NRC FORM 658
(9-1999)

U.S. NUCLEAR REGULATORY COMMISSION

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DATE OF MEETING
05/22/2003

The attached document(s), which was/were handed out in this meeting, is/are to be placed in the public domain as soon as possible. The minutes of the meeting will be issued in the near future. Following are administrative details regarding this meeting:

Docket Number(s)	**Project 689**
Plant/Facility Name	**NEI**
TAC Number(s) (if available)	
Reference Meeting Notice	**5/7/2003**
Purpose of Meeting (copy from meeting notice)	**To discuss inspections, tests, analyses, and acceptance criteria for operational programs and 10 CFR Part 52 combined license issues**

NAME OF PERSON WHO ISSUED MEETING NOTICE	TITLE
Joseph M. Sebrosky	**Senior Project Manager**

OFFICE
NRR

DIVISION
NRLPO

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Agenda
May 22, 2003 Meeting
with NEI

9:00 a.m.	Introductory Comments	NEI/NRC
9:10 a.m.	Discussion of response to staff requirements memorandum (SRM) dated September 11, 2002, regarding programmatic ITAAC (The ADAMS Accession Number for the SRM is ML022540755. Additional background is contained in attachment 2 to the announcement.)	NRC
9:30 a.m.	Discussion of programmatic ITAAC response	NRC/NEI
10:30 a.m.	Identification and plans for addressing 10 CFR Part 52 combined license (COL) issues	NRC/NEI
11:45 a.m.	Public Comment	
11:55 a.m.	Summary	
12:00 Noon	Adjourn	

NOTE: Specific topics and associated discussion times may change without notice

Contact:
Joseph M. Sebrosky, NRR
301-415-1132, jms3@nrc.gov

Attachment 1

Background Material for Programmatic Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)

Description of the Issue

In SECY-02-0067, "Inspections, Tests, Analyses, and Acceptance Criteria for Operational Programs (Programmatic ITAAC)," the staff requested Commission approval for its position that combined licenses (COLs) for a nuclear power plant submitted in accordance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52 Subpart C contain ITAAC for operational programs required by regulations such as training and emergency planning (ADAMS Accession Number ML020700641). The Commission provided its response in a September 11, 2002, staff requirements memorandum (ADAMS Accession Number ML022540755).

Discussion Topics

The staff would like to discuss a response to the staff requirements memorandum (SRM) including a discussion of the following option. A draft standard review plan (SRP) Section 14.3 Appendix E, "Programmatic ITAAC" would be developed for guidance. The staff is considering categorizing the 14 programs that it listed in SECY-02-0067 in the following manner as part of this guidance:

Category A: Programmatic ITAAC are required. A program that falls into this category is emergency planning.

Category B: Programmatic ITAAC are not necessary because hardware-related ITAAC address the results to which the program is directed. Examples of programs that may fall into this category are equipment qualification, quality assurance, and containment leak rate testing.

Category C: An ITAAC for a program or elements of the program is not necessary because the program and its implementation can be fully described[1] in the application and found to be acceptable at the COL stage.[2]

Category D: An ITAAC for a program or elements of the program is necessary because the program and its implementation cannot be fully described[1] in the application. That is, the COL applicant cannot provide the necessary and sufficient programmatic information for approval of the COL without ITAAC.[2]

Category E: An ITAAC for a program is not necessary because ITAAC will be dispositioned prior to fuel load and the program is not required to be implemented until after fuel load. Examples of programs that may fall into this category include the inservice inspection and inservice testing programs, and the maintenance rule program.

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[1] A principal issue for these categories is what constitutes a "fully described" program.

[2] The following programs may fall into Category C or D depending on the information provided at the time of the COL: fire protection, radiation protection, security, fitness for duty, training, access authorization, reportability, licensed operator training.

September 11, 2002

MEMORANDUM TO: William D. Travers
Executive Director for Operations

FROM: Annette L. Vietti-Cook, Secretary /RA/

SUBJECT: STAFF REQUIREMENTS - SECY-02-0067 - INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA (ITAAC) FOR OPERATIONAL PROGRAMS (PROGRAMMATIC ITAAC)

The Commission has disapproved the staff's proposal that the combined license (COL) applications submitted in accordance with the requirements of 10 CFR 52 Subpart C must contain Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) for a wide range of operational programs such as training, quality assurance, fitness for duty, and others. The Commission has approved a much more limited use of programmatic ITAAC than that proposed by the staff. A review of the regulatory and legislative history reveals that ITAACs were intended to be very narrow. They should encompass only those matters that, by their nature, cannot be resolved prior to construction. In fact, most, if not all, of the operational areas in which the staff has proposed ITAACs are ones that can and should be resolved at the time of the issuance of the COL. Consistent with this framework, the staff should resolve the maximum number of programmatic issues prior to issuing the COL. However, because the NRC has yet to have any experience in the actual application of ITAAC, the Commission is not prepared to dismiss the possibility that programmatic ITAAC may be necessary in some very limited areas.

