GE Nuclear Energy

General Electric Company
P.O. Box 780, Wilmington, NC 28402
910 675-5000

70-1113

February 25, 1997

Mr. M. F. Weber, Licensing Branch, NMSS
U.S. Nuclear Regulatory Commission
Mail Stop T 8-D-14
Washington, DC 20555-0001

Subject: License Renewal - Response to Request for Additional Information (TAC No. L10079)

Reference:
(1) NRC License SNM-1097, Docket 70-1113
(2) License Renewal Application, 4/5/96
(3) Submittal, RJ Reda to ED Flack, 5/6/96
(4) Submittal, RJ Reda to RC Pierson, 5/14/96
(5) Letter, RC Pierson to RJ Reda, 7/18/96
(6) Submittal, RJ Reda to RC Pierson, 8/30/96
(7) Submittal, RJ Reda to ED Flack, 9/26/96
(8) Letter, MA Lamastra to RJ Reda, 10/2/96
(9) Submittal, RJ Reda to MA Lamastra, 11/22/96
(10) Application, RJ Reda to MF Weber, 12/16/96
(11) Letter, MA Lamastra to RJ Reda, 12/17/96
(12) Submittal, RJ Reda to MF Weber, 2/5/97
(13) Letter, MA Lamastra to RJ Reda, 2/10/97
(14) Submittal, RJ Reda to MF Weber, 2/19/97

Dear Mr. Weber:

GE's Nuclear Energy Production (NEP) facility in Wilmington, N.C., hereby transmits the enclosed information in response to your above request dated 2/10/97. This information is being provided in support of our license renewal request.

Attachment 1 contains the requested information (italicized) identified in Mr. Lamastra's letter dated 2/10/97, and our responses (bold print).

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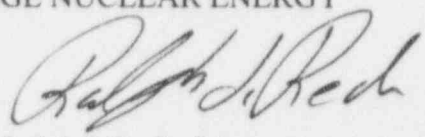
Attachment 2 contains (1) a description of the changes made to the license renewal by page and section, and (2) the page changes to our license renewal application for pages contained in the Table of Contents, Chapter 4, Chapter 7 and Chapter 9. The changes in Chapter 9 are word changes discussed with Mr. Flack earlier this month relating to our Radiological Contingency and Emergency Plan (RC&EP). Each chapter is provided in its entirety for easy replacement. Each page within the chapter that contains a change is indicated with a horizontal line (|) in the right hand column to show where a change has taken place. All replacement pages contain the date of this submittal (2/25/97) and are shown as revision zero.

Six copies of this submittal are being provided for your use.

Please contact Charlie Vaughan on (910) 675-5656 or me on (910) 675-5889, if you have any questions or would like to discuss this matter further.

Sincerely,

GE NUCLEAR ENERGY



Ralph J. Reda, Manager
Fuels & Facility Licensing

/zb
Attachments

cc: RJR-97-018
L. A. Reyes, Region II Administrator
G. L. Troup, NRC-Atlanta
M. Fry, State of NC

ATTACHMENT 1

Response to Request for Additional Information Contained in
Letter from MA Lamastra to RJ Reda Dated February 10, 1997

G.E. - Wilmington Renewal Application Comments
Chemical Safety Program

Chapter 3.0 - Conduct of Operations

1. *Page 3.1, Section 3.1.1, At what frequency are periodic comparison assessments conducted?*

   ISAs undergo assessment anytime changes are made which require the ISA to be reevaluated or changed and as a minimum every five years where no change takes place.

2. *Page 3.1, Section 3.1.2, Please elaborate on the statement "The specific content of the information depends on the age of the design and the requirements in place at the time of design" and provide an example. For chemical process safety, what is the safety basis documentation and how is it maintained?*

   The statement in the referenced section of the draft license refers to the fact that the plant is some 28 years old and that the procedures and processes for doing work have changed with time and in all cases when these changes were made they have not necessarily been made retroactive. Therefore when one looks at the files of safety related information it is not always in the same form or format but in all cases we have the information necessary to assure the safety of the plant. As we move toward baselining the plant to the integrated safety basis as defined in Chapter 4 and as applied to the DCP there will be more uniformity in the information.

