



Westinghouse Electric Company
Hematite Facility
3300 State Road P
Festus MO 63028
U.S.A.

August 28, 2002

Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

ATTN: Document Control Desk

Subject: Submittal of Application for License Amendment to Change Organization
(License Number SNM-33, Docket 70-36)

Westinghouse hereby submits this application for an amendment to License Number SNM-33 to revise the organization requirements of the license. This change is being undertaken to reflect the continuing transition of the site organization to that required for the current decommissioning status. Attached is the revised Section 2 of the license that replaces in its entirety the current Section 2 of the license.

Westinghouse has underway an effort to rewrite the entire license application and to submit it for approval. Submittal of this section of the rewrite is necessitated by pending personnel changes that require approval. For this reason, this submittal does not follow the previous format of revision numbering and page numbering for the license document but instead reflects the beginning of the rewrite.

Westinghouse requests that this application be approved by September 30, 2002. If you have any questions concerning this submittal, please contact me at (412) 374-4652 or by email at nardiaj@westinghouse.com.

Sincerely,

A handwritten signature in cursive script that reads "Karen Ann Craig, for".

A. Joseph Nardi, Supervisory Engineer
Environment, Health and Safety

Attachment

Handwritten initials "S-H-2" in a stylized, cursive font.

Cc:

T. Dent – Westinghouse Hematite

K. Hayes – Westinghouse Hematite

R. Land – Westinghouse Hematite

G. M. McCann – NRC Region III

Patrick Hiland – NRC-Region III

Chris Miller – NRC-Region III

R. A. Kucera, Director, Intergovernmental Cooperation, MDNR

2.0 ORGANIZATION AND ADMINISTRATION

2.1 Organizational Responsibilities and Experience Requirements

2.1.1 Project Director

The Project Director (Director) has overall project responsibility to ensure safety, compliance and financial success of the decontamination and decommissioning of the Hematite Facility while complying with applicable laws and regulations. The Director is responsible for observing and enforcing facility policies and procedures and interfacing with EPA and NRC representatives.

At a minimum the Director shall have:

- B.S. in appropriate discipline or equivalent combination of education and experience. Significant experience in project management of large complex projects.
- Experience with stakeholder interactions including media.
- Competency in nuclear safety.
- Demonstrated commitment to ensuring the safety of workers, the public, and the environment.

2.1.2 Project Oversight Committee Chairman

The Project Oversight Committee Chairman (Chairman) is the head of the Project Oversight Committee. The Chairman is responsible for:

- Chairing the Project Oversight Committee
- Designating sub-committees, in writing, with the concurrence of the majority of the safety committee.
- Determining which committee members should attend each meeting according to the topics to be covered.
- Recommending committee members to represent at a minimum D&D operations and ES&H.

At a minimum, the Chairman will have:

- B.S. in appropriate discipline or equivalent combination of education and experience.
- Competency in nuclear safety.

2.1.3 Radiation Safety Officer

The Radiation Safety Officer (RSO) maintains the site Health Physics Program. The RSO is responsible for the following:

- Managing and implementing a Radiation Protection Program, internal and external dosimetry programs and associated elements.
- Interfacing with operations management to assure integration of radiation protection and ALARA principles with work activities.
- Evaluate radiological concerns for various Project operations.
- Participate in work planning to ensure compliance with Radiation Protection Program.

At a minimum the RSO will have:

- B.S. degree in Health Physics/Nuclear Engineering or related discipline or equivalent experience.
- Minimum of five (5) years experience in Health Physics field, with skills and training in Internal and External Dosimetry.
- Excellent written and oral communication skills and strong organizational management skills.
- Past managerial experience.
- Applicable experience in health and safety fields.
- Experience in Emergency Management Operations and emergency management.

2.2 Key Project Elements

In addition to the organizational responsibilities described in Section 2.1, key project elements will be managed to ensure safe and compliant site operations.

These key elements include:

- Nuclear Criticality Safety
- Waste Management
- Transportation
- D&D Project Management
- Environmental Project Management
- Quality Assurance
- Licensing Support
- Environmental, Safety and Health
- Emergency Management
- Planning and Control
- Procurement/Contracts
- Material Control and Accounting (MC&A) of Special Nuclear Material (SNM)

At a minimum the responsible individual for these project elements will have:

- B.S. in relevant technical or administrative area or equivalent experience.
- Minimum of three (3) years experience in related fields as applicable for the specific project element.