Although the NRC inspection process does not replace a particular ITAAC, an ITAAC for a program should not be necessary if the program and its implementation are fully described in the application and found to be acceptable by the NRC at the COL stage. The burden is on the applicant to provide the necessary and sufficient programmatic information for approval of the COL without ITAAC.

One should not confuse NRC authorization to operate a power plant in accordance with its license with a finding that the licensee is necessarily in compliance with every regulatory requirement of that license. If the Commission determines prior to operations that a licensee will not be in compliance with a regulation or a portion of the license, the normal enforcement process still applies. If the Commission finds that the licensee's programs do not provide adequate protection of public health and safety, the staff would take appropriate enforcement action to prohibit or delay fuel load pending appropriate corrective action.

The staff should work to bring added predictability to the process by developing appropriate guidelines, with Commission approval of the final product, to support the submission of necessary and sufficient information on programs in COL applications and clarify when programs beyond emergency planning, if any, require or are likely to require ITAAC in the combined license application. The staff should be available to meet with stakeholders as it

develops more specific guidance on what information is necessary and sufficient in the application such that an ITAAC for that program may not be necessary. The staff should interact with stakeholders to identify those issues that are material to the Commission making a reasonable assurance finding at the COL stage. A report should be submitted to the Commission on the status of these interactions by March 1, 2004.

For at least the first few COLs that are received, the staff should inform the Commission if it plans to require any specific programmatic ITAAC.

cc: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
OGC
CFO
OCA
OIG
OPA
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)
PDR

Industry Perspective on Path Forward from SRM-02-0067
Outline for Discussion at May 22 Public Meeting

10 CFR 52.79(c) requires that COLs contain ITAAC "which are necessary and sufficient to provide reasonable assurance that, if the ITA are performed and the acceptance criteria met, the facility has been constructed and will operate in conformity with the combined license, the provisions of the AEA and the NRC's regulations."

The Commission's September 11, 2002, SRM on SECY-02-0067 has provided an improved, although still incomplete understanding of the required scope of COL ITAAC.

It is generally understood that COLs must include:

- Design certification ITAAC, if referenced, or equivalent for a custom plant
- Plant-specific design ITAAC, e.g., for the service water intake structure and ultimate heat sink
- ITAAC on emergency planning

In its SRM, the Commission addressed the issue of whether ITAAC on operational programs might also be required, affirming that ITAAC "should encompass only those matters that, by their nature, cannot be resolved prior to construction. In fact, most, if not all operational areas in which the staff has proposed ITAAC are ones that can and should be resolved at the time of the issuance of the COL."

The SRM concluded that "an ITAAC for a program should not be necessary if the program and its implementation are fully described in the COL application and found acceptable by the NRC staff at the COL stage. The burden is on the applicant to provide the necessary and sufficient programmatic information for approval of the COL without ITAAC [on programs]."

We agree with the staff conclusion in its May 7 background information on this issue that a common understanding of "fully described" is central to developing needed guidance on what information on operational programs is necessary and sufficient in the application and determining if any ITAAC on programs are required.

Based on our understanding of the intent of Part 52 and the Commission, we believe that operational programs are "fully described" if necessary and sufficient information is provided to support NRC reasonable assurance findings on the acceptability of the program, i.e., that the program meets NRC requirements (or will meet NRC requirements when fully implemented).

Further, we believe that the extent of operational program information required in a COL application is consistent with that provided in existing FSARs, on which the NRC staff has based its reasonable assurance findings in the past. Thus we

envision that operational programs would be described in future FSARs much as they have historically. Because licensees are now subject to more programmatic requirements than were the most recent Operating License applicants, COL applications are expected to describe a larger set of operational programs than are described in existing FSARs.

