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From: Jack Strosnider
To: Patrick Milano
Date: Thu, Mar 23, 2000 9:06 AM
Subject: REVISED IP-2 Q&As

Pat,

the revised IP-2 Q&As, with Roy Zimmerman's and Brian Sheron's comments incorporated are attached. Also, I have added the general overview paragraph that I sent out early this morning (Roy and Brian have agreed that we should add it), and I have added Region I's Q&As as questions 31 and 32 (Roy looked at them and made only a minor change removing the word "all" from in front of requirements in the answer to question 31.

Your now the keeper of the official file. The only other people I've copied on this are Bob Summers and Bill Ruland in Region I because they have been calling looking for it for the last hour. (I just want to throw out the caution that we need to keep the document controlled and as of right now, Pat Milano is the gate keeper.)

Roy stopped by about 10 minutes ago on his way up to the EDO's office. He is going to coordinate beginning the "roll out" the communications plan. I assume when he comes back we'll get the go ahead to distribute the attached to all the involved internal stakeholders.

Roy also asked that we continue to polish the attached. Specifically, we need to add two questions/ answers (I'll get together with you on what they are), group the questions in a more logical order, and decide if any of the questions/answers should be placed on the IP-2 Web page (the test will be whether or not we think putting them there will save rather than create more work).

Thx,

Jack

CC: Robert Summers, William Ruland

ITEM # 1

QUESTIONS AND ANSWERS RELATIVE TO THE RES INDEPENDENT ASSESSMENT

OVERVIEW:

It's no surprise that there are a lot of questions on this subject. We fully expect interest from the media and our stakeholders. That is why we put the Research evaluation on our Indian Point 2 Web page, along with our plans for how it will be utilized as part of our lessons learned activity.

Hopefully, the public will recognize that this demonstrates a healthy and mature attitude on the part of NRC. We are not afraid to be self-critical, to ask ourselves the question, "is there someway we can do our job better".

Our plan is to use the Research assessment along with other important information including the root cause assessment of the tube failure, the results of the licensee's ongoing inspections, and the results of our on-site inspection activities to assess the licensees corrective actions, to identify any generic implications for the industry and to evaluate our own approach to regulating steam generator tube integrity. We expect to complete this assessment within about two months of receiving all the above information and will make the results of this overall assessment available at that time.

Responses to specific questions that might be asked are provided below.

General Questions About the Independent Assessment

1. Why did NRR request RES to perform an independent assessment of its safety evaluation (SE) extending the steam generator inspection interval and the SE regarding the F* alternate repair criteria (ARC)?

Short Answer: Whenever an event like this occurs, we want to know if there is something technical that we missed in our review. RES has knowledgeable staff in this area, and it was logical for NRR to request their assistance.

The Office of Nuclear Reactor Regulation (NRR) wanted an independent review of the staff's safety evaluation of these issues to determine if the staff's conclusions were technically sound and if the data presented by the licensee provided reasonable assurance that the delayed inspection and use of the F* repair criteria would not result in an appreciably increased probability of tube failure prior to the next scheduled inspection. The request for an independent

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March 22, 2000, 10:00 pm

assessment was felt to be appropriate given that the tube failure had occurred. It does not imply a greater concern on the part of NRR for the significance of the event but rather is in keeping with past desires for using all opportunities to better understand issues and to improve, if necessary, staff guidance and processes.

2. Why did NRR include a review of the F* ARC?

Short Answer: In assessing an event such as this one, it is common to look at what was done differently that could have contributed to the event. Although the F* alternate repair criteria have been widely used by the industry without problem, it was prudent to take a look at it since it was a first time application at IP2.

Following the occurrence of the Indian Point Unit 2 tube failure, the staff made an initial review of its relevant safety evaluations for steam generator integrity. A review of the inspection interval extension and the F* ARC were found through this review. Furthermore, the F* ARC was included because of NRR's desire to use this opportunity for a more comprehensive review of technical issues regarding the steam generators. Since the root cause of the tube failure was not known at the time of the request, it could not be concluded whether the F* ARC changes could have been a contributor.

3. Are you going to ask RES to independently review your review of the inspection results from this outage?

Short Answer: There is currently no plan to request such a review. However, it is always an option that if issues come up during the review that RES can help resolve, their input will be requested as part of the review.

