OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission

Title: Public Workshop on Technical and Policy Considerations for Nuclear Power Plant License Renewal: Environmental Effects

Docket No.

SESSION 8

LOCATION: Reston, Virginia

DATE: Tuesday, November 14, 1989 PAGES: 1 - 34

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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PUBLIC WORKSHOP

ON

TECHNICAL AND POLICY CONSIDERATIONS

FOR

NUCLEAR POWER PLANT LICENSE RENEWAL

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Session 8

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Sheraton Resort Hotel

Conference Rooms A, B and C

11810 Sunrise Valley Drive

Reston, Virginia

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Tuesday, November 14, 1989

8:30 o'clock a.m.

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SESSION LEADERS

Donald P. Cleary, Senior Task Manager, Reactor and Plant Safety Issues Branch, Division of Safety Issue Resolution

Frank P. Gillespie, Director, Program Management, Policy Development and Analysis Staff

PARTICIPANTS:

Don Edwards, Yanke Atonic Power Co. for NUMARC

Jay Silberg, Shaw, Pittman, Potts & Trowbridge for Northern States Power Company

Jane Grant, Yankee Atomic Power Co.

Joseph Gallo, Hopkins & Sutter

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Jim Chapman, Yankee Atomic Power Co.

Bill Rasin, NUMARC

PROCEEDINGS

[8:30 a.m.]

MR. CLEARY: Shall we get started? I'm Don Cleary from the NRC staff. This is Session 8 on Environmental Effects. With me at the table, Frank Gillespie, who you all know from yesterday; and Geary Mizuno from the Office of General Counsel.

I'm going to request that when you speak, please use the microphones and give your name and affiliation so that we can get it in the transcript.

I'm going to start off by providing a summary of the questions that have been already distributed, and then open it up to the speakers that have indicated an interest in making comment. I'll just identify the ones that we have on the list now; NUMARC, Northern States Power, Yankee Atomic, and Joe Gallo from Hopkins, Sutter.

[Slide.]

MR. CLEARY: The basic framework that we're looking at is that we're in the process of a rulemaking, license renewal, which requires a NEPA analysis. That rulemaking will provide some specifications for future individual plant relicensing actions which, in turn, will require a NEPA analysis.

One of the major things that we're trying to come to grips with is whether these two requirements should be tied in

any way. Our approach so far has been, relative to the rulemaking, to take a fairly narrow view of the rule. There is already a rule on the books and legislation permits relicensing.

We look at this rulemaking as providing greater detail in terms of what's required in an application and the standards that we'll use in reviewing the application and making our determination. The rule, in itself, does not lead to anything significantly different from what's already permitted.

We can take a narrow view if we also assume that in individual relicensing actions that there will be a NEPA analysis done. Last spring, there was mounting concern within NRC that perhaps we should be taking a close look at looking into the future in terms of the individual relicensing actions and perhaps taking a generic approach which would limit the scope and systematize the individual relicensing actions when they came up.

The extreme hope was that essentially all of the NEPA issues could be put to rest generically through what would be a separate rulemaking, a Part 51 rulemaking. That raises the question of the relationship of a Part 51 rulemaking, a generic exercise versus a more limited exercise, NEPA analysis for the narrow purposes of what is basically a Part 50 rule.

The Commission has asked us to report back to them

with recommendations as to whether the generic environmental document should be undertaken and whether it should be tied to the Part 50 rulemaking. In essence, it would then support the Part 50 rulemaking, in addition to the purposes of a Part 51 rulemaking, which would narrow the scope of relicensing reviews, NEPA reviews in the future.

One of the major considerations is schedule. It will take time to do a generic analysis. Basically, a generic analysis would have to do a fairly convincing job of bounding all of the significant issues that could come up on a site-specific basis, site-specific plant-specific basis.

I think the staff generally believes that the Part 50 rule could proceed on a faster schedule than would be permitted if it were tied to a generic NEPA exercise. As you know, we are proposing to publish proposed rule at the end of May, early June. If it is not tied to -- if it's just supported by a narrowly scoped environmental document, it's conceivable that the final rule could be published about a year later.

If it is tied to a generic environmental document and a Part 51 rulemaking, it would take a considerable number of months longer to reach the point where everything comes together and the final license renewal rule could be published. At the moment, that final date, if everything is done together, is April of 1992 on our schedule.

In addition to the question of what documents we

generate now and later and the schedule implications, we'd like to look at some substantive questions in terms of what are the environmental effects that can be anticipated from this rule from relicensing; are there any really significant ones or, as may people believe, are they within the realm of experience and rather innocuous.

There are questions of analysis; after you have scoped the issues that you want to look at, how you would go about collecting information. This would be a very large task in a generic exercise because the objective, as I said, would be to bound, in a convincing way, all of the site- and plant-specific potential impacts.

There is a question of data, information, where it's not all in NRC files. There's a considerable amount of stock of knowledge in NRC, but it's not systematic, it's not easily retrievable, and it's not necessarily always convincing.