We note that implementation of some programs, such as fire protection and radiological protection, involves features of the physical plant, and key "hardware" elements of such programs have historically been described in OL applications. In addition to describing these programs consistent with NRC regulations, COL applications will include description of associated "hardware" elements (e.g., radiation protection and fire protection features & equipment) consistent with past practice. This may be accomplished by reference to a design certification.

We agree that new guidance on necessary and sufficient operational program information would be appropriate to locate in a new SRP Section 14.3. However, we believe the five category approach under consideration by the staff is unnecessarily complex. As stated above, we believe that the extent of operational program information required in a COL application should be consistent with that provided in existing FSARs, on which the NRC staff has based its reasonable assurance findings in the past.

We believe that to the extent a COL application contains operational program information consistent with that provided in existing FSARs, including description of key hardware elements as appropriate, this information should be that which is necessary and sufficient to support NRC reasonable assurance findings on the acceptability of the programs.

It should be noted that when operational programs are required to be fully implemented, procedures will be available for NRC review to support inspections of licensee implementation.

This view reflects the distinction recognized by the Commission in its SRM between "NRC authorization to operate a nuclear power plant in accordance with its license and a finding that that the licensee is necessarily in compliance with every regulatory requirement of that license." The latter finding is not required for issuance of the COL, and thus the COL application need not demonstrate compliance with every regulatory requirement of that license. Rather, as identified in the SRM, "if the Commission determines prior to operations that a licensee will not be in compliance with a regulation or a portion of the license, the normal enforcement process still applies. If the Commission finds that licensee programs do not provide adequate protection of the public health and safety, the staff would take appropriate enforcement action to prohibit or delay fuel load pending appropriate corrective action."

NRC/Industry Meeting on Combined License and Construction Inspection Program (COL/CIP) Issues

May 22, 2003

NEI

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NEI

Follow-up to SRM on "Programmatic ITAAC"

- SRM issued September 11, 2002:
  - "...ITAAC for a program should not be necessary if the program and its implementation are fully described in the COL application and found acceptable by the NRC at the COL stage. The burden is on the applicant to provide the necessary and sufficient" programmatic information for approval of the COL without ITAAC"
  - Provided for separation of
    - Reasonable assurance findings at COL on operational programs
    - Later verification of program implementation
- Common understanding needed on "necessary and sufficient" information re: operational programs in COL applications

NEI

Industry Perspective

- "Fully described" = necessary and sufficient to support NRC reasonable assurance findings at COL on the acceptability of programs, i.e., that programs meet NRC requirements (or will meet NRC requirements when fully implemented)
- COL applications should describe operational programs consistent with existing FSARs
- Operational program implementation assured by required compliance w/NRC regulations and associated NRC oversight/enforcement

NEI

12.0 RADIATION PROTECTION

12.1 ASSURING THAT OCCUPATIONAL RADIATION EXPOSURES ARE AS LOW AS REASONABLY ACHIEVABLE (ALARA)

12.1.1 Policy Considerations

TVA has established a formal program to ensure that occupational radiation exposures to employees are kept as low as reasonably achievable (ALARA). The program consists of: (1) full management commitment to the overall objectives of ALARA; (2) issuance of specific administrative documents and procedures to the TVA design and operating groups that emphasize the importance of ALARA through the design, testing, startup, operation, maintenance and decommissioning phases of TVA nuclear plants; and (3) continued appraisal of inplant radiation and contamination conditions by the onsite radiation protection staff.

12.1.2 Design Considerations

The facility and equipment design features for control of occupational radiation exposures are described in detail in Section 12.3. Although the original design of Watts Bar Nuclear Plant predated Regulatory Guide 8.8, the concept of keeping occupational exposures ALARA is an important consideration throughout new designs and modifications of the plant. In addition, the plant design effort routinely considers radiation protection experience at other nuclear plants.

New designs and modifications of the plant are performed and reviewed by engineers and health physicists with several years of experience in radiation protection design. In addition, the design of the plant is continually reviewed and modified as necessary when new ALARA concerns become known. Close communication among the design staff, equipment vendors, operating and maintenance personnel, and Radiological Control Personnel is maintained in order to design Watts Bar Nuclear Plant and its equipment with ALARA considerations as a primary concern.

Dose assessment based on operating experience is discussed in Section 12.4.

In general, piping which may contain significant concentrations of radioactive materials is not field-run. Some sample and radiation monitoring lines are field-run. While the exact location is set in the field, the general location is determined by the designer to minimize radiation exposure.

