnant worker will not appear on her NRC Form 4 or Form 5. Such data will only be provided to other individuals upon written request by the declared pregnant worker authorizing release of the data. The data may be provided to the declared pregnant worker herself upon verbal request. As part of the radiation safety training (and refresher training) and prior to issuance of a radiation dosimeter, women authorized to receive radiation exposure will be given specific instruction regarding prenatal exposure risks to a developing embryo and fetus. This instruction will include information contained in the Appendix to NRC Guide 8.13 "Instruction Concerning Prenatal Radiation Exposure".

Upon their initial visit to the site, personnel will be required to complete and sign a NRC Form 4. Personnel without a signed, up-to-date, NRC Form 4 or equivalent current year occupational exposure history on site shall be limited to a dose accumulation of less than 0.1 rem (0.001 Sv) TEDE until the indi-

vidual to be monitored provides current year dose history. Visitor's exposures shall be limited too less than 0.1 rem (0.001 Sv) TEDE in a year. Note that persons (visitors) who need to exceed this limit, or enter a contamination area, airborne radioactivity area, or a radiation area shall complete Radiation Worker Training and fully participate in the personnel monitoring program.

Recon will control the exposure of visitors at the site to levels that are ALARA. For exposure control purposes a "visitor" is defined as a person not qualified as a "radiation worker" and who requires access to a restricted area.

Entry by a visitor to a restricted area will require the following:

(1) Assignment of a temporary radiation dosimeter.

(2) Escort by a qualified radiation worker while in the restricted area.

(3) Documentation:

(a) Name
(b) Social Security Number
(c) Date of Visit
(d) Area visited and length of time in that area

The annual occupational dose limits for minors (less than 18 years of age) are 10 percent of the annual dose limits specified for adult workers in 10 CFR 20.1201. Individuals under the age of 18 will not be permitted to enter any radiologically restricted area at the Kaiser site

Remediation activities at the Kaiser site will be controlled such that: 1) no member of the public shall receive a TEDE in one calendar year exceeding 0.1 rem (1 mSv) in accordance with 10 CFR 20 Sub-part D, 2) the dose in any unrestricted area from external sources shall not exceed 2 mrem (0.02 mSv) in any one hour, and 3) air emissions of radioactive material into the environment (excluding Radon) are controlled to preclude release to the environment of airborne radioactivity greater than the concentration limits of 10 CFR 20, Appendix B, Table 2, Column 1.

6.5 Personnel External Exposure Monitoring

Individual dose monitoring is performed to demonstrate compliance with the dose limits in 10 CFR 20 and to assess successful implementation of ALARA. Individual dose monitoring includes internal and external exposure. Procedures for the issue, collection, processing, and recording of personnel radiation dosimeters and exposures shall be utilized. Dosimetry will be analyzed quarterly. Written dosimetry reports of exposure will be issued annually.

Personnel dosimetry for radiation workers will include a whole body radiation badge. When the whole body is exposed uniformly, the radiation dosimeter shall be worn on the frontal area of the torso between the neck and the waist. Deep dose and shallow dose monitoring devices shall be worn in areas receiving the highest applicable dose. If relocation of the whole body dosimeter is required, the SWP will specify where the dosimeter is to be worn.

Radiation dosimeters will be processed only by vendors that maintain a processing program that is currently accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for the energies and types of beta/gamma radiation expected to be encountered at the Kaiser site.

If monitoring is performed for personnel exposure to gamma radiation, it will be done using radiation dosimetry and/or radiation survey meters. The radiation exposure rate survey meter for occupational gamma surveys on this project will have a minimum detection rate of approximately 5 μR/hr.

When not in use, radiation dosimeters are stored in designated low background areas, such as Access Control.

Lost or damaged radiation dosimeters shall be immediately reported to immediate supervisor and Recon's RSO.

Certain radionuclides given to personnel for medical diagnostic purposes can result in measurable radiation levels for some period after receiving the treatment. The dose received from this treatment is exempt from regulation. Badged employees shall notify the HPA/RSO if they have received such treatment. In such a situation, the person may be restricted from wearing dosimeters until the medical isotope is eliminated from the body to the extent that it will not affect dose measurements. The only purpose of restricting this individual from wearing dosimeters is to avoid including radiation exposure from the medical

isotope to that received from Kaiser remediation activities. Such personnel shall also be restricted from entering areas requiring monitoring for radiation until the medical radionuclide is eliminated from the body to the extent that it will not affect personnel monitoring.

