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UNITED STATES NUCLEAR REGULATORY COMMISSION'S
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

(ACRS)

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SUBCOMMITTEE ON PLANT OPERATIONS

AND FIRE PROTECTION

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MONDAY, NOVEMBER 1, 2010

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ROCKVILLE, MARYLAND

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The Advisory Committee met at the Nuclear Regulatory Commission, Two White Flint North, Room T2B1, 11545 Rockville Pike, at 8:30 a.m., John D. Sieber, Chairman, presiding.

SUBCOMMITTEE MEMBERS:

JOHN D. SIEBER, Chairman

J. SAM ARMIJO

DENNIS C. BLEY

DANA A. POWERS

HAROLD B. RAY

MICHAEL T. RYAN

JOHN W. STETKAR

NRC STAFF PRESENT:

GIRIJA SHUKLA, Designated Federal Official and Cognizant Staff Engineer

BETHANY CECERE, NSIR/DPR/EP

ROBERT BEALL, NRR/DPRR

HOWARD BENOWITZ, OGC/RMR

HOLLY HALL, NSIR/DR

JEFF LAUGHLIN, EP

STEVE LaVIE, NSIR/DPR

EARL R. LIBBY, NRO/DNRL/NRQA

ROBERT KAHLER, NSIR/DPR

CHRIS MILLER, NSIR/DPR

BETH REED, NRR/DPR

RANDY SULLIVAN, EP

DON TAILLEART, NSIR/DPIR

ALSO PRESENT:

ANTHONY DeFELICE, FEMA

MARTIN HUG, NEI

JUSTIN KROMETIS, IEM

KEITH KEMPER, Exelon

SUE PERKINS-GREW, NEI

PAUL SERRA, Dominion

HARRY SHERWOOD, FEMA

MICHAEL SLOBODIEN, Entergy Nuclear

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P R O C E E D I N G S

8:29 a.m.

CHAIRMAN SIEBER: Well, I think we're ready to begin now. The meeting will now come to order. This is a meeting of the Advisory Committee on Reactor Safeguards, Subcommittee on Plant Operations and Fire Protection.

My name is Jack Sieber. I'm chairman of the Subcommittee. This meeting will be open to and is open to public attendance. Subcommittee members in attendance are John Stetkar, Sam Armijo, Dennis Bley, who isn't here right now but will be shortly. Oh, there they are. Mike Ryan, Harold Ray and Dana Powers is expected but not here. Girija Shukla of the NRC staff is the designated federal official for this meeting.

The Subcommittee will hear presentations from the NRC staff and the industry regarding the draft final rule, enhancements to emergency preparedness regulations, referring to 10 C.F.R. 50 and 10 C.F.R. 52, and related regulatory guidance documents.

We have received written comments from the Westchester Citizens Awareness Network regarding today's meeting. The Subcommittee will gather

information, analyze relevant issues and facts, and formulate proposed positions and actions as appropriate for deliberation by the full committee.

The rules for participation in today's meeting have been announced as part of the notice of this meeting published in the *Federal Register* on October 12th, 2010. A transcript of this meeting is being kept and will be made available as stated in the *Federal Register* notice.

Therefore, we request participants in this meeting to use the microphones located throughout the meeting room when addressing the Subcommittee. Participants should first identify themselves and speak with sufficient clarity and volume, so that they may be readily heard.

I also would like you and I will myself ask you to silence cell phones, and in my review and preparation for this meeting, what I see before me is an awful lot of work that has been going on, not only by the NRC staff but by Department of Homeland Security and the Federal Emergency Management Administration, and also the industry, state governments, local officials and actually as many as 87 public, members of the public.

To sort through of this and to get this in

the fashion that it is in the time that was allowed to develop this rulemaking shows a great effort on the part of not only our staff but the other federal agencies and state governments and local governments involved, and for that I congratulate everyone for a job well done.

I would point out that in the proposed rulemakings that we will consider today, there are technical issues. For example, evacuation time estimation and how that fits into the emergency plan, and also management issues, public relations issues, all of which are important to make emergency planning and execution effective in this country.

We have had examples in the past of good emergency planning and execution in the United States, and we've had some examples where emergency planning and execution did not reach perfection. In this particular business, we need to work hard and to make good decisions at the rulemaking stage and also in the drill and exercise stage, and also in the actual execution stage, to make this work that we've devoted over five years to, effective.

Now I would point out that there have been a long history of emergency plan drills that have been conducted since the original emergency plan rules, and

I guess between Harold Ray and I, we have done quite a few of these at different plants, not only as officials of utilities but also as observers, and also as part of INPO.

So we have seen it from every angle possible, and the events of September 11th, 2001 have brought new issues to the forefront, which I think are important issues, and make emergency planning a little bit more complicated, and calls upon us to be better organized and better prepared in the areas of alerting resource management, public communication and the on-site handling of a security-related incident.

I would point out that some of the issues related to emergency planning may be considered as Safeguards information. Since this is a public meeting, open to the public, we do not want to discuss that. I would call upon our designated federal official to interrupt the meeting and also the NRC staff, to interrupt the meeting so that we maintain the confidentiality of Safeguards information. So you all are free to do that, and I think that's essential.

MR. SHUKLA: We will do that, sir.

CHAIRMAN SIEBER: That's sort of a long explanation leading into today's meeting and today's presentations, but I think it's necessary, because I

think that what we will do today and what the full committee will do in its review, maybe one of the -- among the most important things that we will do this year.

So with that, I would like to now proceed with the meeting, and I call on Chris Miller of the NRC management, to make introductory remarks. Chris?

MR. MILLER: Thank you, Jack, and other members of the ACRS, and thank you to all who came to participate in this meeting. My name is Chris Miller, Deputy Director for Emergency Preparedness within the Office of Nuclear Security and Incident Response.

We are appreciative of the opportunity to speak on this rulemaking effort and the associated issues. As you referenced in your comments earlier, this represents the culmination of efforts begun shortly after September 11th, 2001, to address needed changes to EP. It includes hostile action preparedness elements, as well as several other changes.

In fact, a top to bottom review of emergency preparedness was conducted in 2004 and 2005, and used as the basis for the additional elements that you will hear about here.

As EP has many interested stakeholders, you referenced them, the federal agencies, states, local governments, industry and members of the public, and you will hear in our presentation the extra measures that we took to involve the public and other stakeholders in this rulemaking process.

Staff also noted the importance of having the rulemaking guidance -- the rulemaking documents out with the guidance documents, and so that the public early on could have a better view of where we were going with the rulemaking, and be better informed with their comments to us, as we kept this a very open process.

So the staff will also discuss the three NRC guidance documents that were developed to provide additional information regard ding the rulemaking topics, a regulatory guide for the amended emergency plan change process, a NUREG CR document for evacuation time estimates, and an interim staff guidance document that cover the remaining topics.

You will also hear from our partners at FEMA today, who have worked closely with us throughout the rulemaking process, even before the rulemaking process began, to ensure that the final rule and guidance addresses important on-site and off-site

documents in an integrated manner. You just can't do without the other. You have to have on-site and off-site coordinated together.

I want to take this opportunity to personally thank the leadership team at FEMA, represented today by Mr. Harry Sherwood from FEMA Region 9 in Oakland, California, and Harry is back there. Thank you, Harry. And you will hear from them later, who helped our agencies remain aligned through the process.

The staff will provide a brief history of emergency preparedness rulemaking. Events that led to the current rulemaking effort, and actions that we have taken to make this effort more open to our stakeholders, through the use of an expanded rulemaking process, and Bob Kahler will get into that a little bit more in detail as we go through.

Each of the rulemaking topics will be covered, along with request for additional input that we requested of the stakeholders in several areas that were under consideration for rulemaking. Finally, significant comments and their resolution will be reviewed.

That being said, I would like to introduce the members of my staff of the Division of

Preparedness and Response, who are in attendance. Many of them will also be making presentations to you throughout the day.

To my right, Bob Kahler, Chief of the Inspection and Regulatory Improvements Branch. To my left, Don Tailleart, regulatory improvements team leader. We have Randy Sullivan, Emergency Preparedness specialist; Steve LaVie, senior emergency preparedness specialist; Jeff Laughlin, emergency preparedness specialist and Milt Murray, emergency preparedness specialist sitting over in that corner over there.

We have also worked closely with other offices on this rulemaking effort, and I want to acknowledge their contributions from the Office of Nuclear Reactor Regulation. Lauren Quinones and Bob Beall have served as project managers; Elizabeth Reed has also been a subject matter expert on research and test reactors.

From the Office of New Reactors, George Tartal and Earl Libby provided their technical expertise, back in back over there, involving combined license and early site permit applicants, and Howard Benowitz benefitted us, from the Office of General Counsel provided legal advice and extensive assistance

to improve the overall quality of the rulemaking and guidance documents. Thank you, Howard.

In addition, Mike Harrison from the office of Administration provided guidance on the formatting and processing of the rulemaking documents. With that introduction, I would like to turn the meeting over to Bob Kahler.

MR. KAHLER: Good morning, everyone. Again, I'm Bob Kahler. I'm with the Office of Nuclear Security Incident Response, and I'm the branch chief responsible for regulatory improvements and also for the EP inspection program here at the NRC.

I'm going to be giving you the brief background of how we got here today with the EP rule and the guidance documents, and the events leading up to today. I'll be going over the rulemaking topics that are included in the rulemaking and the guidance documents, and then going through the requests for input that we also asked during the public comment period. With that, I'd like to get started with my presentation.

As you can see from our chart, we have an enhanced rulemaking process that we use for the emergency preparedness rule, of which there was great involvement from public stakeholders and others along

the way, which is a large addition to what the normal rulemaking process would normally be.

This all started though, back following the accident at Three Mile Island in 1979. The NRC revised its regulations to incorporate additional emergency preparedness requirements, and establish the 16 planning standards in 10 C.F.R. 5047 Bravo.

The planning standards are applicable to off-site response agencies, who are also incorporated in Federal Emergency Management Agency, FEMA regulations, specifically in their 44 C.F.R. 350 regulations. For NRC licensees and applicants, additional requirements in Appendix E to 10 C.F.R. Part 50 supplemented these 16 planning standards.

The EP rulemaking we will be discussing today provides enhancements to these 16 planning standards, and also to Appendix E, the 10 C.F.R. 50.

Following the events of September 11th, 2001, the NRC staff reviewed the emergency planning basis for nuclear power plants, and considered the impact of hostile actions unanticipated at the time that basis was established. The staff concluded that the emergency planning basis remains valid.

The staff concluded that the emergency planning basis was valid as a result of vulnerability

studies, but these vulnerability studies revealed that releases related to hostile action would be no more severe than other accident sequences considered in that emergency planning basis.

However, hostile action could present unique challenges, as we heard from Jack Sieber this morning, to emergency preparedness programs for which licensees and off-site response organizations typically plan for, train for and exercise.

Since 2001, the NRC staff has observed numerous security event-based emergency preparedness drills and security force-on-force exercises, and also discussed EP issues with various stakeholders.

The staff issued a bulletin in 2005, 2005-02, "Emergency Prepared Response Actions for Security-Based Events," to address potential hostile action, and to provide examples of enhancements for licensees to consider in their response to security-based events.

Nuclear power reactor licensees responded that they had implemented or had planned to implement, and have since have implemented the types of enhancements outlined in that bulletin, 2005-02, for security-based events.