It is not routine for RES to independently review NRR's regulatory decisions and we do not anticipate such a request. The licensee's inspection and analysis activities are already receiving attention above and beyond what is normal by NRR, Region I, and NRC contractor personnel, including a contractor being provided by RES, along with NRC management involvement. Given the level of oversight, further independent review is not warranted.

4. If the staff did an inadequate review of the licensee's operational assessment in 1997, why should anyone believe the staff's review of this inspection? In other words, why should the public trust the NRC to make sure the plant is safe before it restarts?

Short Answer: We're not sure at this point that our review was inadequate. Nonetheless, the level of staff review associated with assessing the licensee's corrective actions is much greater than normal. Also, there is significantly increased management oversight. The much greater level of review including on-site observation of licensee activities should provide a greater level of confidence.

The NRC staff has not completed its lessons-learned assessment (see question 8) of the

technical or process elements associated with its review of steam generator issues nor is the root cause(s) of the tube failure fully known. However, the significant level of oversight (see Question 3) from a variety of sources will provide significant confidence in the the staff's review of the licensee's inspection results. This increased oversight includes on-site review by NRC eddy current experts and consultants, an in-depth staff review of the licensee's analyses, root cause determination, and corrective actions, as well as more than usual NRC management involvement in the decisions that will be reached. Additionally, the staff will consider insights from the RES independent assessment in its review. The staff's willingness to solicit independent input and objectively utilize that input should improve public confidence. Further, the staff's openness about sharing this information with the public as it becomes available is also meant to foster this confidence.

5. What were the conclusions of the RES assessment?

Short Answer: Probably the most important conclusion in the assessment is that they believe a more thorough operational assessment would have predicted an increased probability of tube leakage or rupture by the end of the operating cycle. RES did not agree with the conclusion in the safety evaluation prepared by NRR.

The details of the assessment by the Office of Nuclear Regulatory Research (RES) are contained in the memorandum from the Director of RES to the Director of NRR dated March 16, 2000, which is publically available. The RES review did not identify any issues with the staff's SE regarding the use of the F* repair criteria, but did conclude that RES could not reconcile several statements and conclusions in the staff's SE regarding the inspection interval with the information the staff received from the licensee. Specifically, the RES letter indicates that the licensee's assessment of two forms of degradation found in their generators was inadequate: (1) outside diameter stress corrosion cracking (ODSCC) above the top of the tube sheet locations (sludge pile), and (2) primary water stress corrosion cracking (PWSCC) at a row 2 U-bend. RES considered this contrary to the SE prepared by NRR, which concluded that the tubes would meet structural and leakage integrity limits through the end of the operating cycle.

6. What is NRR's response to the RES assessment?

Short Answer: NRR intends to use the RES assessment in identifying any areas that need additional attention by IP-2, or the industry in general, and by the NRC.

As stated in its response to Question 4 above, the NRC has not completed its lessons-learned assessment of the technical or process elements associated with its review of steam generator issues nor is the root cause(s) of the tube failure fully known. Once the root cause of the failure and the lesson-learned assessment are completed, the NRR staff will respond to the RES assessment. The RES assessment will be included along with other relevant information such as the licensee root cause evaluation, and results from ongoing perspectives in a lessons learned review. It would be premature to provide any response until an integrated assessment of all this information is completed.

7. Does NRR agree with the technical arguments and conclusions in the RES assessment?

It would be premature to reach any conclusion at this time regarding the RES independent assessment. This question can only be addressed after the root cause of the tube failure is understood.

8. What actions does NRR plan to take as a result of the conclusions of the RES assessment?

Short Answer: NRR will consider the conclusion of the RES assessment in determining what, if any, areas require additional attention by both the industry and the NRC in order to minimize the potential for future tube failures.

The NRC will be performing an evaluation of lessons-learned from both technical and regulatory perspectives. The RES issues will be considered along with the insights gained through the NRC's on-site inspection and the licensee's steam generator tube examinations and root cause failure analyses. The results of the lessons-learned assessment will be used to identify any generic technical or process elements that may be improved in the NRC's review of steam generator issues. It is expected that this assessment will be completed within two months of receiving the licensee's inspection results and root cause failure analysis. Details are spelled out in a March 30 memorandum from the Director of NRR to the Deputy Executive Director for Reactor Programs which is available on the web.

Scope of Independent Assessment

9. Did NRR request RES to assess technical or regulatory aspects of the extension request, or both technical and regulatory aspects?