2.2.1 Nuclear Criticality Safety

Nuclear Criticality Safety (NCS) ensures NCS hazards are identified and controls are implemented to provide an acceptable level of safety during site operations. This includes the following fundamentals:

- Development of Nuclear Criticality Safety Assessments (NCSAs) and controls to assure nuclear criticality safety during operating conditions.
- Technical and programmatic control of the NCS program to assure compliance.
- Maintaining an operational understanding of NCS requirements and controls.
- Performing the necessary evaluations and calculations for NCSA production (including definition of scope, computer criticality modeling calculations, documented evaluations, and configuration management of controls and instructions).
- Ensuring that identified NCS limits ensure double contingency without unnecessary operational restrictions.
- Assessing field operations to ensure compliance with NCSAs and to develop work improvements and efficiencies.
- Providing NCS training to project staff (including development and maintenance of training materials, assessment of training effectiveness, etc.).
- Ensuring criticality safety controls are properly incorporated during work planning activities.

2.2.2 MC&A of SNM

MC&A will ensure overall accountability and materials control of SNM in accordance with the requirements of 10 CFR Part 74, where applicable. This shall be accomplished through a graded-approach integration of materials control and accountability systems; instructions and operations consistent with the associated risks, vulnerabilities, and material ownership.

2.2.3 Waste Management

Waste Management includes aspects of waste management from the point of initial generation through ultimate disposition and assures management in a safe and compliant manner. Waste generated will be characterized, segregated and handled in accordance with applicable requirements. Waste packaging will interface with waste disposal sites while ensuring compliance with appropriate regulatory requirements

2.2.4 Transportation

Transportation operations include the packaging and transportation of materials, both hazardous and non-hazardous, and ensures operations are performed in a manner that protects the safety and health of workers, the general public and the environment. Transportation operations shall be performed in compliance with 10 CFR Part 71 and 49 CFR. This will include the following elements:

- Only approved carriers shall be used to transport hazardous materials.
- The transport of radioactive and hazardous materials shall, as far as reasonably practicable, comply with project policies when undertaken by third party contractors.
- Necessary licenses and permits will be obtained in accordance with all applicable state, federal, local and site requirements.
- Hazardous materials classification, packaging, and preparation for shipment will be conducted under control of the Transportation QA Plan.

2.2.5 D&D Project Management

D&D Project Management includes the safe and efficient interference removal, decontamination and release of the buildings, structures and associated land on-site. The removal of materials from buildings will be performed in accordance with applicable federal and state laws. D&D Project Management includes the following key elements:

- Effective management of resources and the application of effective materials and equipment for site operations
- Recruiting qualified resources and organize them to manage the operations of a major, stringently controlled, demolition project
- Establishing and maintaining a line management safety program that maintains "all accidents are preventable" and responsibility and accountability begins with the employee.

2.2.6 Environmental Project Management

Environmental Project Management includes the safe and efficient groundwater, surface water remediation, remedial investigation, emergency response actions associated with areas under the environmental responsibility and implementation of the Remedial Investigation/Feasibility Study (RI/FS). This includes planning, organizing, scheduling, directing, coordinating and controlling project resources and budget and establishing necessary administrative controls. Fundamentals of Environmental Project Management include:

- Managing resources, applying materials and equipment necessary to address the environmental concerns at the Hematite facilities.
- Establishing and maintaining a line management safety program for environmental management.

2.2.7 Quality Assurance

Quality Assurance (QA) includes overall Quality Control of the project. This includes: planning, organizing and managing QA activities; providing overall QA directions; managing activities of assigned personnel including leading and organizing teams of personnel and contractors; developing and maintaining noncompliance identification and reporting process. QA includes::

- Managing the QA program, including planning, scheduling, and performing QA activities.
- Maintaining programmatic compliance with the quality assurance program.
- Coordinating assessments of QA programs to identify and control significant loss-producing exposure.
- Remaining fully informed of existing and proposed changes in QA regulations.
- Reviewing project's management assessment plans, processes and audit results and provide feedback to responsible managers.
- Promoting a communication programs to enhance and encourage employee awareness of QA requirements.