During this same time period in 2005, a

top to bottom review of the EP program and regulations was performed by the staff. Joint public meetings were held with FEMA during the review process, to obtain stakeholder feedback early in the rulemaking process, and results of the review and recommendations for the rulemaking were provided to the Commission in 2006 in SECY 06-200, "Results of Review of EP Regulations and Guidance."

The staff recommended pursuing emergency preparedness program enhancements for several security event related and non-security related, non-security event related topics. Additionally, the comprehensive review identified several areas for clarifying and improving the EP program, based on experience since the TMI accident, recent technological advances, and lessons learned from actual events, drills and exercises.

The review also identified other potential lower priority enhancements that were not pursued in this current rulemaking effort. Since then, the staff has determined that these lower priority items should be addressed through means other than rulemaking, such as new or revised values, and not through a rulemaking effort.

Continuing with the rulemaking process,

additional public meetings were held in 2008 until the proposed rule was provided to the Commission in January of 2009.

Following changes made to the proposed rule as a result of the Commission's review and subsequent SRM, the rule was published in the *Federal Register* in May 2009, for what was ultimately an 150-day comment period.

The staff felt it was critical to inform our stakeholders early and often during the comment period about the details of the rule and guidance, to aid them in developing their informed -- aid them in developing their comments.

In June of 2009, we held 11 joint NRC and FEMA public meetings in six different locations across the country, and due to state and local and industry requests, we conducted an additional 12th NRC public meeting here in September of 2009.

NRC staff made use of both telephone calling capabilities and web conferencing over the Internet, to allow effective remote interactive stakeholder participation in each of these public meetings. Our goals are to maximize attendance and accessibility, and provide for a high quality exchange of information, while being sensitive to stakeholder

needs and travel budget constraints.

Approximately 290 people attended the meetings in person, and 95 participated remotely. When I say "95," 95 connections to the web were logged, and some of these connections were in meeting rooms where additional people were observing the meeting.

In December of 2009, the Commission was formally briefed on the status of this rulemaking initiative, and an overview of the comments received by both the NRC and FEMA was provided at that time.

In a staff requirements memorandum issued following the briefing, NRC staff was directed to make the draft final rule language and guidance documents publicly available in conjunction with this, the ACRS review process.

In October 2010, we provided you the rulemaking documents, and we also posted them on Regulations.gov, and you can find them there underneath NRC 2008-0122, as well as any member of the public. We used that same docket number that we used during the public comment period. So there it was a one-stop shop for all of the documents. That occurred on October 8th of this year.

The NRC staff was also directed by the

Commission to assess the cumulative effect of this rulemaking and other NRC regulatory changes on licensees. The efforts to assess the cumulative effect of the rulemaking is still ongoing, and a public meeting will be held on November the 15th, two weeks from today, to obtain additional information from stakeholders on the proposed implementation dates for this rulemaking.

This brings us to the current draft final rule and guidance we are here to discuss today.

With that, I'll present to you this chart, which identifies the 12 topics that are addressed in the draft final rule, and indicates the associated guidance documents for each of those rulemaking topics, and it's high level, the guidance. Some of it has some additional guidance in other minor areas.

The first six topics are really related to the security issues that were born of the September 11th, 2001 review. Topic 7 through 11 were a result of the comprehensive review, and the final 12th topic is associated with the removal of completed one-time requirements and is more administrative in nature.

The rest of my presentation is to provide an overview of each of these rulemaking topics, and also of the request for input that were out in the

Federal Register notice during the public comment period.

The first rulemaking topic I'd like to discuss with you today is on on-shift multiple responsibilities.

MEMBER STETKAR: Can I ask you a general question before we get into specific topics?

MR. KAHLER: Sure.

MEMBER STETKAR: Why does the rule exclude non-power reactors?

MR. KAHLER: The rule doesn't exclude non-power reactors on the whole. There is a portion --

MEMBER STETKAR: Okay. Well, let me rephrase it. Why does the rule in all practical senses functionally exclude non-power reactors?

MR. KAHLER: We did do a review of some of the non-power reactor, where it would be appropriate to have it apply to non-power reactors, research and test reactors. I do have that further on in my presentation.

MEMBER STETKAR: Oh, you do? Okay. If you're going to address it later, thanks.

MR. KAHLER: Because that was one of the requests for input was whether this should be applicable to non-power reactors.

MEMBER STETKAR: I'll save it. Continue. Thank you.

CHAIRMAN SIEBER: I might add to that, we licensed and relicensed recently a non-power reactor, one of the largest ones and the biggest issue is that the nine conditions under which they operate, low temperature, low power, and the other one is minimal source term. Because the source term is low compared to a power reactor, and because the operating conditions are relatively benign, the potential for a major off-site consequence is far less than it would be for a power reactor, and in its judgment, the staff has lessened the requirements on non-power reactors, research reactors, for example, because of these two factors.

MEMBER STETKAR: If you're going to address it later, I'll ask a few questions on that.

(Simultaneous discussion.)

MR. KAHLER: Yes.

MEMBER BLEY: I have two kind of overview questions too.

MR. KAHLER: Yes.

MEMBER BLEY: The first one is all EP now in NSIR or some elsewhere?

MR. KAHLER: All of power reactor EP is in

NSIR.

MEMBER BLEY: Yes, okay.

MR. KAHLER: Yes. We have some oversight of reviewing some documents that we received from research and test reactors with their emergency plans, for review for the licensing basis, but everything else is held by research and for the RTRs.

MEMBER BLEY: Okay, and the other question, which I hope you're going to get to and just say that if that's true, I don't see anything about risk or risk-informing in any of this. Is there -- is that the way it is, or are you going to talk something about that along the way?

MR. KAHLER: Risk-informing of EP, when we talked about the reviewing the basis for emergency preparedness.

MEMBER BLEY: Yeah.

MR. KAHLER: Part of that was to go back and take another look at risk and everything that was involved with it.

So the 9/11 aspects were risk-informed, and as we're going through evaluating each of the rulemaking topics, you don't have it in front of you today, but the staff used analysis sheets which did talk about the significance of the rulemaking changes

and the risk side of things and all that.

MEMBER BLEY: But any of that you can mention as you go through, I'd appreciate. Or if you -- if it can't be in a public session, if you can just maybe point it out.

MR. KAHLER: Okay. Hang on. Randy, you want to --

MR. SULLIVAN: Hi. This is live, right?

MR. KAHLER: Yes.

MR. SULLIVAN: Randy Sullivan, Emergency Preparedness. We have an initiative ongoing to risk-inform, to establish a technical basis to consider risk-informing the EP regulatory regimen.

It's really quite a different approach than the deterministic rules as they stand now. But that is not fully baked. It's ongoing research for the technical basis, to allow management and the Commission to make a decision if we even want to go forward.

I believe it's possible and that we could go forward, but this is a year or two out yet.

MEMBER BLEY: Okay. I was aware of something going on a few years back, and I'd just say the committee will be real interested in hearing about that at some point in time.

MR. SULLIVAN: Yes, I bet you will. This is an extension of what was going on a couple of years ago, and trying to establish a more robust technical basis to accomplish that.

MEMBER BLEY: Okay, thanks.

MR. KAHLER: And if I can, at SECY 06-200, we had discussed the project for risk informed EP, and they at the time said continue with the rulemaking, wait to initiate that, and we just initiated that as recently as last year.

MEMBER BLEY: Thanks. That rings a bell. Thanks.

MR. KAHLER: Yeah. That's where it's coming from. But we did use some sort of a safety significance approach to the rulemaking effort that we had, but as Randy said, it's more deterministic than the technical basis. Any other questions at this time?

Going on, then the first rulemaking topic is on on-shift multiple responsibilities. I'd like to go through what was -- what is in the actual fine rule, and talk a little bit about the guidance, just a short bit.

We have created a new section (4)(a)(9) to Appendix E, to 10 C.F.R. Part 50, which will address

the concerns regarding the assignment of multiple responsibilities to on-shift emergency response organization personnel that potentially would be overburdened and prevent the timely performance of their emergency plan functions.

As I stated, the first six topics are security-related events, were borne out of security-related review, and this is one of the ones where during a hostile action and so on, we wanted to take another look at the on-shift staffing.

Currently, the licensees must have enough on-shift staff to perform specified emergency response tasks as you know, 24 hours a day, seven days a week. Existing NRC regulations, however, state that on shift staffing levels shall be adequate, but don't give a firm definition of what that term adequate really encompasses.

So the final rule will better ensure sufficient on shift staffing in this post 9/11 threat environment. It would limit the assignment of additional responsibilities which on shift error numbers would likely perform, concurrently with their emergency plan functions.

The interim staff guidance identifies the need for the licensee to define the spectrums of

accidents, a design basis accident, design basis throughout, to consider, perform an analysis of emergency response functions, such as a job task analysis, and compare their current staffing levels with the results of this analysis.

The guidance also states that these results shall be available for inspection and shall be documented. So that's really the first EP rulemaking topic that we had for the rule.

MEMBER ARMIJO: Has any exercise been done to go through this process to identify, see how it works, just this particular multiple responsibilities?

MR. KAHLER: We at the NRC have not performed any job task analyses of the separate emergency response functions. So the industry is creating some sort of a document internally for their use, on how to go about doing the job task analysis. We do currently have a table in our current guidance documents, that outlines the functions that they are to analyze.

MEMBER ARMIJO: I'm just trying to get at how many, how much additional staffing do you anticipate will be required by this part of the rule?

MR. KAHLER: I would say that would be highly dependent upon the site itself and the

specifics in the site. A lot of them have done that sort of analysis, but nothing formalized that I'm aware of. There may be some that have done it, but it's mostly through drills and exercises, identifying the tasks that are performed and identifying the needs.

I am aware of some licensees who have run drills and exercises, and as a result of it, have increased their staffing levels on shift or their augmented emergency response organization as a result of exercises and the need to have additional staff.

CHAIRMAN SIEBER: That has happened on quite a few cases, where licensees have learned from EP drills. But in the old days, those of us who remember the old days, it was allowed at one time for an on duty license person with the right qualifications to also be the shift technical advisor, which created a job task problem.

Then when you're in an emergency, in the early stages, somebody in the control room has to communicate with the off-site people. They said well, there's the STA, he's not busy. That automatically takes him out of the picture as far as emergency management at the site; in other words, managing the accident at the reactor, and puts him into another

role.

This is where these kinds of conflicts occur. Sometimes drills show that; sometimes they do not, because drills, as good as they can be, do have some artificial aspects to them, and --

MEMBER ARMIJO: If I could also, just to put it in a little bit different way --

CHAIRMAN SIEBER: You know, what I'm trying to get at is is these hostile actions are probably not going to be frequent, right? So that means when somebody -- but you have to do your planning as if this event had occurred, and so you might wind up with a staffing level that is disproportionate to the actual threat.

You know, you have to have -- if you go through the exercise, you'll say "Gee, I have to have additional people to handle this particular problem." But this problem won't occur very often, perhaps never. So how do you address that, and that's my question. How do you -- what do you do in this analysis to prevent overstaffing for a very low probability hostile action?

MR. MILLER: Let me just step back a second, because there's two parts of what you said. One is the recognition that over the years, since

9/11, not only the NRC but the industry and states and locals have understood that additional actions need to be taken to address hostile action and other similar kind of events, really in an all-hazard environment, but certainly in the preparedness for around nuclear power plants.

