May 6, 1992

Docket No. 52-002

Mr. E. H. Kennedy, Manager
Nuclear Systems Licensing
Combustion Engineering
1000 Prospect Hill Road
Windsor, Connecticut 06095

Dear Mr. Kennedy:

SUBJECT: SYSTEM 80+ RELIABILITY ASSURANCE PROGRAM

We are providing you with the enclosed Discussion Paper to form the basis for a conference telephone call or meeting to discuss the open issues in our review of the reliability assurance program plan for System 80+. This review is based on your submittal of January 31, 1992. Please inform us of when you will be able to support the teleconference or meeting.

Sincerely,

Original Signed By

Thomas V. Wambach, Project Manager
Standardization Project Directorate
Division of Advanced Reactors
and Special Project
Office of Nuclear Reactor Regulation

Enclosure:
Discussion Paper

cc w/enclosure:
See next page

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cc: Mr. E. H. Kennedy, Manager
Nuclear Systems Licensing
Combustion Engineering
1000 Prospect Hill Road
Windsor, Connecticut 06095

Mr. C. B. Brinkman, Manager
Washington Nuclear Operations
Combustion Engineering, Inc.
12300 Twinbrook Parkway
Suite 330
Rockville, Maryland 20852

Mr. Stan Ritterbusch
Nuclear Licensing
Combustion Engineering
1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095

Mr. Daniel F. Giessing
U. S. Department of Energy
NE-42
Washington, D.C. 20585

Mr. Steve Goldberg
Budget Examiner
725 17th Street, N.W.
Washington, D.C. 20503

Mr. Raymond Ng
1776 Eye Street, N.W.
Suite 300
Washington, D.C. 20006

DISCUSSION PAPER OF NRC STAFF

REVIEW OF THE RELIABILITY

ASSURANCE PROGRAM PLAN FOR

SYSTEM 80+ NULCEAR POWER PLANT

(submitted January 31, 1992)

BACKGROUND

The need for a safety-oriented reliability effort for the nuclear industry was identified by the NRC in Section II.C.4 of NUREG-0660, "NRC Action Plan Developed as a Result of the TMI-2 Accident," dated August 1980. Initial NRC research in the area of reliability assurance began in the early 1980's. The results of this research concluded that an operational reliability program based on a feedback process of monitoring performance, identifying problems, taking corrective action, and verifying effectiveness of the actions was needed and that other NRC initiatives (e.g., maintenance inspection, performance indicators, aging programs, and Technical Specification (TS) improvement) would address this need. The overall conclusion of this research was that an operational reliability program could be implemented most effectively in performance-based, non-prescriptive regulation, where NRC mandates the level of safety performance to be achieved. For example, licensees could be required to set availability/reliability targets for selected systems and to measure performance compared to the targets. The TMI task was closed out in October 1988 without further action because of several NRC initiatives that effectively subsumed the operational reliability program effort. The NRC initiatives that formed the basis for closing out this TMI task included efforts to (1) improve maintenance and better manage the effects of aging, (2) improve technical specifications, (3) develop and use plant performance indicators, and (4) develop an operational reliability program as an acceptable means of meeting the station blackout rule (10 CFR 50.63).

NUREG-1070, "NRC Policy on Future Reactor Designs," dated 1985 recommended the use of a Systems Reliability Program to ensure that the reliability of components and systems important to safety would remain at a sufficient level. To ensure that reliability obje-

tives are met and to prevent degradation of reliability during operation, it was envisioned that the probabilistic risk assessment (PRA) performed at the design stage would be used as a tool in making detailed design decisions affecting procurement, testing and the formulation of operations and maintenance procedures.

In a few specific instances, the NRC is studying or has established reliability targets for systems and components. For example, Standard Review Plan (SRP) Section 10.4.9, "Auxiliary Feedwater System," requires that an acceptable AFW system design should have an unreliability in the range of 10E-4 to 10E-5 per demand. Generic Issue B-56, "Diesel Reliability," involves efforts to determine, monitor and maintain emergency diesel generator reliability levels. Additional regulatory basis for key elements of the program can also be found in 10 CFR Part 50, Appendix A and 10 CFR 50.65.