   With regard to the form of chemical safety information the DCP facility information is included in the ISA documentation in the configuration management system defined in the draft license. For the balance of the plant it is mainly found in the Chemical Job Hazards Analysis, Job Hazards Analysis, Emergency Plan, training plans and some related documents that are maintained under configuration management in the configuration management system defined in the draft license.

3. *Page 3.2, Section 3.1.3, Who conducts initial training for the approved safety reviewer and is refresher training conducted?*

   Training for Safety Reviewers is identical to the training provided to Qualified Reviewers. The reviewers are trained by members of the EHS staff, and the training covers radiological safety, criticality safety, environmental protection,

chemical safety, and industrial safety. Refresher training, per se, is not provided: however, ad hoc training is provided when there are major changes, for example in regulations.

4. *Page 3.2, Section 3.1.4, Are the process descriptions maintained in the same manner as other five types of information listed or are they covered under the technical specifications and requirements category?*

   Yes. Process descriptions are considered a subset of the technical specifications and requirements category.

5. *Page 3.2, Section 3.2, Does maintenance personnel conduct post maintenance functional testing on equipment other than safety related equipment?*

   Yes, however, this work is not performed using the functional test instruction (FTI) routine used for safety systems.

   Maintenance on non-safety related structures, systems and components deal with operating systems. The restart procedures for operations verify the functionality during the restart. Additional functional tests are not needed.

6. *Page 3.3, Section 3.2, Are maintenance instructions provided for every maintenance operation conducted by licensee maintenance personnel and contractor maintenance personnel not only for safety equipment but for preventive and corrective maintenance activities? Is there guidance for "skill of the craft" activities?*

   Maintenance instructions are not provided for every maintenance operation conducted. Where that work needs a special instruction to be successful these instructions are provided. Where the work done can be accomplished successfully by persons possessing an appropriate "skill of the craft" knowledge, additional instructions are generally not provided. We do however have some general instructions and work rules which must be adhered to for all work. A complete list of procedures and instructions are available on site.

   With regard to "skill of the craft", management has the responsibility to establish job functions with responsibilities and authorities appropriate to get the work done safely and effectively and a portion of d[illegible] this includes ensuring that properly skilled and qualified people of sufficient number are in place in the organization. The primary method of ensuring "skill of the craft" is through the management process. Additionally a number of tools are used to augment this. For example GE uses Master Mechanics which are certified by the State under the National Labor Board Master Mechanic Program. GE uses

licensed electricians. Instrument Technicians are certified by the Instrument Society of America.

7. *Page 3.3, Section 3.2, Is there a predictive maintenance program in place and documented?*

GE uses very little predictive maintenance. Most of our maintenance is based on preventative maintenance program routines and GE has found this to be acceptable for the type of operations in our factory. Our maintenance programs are documented.

8. *Page 3.7, Section 3.4.2, Are evaluations conducted to assess the adequacy of operator and subcontractor personnel chemical safety training, are independent audits conducted?*

As GE has indicated, one of the key management responsibilities is the assurance that properly trained and qualified people are in place on each job so that the plant operates safely. The qualification, selection and maintenance of that system has also been discussed. From the management standpoint assessments of the adequacy of training are conducted on an ongoing basis by the first line of management.

On a quarterly minimum frequency the product line managers and safety manager conduct walkthroughs and audits of each process area and included as a part of the scope of these activities is operator behavior relative to chemical safety.

The overall training program and its effectiveness is also included in the scope of the biennial audits discussed in Section 3.6.1.

9. *Page 3.8, Section 3.6.1, What is the frequency of chemical safety audits and are there a minimum required per year?*

Chemical safety audits are conducted in several ways. Monthly self-inspections by area coordinators and employees include chemical safety. In addition, chemical safety is checked as a part of EHS audits done quarterly.

10. *Page 3.9, Section 3.6.3, Do the independent audits cover the chemical safety program? What is the frequency of audits?*

Audits are performed by a mix of independent internal and external personnel

that include many of the safety programs, including Chemical Safety. These audits are performed biennially.