12.1.3 ALARA Operational Considerations

Consistent with TVA's overall commitment to keep occupational radiation exposures as low as reasonably achievable, specific plans and procedures are followed by operating and maintenance staff to assure that ALARA goals are achieved in the operation of the plant. Operational ALARA policy and procedures are formulated at the Corporate level in Nuclear Power and are implemented at each nuclear plant through the issuance of division procedures and plant instructions for the purpose of maintaining Total Effective Dose Equivalent (TEDE) ALARA. These procedures and instructions are consistent with the intent of Section C.1 of Regulatory Guide 8.8 and Regulatory Guide 8.10. Included in these operating procedures and plant instructions is the provision that employee radiation exposure trends are reviewed periodically by management staff at the plant and in the central office. Summary reports are prepared that describe: (a) major problem areas where high radiation exposures are encountered; (b) which worker group is accumulating the highest exposures; and (c) recommendations for changes in operating, maintenance, and inspection procedures or modifications to the plant as appropriate to reduce exposures.

Maintenance activities that could involve significant radiation exposure of employees are carefully planned and carried out using well-trained personnel and proper equipment. Where applicable, specific radiation exposure reduction techniques, such as those set out in Section C.3 of Regulatory Guide 8.8, are used. Careful personnel radiation and contamination monitoring are integral parts of such maintenance activities. Upon completion of major maintenance jobs, personnel radiation exposures are evaluated and assessed relative to predicted man-rem exposures so that appropriate changes can be made in techniques or procedures for future jobs.

Additionally at the plant level, the Plant Operations Review Committee reviews operating and maintenance activities involving the major systems of the plant (i.e., radwaste, NSSS, etc.) to further assure that occupational exposures are kept as low as reasonably achievable.

An ALARA committee composed primarily of supervisory personnel is established to review periodically the effectiveness of implementation of the ALARA Program. Reviews include the site performance against ALARA goals, employee ALARA suggestions, ALARA planning documents, and trends. The Plant Manager or Assistant Plant Manager will normally serve as chairman of the site ALARA committee.

REFERENCES

None

FSAR

12.5 RADIOLOGICAL CONTROL (RADCON) PROGRAM

12.5.1 Organization

The radiological control program consists of four elements that are directed toward essential support to TVA's nuclear power program.

1. Radiological impact assessments.

2. Radiation protection planning and radiological safety evaluation, including preliminary safety analysis reports, final safety analysis reports, and radiological emergency plans.

3. Radiological environmental monitoring.

4. Radiological control activities

The RADCON Section is under the supervision of the Plant Manager.

The RADCON Section is responsible for the radiological control activities at the plant. It applies radiation standards and procedures; reviews proposed methods of plant operation; participates in development of plant documents; and assists in the plant training program, providing specialized training in radiation protection. It provides coverage for all operations involving radiation or radioactive materials including maintenance, fuel handling, waste disposal, and decontamination. It is responsible for personnel and inplant radiation monitoring, and maintains continuing records of personnel exposures, plant radiation, and contamination levels.

The RADCON superintendent is the onsite supervisor of the RADCON Section and is responsible for direction of an adequate program of radiological health surveillance for all plant operations involving potential radiation hazards. He keeps the plant manager informed at all times of radiation hazards and conditions related to potential exposure, contamination of plant and equipment, or contamination of site and environs. His duties include training and supervising RADCON technicians; planning and scheduling monitoring and surveillance services, scheduling technicians to ensure around-the-clock shift coverage as required; maintaining current data files on radiation and contamination levels, personnel exposures, and work restrictions; and ensuring that operations are carried out within the provisions of developed radiological control standards and procedures. He critiques plant operations and reviews suggestions from employees to identify areas in which exposures can be reduced. As an alternate member of the Plant Operations Review Committee, he reviews and consents on operating procedures. He provides assistance and advice to the Site Emergency Director during radiological emergencies.

As a minimum, the guidance of Regulatory Guides 8.2, 8.8, 8.10, and 1.8 has been followed in developing the RADCON program and the personnel qualifications.

The minimum qualification requirements for the RADCON Superintendent are stated in Section 13.1.3.

The minimum requirements for RADCON (health physics) technicians responsible for a shift are appropriate technical training and two years of applied health physics experience dealing with radiological problems similar to those encountered in a nuclear power station. Applicable experience may be granted as equivalency for the technical training.

Further information on the training and qualifications of RADCON personnel may be found in Chapter 13.