That being said, we recognize the fact that, you know, different site had addressed this in different ways, and what we were -- with the staff and the Commission we were concerned about is that we didn't have some people, you know, committing resources that they really didn't have.

So this first element really doesn't, we wouldn't expect that any additional resources were, would have to be added because of it, just the recognition of all the functions that needed to be addressed and were they addressed adequately, so that you didn't have a watering down of somebody's ability to be able to perform one of their standard emergency functions because somebody has added something over the last five, ten years.

MEMBER ARMIJO: I think I understand where you're going, yeah.

CHAIRMAN SIEBER: As far as security threats to the plant, there was an order in 2002 that

the Commission issued, which increased the effectiveness or the security force, including talking about some minimum numbers of people that were to be available around the clock.

While that has an impact on plant staffing, that doesn't -- that by itself did not change the emergency response organization staffing, other than it recognized that there is a new area of potential causes of emergencies at nuclear power plants.

On the other hand, I think that the staffing questions that are addressed by the revised proposed rule addresses the mechanics of all kinds of emergencies. For example, mixtures of fire brigade people with plant operations people.

Some plants had enough foresight to make a separation between who fights fires and who operates the plants, as opposed to having plant operators go out and do that. So those are the kinds of issues that we're really talking about here.

MEMBER STETKAR: Yes, I think that's the point I was going to make. I think although this is presented under the guise of perhaps hostile actions or precipitated from 9/11, we've had some recent operating experience with folks who have had fires and

have had flooding events, where there's not necessarily been a very well-defined set of roles of people in the control room in terms of responsibilities and communicating with the NRC, and even internal responsibilities, as Jack mentioned.

So I think th is, you know, what Jack said. This addresses the broad spectrum of events that can happen, not just hostile action.

CHAIRMAN SIEBER: Yes. If you read through the rulemaking process that went on here, it not only considers the new class of events, which are security events, but it also looks at performance during drills and actual events of the regular staff.

The NRC staff has done, I think, a very good job at doing that to determine, first of all, that there are some resource problems at nuclear sites, and secondly, that the rule has to recognize and address those, and I think they do. Perhaps not as far as I would like to see them go, but the rule, the new rule does address these matters. It's for us to decide whether it's adequate or not.

MEMBER BLEY: Just to telegraph ahead, maybe industry this afternoon can give us a little more detail on how they're trying to deal with these.

CHAIRMAN SIEBER: Yes. I intend to ask a

number of questions.

MR. KAHLER: And to let you also know a part of it was we did run, during 1990 -- 1990; yes, I'm going back in time -- since 2006, you can see how long I've been involved. Since 2006 through 2009, we ran pilot exercises with the industry on not force-on-force but hostile action events.

Every utility, every site had to run hostile action exercise as a pilot, of which there was -- in order to gain lesson learned, we were involved with that. We observed that -- there was a lessons learned document written from it.

The rule after that, 2009, was informed from those lessons learned. So there's a lot to be had from that process also, on how the licensee would respond on shift, the ERO, to the hostile action event.

But also with the fire brigade and such, we've known over the years type of thing, where there hasn't been this formal job task analysis performed, and some licensees do double-dip into the staffing levels. We want to see that happen.

It's happened for operations, it's happened for mechanical response during events. It's just never happened for the ERO, where it was required

to have that done. I think answering the general question of do we expect an increase in staffing? It depends.

I would expect for multiple units at a site. I wouldn't expect that to be an issue. Maybe for a single, small output type of site, sitting out in the country field. They may have some challenges that they need to address, which they should have always been addressing, quite honestly, as we know about the fire response and police response and such.

MEMBER BLEY: Well and just some of the things we've seen recently. You know, they may be rolling into an outage, you get busy with other things, you cut back and all of the sudden that's when things happen.

MR. KAHLER: That's when things happen.

(Simultaneous discussion.)

CHAIRMAN SIEBER: I think the areas of concern are fire brigade --

MR. KAHLER: Medical response.

CHAIRMAN SIEBER: Medical response. It depends on -- that depends on the site also.

MR. KAHLER: Yes sir.

CHAIRMAN SIEBER: Communications with the off-sites. You don't want to -- you want to have that

capability without interfering with the operating period. There are a number of other areas where you really need on shift staffing all the time, or a really rapid response, and some plants can achieve that; some others find that more difficult.

But there are a number of human resource areas that need to be looked at in detail, in order to be able to come up with the proper amount of staffing to be able to function properly.

MR. SULLIVAN: I guess at the risk of adding more to a topic you've already discussed, this did bubble up -- Randy Sullivan, NRC staff. This did bubble up in our review of hostile action response. However, if you think about where we're at currently with the regulations, the post-TMI EP regulations were developed in about 14 months, from accident to issue.

As part of that, there was a staffing table promulgated in NUREG 0654. This is really the first look at staffing, to bring it into the modern era. I mean we laid down the criteria we want licensees to perform against. That is, the on shift staff will deal with design basis accidents and design basis threat.

Beyond those things, we're expecting the augmented ERO to come in and help, okay? We've never

drawn that guideline before. Now we'll see what the task analyses look like and we'll review those, but this is the first look to sort of standardize the way on-shift staffing is done, and have a better technical basis than a table that was customized site-by-site 30 years ago.

MR. KAHLER: Quite honestly, we may even find by technological advances and such staffing levels may even go down on shift quite honestly. That's a possibility. It can't be ruled out.

MEMBER ARMIJO: But your focus then is really on the organization and management of what -- of the problem, not sort of forcing additional staff to be hanging around --

MR. KAHLER: We want to know what the right size is. That's the thing. We want the utility and the site to determine what is the right size for them, for their on-shift staffing.

CHAIRMAN SIEBER: Well, it's an important area and to the staff's credit, the new proposed rule addresses that question, as to whether it's adequate or not and we'll all have to ponder that.

MR. KAHLER: Okay. If that's all the questions, I could go on to the second topic. That's regarding emergency action levels for hostile action

events.

Previously, emergency action levels for security-based events were not focused on a hostile action event that's possible in the present 9/11 post-threat environment. The change to the NRC regulations in Appendix E, Section 4(b) of 10 C.F.R. Part 50 would codify the requirement that licensees incorporate emergency action levels, based on hostile action events, into their emergency action level scheme.

As I stated before, we previously issued, both in 2005 and '02, for implementation of emergency action levels to address these hostile actions and other security-based events. Current guidance for incorporating hostile action based emergency action levels is contained in an NRC-endorsed Nuclear Energy Institute document, NEI 99-01, currently in its Revision 5.

So at this time, licensees do have hostile action EALs incorporated within their emergency plans. This would codify what's already out there.

Rulemaking Topic No. 3. This is the emergency response organization augmentation and also alternative facilities. Section 4(e)(8) of Appendix E, 10 C.F.R. Part 50 would be amended to address concerns regarding emergency response organization

augmentation during a hostile action.

Licensees must have the capability to augment the on-shift staff within a short period of time after the declaration of an emergency, usually 30 or 60 minutes. However, during a hostile action, emergency responders will likely not have access to the site. But these events still warrant a timely augmentation.

The final rule would require licensees to identify alternative facilities as staging areas for augmentation staff, when on-site emergency response facilities are not accessible. The objective is to minimize delays in overall site response, and allow for a swift, coordinated augmented response when the site is eventually secured.

As stated in the final rule, the alternative facility will have certain characteristics associated with it. For one, accessibility, even if the site is under the threat of or during an actual hostile action. We'll have communication links with our emergency operations facility, which is normally located off site.

The control room and plant security, capability to perform those off-site notifications, and the capability for engineering assessment

activities, including damage control team planning and preparation. So you can see it is in preparation for a swift, coordinated response once the site is secured.

The alternative facility is going to be equipped with general plant drawings, procedures, telephones and computer links to the site. Details of these characteristics are provided in the interim staff guidance document, which will be talked through later. Any questions on this part?

MEMBER STETKAR: Yeah, a couple of questions. I don't know if it's under the topic of emergency action levels or here or perhaps some time later. The genesis of the 15 minute notification capability criterion, I didn't have enough time to personally go back and read NUREG 0654. But it was published in 1980, so it's 30 years old.

There is a quote that says NUREG 0654 planning basis provides that the onset of the release to the environment following the onset of the event may range from 0.5 hours to one day. There seem to be criteria that says well, off-site people probably need about 15 minutes to get mobilized, so you back out sort of a 15 minute from that minimum half hour release.

How has the rule considered ongoing research that says that the onset of a release may be substantially delayed, even for the most serious accidents? There's been a lot of work done on containment response and degraded core interactions, and the timing of releases.

MR. KAHLER: I'd like to have Randy, who's involved in some of that research that has been going on.

MR. SULLIVAN: Yes. It's an interesting question. However, we'd have to say that as we sit here today, the EP planning basis has not changed. It's a matter of policy and the staff really hasn't put forth the basis to change it. You know right now, we're on a 30 minute trigger, and we have a ten mile EPZ.

Now those things can be considered in the future. That's the EP planning basis, is that a release could start in about 30 minutes, although that's unlikely, and that the EPZ is protected, right, and that those harken back to WASH 1400, believe it or not, so it's very old.

MEMBER STETKAR: Well, that's right. But we've probably learned some in 30 to 40 years.

MR. SULLIVAN: Yes.

MEMBER STETKAR: The question is are we forcing people to make very rapid judgments and perhaps, in some cases, excessively conservative judgments, just simply because we've started a time clock. According to the rule, we've set now much more clear criteria about when that time clock starts, whereas in the past there could have been different interpretations about exactly when the clock starts.

So I'm curious whether or not that 15 minutes, and kind of in the heat of the battle, is still a supportable, from a technical basis, not from an historical basis, but from a technical basis, a supportable time.

MR. SULLIVAN: We have work ongoing now to look at that issue and other risk-informing issues. But I have to tell you that while mechanistic events seem to be the not-yet-published SOARCA project and that sort of thing, seem to indicate that accidents do take a while to develop, in hostile action space that may or may not be the case, and we need to take a closer look at that.

CHAIRMAN SIEBER: That's right.

MEMBER BLEY: Just following up on that though, after this becomes a rule, it would take a rulemaking to change that.

MR. SULLIVAN: Definitely.

MR. KAHLER: That's correct, and I think we do have to go back. I understand. Like this was created, NUREG 0654 1980 and such. We started the rulemaking effort before actually the SOARCA project or those type of technical analyses actually began. So we were working with that emergency planning basis we had in front of us.

(Simultaneous discussion.)

MR. KAHLER: So we're going to finish it before -- quite nicely, but -- well, that's my current plans. And so, you know, we had to deal with our comprehensive review with our planning basis that we had in place at the time. So very good questions for future considerations, but at this time, this is the rule, this is what it's based upon.

CHAIRMAN SIEBER: I think that would be hard to implement. Somebody would have to make a judgment as to how long it's going to take. It's like telling the fire department it's a little fire or an old house. You don't have to drive as fast to get there, you know.

MR. KAHLER: That's true too.

CHAIRMAN SIEBER: And so I think that's going to take a lot of thought, in order to be able to

-- as does everything in design basis space. You know, a lot of the design basis for the design and construction of power plants causes some aspects of the plant to be quote "overdesigned," compared to what the realistic accident sequences would be.