11. *Page 3.12, Section 3.9.2, What is the frequency for reviewing operating procedures that involve chemical safety?*

    Every three years.

12. *General, Configuration Management, How are license amendments captured by the CM program?*

    All changes to operations, regardless of the origin, follow our change control process and are included in configuration management.

    License amendments that affect an area are developed at the request or with the knowledge of the area manager(s). Once the application is submitted to the NRC, a copy is distributed to the area manager and those responsible for implementing the change. Once NRC approval is received, these individuals are sent a copy of the approval.

Chapter 4.0 - Integrated Safety Analysis

13. *Page 4.2, Section 4.4, List the processes covered or the reference in Chapter 1.0.*

    The processes that are covered and the reference to Chapter 1 is to Chapter 1, Section 1.2.3 - Activity where a summary of all the processes covered is included.

14. *Page 4.4, Section 4.9, What is considered to be "extreme on-site catastrophes" and "serious on-site consequences" for chemical safety?*

    A hydrogen explosion is an example of an extreme on-site catastrophe. Acid burns suffered by a worker that required medical treatment would be considered a serious on-site consequence.

15. *Page 4.4, Section 4.9, Examples of assurances to maintain readiness of controls to prevent or mitigate accidents are listed. Should Configuration Management, QA, and Audits and Assessments be included in this list?*

    Yes. These are assurance measures and Section 4.9 has been modified to include these items.

16. *Page 4.5, Section 4.9, Table 4.1, For Level 2 Consequences, what are the chemical "regulatory limits for safety"?*

The regulatory limits for chemical safety include but are not limited to the 29 CFR 1910.119 standard (Process Safety Management of Highly Hazardous Chemicals) and 29 CFR 1910.1000 Standard (Air Contaminants).

17. *Page 4.7, Section 4.9, For chemical safety, identify the controls for the highest risk category. What are the "appropriate assurance elements" for mid-level risk controls? Provide examples of low-risk controls.*

Our graded application of controls assurances is contained in a draft plant policy/procedure which GE is currently using as a guide. This procedure will be finalized as a part of the implementation of Chapter 4 requirements. Below is a table that summarizes our current operating guidelines:

	Importance		
	High	Mid-level	Low
Active Engineered Controls			
periodic functional test	x		
calibration	x	x	x
verification following maintenance	x		
drawings	x	x	x
preoperational audit	x		
technical report	x	x	
Administrative Controls			
operating procedure	x	x	x
training	x	x	x
technical report	x	x	
preoperational audit	x		
Passive Controls			
technical report	x	x	x
manufacturing tolerance, corrosion tolerance	x		
periodic test or dimensional verification	x		

Chapter 7.0 - Chemical Safety

18. *Page 7.1, Section 7.0, Who is responsible for managing the chemical safety program at the facility?*

The Manager, GENE EHS, is responsible for managing the chemical safety program.

The Manager, GENE EHS delegates to the Manager, Site EHS and others certain elements of the program for implementation. Operating to safe

practices and procedures regarding chemical safety are the responsibility of the GE-Wilmington facility manager delegated to the Product Line Managers.

19. *Page 7.1, Section 7.1, Is the chemical safety program contained in a procedure, i.e., is there a document that lists how all the program elements (Integrated Safety Analyses (ISA), Conduct of Operations, Emergency Management, etc.) are related and expected to perform at the facility.*

Yes. Site practices procedures and operating procedures cover chemical review and approval, Integrated Safety Analyses, Conduct of Operations, Emergency Plan & Procedures, Training, Configuration Management, Chemical Job Hazards Analysis (including Personal Protective Equipment - PPE), and other aspects of chemical safety.

20. *Page 7.1, Section 7.1, What is the basis of the chemical safety program, i.e., is it based on a corporate program or related chemical process safety requirements (29 CFR Part 1910.119)?*

The chemical safety program is based on OSHA and EPA regulations. In addition, GE Wilmington's chemical safety program incorporates industry and GE company best practices. Where applicable, GE follows OSHA's Process Safety Management Standard (29 CFR 1910.119).