12.5.2 Equipment, Instrumentation, and Facilities

The RADCON facilities consist of office space; short-term record storage; and a service center. The service center is equipped with instrumentation, supplies, cabinets, and storage space. Service center drains are piped to the Liquid Radwaste System for processing. The service center is located between the Auxiliary Building and service shop areas. The technicians use the service center as their base of operations and communications. Portable and laboratory radiation monitoring instruments, and other RADCON supplies including signs, personnel decontamination supplies, air sampling equipment, etc., are kept in this area.

Adjacent to the RADCON service center is a protective clothing/dress out area, and a personnel decontamination room equipped with a shower. Radiation monitoring instruments for detection of very low levels of radioactive contamination are readily available.

The portable and laboratory equipment located in the service center will allow the RADCON personnel to measure dose rates and contamination levels throughout the plant in all routine and emergency situations. The portable RADCON survey instrumentation and the fixed RADCON and chemistry laboratory counting equipment are equivalent to the instrumentation described in Regulatory Guide 8.8, Position C.4.

Each portable survey instrument is calibrated and checked periodically with standard radioactive sources in accordance with instrument specific calibration and maintenance procedures. Accurate records on the performance of each instrument during each calibration are maintained. Each laboratory counting system is checked at regular intervals with standard radioactive sources for proper counting efficiencies, background count rates, and operating parameters.

TVA provides protective clothing for use in radiological areas. Clothing required for a particular instance is prescribed by RADCON based upon the actual or potential radiological conditions. Protective clothing is cleaned, surveyed for contamination, checked for physical condition, and returned to service if acceptable. Additional protective clothing stock is available from the plant warehouse as required. Protective clothing available for use includes:

1. Coveralls
2. Lab coats
3. Gloves
4. Head covers
5. Foot covers

Tape may be provided so that openings in clothing can be sealed, if necessary.

Respiratory protection devices are available from the RADCON service center. The RADCON unit is responsible for the maintenance of the devices, although other groups may perform the actual work. The need for, and type of, respiratory protection equipment to be issued for specific tasks/activities is determined by RADCON evaluations. Maintaining TEDE ALARA and minimization of the total risk from all expected hazards is the goal of the evaluations. Considerations made in the performance of these evaluations should include:

1. Process controls (e.g., system flushing, venting, isolation)
2. Engineering controls (e.g., containment devices, ventilation, remote handling tools)
3. Radiological hazards
4. Industrial Safety hazards
5. Effects of respirators on worker efficiency and total dose
6. Environmental conditions
7. Need for precise communications and/or visual perception
8. Physiological and/or psychological affects of respirators
9. Job duration (e.g., access controls, stay times)
10. Worker acceptance and input

Available respiratory protection devices include:

1. Full face mask with high efficiency filters
2. Full face mask with constant or pressure demand air flow. A manifold unit is used that contains mist filters, a regulator, and relief valve.
3. Powered air purifying respirators (PAPRs) with high efficiency filters
4. Constant air flow hoods and/or suits
5. Self contained pressure demand breathing apparatus (bottled air type).

Prospective monitoring determinations for internal and external dose monitoring are performed for individuals or group of individuals entering the restricted area. Personnel monitoring, for dose from sources external to the body, is conducted using appropriate dosimeters as required by 10CFR20. TVA maintains accreditation as a processing laboratory for dosimeters, as described in American Standards Institute (ANSI) N13.11-1983, "Personnel Dosimeter - Criteria for Performance". This accreditation is under the National Voluntary Laboratory Accreditation Program conducted by the National Institute of Standards and Technology. Dosimeters may be processed onsite by WBN, an accredited subfacility, or by another processing laboratory within the scope of TVA's accreditation. Dose information for total body (total effective dose equivalent), external exposure of the skin, lens of the eye, and extremities is recorded in a dose tracking system and retained in a permanent historical database for generating required reports. Real time control is generally implemented using information from direct reading dosimeters. Official doses of record are taken from dosimeters. However, doses are calculated when dosimeter results are not available or do not accurately represent actual dose received.

Personnel monitoring and confirmatory monitoring for dose from intakes of radioactive material is conducted using DAC-HR tracking and bioassays, including whole body counting. Monitoring is performed for each person required to be monitored by 10CFR20. The whole body counter is calibrated with standard radioisotopes in configurations that approximate the human body. It is able to detect expected gamma emitting radionuclides per ANSI-N13.30, September 1989, Table-1, "Acceptable Minimum Detectable Activities."