The question of where the data and information would come from, the open literature; to what extent would industry have to be involved in such an exercise; to what extent is there information, data located within state agencies; expert knowledge located within state and Federal agencies; and, to what extent could we tap such information and data.

[Slide.]

MR. CLEARY: The conclusions that one would draw from analyses on specific issues are not purely objective. They

reflect changing scientific standards in terms of what is environmentally significant over time; reflect changing societal standards in terms of what is significant over time.

We need to address this. Our analysis may not be on the standards we apply in making decisions as to what the analysis shows us. It may not be the same in all cases as it was ten years ago or fifteen years ago. Ten or fifteen years from now, if the analysis were done then, it may not be exactly the same as if it were done right now. So this is an area that we have to look at.

If we go to a generic environmental document, there would be required a significant public scoping process, and this is one of the areas that we'd be pursuing in that scoping process. Then there are several areas, topical areas, issue areas that are of particular interest, either in terms of what the appropriate scope is, the policy implications, the relationship to existing regulations, to existing policy, and also some of the analytical concerns.

These are severe accident consequences, how would we treat these generically. As most of you may realize, in NRC, environmental impact statements for individual plants, since the late 1970's, severe accident consequences have become a major portion in terms of total number of pages coverage.

There is spent fuel storage capacity. We have waste confidence rule which should provide some restraints on what

we're focusing on, but there are broader issues, uncertainties, and to what extent can we -- under those uncertainties in terms of availability and the timing of availability of off-site storage facilities for spent fuel come into consideration.

According to Part 51 relicensing, license renewal is an operating license action. Under Part 51, we needn't consider alternatives. However, for the programmatic approach, which would be that which narrowly supports the relicensing rule, the Part 50 aspects of it, we do have to look at alternatives to relicensing and how much that is -- is it fairly clear to everyone that relicensing relative to the alternatives is pretty clearcut, that the benefits are warrant-free licensing or are there controversies in that area?

Finally, something that I mentioned before; if we do go into generic exercise, those of us who have given thought to what has to be done believe that we will need considerable cooperation in the process of developing a generic document from Federal and state agencies, as well as industry.

With that, I'd like to move on to comments from those who have prepared them, and then open this to the floor for discussion. NUMARC is first on the list.

MR. EDWARDS: Good morning. My name is Don Edwards. I'm speaking on behalf of the NUMARC/NUPLEX Working Group. I appreciate your comments this morning. Don, we've been thinking a great deal about this. In fact, the review of

environmental effects has been a matter of great discussion and spirited opinion-giving for some time in the Working Group.

In fact, as late as last night, we were revisiting the issue of our position and, in fact, it's only through the heroic efforts of a couple of very dedicated people that we have slides to share with you today. So I will explore with you these slides and see if we can describe our position.

[Slide.]

MR. EDWARDS: Basically, at the present time, NUMARC believes there needs to be two environmental assessments done. First, an environmental assessment specifically to support the rulemaking. The major Federal action involved is the implementation of the Atomic Energy Act which says that you can renew licenses.

The scope need only address the impact of the rulemaking and we believe it can be done in the same timeframe as the renewal rule, which is a draft in May of 1990 and a final in May 1991. That says May there. We also believe that an environmental impact statement for license renewal is probably not necessary and we believe that for license renewal purposes that an EA is an appropriate first step.

NUMARC has conducted a study of environmental impacts on a generic basis for renewal on the basis of a rule that we had formulated which assumed continued operation of the plants under the present operating conditions. And the conclusions we

reached were that the environmental impacts were minimal.

In addition, we believe that the high level waste confidence findings are going to incorporate renewal and, therefore, one of the major reasons for EIS has probably been removed.

[Slide.]

MR. EDWARDS: In conjunction with the rulemaking, we believe that NRC should change 51.20(B)(2) to permit an environmental assessment on an individual plant basis. We believe the licensee filing will be merely an update of existing reports. We believe this change is consistent with the regulatory philosophy that's already been proposed for this workshop. Again, the NUMARC study supports that.

I mentioned a second environmental assessment, and this one would be focused at changing Part 51. This would address the full scope of environmental issues needed to support the issuance of licenses. We believe the work we've done can be geared so the results can be used in individual cases, individual filings. And we're looking very much at schedule.

Don, you mentioned the concern about schedule. We believe the resolution of the broad scope of environmental issues needs to be balanced against the need to have the licenses issued. We think if this is done in a timely fashion, that staff resources can be saved for all plants. And we

believe that if it isn't done in a timely fashion, that staff resources are going to be devoted to litigation, at least on the lead plants.

[Slide.]

MR. EDWARDS: So this concurrent environmental assessment and Part 51 revision must not constrain either the rule itself or the lead plant applications.

The license renewal rule, as we said, we needs to be final in May 1991 before lead plants file, and we believe that that change to Part 51 can be made. We believe that the separation needs to take place because the Part 51 rulemaking could be held up if they're coupled.

[Slide.]