21. *Page 7.1, Section 7.1, What chemicals are presently covered by the chemical process safety program (chemicals that have been evaluated through hazard evaluations or ISA)?*

Chemicals used in the DCP process have been evaluated through the Hazop and ISA reviews. In addition, the DCP chemicals and other chemicals used throughout the GE site are reviewed through site procedures (chemical approvals, Chemical Job Hazard Analysis, and others).

Currently on the site, anhydrous ammonia is the only chemical regulated under OSHA's Process Safety Management Standard (29 CFR 1910.119). The Process Safety Management Standard has been complied with.

22. *Page 7.1, Section 7.1, What is the criteria used to determine if a chemical is hazardous and could effect the nuclear safety program and what is the nuclear safety program?*

The criteria used to determine if a chemical impacts the established nuclear safety basis for a given process or equipment can be divided into two primary

categories; those that directly and those that indirectly effect the nuclear safety program.

Chemicals which may directly impact the safety basis are explicitly addressed in safety analysis and associated safety limits and/or controls. Examples of chemicals important to criticality safety is the determination of the water equivalent moderation effect. For example, certain UO_2 powder additives consist of long hydrocarbon chains that contain significant quantities of hydrogen. GE considers the effectiveness of this 'moderator' when establishing the additive limits. Similarly, other moderators are considered (e.g. ammonium oxalate, acrawax, lubricating oils, etc.). The safety function also takes into account known chemical uranium compounds and their formation (e.g. UF_6, red oil formation, uranyl nitrate hexahydrate, acid solutions or chemical systems known to cause precipitation), and concentrating agents such as those used in the solvent extraction process (e.g. percent TBP in dodecane) which directly influence uranium extraction.

Chemicals which may indirectly impact the nuclear safety program are usually the same chemicals identified by the chemical safety program as having a direct impact on chemical safety. For example, a fire hazard or explosion risk could have radiological consequences, however, protective actions would be driven by the fire/explosion hazard so as to mitigate the risk of both. The Radiological Contingency and Emergency Plan includes provisions to assess dose to an individual as a result of an accident. The radiological safety program also actively monitors individuals' exposure to soluble uranium compounds that exhibit chemical toxicity (in accordance with 10 CFR 20).

Both the criticality safety and radiological safety program functions are clearly described in chapters 2, 5 and 6 of the SNM-1097 license renewal application, as amended.

23. *Page 7.1, Section 7.1, Are all hazardous chemicals evaluated or are some determined to have no impact? How is this process conducted, documented and verified? What is the threshold for conducting hazards analyses?*

Yes. Chemicals are evaluated prior to use at the site as described in Section 7.2.2.

Chemical safety is considered as part of the ISA process (reference Sections 4.7 and 7.2.1. The ISAs are documented in reports as described in Section 4.8. Administrative control is described in Section 4.10.

As denoted in the response to question #21 most chemicals have a threshold value for significance as a hazardous chemical and the regulations dealing with hazardous chemicals identifies when hazards analysis are to be done. GE follows these regulations, however, may consider other chemicals and values of significance as define by management.

24. *Page 7.2, Section 7.2.2, Is there a procedure that outlines the approval/evaluation process described in 7.2.2? Is chemical incompatibility considered as a potential hazard? In the second paragraph, the phrase, "not NRC regulated" should be deleted.*

Yes. Plant practices and procedures (reference Section 3.9) addresses the chemical approval and evaluation process. The ISA process considers chemical incompatibility. Site chemicals and their hazards not connected with special nuclear material handling require other considerations such as noted in the 2nd paragraph of 7.2.2.

The second group of items in Section 7.2.2 has been eliminated as they dealt with information related to GE's overall chemical safety program but were not appropriate to include in the licensing document. This includes the wording: "not NRC regulated".

25. *Page 7.2, Section 7.2.2, Does the formal approval described in 7.2.2 require approval of the person described in Question #18 above?*

Yes. The plant practices and procedures describe the review and approval process and include the Manager, Site EHS as an approver.