Short Answer: The NRR request and the RES response focused only on technical aspects. NRR will consider these issues as part of its review of the process used for steam generator reviews.

The letter requesting the independent review stated that the "purpose of these independent

reviews is to determine if the staff's conclusions are technically sound and that the data presented by the licensee provided reasonable assurance that the delayed inspection and the use of the F* repair criteria would not result in an appreciably increased probability of tube failure prior to the next scheduled inspection." RES was not asked to address regulatory aspects of the extension request.

10. What are the regulatory process issues that are referred to in both letters?

Short Answer: Process issues are directed largely at defining what licensee activities should be reviewed by the NRC and the appropriate scope and depth of the review.

When approving changes to the facility technical specifications and/or the plant's licensing basis, the NRC must conclude or make a finding, based on the review of the technical information presented, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the plant technical specifications. Thus, the regulatory process issues refer to consideration of the regulations, technical specifications, staff guidance, staff positions, and prior similar decisions used in making a finding. The regulatory process issues also include consideration of our customary depth of review for the requested approval and of the accuracy of licensee-supplied information.

Assessment of Information Provided by Licensee

11. In retrospect, did the licensee provide sufficient information to justify the extension in its original request?

Short Answer: Additional information in the right area might have resulted in a more effective review of the licensee's operational assessment. However, until the root cause of the failure is understood, it will not clear exactly what information would have been needed. Once the root cause is understood, we will determine how we can improve regarding the amount and type of information we should request in conducting this type of review.

At the time the NRC received the submittal from IP-2 requesting to extend the inspection interval, the staff prepared a request for additional information (RAI) because it concluded that the original submittal did not contain enough information for the staff to complete its review. Upon completion of the review, the staff felt that it had sufficient information to reach a conclusion.

12. Does NRR believe that the information supplied by the licensee was technically adequate?

Short Answer: The information provided by the licensee was considered technically adequate at the time it was reviewed. However, this will have to be assessed after the root cause of the failure is understood.

The staff concluded that the information supplied by Consolidated Edison was adequate to approve the extension request. The licensee submitted information on its operational assessment in response to the staff's RAI, though there was no requirement for them to have an

operational assessment. While the information submitted was somewhat brief, the information addressed each of the active degradation mechanisms in the steam generators and the staff concluded that the information provided was adequate to approve the extension request. As part of its lessons learned activity, the staff will reevaluate the conclusions it reached in approving the extension request and the adequacy of the information from the licensee.

13. How can the public have confidence if the utility did not provide a straight answer to the NRC's request for information in connection with the inspection extension?

Short Answer: At this time we have not concluded thatt the licensee's response to our RAI was inaccurate or otherwise deficient. If, as a result of our lessons learned evaluation we conclude the licensee's response to our RAI was inaccurate or otherwise deficient, we will then determine if improvements in the license's processes are needed and appropriate action to this effect will be taken.

As the NRC has not yet made a final determination as to accuracy and completeness of the licensee's information, it is premature to draw conclusions. The NRC staff will make its findings available to the public upon completion of its review.

14. Why did the NRR staff give more credit in the SE for the operational assessment than was included in the RAI response? Should the staff have asked additional questions to further their conclusion?

Short Answer: Based on the staff's experience in these types of reviews, we felt we had sufficient information to support the conclusion in the SE. One can always ask additional questions, but the need to do so was not apparent to the staff at the time they performed the review.

When making its determination that a proposed change provides reasonable assurance of public health and safety, the NRC staff uses all documentation that it believes is appropriate including its engineering experience with similar prior situations. In the situation of the Indian Point Unit 2 operational assessment, the NRC staff reviewed and assessed the technical information in this document in this context.

Additional questions can always be asked and the staff must exercise judgement in deciding how much information is sufficient. It should also be recognized in this regard that the staff must assume that the licensee is assuring an appropriate level of quality in its activities. NRC staff cannot review the basis for every licensee conclusion in detail.

At the time that the safety evaluation was approved, the NRC staff believed that it had sufficient information to find that there was reasonable assurance of public health and safety. However, the NRC will be conducting a lessons-learned assessment to identify any generic technical or process elements that may be improved in the NRC's review of steam generator issues.

15. Why should the public have confidence in the NRC if they accepted information from the utility that did not answer the questions?