MR. EDWARDS: With regard to topics, the NUMARC/NUPLEX study assessed in generic terms the environmental effects resulting from heat discharges; chemical and biocide discharges; routine radiologic emissions, gaseous, liquid and solid; decommissioning and dismantling; radiological emissions due to accidents; the uranium fuel cycle; and, construction at the plant site.

Now, for the purposes of construction at the plant site, we considered modifications at about the same level that are being undertaken at the present time during operation. During our study, we did not identify other initiators.

[Slide.]

MR. EDWARDS: This study, as I said, found minimal impacts. Routine radiological impacts from gaseous and liquid releases are comparable to the experiences from currently operating plants. We took a look at population density and assumed a two percent per year increase, and then looked at the risk because of that. We found that to be small and, in fact, within the range of variability between sites and within the overall uncertainty.

Non-radiological releases were found to be not significant. We used generic data; one set of data was the compilation of release records from all the operating plants. We used fairly conservative assumptions. And we recognize that our study needs to be verified in terms of its applicability to an individual plant, but we concluded that the continued operation of existing power plants would not produce environmental effects different from those experienced during the initial term.

We have listed in the report, and will provide with our written comments, the studies that we identified. I'm sure that NUMARC would like to explore, in another conversation, if there's other initiatives we could undertake to support your data collection efforts in this regard. That's all the slides.

With regard to the questions, we believe that the discussion of severe accidents that was done recently for Limerick and Comanche Peak could provide sufficient detail to

permit treatment of severe accidents in this undertaking. As was demonstrated for Comanche Peak, the information from a Level 3 PRA is not necessary for the discussion of severe accidents.

We believe that spent fuel storage considerations are currently being addressed by the high level waste confidence proceeding and we think that the EA should adopt those results.

Finally, we think the NRC should assure that the states and other Federal agencies are solicited for written comments on the draft environmental assessments as they're available in accordance with the schedule we recommended.

That concludes my remarks.

MR. CLEARY: Do we have a presentation by Northern States Power?

MR. SILBERG: We don't all have to sit in the dark because I don't have any slides. I'm Jay Silberg from the law firm of Shaw, Pittman, Potts & Trowbridge, speaking on behalf of Northern States Power.

I would generally like to agree with Don's comments. I think we support, in general terms, both the approach that the staff outlined and the approach that Don outlined. We start off with a most important consideration, and that is that the timing of the renewal rule must be consistent with the submission of the lead plant applications. Again, we're looking at this May 1991 schedule.

We believe that there should be an environmental assessment prepared for that rule. It should be an assessment which focuses on the Federal action of promulgating a rule which is looking towards the review of renewal applications. Preparation of environmental assessment limited to the rule would be consistent with what NRC has done when it has promulgated other amendments to 10 CFR Part 50.

We think preparation of such an environmental assessment can be done consistent with the schedule that is not outlined for issuance of the renewal rule. On a parallel path, we would urge the Commission to identify those environmental impacts for individual renewals that can be generically determined by scoping or by otherwise.

We would suggest that that be done in the same way that the NRC has generically determined the environmental impacts for activities, such as the back end of the nuclear fuel cycle and nuclear transportation, both of which are currently incorporated in 10 CFR Part 51 and Tables S-3 and S-4.

The process of preparing an environmental survey and incorporating the results of that survey in a rule through an administrative procedures, like rulemaking, have been blessed by the Supreme Court in the Vermont Yankee case, clearly a precedent which the NRC can have confidence in.

We think that that survey, environmental survey

process and the rule can be done on a parallel path and can be perhaps brought to completion soon after the May 1991 date, or certainly as soon as possible.

We would also urge that the Commission amend Part 51 so that individual plant renewal applications will be accompanied by environmental assessments instead of environmental impact statements. From what we know so far, there is no indication that anything more than an updating of the information that was prepared for the environmental impact statements for the construction and operation of operating power plants will be necessary, and we think that that can be done in the context of an environmental assessment.

On some of the specific issues. Severe accidents, we think, can clearly be done generically. NRC has handled severe accident matters for environmental impact statements on nuclear power plants prior to the Limerick decision on a generic basis. We think based on the Limerick and Comanche Peak, that that can be done generically as well, and that those results can be incorporated in a table in Part 51, thereby avoiding the need to litigate those matters in each individual renewal proceeding.

Spent fuel storage, we think, has been adequately handled by the waste confidence proceeding, and those can also be incorporated in plant-specific environmental assessments.

In terms of consideration of alternatives, the

environmental assessment for the rule itself, we think, should consider alternatives to a renewal rule, and that alternative would be ad hoc consideration as opposed to consideration under an NRC rule. That alternative, we think, can be dealt with without upsetting the schedule for preparation of an environmental assessment.

For plant-specific alternatives, we think that those should be incorporated either in the plant-specific environmental assessments or, if the environmental survey process which I have described can come up with bounding analyses that will cover all plants, that it may perhaps be done on a generic basis. I think that's something that will have to depend on the outcome of the environmental survey.

Thank you.

MR. CLEARY: Yankee Atomic is next.