2.2.8 Licensing Support

Licensing Support consists of those activities necessary to ensure compliance with this license and progress to a safe decommissioning of the site. Licensing activities include interaction with regulators, license amendment preparation, calculation of site-specific DCGLs and preparation of the site Decommissioning Plan.

2.2.9 Environmental, Safety and Health

Environmental, Safety and Health (ES&H) includes meeting Project safety goals and continually improving the Project safety posture. In addition, key elements of ES&H include:

- Health and Safety
 - Developing and managing the Hematite health and safety program including industrial safety and industrial hygiene areas to comply with Federal regulations and standards.
 - Ensuring a safe and healthy work environment.
 - Developing and managing health and safety programs and procedures for implementation of federal safety regulations.
 - Ensuring safe and proper supervision, monitoring, operation, and maintenance of assigned systems and areas.
 - Maintaining accident and incident statistics.
 - Ensuring compliance with 29CFR1910 and 29CFR1926
- Environmental
 - The implementation of formal programs, policies, and procedures for management oversight of a broad spectrum of environmental compliance issues.
 - Developing and maintaining collaborative working relationships and effective lines of communication with EPA and NRC environmental and nuclear safety oversight staff, onsite contractors and other federal, state, and local regulatory agency personnel as may be required.

2.2.10 Emergency Management

Emergency Management consists of providing technical direction regarding the development and implementation of the project's Emergency Management Program. Emergency procedures generated in support of the Emergency Management Program will be consistent with Appendix R of NUREG-1556 (Volume 11). Changes to these procedures may be made without NRC review or approval.

The Emergency Management Program will include the following fundamentals:

- Postulation of the possible types of site accidents and accident classification with the appropriate emergency response measures and emergency equipment.
- Providing notification of appropriate site, local, state and federal authorities; organizational responsibilities;
- Establishing training requirements for project personnel;
- Ensuring emergency preparedness;
- Specifying reports and records requirements;

2.2.11 Planning and Control

Planning and Control includes the responsibility for functions including financial, accounting, and project scheduling. Additional responsibilities include:

- Maintaining a safe and compliant operation.
- Establishing and maintaining financial and managerial controls.
- Establishing and maintaining centralized project schedules in support of all aspects of the project.

2.2.12 Procurement/Contracts

Procurement/Contracts includes establishing procurement systems and controls for the purchase of materials, equipment, and sale of free-release materials. Legal and procurement reviews of customer, supplier, and subcontractor contracts will be coordinated. Additional elements include:

- Establishing contracts with subcontractors and vendors.
- Maintaining accurate and detailed procurement records consistent with complexity of activity
- Ensuring receiving operations are run effectively
- Managing commercial contract proposal review

2.2.13 Health Physics Oversight

Health Physics (HP) oversight consists of the day-to-day radiological monitoring of operations. Monitoring is accomplished through the collection of data that allows the effectiveness of radiological and criticality safety, environmental protection and emergency planning programs to be assessed. HP oversight shall be performed by personnel with sufficient experience and training to qualify as a Senior Health Physics Technician per American National Standards Institute (ANSI) publication *Selection, Qualification, and Training of Personnel for Nuclear Power Plants*, ANSI/ANS 3.1 – 1987. HP trainees, who may work under the control of a qualified HP, shall meet the same prerequisites identified above, with the exception of sufficient experience and training to qualify as an ANSI 18.1 Junior Health Physics Technician.

2.3 Organizational Assignments

Mr. A. Joseph Nardi will act as the Management Review Committee Chairman. Mr. Nardi has a Bachelor of Science degree in Chemical Engineering from The Pennsylvania State University and a Master of Science degree in Nuclear Engineering from Stanford University. Mr. Nardi has worked for Westinghouse Electric Company for 35 years in various positions primarily associated with radiological health. For the past 22 years, he has served as the License Administrator for Westinghouse and is the principal point of contact between Westinghouse and the NRC. Over the past 18 years, he has been involved with decommissioning activities at 11 Westinghouse sites. His experience has covered almost all segments of the nuclear fuel cycle which include uranium mining operation, several uranium and plutonium fuel fabrication facilities, service centers that support nuclear power plant operations, two research reactors, and several research facilities. The decommissioning projects have covered the entire spectrum of radionuclides that are associated with the nuclear fuel cycle. Mr. Nardi has been an active participant in the NRC decommissioning workshops and has played an active role in attempting to influence the regulatory framework for decommissioning. Mr. Nardi is also an active member of the Radiation Safety Committee for two other Broad Scope Licenses.