In SECY 89-013, "Design Requirements Related to the Evolutionary Advanced Light Water Reactors," dated January 19, 1989, the staff identified several issues for ALWRs that may go beyond present acceptance criteria defined in the Standard Review Plan. The reliability assurance program (RAP), as discussed in SECY 89-013, involved the need for a program to ensure that the design reliability of safety significant systems, structures and components is maintained over the life of a plant. SECY 89-013 informed the Commission that a RAP would be required for ALWR design certification. By letter to CE dated November 21, 1988, the NRC stated that "the staff is considering matters that go beyond the current Standard Review Plan but that we expect these advanced reactor designs to employ." Reliability assurance was identified as one of these matters. Additionally, in the enclosure to the November 1988 letter, as well as in the SECY 89-013 discussion on reliability assurance, the staff stated that:

> "Certification of a design will be based in part upon a PRA of that design. In that the validity of a PRA is highly dependent on the reliability of systems, structures and components, the staff requires assurance that programs will be implemented which will ensure that the reliability of those systems, structures and components (assumed in analyses) will be maintained throughout plant life. Therefore, a program to assure design reliability must be provided as part of the FDA application."

The reliability assurance program can be seen as a program that consists of two distinct parts: the first part, referred to as the Design RAP (D-RAP), is the responsibility of the designer and applies to vendor submittals for design certification; and the second part, referred to as the Operations RAP (O-RAP), is the responsibility of and applies to an applicant referencing a certified design for a combined construction and operating license (COL). At the design stage, the D-RAP involves a top-level program

that defines the scope, conceptual framework, and essential elements of an effective RAP. The D-RAP also implements those aspects of the program that are applicable to the design process. In addition, the D-RAP identifies the relevant aspects of plant operation, maintenance, and performance monitoring for the risk-significant structures, systems and components (SSCs) for the owner/operator's consideration in developing the site-specific O-RAP.

The staff's position on the RAP is that a designer's submittal for design certification pursuant to 10 CFR Part 52 would include, in part, the framework for a reliability assurance program and would also implement those elements of the RAP that would be applicable to and implemented during the design phase **[Tier 1 requirement]**. In turn, the designer would provide the framework of a RAP for a COL applicant. A COL applicant would augment the designer's RAP to reflect plant-specific information and implement those elements applicable during the construction and operations phases.

The staff's evaluation of CE's Reliability Assurance Program Plan for the System 80+ Nuclear Power Plant was based on the guidance contained in the supporting documentation for TMI Task Item II.C.4, "Reliability Engineering," and SECY 89-013, "Design Requirements Related to the Evolutionary Advanced Light Water Reactors (ALWRS)." The Licensee Performance and Quality Evaluation Branch (LPEB) is assigned primary review responsibility for ALWR reliability assurance programs. Some material contained in the CE System 80+ RAP is beyond the scope of LPEB's review area, such as probabilistic risk assessment (Section 2.0 of the CE System 80+ RAP submittal) and technical specifications (Section 5.0 of the CE System 80+ RAP submittal). Staff comments on areas outside of LPEB's review area can be found in the respective sections of the DSER for the CE System 80+ SSAR, as applicable.

EVALUATION

1.0 INTRODUCTION

1.1 Purpose

Section 1.1 of the CE RAP defines the RAP as a program for maintaining consistency between the System 80+ PRA and plant configuration and states that the RAP will ensure that the procedures, Technical Specifications, and plant configuration (including maintenance) are consistent with the PRA. Additionally, CE states that the PRA will be maintained and updated as design details increase and that the PRA will be maintained as a living document that reflects the operating plant as it evolves.

The staff considers that the fundamental purpose of the D-RAP is to identify those SSCs that are significant contributors to risk, as shown by the PRA and other sources, and to ensure that the plant

design provides SSCs that are at least as reliable as that assumed in the PRA. The staff considers that the RAP should also identify SSCs that prevent or mitigate plant transients, or could affect a plant trip or ESF actuation, or whose failure could prevent a system from fulfilling its intended safety function, and specify appropriate operation, maintenance and monitoring requirements. During plant operation, the RAP should assure that (1) the reliability levels of these SSCs are maintained commensurate with those assumed in the design certification PRA throughout the life of the plant, (2) assure that the original bases and design assumptions are satisfied and (3) that safety margins are maintained. The staff review considers that these fundamental concepts of a RAP are not adequately addressed in Section 1.1 of the CE RAP submittal.

The staff concludes that Section 1.1 should be clarified to provide information on the RAP that (1) identifies risk-significant SSCs, (2) ensures that the plant design provides SSCs at least as reliable as that assumed in the PRA, and (3) that these reliability levels should be maintained over the life of the plant. This is an open issue that must be resolved before the staff can complete its review of Section 1.1 of the CE RAP.