MS. GRANT: Good morning. My name is Jane Grant and I'm with the Yankee Atomic Electric Company. Let me first start by saying that at the present time, Yankee supports the positions that Don Edwards has just explained for NUMARC.

There is one point in particular, though, that Don made and Jay made it, as well, that Yankee believes is very important and, therefore, deserves repeating for the third time. That point has to do with the environmental assessment for the actual license renewal, the Part 50 rulemaking versus the Part 51 rulemaking.

[Slide.]

MS. GRANT: Yankee supports the use of an environmental assessment for the license renewal rulemaking for that Part 50. We believe that it satisfies both NEPA and the NRC requirements. Now, Yankee also supports the use of a comprehensive environmental assessment, something that is similar in scope to Regulatory Guide 4.2, to address generic issues.

We think that such a comprehensive environmental assessment will, indeed, bear out NUMARC's findings that it made in its recent study, which are that the impacts due to license renewal are, indeed, very small. Now, that comprehensive environmental assessment could then be used to envelope the generic environmental impacts, to reduce the scope and the number of issues that an individual plant would then have to address in its own application.

[Slide.]

MS. GRANT: However, a comprehensive environmental assessment to address generic issues and then to support a Part 51 rulemaking really should be done separately, as was mentioned, but in parallel to an environmental assessment that is needed to support the Part 50 rulemaking.

If NRC resources are so limited that this approach, this parallel approach cannot be done, then we would urge the Commission to initially focus its environmental assessment

efforts on meeting the rulemaking schedule, on getting a rule out before the lead plants apply. And we're looking at a schedule of a proposed rule in May 1990 and a final rule in May of 1991.

As mentioned several times in this workshop, Yankee will be submitting its application in June of 1991 and, as far as we're concerned, regulatory limbo is just not a good place to be. So we really need a final rule out before June of 1991.

[Slide.]

MS. GRANT: The final point that I'd like to make, and this really has to do with the scope of the applicants' environmental reports, is that the objective of the environmental review for license renewal should be to submit sufficient information in the application to demonstrate that there are no significant impacts on the environment due to continued operation.

In other words, just as age-related degradation should be the focus of license renewal on the safety side, so should only those incremental environmental effects associated with the renewal term, be the focus of license renewal on the environmental side.

That concludes my remarks.

MR. CLEARY: Joe Gallo.

MR. GALLO: My name is Joe Gallo with the law firm of Hopkins & Sutter. I would like to focus my brief remarks on

one aspect of what the previous speakers addressed. That is, I agree that an EA is an appropriate document to support the promulgation of the Part 50 rule; that is, the license renewal rulemaking.

I think that EA should be properly scoped in accordance with the Commission's regulations, with particular attention to that regulation in Part 51 that spells out the contents for an environmental assessment. I also agree with the statement made by the NRC that alternatives should be considered.

There is one aspect of the alternatives and their consideration for the license renewal regulation that I'd like to emphasize, which I think is a potential problem. Over the months -- by now, it's the years -- that license renewal has been in activity, I've heard some speak in terms of an alternative of no license renewal.

That is that one alternative to a license renewal rule is not to renew operating license at all. That is not an available alternative, in my opinion. The NRC has the authority to renew licenses, but what they're about is implementing that authority and the existing set of regulations would permit the renewal of a license.

There is not a structure for how that should be done, but it could be done on an ad hoc basis within the existing structure. Therefore, alternatives to be considered in this

environmental assessment for purposes of the Part 50 rule are the present proposal, the current licensing basis, the application of new plant requirements, no regulation at all; that is, just maintain the status quo; and, finally, some of the variations that were discussed by the staff in NUREG 1317.

I think if these alternatives are addressed, then that will be an adequate discussion for purposes of the environmental assessment that would support the issuance of the license renewal rule. In my judgment, although I've not done the analysis, it would seem that the staff is on the right track with the alternative that they've proposed.

Thank you.

MR. MIZUNO: After the presentations by the various participants, I'm wondering whether we should just pack up our bags and go. Actually, there are three questions that I wanted the industry to address; if not here, then certainly in written submissions that I believe that the industry intends to submit.

The first is what is the baseline for comparison of either an EA or an EIS for an individual license proceeding; whether it is the environmental impacts at the site without a facility; in other words, the original site situation; or is the baseline operation under the initial operating license?

To restate it another way, when you are comparing the impacts of renewed operation, are you comparing it against the operation under the previous operating license or are you

looking at the impacts as compared to the original site condition?

When you address this, we would like to have you address not only -- not only to give your position, but to also present the policy and legal basis for your position on this question.

MR. GILLESPIE: Just for maybe completeness, and I'll ask this question not being a lawyer, but it seems the only alternative to not renewing the license is let the site sit there and get decommissioned. So the real world baseline is if you don't renew the license, the facility is going into a safe-store and decommissioning mode. So, in fact, the baseline should never be, I wouldn't think, an empty site because an empty site is not what will be there.

So the environmental impacts have to start with the real world alternatives. I suggest if you do write in, satisfy a non-lawyer, give me a sentence on what happens if you let the site sit there and rust and decommission it, because that's what's going to happen if you don't renew it. To me, that seems like the real baseline that we're working from.