Mr. Cort Horton will be the site RSO. Mr. Horton has over 20 years experience in decommissioning project management, operational health physics, and waste management. Mr. Horton has supported various decommissioning projects resulting in NRC material license terminations. His responsibilities have included developing and implementing radiation safety policies and procedures. Additionally, Mr. Horton has working knowledge of NRC, DOT, OSHA and EPA regulations.

Other key elements as described in Section 2.2 will be filled by qualified personnel as approved by the Project Director. Each key element does not need to be managed by one individual. Westinghouse employees or contractors may perform element management. Project elements can be grouped and managed in a way that is beneficial to the site operations.

2.4 Project Oversight Committee

The Project Oversight Committee enables the self-regulation of the project. The goal of the Project Oversight Committee is to promote and continuously improve work place safety on the Hematite D&D Project. The Committee's purpose is to evaluate the effectiveness of and recommend improvements to the Project safety rules, policies, and procedures for accident and illness prevention programs in the workplace and, ensure that written updates and changes to policies and procedures of the safety programs are completed. The Committee will review first of a kind evolution and intent procedure changes. The Project Oversight Committee should perform an annual review of each of the following:

- Industrial safety trends
- Radiation safety trends
- Environmental protection trends
- Criticality safety practices
- Adequacy of emergency planning and drills
- Effectiveness of ALARA Program
- Effectiveness of Waste Minimization Program
- Abnormal occurrences and accidents

Sub committees may be established to lead and work programmatic elements as deemed appropriate by the Committee. Membership on the sub committee is not limited to safety committee members only. Other project employees may be assigned as needed to ensure the right expertise is provided.

Items brought to the Committee will be placed on the Action Item List. The item will remain on the list until closed or voted by the Committee in the majority to be deleted.

In addition, the Committee will submit a meeting report to the Hematite manager level personnel and the Director.

2.5 Training

A decommissioning training plan shall be developed to define the site-specific training required to safely perform work at the Hematite facility. Site employees and subcontractors shall comply with this training plan. Training shall be established for individuals working in or frequenting restricted areas.

Training will vary from a read-and-sign program to classroom or on-the-job instruction. The extent of training will be commensurate with the degree of hazard. Qualified personnel will provide training whose knowledge of the subject they are teaching exceeds that to be expected of workers completing the training.

The duration of training will vary from a few minutes for visitors, through a few hours for experienced radiation workers, to several days for some workers without prior training in radiation protection and radiation work techniques.

An escort, who has received the required training, may be provided for those who have not completed their radiation protection training. If the individual is to be in the restricted area for long enough periods that training is required by 10 CFR 19.12, such training will be completed in a timely manner.

The training program will be approved by the Radiation Safety Officer, conducted under the RSO's cognizance, and reviewed and updated, as necessary, under the RSO's direction.

2.5.1 Trainees

At a minimum, all individuals, including supervisors, likely to exceed 100 mrem in a year shall receive radiation protection training before beginning work. This includes visitors and transient workers.

2.5.2 Frequency

The Hematite Radiation Protection training is scheduled so that each individual is ordinarily trained in radiation protection before entering a restricted area. In special cases, where a worker or visitor must enter a restricted area prior to completion of the training, a trained and qualified individual will escort the individual.

The Hematite Radiation Protection training includes periodic refresher training, as necessary, to maintain awareness of the need, and each individual's responsibility, for maintaining exposures ALARA and to update and renew each individual's knowledge of appropriate subjects including emergency procedures and response criteria. Refresher training is normally conducted at intervals not exceeding 12 months with a 30 day grace period.

Meetings, postings, memos or other means of communication will be used, as necessary, to inform workers of important new developments in procedures, equipment, and regulations that have an immediate impact on the radiation protection aspects of their work.

2.5.3 Elements

Individuals will receive instruction in elementary radiation effects and those aspects of radiation protection applicable to that individual's work assignment to the degree required for the efficient, safe performance of their work.