26. *Page 7.2, Section 7.2.2, Is this program audited on a specified basis?*

Yes. Chemical approval is reviewed as a part of the audits described in the response to question #10.

27. *Page 7.2, Section 7.2.3, What are the applicable regulations for labeling or identifying hazardous materials? How are personnel made aware of these regulations? Is training required? Is compliance with applicable regulations audited and documented?*

The applicable regulations which govern labeling, identification and training of employees with regard to Hazardous Materials include 29 CFR 1910.1200 (Hazard Communication Standard), 40 CFR 262 (Standards Applicable To

Generators Of Hazardous Waste), 49 CFR 172.704 Subpart H (Training Requirements for Shipping - DOT), and 49 CFR 172.400, Table 101 (Labeling).

Hazard Communication Training is given to employees upon initial assignment. Chemical specific training via Chemical Job Hazard Analysis (CJHA), is reviewed with appropriate employees annually. Hazardous Waste and DOT training is given to employees upon initial assignment and every three years. Conformance to standards is assured by visual observation and employee interviews. See Question #10 regarding audits.

28. *Page 7.3, Section 7.2.4, The statement in 7.2.4 "Conformance to these standards is not NRC regulated" should be deleted. NRC responsibilities do involve plant conditions related to the presence of hazardous chemicals on or near a fuel cycle site that could affect radiation safety. This area is discussed specifically under paragraph C of the Branch Technical Position on Chemical Safety For Fuel Cycle Facilities dated March 21, 1989, and should be understood.*

Section 7.2.4 has been reworded to contain only that language that is required by the NRC for licensing. The wording: "not NRC regulated" has been removed.

29. *Page 7.3, Section 7.2.5, Are root causes analyzed and used for a lessons learned program and is this program proceduralized?*

Section 3.7 mentioned incident investigations, root cause determinations, and lessons learned documentation. As the UIR (Unusual Incident Report) and TapRoot ® investigation results become available, the lessons learned are shared with affected personnel in building meetings and with other site management in daily NEP production meetings. The lessons learned from major incidents are further reviewed at meetings of the WSRC (Wilmington Safety Review Committee). NEP procedures address the UIR system, root cause investigations and the functions of the WSRC."

ATTACHMENT 2

1) Description of Revisions to the License Renewal Application by Page and Section

2) License Renewal Page Changes

Description of Revisions

Page	Section	Description
4.4	4.9	Inserted references to quality assurance, configuration management, audits and assessments as additional examples of assurances typically used at GE-Wilmington as controls to prevent accidents (NRC Question #15).
7.2	7.2.2	The section containing the phrase "not NRC regulated" has been deleted since these are not issues that the NRC regulates (NRC Question #24).
7.2	7.2.4	This section has been rewritten to clarify the employee training and awareness, and to exclude the statement "Conformances to these standards is not NRC regulated" (NRC Question #28).
9.1	Chapter 9	This section has been rewritten to clarify reference to the RC&EP, to simplify the wording that references future revisions, and also to correct the title and address of where changes that do not decrease the plan's effectiveness will be sent (per discussion with Mr. E. Flack).

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CHAPTER 4.0
INTEGRATED SAFETY ANALYSIS

4.1 INTEGRATED SAFETY ANALYSIS

Integrated Safety Analysis (ISA) is the focal point for safety at GE-Wilmington. ISA is a process in which multifunctional teams analyze the hazards at the site to determine accident scenarios and risk, and ensure that controls are in place to prevent and/or mitigate accidents. The risk associated with an accident scenario is used to judge the level of ongoing assurance that is applied to controls which are in place to prevent the accident. The broad scope of the team's analysis includes criticality safety, radiological safety, environmental protection and industrial safety including chemical safety and fire protection. The accident scenarios identified in the ISA are reviewed by the appropriate safety functions to ensure that the plant continues to comply with site safety policy and regulatory limits.

This program applies to the Dry Conversion Process (DCP) and other process areas as they become baselined using the ISA process.