1.2 Scope

Section 1.2 of the CE RAP states that the RAP describes the elements of the program for maintaining the PRA, conducting a Reliability, Availability, Maintainability, and Inspectability (RAMI) program and a Reliability Centered Maintenance (RCM) program for the entire plant. CE further states that the RAP "should assure consistency between the PRA bases and the plant operation, maintenance and configuration."

In the staff's RAI dated October 10, 1991, the staff requested, in part, that CE describe the scope and objective of its RAP, including a discussion on selection criteria, such as a graded approach to safety that is based on the PRA and the SSCs to prevent or mitigate plant transients, and provide basic definitions for its RAP. This discussion was not included in CE's response to the RAI.

The staff's position is that the scope of the RAP includes all risk-significant SSCs throughout plant life, using the PRA and other industry sources to identify and prioritize those SSCs that are important to prevent and mitigate plant transients or other events that could present a risk to the public.

The staff's position is that the objective of a D-RAP is to (1) identify risk significant SSCs, based on the PRA and other sources, (2) assure that the plant design provides SSCs that are at least as reliable as those assumed in the PRA, and (3) assure that these SSCs are built and operated throughout plant life at least as reliably as assumed in the PRA. In this regard, once the risk

significant SSCs have been identified, a D-RAP should describe the process for achieving this overall objective and should also identify key assumptions regarding any operation, maintenance, and monitoring activities that a referencing applicant should consider in developing its O-RAP. The development and implementation of the O-RAP is the responsibility of the referencing applicant, and the staff's position on the review of an O-RAP is that it will be evaluated as part of a referencing applicant's submittal for a combined operating license.

The staff concludes that Section 1.2 should more clearly define the scope and objective of a RAP, define the basic definitions and include a discussion on selection criteria. These are open issues that must be resolved before the staff can complete its review of Section 1.2 of the CE RAP.

2.0 PRA PROGRAM ELEMENTS

Section 2.0 of the CE RAP states that the RAP program includes the elements that are necessary to ensure that the PRA is maintained consistent with the plant configuration and operation and that this requires a living PRA that reflects the plant as it progresses from design, construction and through the operation phase. However, the discussion on PRA goals, methodology, and development from design to operations is more appropriate for Appendix B (PRA) to the CE System 80+ SSAR. The control of PRA design assumptions for the RAP should be incorporated in Section 2.0.

The staff also considers that risk-significant SSCs need to be identified and prioritized as part of the D-RAP. The staff agrees with the use of PRA, importance weighting, deterministic methods, or other industry sources to identify and prioritize those SSCs that are important to prevent or mitigate plant transients or other events that could present a risk to the public. Pending further clarification on the control of PRA design assumptions for the RAP, and method to identify and prioritize risk-significant SSCs, this is an open issue that must be resolved before the staff can complete its review of Section 2.0 of the CE RAP.

3.0 RAMI PROGRAM ELEMENTS

Section 3.0 of the CE RAP discusses how CE will develop the Reliability, Availability, Maintainability, and Inspectability (RAMI) program to predict and track plant availability in the same way that the PRA follows plant risk. The RAMI program will be conducted within the context of a RAP. This section also states that after plant startup, the utility will maintain the RAMI program and ensure that it is consistent with the plant configuration, procedures and operating history.

The staff's position is that the RAP should be seen as a program that consists of two distinct parts: the first part, which the

staff refers to as the D-RAP, is the responsibility of the designer and applies to vendor submittals for design certification; and the second part, which the staff refers to as the O-RAP, is the responsibility of and applies to a referencing applicant for a COL. At the design stage, the D-RAP involves a top-level program that defines the scope, conceptual framework, and essential elements of an effective RAP. The D-RAP also implements those aspects of the program that are applicable to the design process. In addition, the D-RAP identifies the relevant aspects of plant operation, maintenance, and performance monitoring for the risk significant SSCs for the owner/operator's consideration in developing the site-specific O-RAP. The designer would provide the framework of the RAP to a COL applicant. A COL applicant would augment the designer's RAP to reflect plant-specific information and implement those elements applicable during the construction and operation phases.

Furthermore, although the RAMI program will use the same data and information as the PRA, the RAMI and PRA objectives (or the desired values of the parameters that make up these objectives) may be conflicting (e.g., some of the means of maximizing plant availability may be in conflict with the objective of maintaining the risk levels assumed in the PRA). In the System 80+ RAP, it is mentioned that the RAMI should be consistent with the plant configuration, procedures and operating history without mentioning the possibility of conflicting objectives. The staff questions how such conflicts, whenever they arise, will be resolved in a way that does not violate the safety requirements and reliabilities assumed in the design certification PRA and provide an acceptable balance between risk and availability. The staff concludes that Section 3.0 should include additional information to address this issue. This is an open issue that must be resolved before the staff can complete its review of Section 3.0 of the CE RAP.