That's done on the basis of safety, and that's done because that's what they knew how to do 50 years ago, when all these designs came out. On the other hand, in emergency space, it's not clear to me that you know exactly what's going to happen next, because the future can have surprises.

MR. KAHLER: So in response to the shortest event, you can also be assured that you can take adequate protective action during the longest release type event.

CHAIRMAN SIEBER: Yes.

MEMBER STETKAR: Let me ask you a completely different question, but it is germane to this slide. I got a bit confused. When I was reading the statement of considerations regarding the capabilities for a site that may define or designate multiple alternative facilities, there are some criteria that are specified, and I won't repeat them, accessibility under hostile action communications, those types of things.

And there partly was some discussion in response to comments about whether, if a site has designated multiple facilities, and let's use the number two as a multiple, whether each of those facilities must have all of the capabilities, or whether combined between the two of them they satisfy all of the capabilities.

Apparently, the conclusion was that collectively, the two of them have to have all of the capabilities. Now I'm starting to think to myself well suppose one of the facilities is accessible during a hostile action, but it can't communicate with the outside world, doesn't have any technical documents, and I've forgotten what the other one is, can't communicate with the outside world, doesn't have the ability to support off-site notifications, and doesn't have any technical documents, so you can't perform any assessments, because all of that stuff is in the other place that's not accessible.

Those two facilities still meet the rule, but I'm not quite sure what is useful to me, to be sitting in the place that I can get to but I can't do anything.

So I'd like to understand how this notion of collective satisfaction of the capability

requirements, among the, you know, to be determined facilities, actually provides the capability that we're looking for.

MR. KAHLER: And what you're talking about is hardware versus like functional capability of the facility, if I can understand that, and ours is collectively the functions of the alternative facility, whether it be one or multiple, has to be able to be performed.

So if you do decide to do more than one alternative facility, you still have to ensure all of these functions can collectively be performed for the type of response you're talking about. All these alternative facilities have to be accessible, first of all. That's a requirement. So when you're saying --

MEMBER STETKAR: All?

MR. KAHLER: All of them.

MEMBER STETKAR: That's why I got confused, though, reading the -- in the statement of considerations, the discussion of what is meant by "collective," and how will that be implemented in practice by people? Collective could mean that I have one capability in this facility, and I have the other -- I don't know, there are three, say, the other three in this facility.

Collectively between those two facilities, I indeed have all of those capabilities. Individually, I don't have all of the capabilities in either of the facilities.

MR. KAHLER: Well, that would not be the intent of the rule then.

MEMBER STETKAR: If neither words of the rule then are not -- because I understood the comment to specifically ask that question. Do you require all of the capabilities to be satisfied by each facility? In other words, they are 100 percent totally redundant to one another, regardless of whether I have one or 30 of these things.

It seemed to be that the conclusion was no, that just collectively as a group, they must be able to provide those functions.

MR. KAHLER: And the way we read the comment and the reason for the response was you may already have set up an alternative facility, say for off-site communications, in an alternative facility already, in an alternative EOF that's located at 20 miles.

So you're claiming my communication capabilities for off-site notifications would be at that facility, whereas an EOF would not necessarily

have the engineering assessment capabilities that the TSC would have on site.

So I would have to now choose another alternative facility in order to house that engineering expertise in, okay. But it doesn't necessarily have to have the communication links to the off-site notification portion, because that's being conducted at another facility somewhere.

So long as collectively all of the functions are able to be performed.

MEMBER STETKAR: So you kind to have a situation where one of my facilities, and only one is accessible, but yet it doesn't have any communications or engineering support activities. That's what I just heard you say.

MR. KAHLER: No.

MEMBER ARMIJO: I heard it differently. I heard that if you had accessibility and you had communication, maybe that among these things --

MEMBER STETKAR: The rule doesn't say, I'll quote from the rule. This is from the rule. "For nuclear power reactor licensees, an alternative facility (or facilities) to function as a staging area for augmentation of emergency response staff, and collectively having the following characteristics.

Accessibility, even if the site is under a threat of, or during a hostile action; communications" and I won't continue it.

The list applies collectively. It doesn't say each one must be accessible. It applies collectively.

MR. KAHLER: I understand where you're getting that from.

MEMBER STETKAR: So if I have -- you know, if I can separate communications and engineering, I can also separate accessibility and everything else.

MR. KAHLER: I understand where you're coming from.

MR. MILLER: That wasn't the intent, but you pointed out a good -- it's a good point. You have to have accessibility or it's not an alternative facility.

MEMBER STETKAR: Okay. Well, the rule -- the rule doesn't require me to have that.

MR. KAHLER: That's correct. By the way, the strict reading of the rule, yes. I can understand where that --

MEMBER BLEY: I may be read strictly, I assume. It may be read strictly by some people to --

(Simultaneous discussion.)

MEMBER BLEY: --who want to have two.

MR. KAHLER: I understand. No, thank you very much. I see he's making some pending changes on his copy right now, "good point."

CHAIRMAN SIEBER: Well, we're both taking notes, because that will be in our letter.

MR. KAHLER: Thank you. Again, trees, forest.

CHAIRMAN SIEBER: Thank you, John.

MR. KAHLER: Thank you, John. Any other questions on the alternative facilities?

MEMBER STETKAR: One more.

MR. KAHLER: Oh yes.

MEMBER STETKAR: And this may come under EOFs, but I'll bring it up here, because it could be an EOF. In the, and I've lost my notes. Bear with me. It's good things and bad things about being very organized. The bad thing is once things fall apart, you're lost.

This again is in the statement of considerations, I think, and I don't believe it's actually in the rule. But their discussions about, and I think you mentioned in the presentation, computer links with the site, a mention is made of those computer links, examples being Internet access.

Is that really what we want?

I understand communications, the need for communications. But one would suspect we would like secure communications, especially if we're going to handle a broad range of types of evolving situations. I perhaps wouldn't like my neighbor's 14 year old to be sitting in his bedroom, you know, listening to what's going on from the remote facilities to the control room.

MR. MILLER: I believe -- mentioned about having Internet accessibility. It's not saying that it shouldn't be a secure type of access required. It would be that type of, to gain plant data and such, that you could access in the other facilities. Locals and states can access it through some method.

MEMBER STETKAR: Are current communications set up for local and state authorities to access that information via the Internet, or are there secure links, datalinks?

MR. MILLER: It depends on what the information is. For ERDS data and that kind of thing, it would be secure. There's Web EOC, for example, that's Internet-based and they're sharing emergency information real time, and you know, it depends on the level of security that the entity that's putting it

out wants to include.

MEMBER STETKAR: Thank you.

CHAIRMAN SIEBER: Is this the part of the rule that says that a licensee who has multiple sites can have one EOF?

MR. MILLER: No. That's another topic.

CHAIRMAN SIEBER: Okay. Remind me when we get there.

MR. MILLER: We're coming to that.

MR. KAHLER: We're coming to that one, yes. Any further questions ERO augmentation, alternative facilities?

(No response.)

MR. KAHLER: I'd like to move on then to rulemaking topic number four, which is licensee coordination of off-site response, organization response. A unique challenge during hostile action is the increased demand on off-site emergency responders, who are expected to implement their emergency plans, such as traffic control points or route alerting, as well as respond to hostile action activities at the nuclear power plant site.

Currently, regulations are -- excuse me, current regulations would be enhanced to require licensees to identify the off-site resources that

would be expected to be responding to the plant site during a hostile action event.

Specifically, a modification to Section 4(a)(7) of Appendix C to 10 C.F.R. Part 50, would require licensees to identify and describe the assistance expected from off-site response organizations, for example, local law enforcement, firefighting, medical assistance providers, that would respond to the site during events involving hostile action.

The guidance documents talk to that the licensee should review their current arrangement for off-site resources, such as currently for local law enforcement, medical and firefighting, and revise existing or obtain new agreements for these resources as appropriate, to include hostile action event. That's the rulemaking topic No. 4. Going on to number five --

CHAIRMAN SIEBER: That's not a lot different than what's now required, right?

MR. KAHLER: It is not. All we're saying is that we want you to now include in your letters of agreement, memorandum of understanding with off-site, not only would you provide us,

the on-site the licensee, assistance for firefighting

activities, medical activities, but also during a hostile action event, the appropriate response and resources needed.

CHAIRMAN SIEBER: Now if I remember those letters of agreement, those are sort of good faith letters, you know. They will call, for example, the fire department would have a mutual aid fire pact, and they would sign them among themselves. They would sign them with the licensee, which meant that in the event a fire truck is disabled down the street, that the next fire house would send one of theirs.

But that is not a -- those mutual aid pacts are not firm agreements. For example, if you take a power plant that's out in, you know, away from a big city and you're looking to local police departments to do traffic or action in the event of evacuation, plus assistance at the plant for hostile action, that may -- you may be -- you may have signed up for something that really isn't going to happen, if you know what I mean.

Now what is the licensee supposed to do? Are they supposed to say well, this town has so many police officers and this town has so many, and I have so many and here's the design basis threat. Here's what it's going to take to repel them, or is it good

enough to go out and sign all these mutual aid pacts?

MR. KAHLER: It is not the intention to require the licensees to do analysis of what is available off-site to respond to on-site. It's the intention for the off-sites to provide for that response. And in our public meetings we've had with the off-site agencies, the states and the locals, they've asked those kind of questions.

"Does that mean licensees are going to come out and start evaluating us," the NRC, and we told them no. That is something that you should be prepared for as a matter of, you know, expectancy, to respond to a plant site, and we're being told by off-site agencies they already have these type of agreements for hostile action, terrorist-type events, where they can call on additional resources from the outside, not only for the nuclear power plant but for other areas.

CHAIRMAN SIEBER: True.

MR. KAHLER: So they would just call upon those agreements and implement them for the licensee.

CHAIRMAN SIEBER: But there's no place where, in Title X or anyplace else, where it requires anybody to determine whether the resources that they have are adequate to perform what they're expected to

perform.

MR. KAHLER: However, I must say that we are going, as we're going to talk about in the future here, require hostile action type of exercises during an eight-year planning cycle, and that that time period, that will be a FEMA type of evaluation, in order to ensure that the activities that the off-site agencies can respond to on-site, and still implement their emergency plan, are still being performed, and there's adequate personnel for it.

So we would rely upon FEMA then, to provide us an analysis of that response.

CHAIRMAN SIEBER: But if there's no requirement to do it, it's hard to make a finding against it, correct?

MR. KAHLER: It would be a FEMA, though, evaluation criteria of determining if they can properly respond to that type of activity.

CHAIRMAN SIEBER: I understand that FEMA has to say it's okay before you guys will bless it.

MR. KAHLER: Right. That is correct.

CHAIRMAN SIEBER: Right, okay.

MR. KAHLER: And FEMA can also tell us it's not okay.

CHAIRMAN SIEBER: I understand that.

MEMBER ARMIJO: What would happen then? Let's say these outside resources aren't available, budget cuts, changes in personnel, policies of a small community, police forces and fire departments, and let's say they simply don't meet the FEMA expectations and FEMA informs NRC. What happens to the plant?

MR. KAHLER: Well, there is a process current in place about where FEMA, if they do put into question the reasonable assurance, as we call it, for off-site capabilities to respond, then they would notify us of that. There is a certain time period of which FEMA goes and try to have the situation rectified.

The same type of situation could occur today for firefighting, for medical assistance, that sort of a thing, at which time we would then become involved in ensuring that the licensee and the off-site agencies do have a plan that's appropriate, to able to be implemented, to provide for public health and safety.