4.2 SITE DESCRIPTION

A general description of the site is included in Chapter 1.0. More detailed site information is included in the Environmental Report described in Chapter 10.0. The credible external events which are considered by the ISA teams are defined in an established written practice.

4.3 FACILITY DESCRIPTION

Safety-significant information describing the facility, including arrangement of buildings on the site, location with respect to the site boundary, and the facility's ability to withstand credible external events, is included in drawings and reports maintained under configuration management.

4.4 PROCESS DESCRIPTION

Processes covered by this license are summarized in Chapter 1.0. Detailed information concerning these processes is typically included in technical reports, nuclear safety analyses, operating procedures, Process & Instrumentation Drawings (P&IDs), and other detailed process information, which is maintained under configuration management.

4.5 PROCESS SAFETY INFORMATION

Process technology information is gathered and maintained for future use by ISA teams. Technical reports, which typically include process chemistry, intended inventories, and safe upper and lower limits for process variables such as temperature, pressure, flow, and composition, are maintained under configuration management.

Process equipment information is maintained in accurate condition through configuration management. Examples include P&IDs, materials of construction, electrical classification, ventilation system design, and safety systems including interlocks, detection, and suppression systems.

Hazardous material information, including toxicity, permissible exposure limits, physical data, reactivity data, corrosivity data, and thermal and chemical stability data, is available to employees and ISA teams in the form of Material Safety Data Sheets (MSDS's).

4.6 TRAINING AND QUALIFICATIONS OF THE ISA TEAM

ISAs are conducted by teams of individuals with diverse, pertinent knowledge and experience. The team members are chosen to provide operational and technical expertise in the study area, and appropriate safety expertise based on the hazards that are known to exist in the study area. The composition of the team is defined in an established plant practice.

4.7 ISA METHODS

The hazards in the facility are identified and analyzed using methodology that is widely accepted throughout the chemical industry. Examples of the methodology are

described in Guidelines for Hazard Evaluation Procedures, published by the Center for Chemical Process Safety of the American Institute of Chemical Engineers (1992). Hazards are analyzed using established methods, for example:

- Preliminary Hazards Analysis
- What If / Checklist
- Hazards and Operability Analysis
- Failure Mode and Effect
- Fault Tree
- Event Tree
- Human Reliability Analysis

Procedural guidance is provided to the ISA teams in the form of a written plant practice that outlines the special treatment these methods require when applied to processes in the nuclear industry. Examples of this special treatment includes the consideration of criticality and radiological hazards. In this procedure, the teams are instructed to consider start-up, shutdown, upsets, and maintenance, in addition to normal operating conditions. Guidance is provided concerning the external events which must be considered in ISAs.

The written plant practice also provides guidelines for ranking accident scenarios according to risk, that is, unmitigated consequence and likelihood. The team then ensures that the controls that prevent or mitigate accidents are of the appropriate quality and reliability.

4.8 RESULTS OF THE ISA

The results of the ISA team's analysis are communicated in a summary report to appropriate levels of management. This report summarizes the elements that are important to safety in the area studied. The lists of hazards and accident scenarios are compiled and maintained by the configuration management function. Guidance to the teams is provided in a written plant practice to ensure comprehensive reports.

4.9 CONTROLS FOR PREVENTION AND MITIGATION OF ACCIDENTS

Controls which are relied upon to prevent or mitigate serious accidents are maintained in a ready state through the application of a wide range of assurances. Examples of assurances typically used at GE-Wilmington include: configuration management, preventative maintenance, functional tests, quality assurance, purchasing specifications, training, procedures, audits, assessments and inspections. The level of assurance applied is consistent with the level of risk associated with the specific accident scenario. Responsible risk management requires consideration of the components of risk, specifically consequences and likelihood. Accident scenarios are rated by the ISA teams in terms of unmitigated consequences and likelihood of an initiating event according to criteria defined in written plant practices.

The general categories of consequences are defined as follows: the highest category is assigned to accidents that could result in injury to the public located outside the site boundary and to extreme on-site catastrophes. The middle level is assigned to accidents that would result in regulatory violations and/or serious on-site consequences. All other accidents are assigned to the lower level. These categories are summarized in Table 4.1.