Short Answer: It would be unfair to say that the licensee's response did not answer the NRC questions. The issue that could be raised is the level of detail provided in the responses. NRC's oversight of current licensee activities in this area is going to a greater level of detail, including on-site observations and greater management involvement.

The NRC staff concluded that the information supplied by Consolidated Edison was adequate to approve the extension request. As part of its lessons learned activity, the staff will reevaluate the conclusions it reached in approving the extension request and the adequacy of the information from the licensee. The information will be shared with the public as it becomes available.

Although the primary responsibility for ensuring safe operation rests with Con Ed (the operating organization), the NRC assures an acceptable level of safety through the application and enforcement of its requirements. Further, public health and safety is also ensured through the regulatory philosophy of "defense in depth" such that complete reliance on safety will not be placed on any single element of design, maintenance, or operation. Steam generator inspection and maintenance is not the only line of defense in regulating steam generator tube integrity. Defense in depth is maintained through programs and regulatory requirements including design, operator training, ongoing testing and maintenance activities, and the regulatory oversight of the NRC.

Staff's Evaluation of Licensee Information

16. Why did NRR find the SG inspection interval extension interval acceptable?

Short Answer: At the time that the review was performed, the staff judged the information provided by the licensee provided an adequate basis. The ongoing inspections and root cause evaluation will provide insights in this area.

The details of the NRC staff's conclusion regarding the licensee's proposed change to extend the steam generator inspection interval can be found in its May 26, 1999, safety evaluation which is publically available. The staff, in part, based its conclusions on the short additional time period involved in the extension request, the quality of the water chemistry conditions during the time the plant was not operating (wet lay-up period), and the licensee's assessment that the tubes would satisfy the structural and leakage requirements through the end of the operating cycle.

17. Was there a regulatory basis for preventing IP-2 from operating based on the information exchange related to the extension request?

Short Answer: At the time that the staff conducted its review, it did not have any information to suggest that the licensee would not be in compliance with NRC requirements for steam generator tube integrity during the interval extension period.
As part of its lessons-learned assessment, the staff will identify any generic technical or process elements that may be improved in the NRC's review of steam generator issues.

18. The implication in the RES letter is that the NRR staff evaluation of the extension request was inadequate and that had it been more thorough, the increased probability of a tube leak prior to the end of cycle 14 would have been identified. Please comment.

Short Answer: The staff will appraise the technical and regulatory process issues associated with its review after the root cause of the tube failure is understood in order to identify any improvements that should be made in its review process.

Until the root cause of the tube failure is known, it would be premature to comment on the adequacy of the licensee's operational assessment and the NRC's safety evaluation.

Technical Information Provided by Licensee

19. Comment on the RES statement that the ODSCC crack assumptions stated by the licensee and apparently accepted by NRR were not credible. How does this relate to plant restart? What has the plant done to address this concern?

Short Answer: A wide spectrum of growth rates could be assumed based on the data that was presented. The credibility of the licensee's assumed growth rates will have to be assessed after the root cause of the tube failure is understood and the results of the ongoing examination are available.

At the time the SE was written, we believed that the ODSCC crack assumptions stated by licensee were adequate to complete our review. As follow-up to the IP2 event, the NRC staff will review results of the licensee's current SG inspections, results from previous inspections, the licensee's root cause evaluation, and the licensee's corrective actions as part of its determination as to whether the IP2 SGs are safe to be put back into operation.

20. The RES assessment refers in several places to "crack growth rates". What is meant by " crack growth rate", and why is it important?

Short Answer: Crack growth rates refer to the speed at which cracks become deeper and longer during operation. Crack growth rates are important because the length of time that the steam generator can be operated between inspections depends on how fast the cracks are growing. Operating experience has shown that assuming the cracks will grow at about the same rate that they did in the proceeding cycle of operation is an effective approach. The validity of this assumption for Indian Point 2 will be assessed by the staff when the results of the ongoing inspection are available.