We would go back and again, for that portion of off-site, rely upon FEMA to reevaluate any changes to the plan or additional resources that may have been needed or however the approach is from the off-site agencies. That is a question for FEMA then

to provide us that response. But we would invoke 10 C.F.R. 5054(S)(2) I believe it is.

Yes. I've got Steve. He's shaking his head, because he's been involved in that in the past. That's where we would then begin our process of reevaluating licensee reasonable assurance, which starts internally another 120 day clock for us, at which time we have to make that determination, and provide recommendation to the Commission.

MR. LaVIE: 5054(S)(2), after we get notified by FEMA, or we make a finding ourselves on site, if there's on-site deficiencies we get the same process, requires, identifies that the Commission will require the licensee to demonstrate how he's going to address the situation.

Basic in our fundamental regulations is the licensee cannot operate the facility unless there is a finding of reasonable assurance. So if we get that far out, if it's an off-site problem, there's also a part of the regulation that allows the licensee to develop off-site plans. You might remember back many, many years ago, Long Island Lighting.

MR. KAHLER: Does that help?

MEMBER ARMIJO: I think I understand what would happen, and in the event that the plant couldn't

basically do everything themselves, then they'd have to shut down. Well, if the off-site facilities were unavailable to them for whatever reason, then they'd have to do it, be stand-alone as far as --

CHAIRMAN SIEBER: What some licensees have done is that where the tape, there is a shortfall in off-site capability, they provide their own.

MEMBER ARMIJO: Yes. Well, that's what I'm saying. They have to either upgrade it or do something else, and count on the community or -- and FEMA can't force anybody to do, you know, a local fire department or a local police department doesn't have to do what FEMA tells them to.

CHAIRMAN SIEBER: Right. I don't know if San Onofre still has their own fire truck and fire department, but that's an example. It was there when I was there.

(Simultaneous discussion.)

MEMBER STETKAR: From a regulatory perspective, basically as soon as the staff, as soon as the NRC receives notification that there's a deficiency, that starts a 120 day time block.

MR. KAHLER: A FEMA 120 day time clock when they issue the deficiency, yes.

MEMBER STETKAR: I thought -- isn't it

under 5054(S)(2) a Commission 120 day --

MR. KAHLER: Well, the first iteration of the 120 days, there's two of them.

MEMBER STETKAR: Oh.

MR. KAHLER: The first one is a FEMA time clock. FEMA identifies the deficiency, which they then give basically notice to whoever the deficiency is levied against, the state, the local, the fire department, whatever, that they can't perform their duties, that they have 120 days to rectify the situation and to have FEMA come back in to reevaluate it.

When we are notified, the NRC through our memorandum of understanding with FEMA promptly of that deficiency, we acknowledge it and FEMA goes about it and then tells us when that deficiency is rectified, when it's remedied.

If it is not remedied in that 120 days, that is when FEMA then goes into an internal process of determining whether or not they feel they need to withdraw reasonable assurance. Once they tell us, it's not the deficiency issuance that triggers our clock; it's the notification of FEMA that they are withdrawing reasonable assurance that the off-site agencies can respond to an event at the plant site,

and that's what triggers our 120 day clock.

MEMBER STETKAR: So it could be as long as --

MR. KAHLER: It could be as long as --

MEMBER STETKAR: Eight months.

MR. KAHLER: Well, it could be even longer. Some of these last years, because the remedies may take longer than the 120 days for FEMA; they get something in place.

MEMBER STETKAR: Well, but I mean the way 5054(S)(2) is written, it says, and I was trying to understand the timing of these notifications.

MR. KAHLER: Yes.

MEMBER STETKAR: You know, 120 days after the agency, our agency is notified, whatever that means, at that point our agency needs to make a determination of whether or not the plant can remain operating with reasonable assurance for protection of the health and safety.

MR. KAHLER: Essentially yes.

MEMBER STETKAR: So is that right?

MR. KAHLER: That's correct.

MEMBER STETKAR: The timing of when this agency is notified is not when the initial deficiency occurs apparently.

MR. KAHLER: That is not when our 120 day clock starts. That is correct.

MEMBER STETKAR: Okay.

MR. MILLER: We become aware when FEMA issues the deficiency and is dealing with the matter on their 120 day clock. They send us notification. But that's not the notice --

MEMBER STETKAR: But that doesn't start our 120 days.

(Simultaneous discussion.)

MR. KAHLER: They call -- when FEMA issues a deficiencies, if it brings reasonable assurance into question, but they do not withdraw it at that time. They give an opportunity for the off-site agencies, we have our FEMA representatives back here, they give an opportunity to the off-site agencies to remedy the deficient issue.

MEMBER BLEY: The other side that gives comfort though, John, I think, would be when NRC gets notice, we could decide it's really serious and act on our own.

MR. KAHLER: We honestly could, yes.

MEMBER STETKAR: Yes. I mean you know, in Jack's example of my volunteer fire department of, you know, three people and a dog decides to move to a

different state, leaving me without an offsite fire response capability --

CHAIRMAN SIEBER: You could provide your own.

MEMBER STETKAR: --would seem something that you wouldn't necessarily want to walk through a 240 day period until the time you recognize that this is probably not a good situation.

MR. KAHLER: You would want a prompt correction to that situation, yes.

MEMBER STETKAR: Okay. But you, you are, this agency is notified by FEMA when the initial deficiency is --

MR. KAHLER: Absolutely.

MEMBER STETKAR: Okay.

MR. KAHLER: And now underneath on our memorandum of understanding, I believe it's within five days.

MEMBER ARMIJO: And the licensee gets, should know that even sooner probably.

MR. KAHLER: We as an agency, we -- well, they know of it, because they're close to the situation. But we formally provide them notification, the regions do, because the regions are notified from FEMA in addition to us and the regions actually

forward the deficiency to the licensee.

So we are formally notifying the licensee you are now put on record of being notified of this deficiency.

MEMBER STETKAR: Does FEMA notify the licensee or does it come the way you said it comes? FEMA to the region --

MR. KAHLER: It comes through us.

MEMBER STETKAR: Through, okay.

MR. KAHLER: FEMA writes directly to the deficient agency, whatever that might be.

MEMBER STETKAR: Right.

MR. KAHLER: State, local, fire department, hospital.

CHAIRMAN SIEBER: Okay. I think our next challenge will be to move to Topic 4.

(Simultaneous discussion.)

MR. KAHLER: I think we're done. We're on five now.

CHAIRMAN SIEBER: You have three minutes to --

MR. KAHLER: To finish up the other six and --

CHAIRMAN SIEBER: Okay.

MR. KAHLER: Protection for on-site

personnel then. We added a new section 4-I, to Appendix C, "Address concerns regarding protection of on-site personnel during a hostile action." Current regulations require the nuclear -- that licensees provide protection for on-site emergency responders during a radiological emergency.

The NRC is concerned that hostile action against the site could result in the loss of these emergency responders, and potentially affect the ability of the licensee to perform a reactor shutdown and implement their emergency plan.

So the final rule would require licensees to provide for the protection of personnel necessary to safely shut down the reactor and implement the emergency plan during a hostile action, and by specifying these measures for emergency responders, other on-site workers would benefit, because they would also be protected, because the protective measures that would be provided to the site as a whole, and would not be directed toward any particular group of workers. That's the intent of the rule.

The interim staff guidance document outlines measures that the licensee should consider as a range of those protective actions during a hostile action. That's topic number five. Any questions?

(No response.)

MR. KAHLER: Topic No. 6, the last that gave birth, that were born as a result of the security review. Current NRC regulations are general in nature, do not explicitly require licensees to include hostile action scenarios in drills and exercises, nor do they directly allow the NRC to require specific scenario content.

Changes to Section 4(f)(2) of Appendix E would ensure that licensees develop and maintain key skills in the post-9/11 threat environment, by requiring the conduct of a hostile action exercise once every exercise cycle.

Additionally, the staff recognized that certain predictable scenario attributes are on almost all biennial exercise scenarios today. They include the ERO is not allowed to mitigate the accident before a release occurs. The release is going to occur after a general emergency is declared.

The release is going to be terminated before the exercise ends, the exercise will escalate sequentially through all four emergency classifications. In short, over the last 30 years, we believe emergency responders may have been preconditioned to accident sequences that are not

likely to resemble what they would realistically face.

For these reasons, the staff has developed a rulemaking to address this issue. Specifically, the licensees will be required to enhance their drill and exercise programs by incorporating a wide range of scenario elements, including of course the hostile action.

A no release or an unplanned minimal release, such that off-site protective actions are not required, but still escalate at least to a site area emergency declaration, and an initial classification or a rapidly-escalating scenario to site area emergency or a general emergency.

Currently, regulations do not specify the content of the drill and exercise scenarios, or allow us to specify that content, as I said before. The final rule identifies the principal functional areas of EP that we want to see included in scenarios and emergency response personnel's key skills we want to see demonstrated during these exercises. We also want these exercise scenarios submitted to the NRC for prior NRC review, okay, which is not a requirement now.

CHAIRMAN SIEBER: Now you changed the length of the cycle, the drill cycle, right?

MR. KAHLER: We have changed the exercise planning cycle from six to eight years.

CHAIRMAN SIEBER: And to fill all of the requirements, the drills that you conduct within that period have to hit the functions at least one time, all of the drills, right?

MR. KAHLER: Some of them more than once. It's dependent upon the type of the skill and the function. Some of them have to be in every biennial exercise. Others are only once every exercise cycle.

CHAIRMAN SIEBER: Okay.

MR. KAHLER: So and that's outlined in the interim staff guidance document, which ones are, the frequency of what.

CHAIRMAN SIEBER: Yes. In the old days, everybody knew. Now from now, we have to go to here, and that may be --

(Simultaneous discussion.)

MR. KAHLER: --the site area, launch general emergency release terminates, everybody starts gathering their notes. We're getting away from that.

CHAIRMAN SIEBER: Good.

MR. KAHLER: That's the intent.

MEMBER STETKAR: Do you have some specific hostile action scenarios that would incorporated into

these drills and exercises, or do they have to make them up themselves?

MEMBER ARMIJO: We have, we say -- what we have is the Fort Hood incident. Some guy comes in with guns and kills his co-workers, say anybody he saw on-site, okay. They could have been reactor operators. They could have been a number of key people in a nuclear, plant.

You know, just how -- and that's kind of a infinite matrix of a threat. So how is a licensee supposed to come up with something that would you find acceptable?

MR. KAHLER: We have in the guidance document -- of course, first of all the emergency action levels themselves for hostile actions, they have to be exercised also, and the guidance document talks to exercising all emergency action levels during the exercise planning cycle. Not necessarily during the biennial evaluate exercise, but still exercise.

We also talk to the emergency planning, the basic functional areas which take care of some of it. We talk to 5054(HH), the airplane crash scenario and the implementation of that regulation.

So we don't require a specific type of scenario, more than the fact that whether it be land,

sea or air-based, as would be a design basis threat, and that that's the type of scenario we want.

The actual development of that scenario, be it land, sea or air, is determined by the licensee, but we want to see that type of scenario some time over the cycle.

MEMBER ARMIJO: Well, does Homeland Security have any scenarios that they can provide guidance on, what the threats are likely, you know, are more important to deal with?