MR. MIZUNO: The second question is what is going to be necessary from the NRC's standpoint of preparing either an EIS or an EA for those facilities where an EIS was not prepared at either the original CP or the original OL stage?

I understand that there are a number of facilities, a

minority, I believe, where there are no EISs for these facilities. So the question is given the fact that we are now going to be renewing the operating license, what does the NRC have to do at this point to satisfy NEPA? Specifically what we're looking for is an idea of the scope of issues and the detail that is necessary and how the NRC will fulfill its responsibility in that area.

I would suspect that, as part of answering that question, you will also have to address the type of information, the scope and the depth of information that would have to be submitted by the licensee in their supplementary environmental report or whatever document that they intend to submit to support the renewal application.

MR. GALLO: I'd like to take a crack at that question. My name is Joe Gallo from Hopkins & Sutter. As I understood the question, and correct me, Geary, if I don't restate it correctly, but what is the significance or importance of a situation where an operating license is up for renewal and it has not been the subject of a prior EIS with respect to NEPA considerations.

He's nodding in the affirmative that I've restated the question properly. In my opinion, and we've looked at this question recently, the significance is really nil because the proper scope in terms of license renewal are the impacts of the proposed action.

The proposed action is, let's assume, 20-year license renewal. It's a forward-looking, 20-year license renewal and the impact of that continued operation, for that particular reactor, for that 20-year period are the impacts that ought to be looked at. For purposes of conducting your evaluation, the status quo should be taken; that is, this plant has been constructed, this plant has been operated for a long number of years. The status quo should be taken at the time that the renewal license is being up for consideration and is being submitted for NEPA evaluation.

I'm not sure just where you draw that line in time, but at some point you do. Existing environmental information for those plants exists because the NRC has required monitoring and surveys to be done of the environmental effects. For example, radiological impacts, thermal discharges, and all those impacts have been monitored and that information has been documented and maintained, just like all the other plants that were required to do so even though they had an EIS that was prepared in support of the operating license.

Now, there is one significant legal reason; actually, there are two legal reasons. The law says for NEPA that the impacts of concern are those associated with the proposed action. That's point one. If you were to look back and somehow assess the previous impacts and evaluate those to some extent, in my opinion, that would be the retroactive

application of the National Environmental Policy Act, which the cases are quite long on, but that's inappropriate.

And I don't think here we have a situation where the exceptions to that rule apply. Now, that's a general answer to your question. You're really looking for some citation in support of those conclusions and I would propose that we would submit that to you in response to the written answers to questions.

MR. MIZUNO: If I could amplify my question. I guess an important thing to also address is the question of, I guess, the practicalities of conforming with NEPA where an existing -- a plant which has an exiting EIS can merely, in a sense, tier on their past environmental report and the NRC can tier on the past EIS, whereas a plant which does not have preexisting EIS, there is no baseline or a base document to tier off of.

Therefore, there might be certain analyses that need to be performed or certain data to be collected which will entail a greater resource effort for those plants which do not have an EIS prepared as opposed to those plants that do have an EIS.

MR. SILBERG: Jay Silberg from Shaw, Pittman. Let me support Joe's position. The issue of tiering, I think, is not relevant from a legal standpoint. It may be from a practical standpoint. The issue that the NRC has to look at is whether the renewal action is a major Federal action significantly

effecting the quality of the human environment, the magic words out of NEPA.

And you do take as the baseline what exists at the time you're making the action or, at least, not earlier than the time that the application comes in. You don't go back to a green site. I think that answers your first question.

You don't have to reinvent where we were when Columbus discovered America. We take the environment as it exists when the Federal Government is taking its action. I agree with Frank that the appropriate alternatives to look at are not whether you return the site to a nice wooded area, but you have a power plant that hasn't been renewed.

It may well be that that alternative can be resolved generically, the same way that the Commission resolved generically the issue of considering need for power at the operating license stage.

The Commission had a rulemaking and decided that that was not a realistic alternative. And the Commission may well, in the survey process that I outlined, be able to make that same determination for renewal plants. That's a factual question and I'm not willing to say that the Commission must come out that way, but it certainly is within the realm of possibility that they can do that, particularly based on the early generic determination that the Commission made.

The question of tiering really is irrelevant. The

NRC has to look at the facts on a plant that did not have an environmental impact statement and determine whether there is significant impact to the human environment.

If you can make that finding that there are no significant impacts, whether or not there was an EIS the first time, then you properly would prepare an environmental assessment and not an environmental impact statement.

If you can't make that finding, if the conclusion from looking at the data that's available from whatever source is that there are significant environmental impacts, then you have to take the next step and prepare an environmental impact statement.

My guess is, based on EISs and EAs that I've looked at, that you will be able to make no-significant-hazards, no-significant-impacts finding and prepare an EA even where there has not been an environmental impact statement prepared earlier in the process.