6.6 Internal Exposure Monitoring

Internal exposures will be assessed singly or by a combination of measurements of: 1) airborne radioactivity in work areas; 2) quantities of radionuclides in the body, and 3) quantities of radionuclides excreted from the body.

Internal exposure monitoring shall be performed to assess the dose to personnel who are likely to receive, in 1 year, an intake in excess of 0.1 ALI (annual limit on intake) in 10 CFR 20, Appendix B, Table 1, Column 2 or if the committed effective dose equivalent to declared pregnant worker is likely to exceed 0.05 rem (0.5 mSv).

6.7 ALARA

Penn E & R's radiation protection responsibility at the Kaiser site is to maintain exposures ALARA for its employees and subcontractors. This responsibility is carried out by means of the following:

- Information and policy statements to employees.
- Periodic management audit of operational efforts to maintain exposures ALARA.
- Delegation of sufficient authority to the HPA/RSO to enforce regulations and administrative policies regarding radiation safety.
- Administrative direction to ensure that any new operation that may affect radiation protection will be planned or designed in consultation with or approval from the HPA/RSO or designee.
- Penn E & R prepared ALARA review and approval procedure.

6.8 QA/QC Program

The RHASP is subject to management controls and QA requirements. In addition to general QA review and independent oversight, surveillances and audits shall be performed as needed to assess whether the

quality controls are adequate to assure radiological safety requirements are met. The QAC/Project Manager shall report to Kaiser's Management Team (PM, Health Physics Advisor/Radiation Safety Officer and Site Administrator) on all issues of Radiation Health & Safety matters. Additionally, Penn E & R shall provide all necessary QC information to Kaiser's Management Team to assure safe and healthy work conditions.

Health Physics Health and Safety instrumentation (i.e.: hand held frisker) and equipment as well as respiratory protection equipment is inspected prior to use. Equipment failing the inspection due to equipment malfunction, poor calibration, or inappropriateness due to use restrictions, are identified, marked, and not used.

Periodic surveillances and audits of the Health Physics Program shall be conducted by Kaiser. Unusual events will be investigated as they occur in accordance with a written corrective action process.

All Health and Safety instrumentation and instrument check sources will be provided and maintained by the RECON. Portable health and safety equipment/instrumentation will be calibrated annually by a qualified vendor in accordance with ANSI N323B-2003 guidance for each type of radiation of concern at the site.

6.9 Radiation and Contamination Surveys

Routine radiation and contamination surveys will be performed in accordance with written procedures using calibrated instrumentation to ensure that personnel do not exceed occupational exposure limits and minimize personnel exposures ALARA. Contamination surveys are performed to ensure that personnel do not spread surface contamination beyond the controlled area and to minimize unnecessary external and internal exposure resulting from the intake of loose radioactive material by inhalation, ingestion, or skin absorption.

Radiation and contamination surveys will also be used to determine the effectiveness of the overall radiological contamination control and protection program. Information obtained from radiation and contamination surveys are used to evaluate operations and activities as well as operation processes and methods to assure personnel exposures are ALARA.

Radiation and contamination control surveys will be performed by qualified RECON personnel, using instruments appropriate to the type of radiation and/or contamination and type of survey required. Self – monitoring or frisking can be performed by any trained and qualified radiation worker.

Types of routine radiation and contamination control surveys include the following:

- Personnel Contamination Surveys (Self-Monitoring or Frisking) - Personnel contamination surveys (self-monitoring or frisking) are performed to detect and quantify the possible presence of radioactive material on the body or clothing. Self-monitoring (frisking) is a critical element of the contamination control program. Only individuals who are trained and qualified as radiation workers are permitted to perform self-monitoring.

  Personnel will be instructed in the proper method of removing protective clothing and monitoring for personal contamination as part of the formal radiation safety training program. Friskers and/or automated personal contamination monitors (PCM's) will be available at each exit from a controlled area or control point. In the event that personnel contamination is suspected or detected, Penn E & R HP personnel will be notified and appropriate action taken. In the event a person becomes radioactively contaminated that is not removed by simple decon techniques, then Penn E & R HP personnel will supervise further decontamination activities and evaluate the need for whole body count follow-up. Bioassay samples will be taken at the discretion of the HPA/RSO. (Whole body counters depend on the detection of gamma radiation to identify and quantify internal/external contamination by radionuclide. The primary radionuclides of concern at the Tulsa site are Th-232, Th-230 and Th-228 none of which emit gamma radiation. Some of the thorium radionuclide progeny (in secular equilibrium with long lived parent) emit gamma and can be detected by conventional whole body counters. Internal exposure to thorium is controlled/monitored first by engineering controls in the field (dust control), second by area and/or personnel air samples capable of detecting less than 10% of the Derived Air Concentration (DAC) for the thorium mix on site and last by bioassay (most likely fecal sample and analysis.)