12.5.3 Procedures

Routine radiological surveys to detect radiation, radioactive contamination, and airborne radioactivity are performed throughout the plant on periodic schedules. Survey frequencies are determined by the RADCON Superintendent based upon the actual or potential radiological conditions. Schedules for completion of routine surveys are issued to the technicians. As plant conditions change, the schedule will be updated. Radiological surveys may be performed whenever personnel enter potential or actual radiological areas and there is any doubt as to the existing conditions. Retention of survey records follows the requirements of 10 CFR 20.2103 and Regulatory Guide 1.88.

Section 12.1.1 defines the TVA overall ALARA program. Inplant procedures involving radiological conditions are written such that keeping exposures ALARA is a major consideration.

Entry into Radiation Areas as defined by 10 CFR 20.1003 is administratively controlled. Radiation Areas are posted per 10 CFR 20.1902. Entry to these areas requires the issuance of a Radiation Work Permit (RWP). The RWP sets out entry requirements and other precautions. In addition, any entry into Radiation Areas requires possession of an appropriate dosimeter.

Access controls to prevent unplanned exposures in high radiation areas are implemented in accordance with Technical Specifications 5.11, High Radiation Area. In addition to the access control requirements for high radiation areas, the following control measures are implemented to control access to very high radiation areas in which radiation levels could be encountered at 500 rads or more in 1 hour at 1 meter from a radiation source or any surface through which the radiation penetrates:

1. Conspicuously posted with a sign(s) stating GRAVE DANGER - VERY HIGH RADIATION AREA
2. Area is locked. Each lock shall have a unique core. The keys shall be administratively controlled by the RADCON Superintendent.
3. Plant manager's (or designee) approval required for entry.
4. RADCON personnel shall be in accompaniment of the person(s) making the entry. RADCON shall assess the radiation exposure conditions at the time of the entry.

Areas where transferable radioactive contamination is present in levels greater than 1000 dpm/100 cm^2 beta-gamma or 20 dpm/100 cm^2 alpha are posted as "Contaminated Areas." Entry into a Contaminated Area requires a RWP which specifies protective clothing and measures dependent upon the conditions. Whenever practical, contaminated equipment will be packaged to prevent contamination spread and tagged with radioactive material tags when removed from a Contaminated Area. All materials and equipment leaving Contaminated Areas will be monitored and released only if there is no contamination present in excess of established limits. All items which have been in a radiologically controlled area and which have the potential for becoming contaminated are monitored prior to being released from the area.

Potential airborne radioactivity concentrations are kept to a minimum by process and engineering controls. Airborne radioactivity conditions are evaluated by using strategically located continuous air monitors, as well as routine and special grab sampling.

Regulatory Guide 8.9, "Acceptable Concepts, Models, Equations, and Assumptions for a Bioassay Program," is used as guidance in implementing a bioassay program.

Planned Special Exposures (PSE) may be authorized. In the event WBN uses a PSE, the PSE will be conducted in accordance with guidance from Regulatory Guide 8.35, "Planned Special Exposures".

Occupational exposure limits for minors, declared pregnant women, and for radiation dose to the embryo/fetus are established following the guidance of Regulatory Guide 8.34, "Monitoring Criteria and Methods to Calculate Occupational Radiation Doses", and Regulatory Guide 8.36, "Radiation Dose to the Embryo/Fetus".

All personnel entering the RCA unescorted will have completed a radiological orientation course. This course consists of introductory subjects, monitoring techniques and equipment, protective procedures and equipment, and the radiological emergency plan. The presentation methods, length of the particular course, material emphasized, and participation in demonstrations are based upon the needs of the individual.

The storage and handling of byproduct materials and special nuclear materials is detailed in procedures.

REFERENCES

None.