Table 4.1
Consequence Levels

Severity Ranking	Radiological/ Criticality	Environmental/ Industrial/Chemical
3	• exposure to an individual member of the public off-site (5 rem, 30 mg intake of U) • severe exposure to an employee (400 rem internal plus external dose or 230 mg intake of U)	• fatality medical treatment for a member of the public off-site • permanent disability • off-site contamination above regulatory standards
2	• exceed regulatory limits for employee exposure (5 rem, 10 mg U internal)	• serious injury • exceed permit limits or regulatory limits • lost time injury • reportable release
1	• exceed administrative limits on daily air samples, lung counts, bioassays, contamination, TLDs • 10% of annual exposure limit	• OSHA recordable injury • first aid • exceed internal limits • spill inside containment • UIR

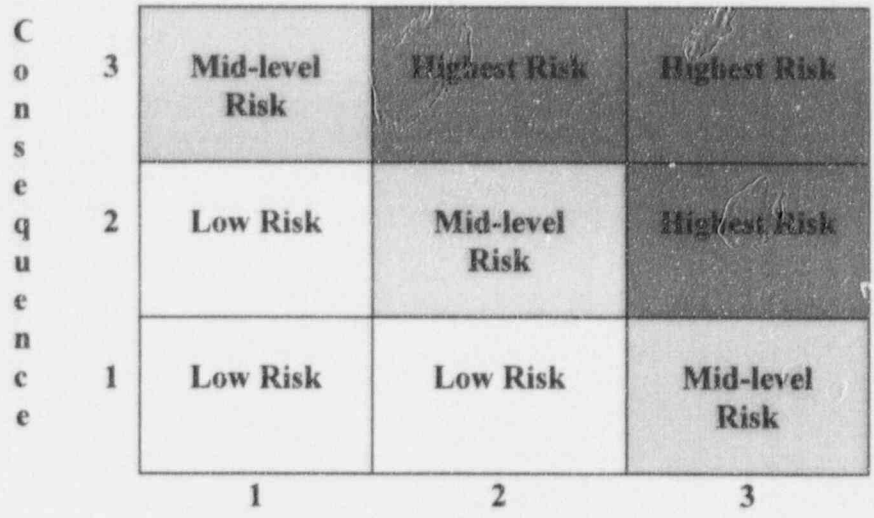
Accident scenarios are rated according to the likelihood of occurrence. The likelihood is categorized in qualitative terms that can easily be applied by the ISA teams. The highest category of likelihood is applied to initiating events that could occur at any time in the immediate future. The middle category is for events that are likely to occur during the life of the operation. The lowest likelihood category is used for events that are not expected to occur during the life of the facility. In order to provide consistency in ranking, quantitative levels are provided as guidelines to the teams. These levels are summarized in Table 4.2.

Table 4.2
Likelihood Levels

LEVEL	FREQUENCY	LIKELIHOOD
3	more frequent than once every two years	likely to occur in the immediate future
2	every two to fifty years	likely to occur during the life of the facility
1	less frequent than once every fifty years	not likely to occur during the life of the facility
0	incredible	likelihood is indistinguishable from zero

The levels of consequence and likelihood are combined to estimate the level of risk of initiating a particular accident. Figure 4.1 demonstrates the risk assignment matrix. This risk assignment is used by the teams to determine the level of assurance that will be applied to the controls that protect against that particular accident.

Figure 4.1
Risk Assignment Matrix



Controls that prevent or mitigate events in the highest risk category receive full evaluation and appropriate application of all assurance elements defined in Chapter 3.0. Appropriate assurance elements are applied to mid-level risk controls. Low risk controls are treated with normal, prudent attention.

4.10 ADMINISTRATIVE CONTROL OF THE ISA

The ISA is maintained current through a configuration management program that ensures that: 1) facility changes receive adequate integrated safety review, and 2) changes are adequately documented.