MR. MILLER: Let me help a little bit, and then Bob you can continue with that. There's a couple of things that we have provided guidance with. First of all, the scenario you used, you know. We didn't try to address tactical scenarios. So force-on-force is still a robust program that's still operating, and so we're operating outside of the force-on-force.

There's many different scenarios you can propose, where an insider could do things, and we're not asking in this rule that that be addressed for an emergency planning scenario. However, how, you know, what kinds of things should be considered.

Bob mentioned the three years of hostile action-based drills that were voluntarily conducted by the industry over a three year period. There was a

guidance document, NEI 0604, that we endorsed. Actually, there's a couple of revisions to that that we endorsed as -- that gave significant guidance to how you might structure these types of drills and events, and in fact there's another iteration of that, two more iterations.

VOICE: No, Rev. 2.

MR. MILLER: Oh, I'm sorry, Rev. 2. So anyway, NEI is coming up with additional information on that, to which we're going to look at and endorse the appropriate parts. That's how we feel that we're getting that information out.

MR. MILLER: Okay, thank you.

MR. SULLIVAN: If I could chime in, I contributed quite a bit to this part of the rule and the guidance. We're not expecting a lot of specificity on the security part of the exercise. As a matter of fact, these are public documents and they're needed to be used by controllers on-site and off-site.

So the actual, in the case of an armed attack, the actual, you know, you know, what is it numbers, tactics and weapons, you know, will kind of be blurry. That's not really going to be laid out very well in the scenario. Now the damage footprint

will be, and that's a concern also, you know, because there's targets of that information enveloped somewhere in there.

Aircraft is a little bit different animal, but once again, there's information there that you need to have in this scenario that needs to be blurry, so as not to provide any information that would be useful to adversaries.

CHAIRMAN SIEBER: Thank you.

MR. KAHLER: Okay. Any other questions on challenging drills and exercises --?

(No response.)

MR. KAHLER: Moving on to the first non-security related rulemaking topic that we created, it is Topic No. 7, a backup means for alert notification systems. Current regulations require capability to promptly alert and notify the public if there's an emergency.

However, there is no requirement for a backup alert or notification capability in the event that primary system is unavailable. The final rule is going to amend Section 4(d)(3) of Appendix E to require a backup alert notification capability, without specifying the type of methodology.

This approach would allow flexibility in

the selection of the method best-suited for each site, and would also allow the use of newer technologies or alternative methods now and also into the future.

Currently, the most common primary alerting method is sirens. The most common primary notification method is EAS messages on the radio. Guidance is provided in the interim staff guidance document to clarify the design objectives and other criteria for alert notification and backup methods, of which would be evaluated by FEMA eventually in their submittals to FEMA for approval.

MEMBER STETKAR: And this comes under the purview of FEMA, right?

MR. KAHLER: Yes.

MEMBER STETKAR: For example, if there is a deficiency here, that feeds back into the time clocks that we were talking about earlier?

MR. KAHLER: That is correct. That is a FEMA, a FEMA oversight. It's FEMA oversight.

MEMBER STETKAR: Ask them this afternoon or whenever they --

MR. KAHLER: The licensee has just got to demonstrate the capability exists, is the requirement of the licensees. But the FEMA evaluates that portion.

MEMBER STETKAR: Right.

MR. KAHLER: Topic No. 8 is emergency declaration timeliness, excuse me. We're adding a new paragraph to Section 4 of Appendix E. First, we're going to require nuclear power reactor licensees to maintain a capability to assess, classify and declare an emergency within 15 minutes after indications are available to plant operators that an emergency action level has been exceeded.

Second, we're going to require licensees to promptly declare that emergency condition following identification of the appropriate emergency classification level. The NRC is requiring a capability criterion, rather than an inflexible performance criteria. This allows some degree of flexibility in addressing extenuating circumstances that may arise during an emergency.

For example, a declaration may need to be delayed in the interest of performing plant operations needed to protect the public health and safety.

NRC considers the 15 minute criteria to commence when plant instrumentation, alarms, computer displays or verbal reports corresponding to emergency condition becoming available to cognizant personnel. All recognition, assessment, verification and

classification actions required for a declaration are encompassed within this 15 minute period.

I have to state again, this is a capability requirement, not a performance requirement. And again, the interim staff guidance document provides implementation, guidance on how to implement this new rule.

CHAIRMAN SIEBER: Now how do you evaluate whether that capability exists or not?

MR. KAHLER: That would be normally through performance, to observe, just as we do now with notification capability, which is also a current rule, the 15 minute capability for notification, that we would evaluate the performance to see what that performance is like in order to direct us toward whether the capability exists.

MEMBER STETKAR: How well did people do? You know, we've had the rules for many years and we have a lot of plants.

MR. KAHLER: Two ways we can evaluate that.

MEMBER STETKAR: No, historically.

MR. KAHLER: Historically?

MEMBER STETKAR: Is the industry scoring 90 percent or 30 percent --

MR. KAHLER: I'll tell you what. Industry is scoring greater than 90 percent.

MEMBER STETKAR: Okay, thanks.

CHAIRMAN SIEBER: Right.

MR. KAHLER: We have a performance indicator for that in our ROP program for EP.

MEMBER STETKAR: Okay, thank you.

MR. KAHLER: So and also we would consider changes to our ROP program as a result of the new rule. So there are some performance items we may want to add as a result of the new rule. We're not going there yet. It's just something we would need to consider in the future, working with industry.

CHAIRMAN SIEBER: Okay.

MR. KAHLER: Okay. The next slide please. Emergency operations facility performance-based approach. This is where we talked about the multiple sites' use of a combined EOF. Section 4(e)(8) of Appendix E is going to be amended to permit licensees to use a performance-based approach when citing their EOF.

The final rule incorporates the EOF distance criteria currently found in guidance, and specifies that an EOF is to be located within the 10 to 25 miles of a site, or if it's less than 10 miles

from the site, then a backup facility must be provided within 25 miles of the site. It's currently found in guidance document NUREG 0696.

An EOF may be located greater than 25 miles, but then the licensee must provide a facility close to the site for NRC and local responders, and that comes as a result of Commission approval of past combined EOFs.

CHAIRMAN SIEBER: So this allows a corporation with five, six, seven sites to have an EOF that may not be in the same state?

MR. KAHLER: That is correct. We have that currently.

CHAIRMAN SIEBER: Not in the plant, and obviously it's not going to be staffed by plant personnel. It's going to be staffed by corporate personnel, I presume?

MR. KAHLER: It will be staffed by emergency response organization personnel necessary to perform the functions in the EOF. But your answer is yes.

CHAIRMAN SIEBER: Probably.

MR. KAHLER: Probably.

CHAIRMAN SIEBER: Probably, and is that a good idea?

MR. KAHLER: Again, we're looking at a performance-based approach. So the functions of that EOF, as they are currently been evaluated in order to permit the granting of these combined EOFs, would need to be provided --

CHAIRMAN SIEBER: Yes. I think from a public relations standpoint and an emergency preparedness effectiveness standpoint, that reduces its effectiveness.

MR. KAHLER: But that would be something that the licensees would need to evaluate during their change process, when they relocate that EOF, is what the effectiveness impact is upon their capabilities to respond, just to --

MR. MILLER: Jack, it seems to me it kind of implies a higher training requirement, to keep people who are not normally at the plant tuned up with the plant, particularly you know, ongoing changes in small things that happen as a plant

CHAIRMAN SIEBER: Well, let's take a couple of examples. I think that it's important, for example, for the local town officials, county officials and the state officials to know directly who the plant management is, and in order to be able to drill properly, to be able to coordinate all of these

actions, and to be able to respond in an emergency.

Further away, and the more you divorce the licensee personnel from the local officials and the local responders, the more difficult it becomes. I think it's something that may be able to be evaluated, but I think licensees should take that into consideration when they plan such kinds of things.

I think local officials and state officials expect people in the EOF to know the plant. You may have a corporate entity that has PWRs and BWRs, and the BWR person may come up with different ideas about what's going on in the plant, if the plant is not the type that they are trained and familiar with.

I'm not sure whether the rule should prevent it, but I do want to call attention to the staff and to FEMA that it is something that should be carefully evaluated, because it has a multitude of pitfalls.

MR. KAHLER: And there are some -- the performance capabilities that we're talking about does address those type of issues. The performance-based approach does state that all these functions still need to be in place, and one additional function is that the EOF has to respond to two simultaneous events

at different sites. Be able to handle that type of situation, because they're necessary. I mean it's supposed to support at least two sites by the term "multiple." So it should be able to handle two events at once.

CHAIRMAN SIEBER: Yeah, and I think that there are lessons to be learned from natural disasters that have occurred around the country, where the emergency, the apparent emergency management is coming from a long distance away from the site of the incidence, and that has caused problems.

MR. KAHLER: And again --

CHAIRMAN SIEBER: From a public relations standpoint and from an actual, emergency response standpoint.

MR. KAHLER: And that's why Jack, quite honestly, we are keeping in what has been in the past required by the Commission, is that if you do have an EOF located 25 miles, further than 25 miles from the site, the licensee is to provide a facility for the NRC and the local responders, to able to have -- to be there to meet with site personnel if they desire, something available to them. So we're still not --

MEMBER STETKAR: Is there an upper limit to this distance?

MR. KAHLER: Pardon?

MEMBER STETKAR: Is there an upper limit?

CHAIRMAN SIEBER: No. It could be --

MR. KAHLER: Not really. As far as technology can permit.

MEMBER STETKAR: It could be the moon.

MR. KAHLER: And still have the performance-based functions --

MEMBER STETKAR: It could be a call center in India.

(Simultaneous discussion.)

MR. TAILLEART: --because the licensee has to be able to staff it with knowledgeable personnel and personnel that respond to the facility have to be able to get to it. So, you know, it can't be --

MEMBER RYAN: There's a practical limit, I guessing though.

MR. KAHLER: There's a practical limit, right.

MEMBER RYAN: What is that?

MR. KAHLER: And I'll tell you what. Some of these combined -- well, some of these combined facilities isn't just the licensee desiring to combine sites. Now they have to get agreement from the states.

So if you're talking about like say North Carolina, South Carolina, where now South Carolina state representatives have to travel to an EOF in North Carolina, they may be highly disagreeable to crossing the state line in order to perform that. That's something that they would need to agree to.

So that's something. Again, coordinating off-site response to maintain that effectiveness. How would you be able to handle that situation?

CHAIRMAN SIEBER: But that's not impossible. You and I and Steve are aware of a plant that had, within ten miles, three states, three counties and 27 municipalities, all of which had to work together.

MR. KAHLER: And that's a challenge upon itself. So I can't imagine having multiple sites, multiple states, multiple technologies.

CHAIRMAN SIEBER: It's work.

MR. KAHLER: Yes, it work.

CHAIRMAN SIEBER: Yes, and that one was functional.

MR. KAHLER: Yes.

CHAIRMAN SIEBER: Well anyway, I have -- if I were the licensee, I would really consider that carefully before I would try that, and I would not do

it from the standpoint of I don't have to rent another room and put in more laptops, you know. I don't think that's a good enough excuse.

MEMBER STETKAR: Well, the rule requires them to rent a room anyway, even if it's empty.

CHAIRMAN SIEBER: Yeah, but you have to rent more rooms if you have a shorter distance. Okay, let's move on.