MR. MIZUNO: Thank you. My final question is not strictly a legal one as opposed to a practical and policy question. In this case, I would not expect legal comments to come out. It's just that I happen to be the attorney here.

MR. GILLESPIE: But they're okay, right?

MR. MIZUNO: Yes, they're okay. Specifically, what I would like to have is a discussion from a policy and a resource standpoint, the reasons why the industry feels that -- whether

there is insignificant difference in the amount of resources and differences in schedule impacts for doing an environmental assessment as opposed to doing EIS.

I guess specifically I'm thinking about the environmental assessment as opposed to EIS at individual licensing proceedings. You may also want to address that for the rulemaking, but my main interest is in the EIS versus EA area. Again, I would expect that your arguments would be largely practical and policy oriented as opposed to legal.

MR. GILLESPIE: We have a representative from the state of Vermont in the back and he raised an interesting question at a meeting one time on low level waste. The basic question was did states, at some point in the very near future, or something, become the owners of all the waste generated in their states and what happens if the state hasn't agreed to take the waste off-site and all that garbage starts collecting on the individual sites.

Is that something that's generically a problem across the board? It kind of surprised me at the meeting. I hadn't thought about it at all. Is low level waste and the ownership of it in the next ten years a major problem? Will it be or do most utilities feel very comfortable that the states have compacts that are going to be up and running and all the requirements of various acts are going to be complied with so that we don't have to deal with the environmental impacts of

low level waste being stored on nuclear power plant sites?

[No response.]

MR. GILLESPIE: Either no one thought about it, either, or no one knows. I don't know. That's why I asked.

MR. SILBERG: I'll take a shot at that. Jay Silberg. The issue of where individual compacts stand is clearly unique to each compact and I don't think you can make a generic determination that either all compacts will or all compacts won't be able to meet the various milestones that are set by the Low Level Waste Amendments Act.

The issue of the environmental impacts, I think, is a different one than the legal issue of who owns the waste. The question that you have to look at is what is the environmental impact of the waste that might be generated by plants, whether that waste is shipped off-site for disposal or stored on-site.

The shipment and the off-site storage has already been generically handled in one of the tables in Part 51, and I see no reason why the same impacts -- the impacts are essentially identical -- would apply whether that waste is on-site or off-site. In fact, there might be less impacts because you would have no transportation if the waste was stored on-site.

But I think that is an issue which can certainly be handled on a generic basis by scoping and bounding what the environmental impacts are for the waste storage and disposal.

I really think the Commission should not get into the mode of judging where compacts stand at any given point in time, because that's not the issue that you should be looking at.

The issue you should focus on is what are the impacts of the waste that would be generated.

MR. CLEARY: One of the things the Commission has requested us to report back to them on is the use of Level 3 PRA. This has come up in other sessions and has been discussed. It seems to me that in the environmental analysis, we, indeed, do look at the off-site consequences of severe accidents. It's a focus of severe accidents within the context of NEPA.

Given that this is an issue, given that we do the analysis and have been doing the analysis, I raise the question, and I hope I get some response on this; given that it is a topic of concern under NEPA, does that analysis have any contribution to make to feed back into relicensing decisions? Is there, should there be any tie given that under NEPA we're concerned with this, whereas in the safety analysis we typically don't go to the off-site consequence level.

Do I have any response on that?

MR. EDWARDS: I'm Don Edwards. Let me reiterate the NUMARC statement I made in the slides in response to that. We feel if the information is available, it may be useful to use it. But your own work on Comanche Peak demonstrated you don't

need it to reach the conclusions you need to reach to deal with the issues.

So making it a requirement certainly isn't necessary and that's what was the intent of that bullet on the slide.

MR. GILLESPIE: Let me ask. Put your Yankee hat on for me now. You've come pretty close to, let me say, finishing your IPE and I sat through a presentation where I know you looked at various kinds of alternatives in mitigation kind of space.

MR. EDWARDS: Yes.

MR. GILLESPIE: One of the elements, be it a Level 3 PRA or whatever, of the IPE program was to look at various cost effective alternatives in that kind of space. Would it be fair to say -- or let me throw out the question to say that the basic process we're going through now with the IPE, which does request alternatives to be looked at and a line be drawn. Would that be an appropriate fallback vehicle to say here's where there is more data than even existed for Comanche Peak, that the data is kind of already there and being generated?

MR. EDWARDS: If it's available. If it's available, yes. But to tie it together I thought was the question and I don't see --

MR. GILLESPIE: I'm asking a different question. I think what I'm asking is you can go through a very detailed PRA and a Level 3 and do crack calculations and all that, or you

can do something somewhat foreshortened, which is what the IPE program has people doing, looking at various alternatives.

Would, in general, those mitigation alternatives, do you think, fit the bill? I'm asking because I know you've gone through this and you've put a lot of thought into it. Would that evaluation of alternatives via the IPE actually be enough information to fit the disclosure requirements of NEPA of evaluating various alternatives for mitigation of severe accidents? And you're making judgment; some are worth doing and some aren't.

MR. EDWARDS: Probably.