6.10 Airborne Radioactivity Control

Engineering controls will be utilized by RECON to the maximum extent possible to control the production of dust and airborne radioactivity during the Kaiser Remediation Project. Engineered controls may be, but are not limited to, water misting with or without dust control additives. Information regarding dust control is included in the RECON's approved plans.

6.10.1 Locating Air Sampling Equipment

RECON will be responsible for all airborne radioactivity samplers, which the sample counting systems shall have a Minimum Detectable Activity (MDA) less than 10 percent of the most restrictive applicable

derived air concentration (DAC). Information regarding air sampling is included in RECON's approved plans.

6.11 Respiratory Protection Program

RECON will have the task of implementing the Respiratory Protection Program to all site personnel in accordance with approved plans. With the application of process controls, engineering controls, and procedures to control concentrations of radioactive materials in air as required by 10 CFR 20.1701, the use of respiratory protection during the project is not anticipated. If engineering and process controls do not reduce the levels of airborne radioactivity below 1 derived air concentrations (DAC) limit (or when a worker could receive 12 DAC-hours in a week), the use of respiratory protection will be considered based on a prospective intake evaluation and consideration of industrial safety factors in accordance with 10 CFR 20.1702. The purpose of the respiratory protection program is to adequately limit intakes of airborne radioactive materials for workers in restricted areas and to keep the TEDE ALARA. The respiratory protection program shall incorporate the applicable requirements of 20.1701 - 20.1704, Appendix A of 10 CFR Part 20, and the applicable guidance in Regulatory Guide 8.15, "Acceptable Programs for Respiratory Protection," and NUREG-0041, Rev. 1, "Manual of Respiratory Protection Against Airborne Radioactive Material." The program will be implemented using written procedures to address all the elements of the respiratory protection program as required by 10 CFR 20.1703. Training, medical screening, and fit testing shall be performed prior to the issuance of National Institute for Occupational Safety and Health-certified respiratory protection equipment that is used to limit intakes of airborne radioactivity.

6.12 SWP and Work Controls

The SWP is an administrative tool used to control work occurring inside a restricted area and to inform personnel involved with the work of specific hazards and precautions in the work area when safety precautions and controls are not specified in a procedure.

Additionally, the SWP will instruct the workers as to what protective equipment will be needed and what monitoring will be required. Work involving thorium in a restricted area at the Kaiser site will be performed under the authority of a SWP or a procedure. Work will be administratively controlled via SWP and/or procedures. SWPs will be issued as necessary and reviewed weekly by the Data Manager/HP Supervisor or his designee. At a minimum, the SWP will include the following information:

- Task(s) to be performed
- Location of Task(s)
- Nonradiological Hazards Involved with the Task(s)
- Radiological Hazards Involved with the Task(s)
- Representative Radiological Survey Results
- Protective Measures and Engineering Controls
- Survey, Monitoring, and Dosimetry Requirements
- Special Use or Restraints
- Names and signatures of individuals performing the task(s)
- Issue and Expiration Dates

Prior to the initial start of work, a pre-job briefing shall be given to all personnel involved in performing the work. Personnel working under the SWP shall document (by their signature) that they have read and understand the SWP and that they have received and understand the instructions from the pre-job briefing, if performed. This applies to any and all subsequent SWP revisions.

6.13 Emergency Action Procedure

A procedure containing detailed instructions for medical, security, fire, and adverse weather emergency response is included with the HSP (under separate cover).

6.14 Posting and Labeling

Areas where radioactive materials are present will be posted by the Data Manager/HP Supervisor in accordance with the requirements of 10 CFR 20.1902. The Data Manager/HP Supervisor will routinely inspect his spaces for proper postings, damaged or missing postings, and evaluate the need for additional postings. Soil samples that meet the requirement of 10CFR 30 Appendix B to Part 30 (Quantities of Licensed Material) will be marked as Radioactive Material as handled appropriately.

6.15 Records and Reports

Exposure results will be reviewed by the RSO. A copy of the dosimetry results as they relate to each named Penn E & R Employee will be maintained on site by the Owner of the Facility and available for inspection. The Personnel monitoring reports will be maintained by the Facility Owner or RECON in accordance with guidance from NRC Regulatory Guide 8.7, Rev. 1, 1992. Records of surveys and radiation dosimetry results will be considered quality records and will be stored and maintained as part of the Kaiser Project Files.