MR. KAHLER: Rulemaking Topic No. 10, Evacuation Time Estimate Updating, talking about ETEs now. Current regulations require development of ETEs, evacuation time estimates, but do not require a periodic update frequency.

NRC is going to amend 10 C.F.R. 50.47(b)(10), one of the planning standards, to include additional requirements regarding ETEs. It would require licensees to develop ETEs and update them on a periodic basis, and that will be stated in the rule.

Additionally, the evacuation time estimates and updates must be submitted to the NRC for review and confirmation of adequacy prior to their use. Section 4 of Appendix E would be amended to require that evacuation time estimates be used by licensees, and be provided to state and local

governmental authorities for use in developing their protective action strategies.

As a minimum, we expect these ETEs to be updated within 365 days of the availability of the decennial census data. So at least once every ten years, the ETEs will be updated as soon as all the data becomes available.

CHAIRMAN SIEBER: They're not a requirement to look at the -- I found, after reading the documents, that the Census Bureau provides an estimated update every two years.

MR. KAHLER: And that's something that again, we'll be getting into the guidance document.

CHAIRMAN SIEBER: Yes. You have to -- you actually have to look at that and make sure that you're not out of bounds.

MR. KAHLER: That's correct, and we require them to take a look at whether they need to have an update on an annual basis. But the requirement to actually update is a once every ten year requirement.

CHAIRMAN SIEBER: Right.

MR. KAHLER: Regardless of what a population change is.

CHAIRMAN SIEBER: Okay, and there's a new

NUREG.

MR. KAHLER: A new NUREG that goes along with it.

CHAIRMAN SIEBER: That explains how to do it in a little more sophisticated way than was done in the past.

MR. KAHLER: Yes, quite so. It includes also, and we'll get into an appendix, on how to evaluate the ETEs that are developed by licensees.

CHAIRMAN SIEBER: Right.

MR. KAHLER: The final rulemaking topic of any, you know, significance, I guess you want to call it, is the amended emergency plan change process. A licensee is required by 50.54(Q) to follow and maintain effectiveness emergency plans to that meet the requirements of Appendix E and for nuclear power reactors, the standards of 5047 Bravo.

Section 54(Q) provides a process for a licensee to make changes to its approved emergency plan without prior NRC approval, provide the plan, as changed, meets two specific criteria, and it continues to comply with the requirements of Appendix E and the planning standards of 50.47(B), and the changes do not reduce the effectiveness of the plan. So it's a two, two trigger point requirement for determining whether

you can make a change.

The current rule does not clearly describe what constitutes a reduction in effectiveness. The amended rule language, with the support of a new reg guide you'll hear later on this morning, Reg Guide 1.219, provides clarification of this issue. The reg guide, as I said before, will be discussed later.

The final rule amendments to 54(Q) provides a method for determining what constitutes a reduction in effectiveness, provides definitions for all significant terms used in the rule, and requires licensee amendment process of 10 C.F.R. 50.90 when applying to the NRC for prior NRC approval of changes that the licensee has determined to be a reduction in effectiveness. And again, we'll b discussing the reg guide in detail on this issue. Any questions on that at the moment?

(No response.)

MR. KAHLER: The final rulemaking topic is the removal of completed one-time requirements. Several regulatory provisions have required holders of licensees to take certain one-time requirements following the TMI incident in 1979.

These would be removed. These actions are considered complete, and they're no longer binding on

any current licensee or any future applicant. So administratively, we're removing these one-time requirements. Questions on that .

CHAIRMAN SIEBER: With that, this may be a good time for us to take a break.

MR. KAHLER: Okay. I do have only one more slide honestly, that if you want to, I can.

CHAIRMAN SIEBER: Seventeen?

MR. KAHLER: Seventeen, yes.

CHAIRMAN SIEBER: Yes. Let's do that one.

MR. KAHLER: Yes.

MEMBER STETKAR: You'll be sorry, Jack.

MR. KAHLER: Maybe we should take a break.

CHAIRMAN SIEBER: I've got the hammer.

(Laughter.)

MR. KAHLER: If you'd care to take a break, we can.

CHAIRMAN SIEBER: No. Let's finish this last slide and then I guess you're off the hook, right?

MR. KAHLER: Yes, I'm done. I get to move to the other table. The final slide I have is request for stakeholder input. When we issued the rule in May of 2009, we gave a general invitation to submit comments on seven topic items.

The first one is the NRC requested input as to whether licensees should be required to include a National Incident Management System and the Incident Command System, referred to as NIMS and ICS, into their emergency plans.

After reveling all the comments received, the staff did not incorporate that requirement into the rulemaking, and that was based upon the staff's determination that current NRC regulations, as amended by this final rule, contain adequate requirements to ensure licensee compliance with these regulations that are currently in place, would result in effective coordination of the emergency response activities between off-site agencies and the licensees.

The staff expectations are provided in the guidance document, and that the licensee should understand and be able to coordinate with the offsite response in the areas of using incident command concepts such as those identified in NIMS and ICS, in order to ensure this effective response.

So we're not requiring them to do it; we're telling them they should, they must be able to coordinate their response within these incident command concepts. That's the first request for input.

The second one was on that on-shift

staffing. The staff requested input on whether we should explicitly state the number of the positions, for both the on shift staff of the augmented emergency response organization, and this would be in addition to that task analysis. So you could use either one of the ways to staff.

But the NRC requested comments on a specific draft staffing table, and after reviewing the comments received, staff determined that a staffing table should not be included in the regulations, and we agreed with the commenters that a table would be too prescriptive and would not accommodate differences in staffing levels at each site.

So we're going back onto the analysis for site-specific shift staffing.

CHAIRMAN SIEBER: Yes. There is another factor, and that is the way a licensee writes the job descriptions and the way they train people, and that can have an impact on how many people were required to do a specific number of tasks.

I don't think, once you start regulating the number, that means that you have some magic insight into what different people are supposed to be assigned and what their education level is. So I think that what you've done here is probably

appropriate, provided it's evaluated on a performance basis.

MR. KAHLER: Yes. The next request for input was for the -- basically goes back to the effective date of this rule, is 30 days after its publication in the *Federal Register*. NRC was requesting input on how that effective date may impact the currently docketed new reactor applications by combined license and early site permit applicants.

NRC comments that the NRC should not require pending combined license and early site permit applicants to implement the final rule changes until after the NRC issues the license or permit.

CHAIRMAN SIEBER: Right.

MR. KAHLER: In response to these comments, in working with the Office of New Reactors, the final rule will offer applicants the option to defer compliance with the final rule until a time after the license or permit issued.

That period of compliance deferral, currently being the effective date of the rule, and December 31st of 2013, was selected specifically to apply only to those applications that have already been docketed, and are nearing completion of the safety review, and any applicable subsequent hearings

prior to a licensing decision being made on that application.

NRC decided to limit the duration of that deferral because future applicants and currently docketed applicants not nearing a licensing decision, would have ample opportunity and time to bring their applications into compliance with this final rule, without the need to defer their compliance. So we're giving them that deterrence time period.

Item No. 4 is the implementation dates. As currently proposed, the rule will be implemented on a schedule that varies from 30 days to three years, depending upon the topic. Based on input received during the public comment period, several adjustments were made to the implementation dates for various portions of the final rule.

However, on November 15th, we will conduct another public meeting to provide an additional opportunity for stakeholders to provide input on the implementation dates themselves.

CHAIRMAN SIEBER: So this will be public meeting number 12?

MR. KAHLER: Public meeting number 13.

CHAIRMAN SIEBER: Thirteen, okay.

MR. KAHLER: On the implementation dates.

We are currently, and I'll talk about that in my summary, we are currently holding meetings as we speak. I was -- just two previously. Randy's going to one later this week. I'm going to one next week.

Now that the rule is public, we're out discussing what the draft final rule looks like.

CHAIRMAN SIEBER: Okay.

MR. KAHLER: So we're still engaging our stakeholders.

CHAIRMAN SIEBER: And that's a good idea. I'd like to see the staff taking that approach on rulemakings and other major actions that they're taking, that public involvement is important.

MR. KAHLER: Very important.

MR. MILLER: Yes. We didn't add them to the time line, to the time line of how we added on to this rulemaking process, but we have quite a number of new meetings coming up, and we feel the same way as you, that it's very important.

CHAIRMAN SIEBER: Right, good.

MR. KAHLER: And finally, a request for inputs five, six and seven were directed toward the non-power reactor licensees, the research and test reactors, and it was asking for input on three specific areas of the rule, and whether or not RTRs

should perform that staffing analysis, as we're requiring power reactors to do, for their on-shift staff.

Should we require capability time limit for declaring an emergency such as we did, 15 minutes, and should we have them include hostile action emergency action levels. Well after receiving the comments from our stakeholders, they were all in opposition to the inclusion of these requirements on non-power reactors.

We went back and took a look at these comments, and the NRC staff agreed with the commenters, that these three items did not need to be included, and we did not incorporate these three topics into the draft final rule.

MEMBER STETKAR: The simple question is why?

MR. KAHLER: The concept --

MEMBER STETKAR: I understand if I'm an owner-operator of a research reactor, I don't want to necessarily augment my staff and put in place emergency planning actions. So therefore, if I'm a stakeholder, I'll say I really oppose that.

From an agency's perspective, why does the agency agree with that attitude? What is the

fundamental technical reason why I don't need to worry about a hostile action against a research reactor in my back yard?

MR. KAHLER: And I have behind you Ms. Beth Reed with the Research and Test Reactor Group.

MEMBER STETKAR: And I'll put that in the context first, because if I'm a power reactor, and somebody throws a cigarette in a waste basket and sets the waste basket on fire, I start a 15 minute time clock to notify the off-site emergency planning people.

CHAIRMAN SIEBER: It depends on the waste basket.

MEMBER STETKAR: It depends on the waste basket, but it's as fire on site, yeah.

MR. KAHLER: But if I can, that's in -- it would be a precursor to a possible more significant event, where the outcome would have an impact upon public health and safety.

MEMBER STETKAR: Okay. I want to understand how come a hostile action against a research and test reactor can have no impact on public health and safety.

MS. REED: Well, one answer to that, I think this gentleman touched on it a little bit

earlier, was about the source term. You have to look at the consequence of the non-power reactors versus the power reactor. The EPZs for the majority of non-power reactor, do not go beyond the building.

The few that do go beyond the building, it probably goes maybe 100 yards past the building. You don't have that type of impact to the public as you would for a power reactor. To go back to your specific example of somebody throws a cigarette in a trash can and starts a fire, that's actually covered under Safeguards events.

So that would be in 73, Appendix G, which requires any type of fires, suspicious smells, those sort of things, that starts a one hour clock. The NRC -- the thing about that, that is the only time limit that non-power reactors have for declaring anything is that Appendix G.

While Appendix E in Part 50 addresses non-power reactors, it defers to Reg Guide 2.6 on a case-by-case basis, which of the Appendix E, would apply to non-power. Reg Guide 2.6 actually refers to ANSI Standard, ANS Standard 1516, but that's guidance on what constitutes an EAL.

Nothing in there talks about time limits either, and again that all goes back to the

consequence, the source term. There is not going to be a release that requires evacuation of the public, and it's not going to be a release that requires anything but maybe evacuates the building itself.

So you don't need a prompt 15 minute let's hurry up and start route alerting, things like, because there are no routes to --

MEMBER STETKAR: We know that with certainty for hostile actions.