MR. GILLESPIE: It just seems to me we're getting the same information through a different vehicle than needing to go through something else. Themis?

MR. SPEIS: I want to make sure that the IPE is asking for containment performance improvement alternatives, not necessarily to carry that into consequence space, but it's certainly the next logical space and that's what you --

MR. GILLESPIE: I don't know that full disclosure means looking at alternatives. I don't know that NEPA requires going all the way through to the consequence level if you know that the alternatives -- if you feel highly confident the alternatives you're evaluating will make it better, that there's really any need to quantify all the consequences.

I think we have a program in place that gives us

probably the information we need without doing something extra, is what I'm saying.

MR. EDWARDS: I'm going to let your PRA man come back at you.

MR. CHAPMAN: I'm going to qualify this. Jim Chapman from Yankee. Outside of NEPA -- let me address it outside of NEPA. Clearly, over the last ten years, we have investigated the plant and explored alternatives, sometimes considering Level 3, but mostly not considering it, because, in general, the Level 3 is not necessary to explore alternatives. So if that's responsive to the NEPA issue.

MR. GILLESPIE: Yes. I'm trying to get a reason why we don't have to do a Level 3 PRA, because if you do it, we've got to review it.

MR. RASIN: I'm Bill Rasin with NUMARC. Let me say a couple words about that. I think with regard to the IPEs, that will certainly provide some valuable input. I don't think that you will see an approach that takes a standard systematic list of alternatives and deals with all of them. That's not the purpose of IPE.

I would remind you, though, that the NRC has some very extensive studies on which a lot of money was spent, and that's NUREG 1150. The industry has done and submitted to the NRC a lot of work under the IDCOR program, and while we had differences with some of the technical details with that, the

conclusions were amazingly similar with regard to many of the very specific alternatives that one looks at in the NEPA process.

I would just urge you to make maximum use of that information from both your studies and industry's and put it to use rather than looking to supplement it.

I'll make one final observation. We seem to have been able to deal with the severe accident question in the NEPA setting for many years before we all knew that we were smart enough to do Level 3 PRAs. So I don't think it's all of a sudden a requirement just because we have a new technique that now it has to be applied.

I believe those studies, in the past, were done pretty well and have stood up pretty well.

MR. CLEARY: I know there are a number of representatives from state agencies here. If any of you are so motivated, we certainly would appreciate any observations or comments that you might contribute to this dialogue at any time. Don't feel you have to jump up now, but anytime during the session.

Are there any further contributions from the floor, any observations or questions that we haven't probed or different perspectives on what has been discussed?

[No response.]

MR. CLEARY: I guess it's quite evident what happens

now. We're going to size up how the other sessions are going and if they're all finishing early, we'll take a close look at accelerating the program. We're adjourned.

[Whereupon, at 9:40 a.m., Session 8 was adjourned.]

REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission

in the matter of:

NAME OF PROCEEDING: Session 8 Public Workshop

DOCKET NUMBER:

PLACE OF PROCEEDING: Reston, VA

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

Kevin Mahoney
Official Reporter
Ann Riley & Associates, Ltd.

REVIEW OF ENVIRONMENTAL EFFECTS

- NRC SHOULD PERFORM AN ENVIRONMENTAL ASSESSMENT SPECIFICALLY TO SUPPORT THE LICENSE RENEWAL RULEMAKING.
  - FEDERAL ACTION IS IMPLEMENTATION OF AEA.
  - SCOPE NEED ONLY ADDRESS IMPACTS OF THE RULEMAKING.
  - CAN BE DONE IN SAME TIME FRAME AS THE RENEWAL RULE (I.E., 5/90 DRAFT 4/91 FINAL)

- AN EIS FOR LICENSE RENEWAL IS PROBABLY UNNECESSARY.
  - AN EA IS THE APPROPRIATE FIRST STEP.
  - NUMARC STUDY SUGGEST NO SIGNIFICANT ENVIRONMENTAL IMPACTS.
  - HLW CONFIDENCE FINDINGS FOR RENEWAL ARE CURRENTLY BEING ADDRESSED.

- NRC SHOULD CHANGE 10CFR51.20(B)(2) TO PERMIT AN ENVIRONMENTAL ASSESSMENT FOR INDIVIDUAL LICENSING ACTIONS.
  - LICENSEE FILING WILL MERELY BE AN UPDATE OF EXISTING REPORTS.
  - CONSISTENT WITH THE PRELIMINARY REGULATORY PHILOSOPHY AND APPROACH.
  - NUMARC STUDY CONCLUDED IMPACTS NOT SIGNIFICANT.
- A PARALLEL ENVIRONMENTAL ASSESSMENT TO ADDRESS THE FULL SCOPE OF ENVIRONMENTAL ISSUES IS NEEDED TO SUPPORT ISSUANCE OF RENEWAL LICENSES.
  - COUNCIL ON ENVIRONMENTAL QUALITY GUIDELINES PERMIT TIERING OF ASSESSMENT RESULTS FOR INDIVIDUAL FILINGS.
  - RESOLUTION OF ISSUES MUST BE BALANCED AGAINST SCHEDULAR NEED TO SUPPORT ISSUANCE OF RENEWED LICENSES.
  - SURVEY CAN BE COMPLETED IN TIME TO SAVE STAFF RESOURCES ON ALL PLANTS.
  - STAFF RESOURCES ON LEAD PLANT LITIGATION WILL BE REQUIRED UNLESS NRC'S SCHEDULE FOR NEPA RULEMAKING ACCOMMODATES LEAD PLANT ISSUANCE OF SERs