The Radiation Protection training is designed to meet the needs of each individual, depending on background, previous training, and job classification.

Appropriate instructional methods and materials such as classroom lectures, video-training tapes, computer-aided instruction, and actual equipment may be used to present the radiation protection training. Performance-based training will be utilized particularly in the areas of survey instrument use, protective clothing use, and respirator use.

The Basic Radiation Protection training at the Hematite site will ordinarily consist of a formal course of instruction. Although the general format of the course may change, the basic subject material will only vary as necessary to provide updated information.

The Basic Radiological Training includes the following subjects:

- Applicable regulations and license conditions;
- Areas where radioactive material is used and stored;
- Potential hazards associated with radioactive material;
- Appropriate radiation safety procedures;
- Special site rules;
- Individual's obligation to report unsafe conditions to the Radiation Safety Staff or management;
- Appropriate response to emergencies or unsafe conditions;
- Worker's right to be informed of occupational radiation exposure and bioassay results; and
- Locations of pertinent regulations, licenses, and other material required by regulations.

2.5.4 Radiation Protection Training Objectives

Upon completion of the Radiation Protection Training, each individual shall be able to demonstrate competency in the following as appropriate for their specific job assignment:

- State the individual worker rights, privileges, responsibilities, and recommended approach to solving radiological concerns.
- Explain the concept of ALARA and apply the principles of time, distance, and shielding.
- Recognize the internal exposure pathways and the controls that can be implemented to minimize internal exposure.
- State both the federal occupational radiation exposure limits and the Westinghouse administrative limits.
- Recognize restricted areas, explain the basis for area postings, and identify the administrative controls for entry (RWP).
- Demonstrate the proper procedure for donning and doffing anti-contamination clothing.
- State the proper procedure for facility access and egress.
- Explain site dosimetry requirements and procedures.
- Read a self-reading pocket dosimeter.
- State the proper response to the site radiation monitoring system and site alert signal, and identify proper evacuation routes.
- State the risks and health effects associated with acute and chronic radiation exposures.
- Apply low-level radioactive waste minimization techniques.
- Explain the TEDE-ALARA concept and how it can be applied to reduce radiation dose.
- State the risks and health effects to the embryo/fetus from exposure to ionizing radiation.
- State the occupational dose limits for a declared pregnant worker.
- Identify the proper procedure for declaring pregnancy.

2.5.5 Evaluation

Each worker's knowledge, competency, and understanding will be evaluated with regard to the radiation protection aspects of specific job to be performed. The evaluation consists of written, oral, and/or on-the-job performance test. The worker will receive additional instruction and be retested in any subject in which the worker's performance is deficient.

Requalification evaluation will be carried out in conjunction with refresher training. Satisfactory performance by an individual on a requalification evaluation may be substituted for refresher training for that individual. The evaluation will include topics treated in the refresher training.

2.5.6 Records

Records of worker radiation protection training will be retained as required by regulatory requirements. Such records typically include:

- The worker's name.
- Inclusive dates for each segment of training or for each different training program.
- A specific description of all training completed satisfactorily, including references to pertinent lesson plans, course outlines, syllabuses, and other subject-specific descriptive information. Specific reference is usually made to such materials by date, edition, issue, etc., applicable to each worker.
- A performance rating for each segment of training or each different training program satisfactorily completed by the worker. This rating normally consists of a pass/fail grade, numerical or letter grade, or a written evaluation.
- The source of the training, i.e., the training facility and its location.
- Name(s) of individual(s) providing the training.

2.6 Policies and Procedures

Policies and procedures shall be established for the project. Policies are upper tier documents that assign responsibilities for compliance with specific requirements; work is not performed to these documents, but they set forth the Project's approach to and responsibilities for compliance and work processes. Procedures are documents that define how the technical requirements stated in policies are implemented. Procedures are mandatory and followed during the work activities. Policies and procedures should include the following areas:

- D&D Operations
- Environmental, Safety and Health
- General Project Information
- Health Physics
- Nuclear Criticality
- QA
- Waste Management (including transportation)

Policies and procedures shall undergo a review and approval process by project personnel based on the content of the document or as deemed necessary by the Project Director.