After years of operation, it is not uncommon for cracks to develop in steam generator tubes. The length of time before cracking occurs can vary from one steam generator to another depending factors such as the material used in the steam generator and the temperature the steam generator operates at. Inspection of the steam generator tubes are performed routinely throughout the life of the steam generator in order to find cracking or other forms of degradation. Once cracks begin to form, they will continue to increase in size (both depth and length) with continued operation. The speed at which the cracks increase in size is referred to as the "crack

growth rate". If the cracks continue to grow and become too large they can reach a critical size and cause the tube to fail. Therefore, knowing the crack growth rate is important in order to determine how long the steam generator can be operated without jeopardizing tube integrity. Analytical models for estimating crack growth rates exist, along with laboratory data. However, extensive operating experience and review by the staff has found that a generally effective method for addressing this subject is to assume that, absent changes in things like operating temperature or water chemistry, the cracks will grow at about the same rate that they did in the proceeding cycle of operation. The validity of this assumption for Indian Point 2 will be assessed by the staff when the results of the ongoing inspection are available.

21. Comment on the RES statement that the licensee's conclusion about crack growth rates associated with the indication found in the Row 2 U-bend was not credible. How does this relate to plant restart? What has the plant done to address this concern?

Short Answer: It is understood that the licensee currently plans to plug all row 2 tubes, thus making the issue moot for that area in the steam generator.

At the time the SE was written, we believed that the licensee's conclusion about growth rates was adequate to complete our review. As follow-up to the IP2 event, the NRC staff will review results of the licensee's current SG inspections, results from previous inspections, the licensee's root cause evaluation, and the licensee's corrective actions as part of its determination as to whether the IP2 SGs are safe to be put back into operation. The review will address all forms of degradation in the steam generators, not just U-bend cracking.

Possible Corrective Actions

22. How is the NRC going to address the PWSCC and ODSCC concerns expressed in the RES letter prior to plant restart?

Short Answer: The licensee will have to address these issues consistent with the root cause determination and the results from the ongoing inspection . The NRC plans to review in detail the licensee's evaluation in these areas.

After evaluating the current SG inspection results in comparison to the previous inspections, the staff will be able to evaluate how the licensee is addressing the PWSCC and ODSCC concerns. The inspections will provide the current number of tubes showing indications that can be attributed to PWSCC and ODSCC.

23. Has IP-2 plugged any tight radius U-bend tubes on a preventative basis?

Short Answer: Yes, and it is our understanding that current plans are to plug all row 2 tubes.

Some of the Row 2 U-bend tubes have been plugged due to restriction to eddy current probe movement through the tube. All Row 1 tubes were preventively plugged prior to initial plant startup in 1971. Our understanding is that IP2 is planning to preventively plug all the rest of the unplugged Row 2 U-bend tubes before restart. Staff will conclude whether this is sufficient, or if

additional rows need to be plugged prior to restart.

24. With the kinds of uncertainties that are associated with testing techniques -- as proven in this case -- why should we believe that anything short of steam generator replacement is reasonable?

Short Answer: Uncertainties in detection and sizing defects using eddy current testing can be significant, and must be accounted for in demonstrating the acceptability of the steam generators for continued operation. The staff is reviewing the licensees actions to minimize and account for these uncertainties.

Uncertainties in eddy current testing techniques must be addressed in order to demonstrate that reasonable assurance of steam generator tube integrity will be maintained. The staff is reviewing licensee activities related to understanding the uncertainties associated with the IP-2 steam generator tube examinations. If these uncertainties are large, the licensee may have to be more conservative regarding the number of tubes plugged or repaired and in determining the length of time the steam generators can be operated. Assessments by the licensee take into consideration the probability of detecting flaws and the uncertainty inherent in the testing techniques. Thus, a safety margin is included in the analysis by using conservative values to represent the probability of detection and other uncertainties. Only after the licensee completes the current inspections and the root cause analysis can the staff assess to what extent testing technique uncertainty contributed to the failure. The staff will factor its conclusions, as appropriate, about future operational assessments. If the licensee can demonstrate that applicable regulatory requirements are satisfied, this is an acceptable approach. Alternatively, the licensee could replace the steam generator which would reduce the level of uncertainty in inspections and thereby reduce the costs associated with steam generator inspection and maintenance, however, this is a financial decision, the licensee must make.

Summary Questions

25. Does the RES evaluation mean that, had the licensee done a more thorough operational assessment, the tube failure might have been prevented?

Short Answer: The RES assessment could be read that way. The root cause determination will shed more light on this question.

It's premature to reach this conclusion at this point in time. At the time the SE was written, we believed that the operational assessment provided by the licensee was adequate to complete our review. As follow-up to the IP2 event, the NRC staff will thoroughly review the results of the licensee's current SG inspections, the results from previous inspections, the licensee's root cause evaluation, and the licensee's corrective actions as part of its determination as to whether the IP2 SGs are safe to be put back into operation.