Proposed facility changes are reviewed by a trained and approved integrated safety reviewer to determine if the change impacts the existing ISA. If so, an ISA team is assembled, and the change is analyzed. The results of the ISA and the recommendations of the team are used in approving or rejecting the proposed change. After the change is implemented, the revised ISA becomes a part of the controlled documentation for the facility.

The trained and approved integrated safety reviewer possesses the experience, training and skills to consider criticality, radiological, environmental, chemical, and industrial impact within a predefined set of limits. The reviewer is approved by the

manager of the EHS function and reports organizationally to the manufacturing product line. This organizational structure gives ownership of operational safety to the manufacturing function.

CHAPTER 7.0
CHEMICAL SAFETY

7.1 CHEMICAL SAFETY PROGRAM

It is the policy of GE-Wilmington to provide a safe and healthy work place by minimizing the risk of chemical exposure to employees and members of the general public. The GE-Wilmington chemical safety program is documented in written, approved practices, and ensures that processes and operations comply with applicable federal and state regulations pertaining to chemical safety.

Hazard evaluations are performed on nuclear and non-nuclear operations within the nuclear manufacturing operations where the potential exists for hazardous chemicals to be used in such a manner that they could effect the nuclear safety program. This ensures appropriate controls are in place for adequate protection of the general public and safe use by employees, and that the use of chemicals does not create potential conditions that adversely effect the handling of licensed nuclear materials.

Employees using hazardous materials are trained to ensure safe handling, use, and disposal.

7.2 CONTENTS OF CHEMICAL SAFETY PROGRAM

The following management control elements are incorporated into GE-Wilmington chemical safety program:

7.2.1 CHEMICAL SAFETY IN INTEGRATED SAFETY ANALYSIS

Considerations of chemical safety for hazardous materials as described in this Chapter are incorporated in GE-Wilmington's Integrated Safety Analysis program. GE-Wilmington's Integrated Safety Analysis Program is explained in detail within Chapter 4.0.

7.2.2 CHEMICAL APPROVAL / EVALUATION

Prior to new hazardous materials being brought on-site or used in a process, they are approved through the environmental protection function and the chemical and fire safety function. The formal approval process consists of evaluations of the following potential hazards:

- Physical Hazards
- Health Hazards
- Fire / Explosive Hazards
- Potential Impact on handling of licensed nuclear material

The conclusions of this approval process may dictate the following assurance of chemical process safety:

- New procedures or changes in existing procedures
- Maintenance programs for control related equipment
- Configuration management
- Emergency Planning
- Training

7.2.3 LABELING & IDENTIFICATION

Hazardous materials or conveyance systems are labeled or identified to meet applicable regulations. The proper identification of hazardous materials decreases the likelihood of improper use, handling and disposal reducing potential negative consequences.

7.2.4 EMPLOYEE TRAINING & AWARENESS

Radiation workers receive nuclear safety training and other job related training (Chapter 3, Section 3.4) which includes safety information related to chemicals associated with nuclear material and chemicals in the area which could impact the nuclear safety of the process.

7.2.5 INCIDENT CLASSIFICATION & INVESTIGATION

GE-Wilmington's incident classification and investigation program is discussed in Chapter 3.0.

CHAPTER 9.0

RADIOLOGICAL CONTINGENCY AND EMERGENCY PLAN

GE-Wilmington shall maintain and execute the response measure in the Radiological Contingency and Emergency Plan as specified in Safety License Condition S-3 of Materials License SNM-1097; or as further revised by the licensee consistent with 10 CFR 70.32(i). The Radiological Contingency and Emergency Plan incorporates the requirements established by the Emergency Planning and Community Right-to-Know Act of 1986, Title III, Publication L 99-499.

GE-Wilmington will make no changes to the Radiological Contingency and Emergency Plan which would decrease its effectiveness without prior approval of the NRC.

Changes, which do not decrease the effectiveness of the Radiological Contingency and Emergency Plan, will be reported within six months of the change to the Chief, Licensing Branch, Division of Fuel Cycle Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

The requirements of the Radiological Contingency and Emergency Plan are implemented through approved documented procedures maintained by GE-Wilmington.