The Bigger Picture

- Industry objectives re: COL/CIP issues
  - Clarify COL and ITAAC processes
  - Optimize processes to reduce time-to-market for new nuclear plants
  - Support reliable cost and schedule estimates
  - Provide head start to first COL applicant(s)

Overarching goal is to support new plant business decisions by 2005

NEI

Parallel COL Task Force Efforts

- COL application guidance
  - Establish standard Table of Contents
  - Develop standard content
  - Anticipate and resolve generic issues
- COL and ITAAC processes
  - ITAAC scope
  - COL application, review and hearing
  - ITAAC verification and transition to operation
- COL/CIP topic list and priorities

NEI

Near Term Activities

- Follow-up as necessary re: operational programs
- Part 52 NOPR for comment
- Draft CIP Framework Document for comment
- NRC perspective on Sec. 52.103 process
- COLTF work on COL application guideline

NEI

COL Application Guidance

- Industry Schedule
  - Table of Contents – September 2003
  - Detailed Outline – June 2004
  - Rev. 0 guideline for trial use and comment – Dec. 2004
- Key issues identified for discussion w/NRC (*e.g.*, see list of COL/CIP discussion topics)
- Other issues to be addressed as they are identified

NEI

May 21, 2003

COL Process and Construction Inspection Program
NEI-NRC Generic Discussion Topics

COL/CIP Topic		Priority / Time Frame	Discussion/Resolution Vehicle	Interim Milestone(s)
COL-1	Identify most likely COL scenarios, develop nominal NRC review/hearing timeline(s) and identify opportunities to optimize the COL licensing process	2Q03/4Q04	TBD	TBD – Industry proposals
COL-2	Develop COL application format and content guidance, including detailed outline and generic material	2Q03/4Q04	NEI COLA Guideline	3Q03 – Proposed COLA ToC 2Q04 – Detailed COLA outline 4Q04 – Rev. 0 COLA guideline
COL-3	Establish a common understanding with NRC regarding the Engineering Design Verification process	2Q03/4Q03	• NEI 11/01 white paper • CIP Framework Doc • NRC Insp. Guidance	
COL-4	Establish a common understanding with NRC regarding the ITAAC Verification process	2Q03/4Q03	• NEI 11/01 white paper • CIP Framework Doc • NRC Insp. Guidance	
COL-5	Establish a common understanding with NRC regarding the 10 CFR 52.103 ITAAC hearing process	2Q03/4Q03	TBD	TBD – NRC feedback on NEI 11/01 white paper
COL-6	Establish a common understanding with NRC regarding the process for assuring operational readiness and transition to operation under Part 52	2Q03/4Q03	• NEI 11/01 white paper • CIP Framework Doc • NRC Insp. Guidance	
COL-7	Maximize the clarity and effectiveness of Part 52 requirements	2Q03/2Q04	• NOPR • SECY on proposed Final Rule • SRM/Final Rule	8/03 (est.) – Comments due on Part 52 NOPR
COL-8	Determine the treatment of operational programs in a COL application	1Q04	• SECY (due 3/04) • SRM	
COL-9	Development of COLA guidance on ESP – COL interface issues	2003/04	NEI Draft COLA Guideline	
COL-10	Development of COLA guidance on the form and content for the emergency planning ITAAC required by Part 52	2003/04	NEI Draft COLA Guideline	

COL/CIP Topic		Priority / Time Frame	Discussion/Resolution Vehicle	Interim Milestone(s)
COL-11	Development of COLA guidance for providing required plant-specific design information and associated ITAAC	2003/04	NEI Draft COLA Guideline	
COL-12	Identification and preparation of "COL Items" from certified designs that can be addressed generically in advance of the first applications	2003/04	NEI Draft COLA Guideline	
COL-13	Define and address seismic-related issues that need to be resolved to support COL applications and reviews	2003/04	NEI Draft COLA Guideline	
COL-14	Development of COLA guidance on providing required plant-specific PRAs	2004	NEI Draft COLA Guideline	
COL-15	Development of COLA guidance on seeking Limited Work Authorizations (LWA-1 and LWA-2), including guidance on site redress plans	2004	NEI Draft COLA Guideline	
COL-16	Development of guidance for completion of design acceptance criteria (e.g., human factors, control room design, digital I&C) in certified designs	2004	TBD	
COL-17	Development of a human factors engineering plan to address plant staffing requirements (levels and qualifications) of personnel.	2005	TBD	
COL-18	Development of COL form and content, including NRC findings, license conditions, etc.	2005	TBD	
COL-19	Development of Emergency Action Levels appropriate to advanced reactor designs	2005	TBD	
COL-20	Development of guidance on plant-specific technical specifications, including evaluation of lessons learned since the issuance of the ALWR design certifications.	2005	TBD	
COL-21	Development of change process guidelines for control of various categories of COLA information (e.g., Tier 1, Tier 2, Tier 2*, severe accident related, plant specific, etc.)	2005	TBD	
COL-22	Modular plant licensing issues	TBD	TBD	