Section 3.1 RAMI Analysis

Section 3.1 of the CE RAP discusses how the top level quantitative capacity factor requirements are sub-divided into system level quantitative design requirements, and that failure modes and effects analysis and fault tree analyses are performed for systems determined to be important to the plant's ability to meet these quantitative requirements. This section further details how the RAMI analysis is to be performed, the iterative process used to assure goals are met by the system designers and reliability engineers and the use of design review meetings to discuss RAMI considerations and issues.

The staff considers that the use of methods similar to those used in the PRA and the interfaces between the various organizations are acceptable. The staff also considers the reliability techniques and methods described in this section to be acceptable. However, the staff needs clarification on the intent of RAMI (i.e., safety

or economics) and the priority of safety requirements to be explicitly stated. It is the staff's understanding that top level quantitative capacity factor requirements emphasize economic goals and objectives. This is an open issued that must be resolved before the staff can complete its review of Section 3.1 of the CE RAP.

Section 3.2 Plant Reliability Data Base

Section 3.2 of the CE RAP describes the integrated data base for the PRA, RAMI and Reliability Centered Maintenance (RCM) programs. This section also states that the Plant Reliability Data Base starts out as the PRA data base, and that the data base is expanded to include plant specific data as it is accumulated. This ensures that the living PRA, RAMI and RCM programs use consistent data and enables an easy comparison of generic data and plant specific data. The staff finds this acceptable. The staff requests clarification, however, on whether CE intends to use the Nuclear Plant Reliability Data System (NPRDS), and if not, how to assist in establishing a data base. The staff expectation is that an ALWR vendor would utilize a data base that is sufficiently robust to support reliability predictions and assumptions. This is an open issue that must be resolved before the staff can complete its review of Section 3.2 of the CE RAP.

Section 3.3 Corrective Actions Program

Section 3.3 of the CE RAP describes the corrective action program. This section states that the corrective action program has been placed as part of the RAMI section because the most common corrective actions will deal with availability improvements with both the nuclear island and balance of plant. CE also states that the utility will develop a Corrective Actions Group that will review suggested plant changes to ensure that they are consistent with safety and plant availability goals.

The staff's position is that a corrective action program needs to be an integral part of the entire reliability program. Part of the RAP is to ensure that the reliabilities assumed in the PRA are maintained. Degraded or failed equipment may impact these reliability assumptions, and this information needs to be fed back into the RAP to determine if these reliabilities are affected and if further corrective actions are required.

The staff requests clarification as to how the RAP will verify equipment is meeting its reliability requirements and be an integral part of the entire reliability program, determine appropriate corrective actions and verify that corrective actions have been taken, including feedback of this information into the database to establish failure histories and rates for comparison. This is an open issue that must be resolved before the staff can complete its review of Section 3.3 of the CE RAP.

4.0 RELIABILITY CENTERED MAINTENANCE PLAN

Section 4.0 of the CE RAP discusses how characteristics of equipment that support plant safety, as assumed in the PRA, are strongly affected by the effectiveness of the maintenance program. Section 4.0 also states that RCM embodies the attributes of reliability, availability, maintainability and inspectability and that a RCM program will be developed during the plant-specific design phase of the System 80+ development in sufficient breadth and detail to support operational decisions.

4.1 RCM Phases

Section 4.1 of the CE RAP for the System 80+ states that a detailed RCM Program Guide will be developed during the plant specific design phase, and that the RCM program will be integrated with the PRA program. It further states that the PRA group will supply to the maintenance planning group the mean time to repair (MTTR), mean time between failure (MTBF) and inspection intervals used in the PRA. This section also states that the PRA Group will supply to the RCM group the major sequences leading to core damage and an evaluation of the importance of each system in terms of plant risk reduction. The maintenance planning group will review the PRA bases and ensure that it is included into the RCM program.