2.7 Audits and Inspections

Internal and external audits (Independent Assessments) of project activities or suppliers shall be planned, scheduled, and performed by personnel qualified in accordance with the requirements of the project QA Plan. Audits shall be performed in accordance with written procedures and checklists, by personnel who do not have direct responsibility for the activities being audited. Internal audits should be performed annually or more often, if deemed necessary by the responsible QA Manager. Audits shall provide comprehensive, independent verification and evaluation of the implementation of the entire Quality Assurance Program to verify compliance, determine effectiveness, and promote improvement in accordance with applicable regulations, codes or standards. External audits shall be performed triennially, as appropriate.

Audit results and corrective action activities shall be documented in an audit report. Follow-up actions shall be taken for areas found deficient during these audits to verify corrective action implementation and effectiveness. Records of audits (e.g., audit plans, written replies, and record of completion of corrective actions) and the qualifications of auditors shall be maintained as Quality Assurance records.

Inspection activities shall be planned and performed to verify conformance to drawings, procedures and/or specifications for each work operation where necessary to assure quality. Individuals other than those who performed, or directly supervised the activity being inspected shall perform inspection for acceptance. The qualifications of inspection personnel shall be based on their completed training, experience and demonstrated capability to perform the required inspection functions in accordance with applicable codes, standards, and approved procedures. Indirect control by monitoring processing methods, equipment, or personnel, shall be used when inspection is impossible or disadvantageous. Both inspection and process monitoring shall be used when control is inadequate without both.

Inspection procedures and instructions shall require the specification of hold points, witness points, inspection equipment requirements, accept-reject criteria, personnel requirements, characteristics to inspect, variable attributes, recording instructions, reference documentation and other requirements, as appropriate. The inspection procedures and instructions shall require that inspection results include supporting information such as variables, attributes, data, NDE records, welding information, certified materials test report (and/or certification), special process data, discrepancy reports, related dispositions and resultant re-inspection data.

In-service inspection methods shall include evaluations of performance capability of essential emergency and safety systems and equipment, verification of calibration and integrity of instruments and instrument systems, and verification of maintenance as appropriate.

2.8 Investigations and Reporting

Events specified by applicable regulations or license conditions shall be investigated and reported to the NRC. The QA Manager or ES&H Manager shall be responsible for conducting the investigation and documentation of reportable events.

Non-reportable occurrences shall be investigated and documented as appropriate. Such reports shall be available for NRC inspection.

2.9 Periodic Progress Reports

Periodic progress reports shall be submitted to the NRC at a frequency agreed upon by the agency. The progress reports should contain, but are not limited to the following:

- Critical Issues
- Issues of Interest to Regulatory Agencies
- Operational Highlights
- Schedule Information
- Miscellaneous

2.10 Records Management

A Quality Assurance Records system shall be maintained. QA records shall include, but are not limited to, design related records (calculations, drawings, research, development test reports and, design reviews), operating logs, inspection and test records, instructions and procedures, audit reports, personnel qualification(s), quality related procurement data, repair records, maintenance records, dosimetry records, radiological surveys, air sampling results and calibration records. Requirements and responsibilities for record transmittal, distribution, retention, maintenance, and disposition shall be established in approved procedures.

Procedures shall define storage, preservation and safekeeping requirements to meet applicable standards, codes and regulatory requirements. Quality Records retention periods are shall also be established and documented. In no case shall a quality record be destroyed before the applicable regulatory standard allows.

Quality Assurance records shall be retained and protected against damage, loss, or deterioration in accordance with governing implementing procedures and applicable regulatory standards (e.g., 10 CFR 50 Appendix B & 10 CFR Part 71.91, 71.135) as appropriate, and/or contractual requirements.

Records shall be reviewed for completeness, identification, and legibility prior to being entered into the quality records system. Some, or all, quality records may exist in electronic media but shall be subject to appropriate measures to assure protection against deterioration or loss as afforded to hard-copy records. Protection for QA records shall be provided by using either one of the following storage methods:

- (a) two sets of identical records maintained at physically separate, remote and equivalent storage locations, with access control and security that minimizes the risk of damage from fire, flooding and abnormal deterioration; or
- (b) official copies of QA records maintained in approved fireproof cabinet or vault, at a single location.