26. To this point NRC has contended that utility and NRC actions prior to tube failure were reasonable. Don't the Research conclusions about poor assessment of data in the previous outage fly in the face of this?

Short Answer: The root cause of the tube failure needs to be understood before any final

conclusions are reached. However, once all the information has been assessed, NRC will ensure corrective actions by the licensee and the staff are made, as appropriate.

At the time the SE was written, we believed that the assessment of data from the previous outage was adequate to complete our review. As a follow-up to the IP2 event, the NRC staff will review results of the licensee's current SG inspections, results from previous inspections, the licensee's root cause evaluation, and the licensee's corrective actions as part of its determination as to whether the IP2 SGs are safe to be put back into operation.

27. There appears to be differing views on steam generator issues both with respect to IP2 and generic issues. Does NRC intend to reconcile differing views prior to plant restart? Why should the public have confidence in restart of the plant without a consensus of the experts?

Short Answer: The DPO is being addressed on a separate track and does not need to be resolved prior to plant restart. However, the staff is cognizant of the issues raised in the DPO and considers them when reviewing steam generator tube integrity evaluations. The staff is using experts in eddy current inspection and steam generator technology to assist in its review of licensee corrective actions.

Although the differing professional opinion (DPO) issues are more germane to alternate repair strategies, they are related to the IP2 event only in the general sense that there are aspects of the issues that are related to tube integrity. Given that, there is no basis or need to tie the DPO resolution to restart. However, the staff routinely considers issues related to the DPO, e.g., NDE uncertainty and primary-to-secondary leakage, as part of its reviews of licensee activities and will consider these issues as part of its assessment of IP-2.

The focus of the DPO filed by a member of the staff is different than the issues surrounding the IP2 tube failure. The DPO concerns five broad issues: (1) limitations of nondestructive methods, (2) primary-to-secondary tube leakage during postulated main steam line break conditions, (3) increased risk due to steam generator tube degradation and implementation of alternate repair criteria, (4) iodine spiking assumptions for radiological analyses and (5) steam generator tube integrity under severe accident conditions.

28. Could there be other plants that have a problem with their operational assessment? (Actual question was "Does this SE problem mean there could be others?)

Short Answer: Additional information such as the root cause determination is needed to answer this question. Part of the NRC's review will include potential generic implications.

As part of its lessons-learned assessment, the staff will identify any generic technical or process elements that may be improved in the NRC's review of steam generator issues, including our review of operational assessments.

29. Do the facility technical specifications need to be changed to require more demanding inspections?

Short Answer: The technical specifications need to be updated to reflect current modes of degradation and inspection technology and other developments. An initiative to accomplish this is underway - see "Steam Generator Regulatory Framework" on the NRC's web page on IP-2. In the meantime, licensee inspections are exceeding the current technical specification requirements.

In response to the staff's ongoing regulatory development effort, the industry has focused its efforts on improving existing steam generator inspection guidance and developing additional guidelines on other programmatic elements related to steam generator tube integrity. The industry's efforts to improve industry guidance culminated in the NEI 97-06 initiative, developed

through the Nuclear Energy Institute (NEI) Nuclear Strategic Issues Advisory Committee. The NEI 97-06 initiative commits pressurized-water reactor (PWR) licensees to a programmatic approach for structuring and strengthening existing steam generator programs. The fundamental elements include a balance of prevention, inspection, evaluation, repair and leakage monitoring measures.

30. Are there any additional plants that currently have steam generator inspection interval extensions?

Yes. Beaver Valley Unit 2 has an extension from September 2, 2000, to no later than November 30, 2000. However, the next refueling outage is scheduled on or about September 30, 2000.

Beaver Valley Unit 1 also. This will need some further research tomorrow.

31. What does all of this mean for plant restart?

Short answer: The plant will not restart before the root cause of the tube failure is understood and the results of current, detailed steam generator inspections are fully evaluated to assure the plant can be operated safely. We will assure that requirements for steam generator tube structural integrity are met and any needed corrective taken. In making these determinations, we will, of course, take into account lessons learned from this event.

32. When will restart occur?

Short answer: Not before .... answer above. We cannot give a date at this point. The ball is now in ConEd's court.