- THE CONCURRENT ENVIRONMENTAL ASSESSMENT AND PART 51 RULEMAKING MUST NOT CONSTRAIN ISSUANCE OF THE LICENSE RENEWAL RULE (10CFR50) OR REVIEW OF LEAD PLANT APPLICATIONS.

  - LICENSE RENEWAL RULE MUST BE FINAL IN MAY 1991 BEFORE LEAD PLANTS FILE.

  - MINOR CHANGE TO PART 51 20(B)(2) COULD BE COMPLETED IN MAY 1991.

  - LICENSE RENEWAL RULE, IF DEPENDENT ON PART 51 RULEMAKING, WILL BE HELD UP UNTIL COMPLETION.

- NUMARC/NUPLEX "Study of Generic Environmental Issues Related to License Renewal" assessed in generic terms the environmental effects resulting from the following:

  1. Heat discharges.
  2. Chemical and biocide discharges.
  3. Routine radiological emissions - gaseous, liquid and solid.
  4. Decommissioning and dismantling.
  5. Radiological emissions due to accidents.
  6. The uranium fuel cycle.
  7. Construction at the plant site.

  - Additional initiators were not identified.
  - Impacts of plant construction were treated in context of plant modifications similar to current operation.

- THE NUMARC/NUPLEX STUDY FOUND MINIMAL IMPACTS.
  - ROUTINE RADIOLOGICAL IMPACTS FROM GASEOUS AND LIQUID RELEASES COMPARABLE TO CURRENTLY OPERATING PLANTS.
  - INCREASES IN POPULATION DENSITY (ASSUMED 2%/ YEAR INCREASE) RESULTING CHANGE IN RISK SMALL IN COMPARISON WITH VARIABILITY BETWEEN PLANTS AND OVERALL UNCERTAINTY.
  - NON RADIOLOGICAL RELEASES OF NO SIGNIFICANCE.
  - IMPACTS ESTIMATED USING GENERIC DATA AND CONSERVATIVE ASSUMPTIONS.
  - INDIVIDUAL PLANTS MUST VERIFY APPLICABILITY.
- AVAILABLE EXPERIENTIAL KNOWLEDGE AND STUDIES ARE IDENTIFIED IN THE NUMARC STUDY AND DATA WILL BE PROVIDED IN WRITTEN COMMENTS.
- CONTINUED OPERATION OF EXISTING POWER PLANTS WOULD NOT PRODUCE ENVIRONMENTAL EFFECTS DIFFERENT FROM THOSE EXPERIENCED DURING THE INITIAL TERM.

NRC WORKSHOP ON LICENSE RENEWAL
NOVEMBER 13-14,1989
SESSION 8

PRESENTATION
ON
ENVIRONMENTAL EFFECTS

BY
JANE M. GRANT
YANKEE ATOMIC ELECTRIC COMPANY

ENVIRONMENTAL EFFECTS
SESSION 8

- SUPPORT USE OF EA FOR LICENSE RENEWAL RULEMAKING - SATISFIES BOTH NRC AND NEPA REQUIREMENTS

- SUPPORT USE OF COMPREHENSIVE EA, SIMILAR IN SCOPE TO REGULATORY GUIDE 4.2, TO ADDRESS GENERIC ISSUES - WILL BEAR OUT NUMARC's STUDY TO DATE WHICH CONCLUDED THAT IMPACTS ARE SMALL

- COMPREHENSIVE EA COULD ENVELOP GENERIC ENVIRONMENTAL IMPACTS TO REDUCE SCOPE AND NUMBER OF ISSUES.

ENVIRONMENTAL EFFECTS

SESSION 8

- COMPREHENSIVE EA TO ADDRESS GENERIC ISSUES SHOULD BE DONE SEPARATELY, BUT IN PARALLEL, TO AN EA FOR RULEMAKING

- INITIALLY, EA EFFORTS SHOULD FOCUS ON MEETING RULEMAKING SCHEDULE - PROPOSED RULE IN MAY 1990; FINAL RULE IN MAY 1991

OBJECTIVE OF ENVIRONMENTAL REVIEW FOR LICENSE RENEWAL

- SUBMIT SUFFICIENT INFORMATION IN APPLICATION TO DEMONSTRATE THAT THERE ARE NO SIGNIFICANT IMPACTS ON THE ENVIRONMENT DUE TO CONTINUED OPERATION

SESSION 8

ENVIRONMENTAL EFFECTS

PRESENTED BY
DONALD EDWARDS,
NUMARC NUPLEX WORKING GROUP