CE states that included in the evaluation phase will be descriptions of any changes which need to be made to the system or the system reliability model to make the ideal reliability goals more practically achievable. The staff disagrees with this concept. The reliability goals established by the PRA or other deterministic methods are not "ideal goals" but the reliability established for the system, structure or component to ensure the top level safety goals are met and are the design bases for the plant. The established reliability goals are to be met and the equipment may need modified to meet these goals. The concept of reducing the reliability goals to make them more "practically achievable" is contrary to the principle of reliability assurance. Additionally, the staff considers that this part appears to belong to a D-RAP. Placed here in the evaluation section, the staff questions whether, at this point in the RAP, a generic safety issue might exist in that equipment does not meet the reliability goals and therefore, the "acceptance criteria" is changed to meet the performance of the equipment.

Additionally, it is not clear to the staff what will be included in the RCM Program Guide and what organization (CE or a COL applicant) is responsible for each phase. The staff requires clarification of the organization that is responsible for each RCM phase and a further description or inclusion of the RCM Program Guide in order to complete its review of this section. Clarification on the intent of making changes to the system or system reliability model in the evaluation phase of RCM and what is included in the RCM

Program Guide are open issues that must be resolved before the staff can complete its review of Section 4.1 of the CE RAP.

5.0 PROCEDURES AND TECHNICAL SPECIFICATIONS

Section 5.0 of the CE RAP states that requirements dealing with the availability of equipment, their inspection, and maintenance frequencies are imbedded in the System 80+ PRA. This section also states that the PRA contains assumptions about operator actions during transients and additional recovery actions that an operator will take after system failures or during an accident sequence. Additionally, this section states that the RAP Plan ensures that the bases used in the PRA are consistent with the plant procedures and Technical Specifications.

In addition to Technical Specifications, Section 5 discusses a need for establishing and maintaining consistency between the PRA and the following procedures over the life of a plant: Plant Operating Procedures, Emergency Operating Procedures, Severe Accident Management Procedures, and Security.

The staff review of Section 5 was limited to those areas that are applicable to a D-RAP. The evaluation of this section did not include areas that are either beyond scope of the D-RAP or will be required of a applicant for a combined operating license.

The staff considers that the discussion in Section 5.1 (Technical Specifications) to be beyond the scope of the D-RAP. Section 16 of the CE System 80+ DSER contains the staff's evaluation of Technical Specifications. Within the context of the D-RAP, the staff disagrees that the RAP ensures that the bases used in the PRA are consistent with plant procedures and Technical Specifications. The staff position is that plant procedures and Technical Specifications should be consistent with the bases used in the PRA (see Section 1.1 of this DSER for a further discussion on the purpose of a RAP).

The staff considers that Sections 5.2 (Plant Operating Procedures), 5.3 (Emergency Operating Procedures) and 5.4 (Severe Accident Management Procedures) and 5.5 (Security) are within scope of a referencing applicant's COL application and, therefore, will not be addressed as part of this evaluation.

The staff requires clarification plant CE's intent regarding consistency between the PRA and plant procedures and Technical Specifications is an open issue that must be resolved before the staff can complete its review of Section 5 of the CE RAP.

6.0 Organizational and Administrative Support

This section states that the organization charts for the Utility, plant staff and designers who support the RAP program will be provided when such information becomes available.

The staff identified the need for information regarding the organization and administrative aspects for implementing an effective RAP in the RAI dated October 10, 1991. The staff's question applies to the organizational and administrative aspects of a RAP that are applicable to the ALWR designer, including a discussion on organizational accountability for implementing the design portion of a RAP (or D-RAP). The staff expectation is that the organizational and administrative aspects for a referencing applicant will be provided as part of the COL application. The organizational and administrative aspects of a D-RAP, including a discussion on organizational accountability for implementing the design portion of the RAP, is an open issue that must be resolved before the staff can complete its review of Section 6.0 of the CE RAP.

7.0 CONCLUSION

The staff's overall conclusion is that several concepts need clarification including the scope, purpose, and responsibilities of the designer and the COL applicant. The details of the PRA and interfaces between the designer and the referencing applicant associated with the PRA are more appropriate for inclusion in the PRA section. Although PRA can play a major role in the identification and prioritization of risk-significant SSCs, some risk or safety aspects of the design may not be modeled in the PRA and, therefore, other methods of determining risk-significant SSCs may be required. A summary of the staff's other conclusions by section is given below.

Section 1.1 of the CE RAP defines the RAP as a program for maintaining consistency between the System 80+ PRA and plant configuration. The staff agrees with this concept; however, the staff concludes that Section 1.1 should clarify that a RAP determines those SSCs that are significant contributors to risk, as shown by the PRA and other sources, ensures that the plant design provides SSCs at least as reliable as that assumed in the PRA, and that these reliability levels should be maintained over the life of the plant.

Section 1.2 of the CE RAP describes the elements of the program for maintaining the PRA and conducting a reliability, availability, maintainability and inspectability (RAMI) program and a reliability centered maintenance (RCM) program for the entire plant. The staff concludes that Section 1.2 should more clearly define the scope and objective of a RAP, define the basic definitions and include a discussion on selection criteria.

In section 2.0 of the CE RAP, CE discusses that the RAP will include elements that are necessary to ensure the PRA is maintained consistent with plant configuration and operation. The staff concludes that Section 2.0 should include clarifications on the control of PRA design assumptions for a RAP, and a method to identify and prioritize risk-significant SSCs.

In section 3.0 of the CE RAP discusses how CE will develop the RAMI program to predict and track plant availability in the same way that the PRA follows plant risk and that the RAMI program will be conducted within the context of a RAP. Although the RAMI program will use the same data and information as the PRA, the RAMI and PRA objectives may be conflicting. This section should address the potential conflict between the goals of RAMI and PRA and provide clarification on resolution of conflicts.

Section 3.1 of the CE RAP discusses how the top level quantitative capacity factor requirements are sub-divided into system level quantitative design requirements, and that failure modes and effects analysis and fault tree analyses are performed for systems determined to be important to the plant's ability to meet these quantitative requirements. The staff considers that the reliability techniques and methods in this section are acceptable. However, the staff requests clarification on the intent of RAMI and the priority of safety needs to be explicitly stated.

In section 3.2 of the CE RAP, CE describes the integrated data base for the PRA, RAMI and RCM programs and that the data base is expanded to include plant specific data as it is accumulated. This ensures that the PRA, RAMI and reliability centered maintenance programs use consistent data. This section should clarify CE's intentions regarding the use of NPRDS to assist in establishing a data base.

In section 3.3 of the CE RAP, CE describes the corrective action program. The staff concludes that further clarification is necessary on how the RAP will verify equipment is meeting its reliability requirements and will be an integral part of the entire reliability program, determine appropriate corrective actions and verify corrective actions have been taken, including feedback of this information into the database.

Section 4.0 of the CE RAP discusses that a detailed RCM Program Guide will be developed during the plant-specific design phase, and that the RCM program will be integrated with the PRA program. This section should clarify the organization that is responsible for each RCM phase and include a further description of the RCM Program Guide. This section should also provide clarification on the intent of making changes to the system or system reliability model in the evaluation phase of RCM.

Sections 5.0 through 5.5 of the CE RAP primarily discuss topics that are beyond the scope of this evaluation. The staff evaluation of Section 5.1 (Technical Specifications) is addressed by Section 16 of the CE System 80+ DSER. However, within the context of a D-RAP, the staff disagrees that the RAP ensures that the bases used in the PRA are consistent with plant procedures and Technical Specifications. Sections 5.2 (Plant Operating Procedures), 5.3 (Emergency Operating Procedures) and 5.4 (Severe Accident Management Procedures) and 5.5 (Security) are consider to be within scope of a referencing applicant's COL application and, therefore, were not addressed as part of this evaluation. The staff requires clarification plant CE's intent regarding consistency between the PRA and plant procedures and Technical Specifications.

Section 6.0 of the CE RAP defines that this section will contain the organization charts for the Utility, plant staff and designers who support the RAP program when such information becomes available. The staff concludes that this section should include a discussion on the organizational and administrative aspects of a D-RAP, including a discussion on organizational accountability for implementing the design portion of the RAP.

In addition to the above, CE did not respond to two items in the staff's RAI. In the RAI dated October 10, 1991, the staff requested an example of how the CE RAP would function throughout plant life (e.g., from the design phase through the end of the operating phase) using a specific SSC identified as risk significant in the PRA. In their response, CE stated that no example was given in the RAP plan, but one will be added in a future update. This remains an open issue that must be resolved before the staff can complete its review of the CE RAP submittal.

Also in the RAI, the staff asked if and how the CE System 80+ RAP will differ from the EPRI Utility Requirements Document (URD) description of a RAP. CE stated in their response that the RAP Plan is generally consistent with the EPRI description and that the EPRI description repeated many of the RAMI goals in the plan but the CE plan only refers to the goals that are in the PRA and RAMI reports. CE should provide a detailed discussion on how CE's RAP differs from the EPRI URD for Evolutionary Advanced Light Water Reactors, including the rationale for the differences, if any. This remains an open issue that must be resolved before the staff can complete its review of the CE RAP submittal.