MR. REED: Well, by definition "hostile action" right now is only defined as power reactors. So --

MEMBER STETKAR: No, I'm sorry. I'm not an attorney. I'm a technical guy. I understand that because you said that a hostile action is defined as being with respect to a power reactor; therefore, it is with respect to a power reactor.

I'm saying that if a hostile action is taken against a research reactor, by definition we know that there's no release to the public.

MR. REED: Right, because the EPZ does not go beyond the building, so it's not going to go out to the neighborhoods, a mile, two miles, three miles for the EPZ. The EALs in 1516, ANSI Standard 1516, do address hostile action-type events. They're more

security-related. A bomb threat. It even goes up to a loss of control of the whole facility.

Again, it has requirements of no defined off-site response organizations, but doesn't have a time limit. That is one thing that the staff was looking at, saying okay, do we need this. In this time period, we do not have the time to develop a technical basis, and say yes or no. So that's one reason we said it's not incorporated in this one, to allow the RTR staff to look at that and say do we need to, along with these EALs, put a time limit, and what is that time limit? Is it an hour, half hour, 15 minutes.

CHAIRMAN SIEBER: Well, I think you can look at it from a technical standpoint. Source term is one issue. Another one is any hostile action that you would take that I can imagine against a non-power reactor results in it shutting down, okay. You've lost coolant; the fuel from full power can --

MEMBER STETKAR: As does a power reactor shutdown.

CHAIRMAN SIEBER: Okay, and the only other thing you can do is steal the fuel elements or manufacture, make some kind of a device. I think that there's plenty of time to stop that.

MEMBER RYAN: John, I understand your train of thought, and I'm just trying to think ahead of what's the sequence that would get enough material out of the reactor.

MEMBER STETKAR: I'm not trying to develop scenarios here. I'm trying to understand consistency in concerns about emergency planning, okay, because we have in place very, very, very detailed and even now more detailed rules for declaring different level emergency action levels for nuclear power reactors, some of those being triggered by some, by conditions that have an extremely remote possibility of releasing any activity to the outside world.

MR. REED: Correct.

MEMBER STETKAR: And yet we're essentially silent for research reactors, and I'm not sure that we've done similar types of evaluations of research reactors, to give us assurance that there aren't scenarios that could release, certainly not the same source term as a power reactor, but something that's measurable.

I just don't know that. I'm trying to search for a basis for saying that we don't -- I don't say we don't care, but we're less interested.

MR. KAHLER: Well, maybe I simplified it

too much.

MEMBER STETKAR: In the sense of time, let me just see if we can, if I can close this out, because we could discuss this for a long time. Is there in place a program and a schedule to evaluate changes or enhancements to emergency planning rules for research and test reactors?

MR. KAHLER: The quick answer to that is yes.

MEMBER STETKAR: And when -- okay, good.

(Laughter.)

MEMBER STETKAR: Are we looking at -- what sort of time frame are we looking at?

MR. KAHLER: That would be -- they have that schedule.

MR. REED: I don't have the exact time frame, but I do know what's included in NRR's short term plans. We're looking at all the different regulations in the short term, and developing technical bases, what needs to be updated to match the 9/11, post-9/11 type atmosphere.

So it should be within the next year or so we're going to look at it and determine disposition of Amendment 4.

MEMBER STETKAR: Okay. So we're looking

something in the next year and not five years?

MR. REED: In the short term, yes.

MR. KAHLER: That was part of the question, was the staff looked at non-power reactors, and stated should we begin that type of activity now, or could that -- or should we defer it, or is it even necessary? We saw that the current regulations in place are adequate to still provide for a response and for public health and safety.

So we didn't want to undertake that activity at this time, and just to keep the RTR regulations as they were. Asked if anybody out there thought we should undertake that analysis at this time, and everybody told us no, not right now, defer it, and that's what we did. I think we're ready for our break.

CHAIRMAN SIEBER: Yes, we are, and I would suggest we come back at 10:40.

MR. KAHLER: 10:40.

CHAIRMAN SIEBER: 10:40.

MR. KAHLER: Okay, thank you.

(Whereupon, a short recess was taken.)

CHAIRMAN SIEBER: So I think we'll begin now.

MR. KAHLER: If I can from the side here,

I'd like to introduce my staff, who will be presenting the three guidance documents. That will be Jeff Laughlin is going to present the NUREG, CR 7002 regarding the evacuation time estimates.

Then Steve Levine will be making a presentation in Reg Guide 1.219 regarding emergency plan changes, and finally Don Tailleart will present the interim staff guidance document, which encompasses the remaining rulemaking topics. With that, I'd like to turn the meeting over to Jeff, who will begin with the evacuation time estimate NUREG.

CHAIRMAN SIEBER: Okay.

MR. LAUGHLIN: Okay. I will be going over NUREG CR 7002, which is criteria for development of evacuation time estimate studies. The evacuation time Estimate is a calculation of the time to evacuate the plume exposure pathway in the emergency planning zone, which is an area with a radius of about ten miles around the nuclear power plant.

Section 4 of Appendix C of 10 C.F.R. Part 50 requires that an analysis of the time required to evacuate be provided for various sectors and distances within the plume exposure pathway, EPZ, for transient and permanent residents.

The ET is primarily used to inform

protection evacuation strategies, and may also be used in the development of traffic management plans to support an evacuation. This document provides guidance on key criteria, such as (1) development of ETEs for the staged evacuation protective action; secondly, consideration of shadow evacuations in the analysis; third, consideration of the evaluation tail; and finally, the ETE updates.

Research in evacuations has shown that implementation of staged evacuations can be more beneficial to the public health and safety. A staged evacuation is where one area is ordered to evacuate, while adjacent areas are ordered to shelter in place until directed to evacuate.

This guidance document established an approach to develop ETEs for the staged evacuation. The guidance also establishes the need to include a 20 percent shadow evacuation in the analysis. A shadow evacuation is defined as an evacuation of people from areas outside an officially declared evacuation zone.

The shadow population is considered in the analysis to account for any effect that this population group impede the evacuation of those under evacuation orders. ETEs provide information for use in the formulation of the licensee's protective action

recommendation, and the OROs' protective action strategies.

ETEs that overestimate or underestimate evacuation time are not helpful in making the best protective action decision. Research of previous evacuations shows that approximately ten percent of the population takes a longer time to evacuate, which is referred to as the evacuation tail.

Planning is established to evacuate all of the public, but decision-makers should use the 90 percent ETE values when making protective action decisions. This provides the estimated time to evacuate the vast majority of the public without overestimating the evacuation time, due to a small percent of evacuees.

Therefore, the time to evacuate 90 and 100 percent of the population should be provided in the ETE study.

Section 4 of Appendix E to 10 C.F.R. Part 50 requires ETE updates after a decennial census, or when the EPZ permanent resident population increases, such that it causes a material change to the ETE values.

Licensees shall estimate EPZ permanent resident population changes at least annually during

the years between decennial censuses, using U.S. Census Bureau data and state and local government population data, if available.

This guidance describes how to use this information to determine if an ETE update is required. This document is an acceptable template for use by licensees to meet the requirements for the development and updating of ETE studies.

The NRC expects that an ETE analysis report be formatted consistent with this template, or an appropriate alternative, and submitted to the NRC in accordance with 10 C.F.R. 50.4 for review, to confirm the adequacy of the ET analysis.

The NRC will use Appendix B of the document, titled "Evacuation Time Estimate Evaluation Criteria," to make that determination of adequacy.

MEMBER STETKAR: Jack, I'll ask you first.

CHAIRMAN SIEBER: Yes.

MEMBER STETKAR: I had several questions about this NUREG, and they could take quite a while to discuss. I don't know what we should about time. How are you -- how should we address this?

I don't want to launch off into a long thing that's going to drive us way over time, but there are some fundamental issues in this NUREG that I

would like to discuss, but I don't know that we have time to do that.

CHAIRMAN SIEBER: I have some questions too. I'm not sure that mine will take an extremely long time, but we did have a pre-meeting with the staff, trying to plan what the agenda would be, and our agenda shows us finishing at 3:30, which in my opinion is quite early.

MEMBER STETKAR: Oh, so you're saying maybe we can run it over?

CHAIRMAN SIEBER: I think that I would prefer if we could, and our notice in the *Federal Register* to my knowledge does not prevent us from running over.

MR. SHUKLA: No. The meeting is until five o'clock.

CHAIRMAN SIEBER: Okay, and so I would prefer to address your questions as they come up, as opposed to trying to arrange some differing schedule to do that, and in my opinion, the day ends at midnight.

MEMBER STETKAR: That's what I like to hear.

CHAIRMAN SIEBER: And so ask your questions.

MEMBER STETKAR: Okay, thanks. Let's hit, you mentioned shadow evacuation, and I had one specific question regarding that. This one should be easier. In Section 252 of the reg, where it discusses treatment of shadow evacuation, it says "It is not necessary to estimate a shadow population for transient or special facility populations."

Now I understand why you don't need to treat special facility populations in the shadow, because they're in kind of a controlled environment, and if they're told they don't need to evacuate, they won't.

On the other hand, transient populations, if I'm in an area where outside the ten mile zone, this is a comfort thing -- outside the ten mile zone I have resort areas or sports arenas or things like that, it would strike me that if that transient population became aware of a notification of an emergency at the nuclear facility, it seems to me quite likely that a very, very large percentage of those folks would decide to leave.

So I'm not sure why the evaluation of the shadow evacuation excludes what on a site-specific basis could be a relatively large number of people clogging up those roads. So could you explain why

it's not necessary to treat those people?

CHAIRMAN SIEBER: Well, let me ask you a question. You're talking about a transient population outside the ten mile zone?

MEMBER STETKAR: Right.

CHAIRMAN SIEBER: Okay.

MEMBER STETKAR: But the NUREG says that there, you know, a nominal, I think it's 20 percent of the resident, of the permanent residents are assigned to that shadow evacuation, so that they clog, you know, clog arteries and things like that, and impede, you know, evacuation of the folks inside the ten mile zone.

But the NUREG says that I don't need to consider the transient population outside, and my sense is that okay, I'm not -- I know there's probably some basis for the 20 percent of the resident population who may decide to relocate, but it would strike me that a fairly large percentage of the transients might.

In fact, you know, depending on the site-specific characteristics, it could be a fairly large population.

MR. SULLIVAN: I think we can help with that to some extent. I don't know that we'll satisfy

your itch, because it's fundamental, but let's go through a couple of things on evacuation. 20 percent is just our estimate. In fact, we've been dressed down by eminent sociologists for specifying a number, because the number is actually dependent on the hazard, the messaging, the education of the population and everything else that I can't know in advance.

So our research with our public telephone survey of a couple of years back, gave us a number of 23 percent. We picked 20. What I'm trying to get across is I don't want to infer a false sense of precision with this kind of stuff. This is a standard that we're using as our best estimate of what the situation might be.

So when we say 20 percent, we thought that's a good place to come down. But the transient population is likely event- and perhaps season-dependent.

MEMBER STETKAR: Sure.

MR. SULLIVAN: And we were attempting not to give the control room operator a really complicated matrix to work from. In other words, if there's a road race going on, use this number or make this recommendation. If it's summer and it's a busy weekend, use this one.

So we're attempting to come down reasonably in the middle, and not make it event and season-based. MEMBER STETKAR: I'm not sure -- I guess I don't understand how this relates to the control room operator, because this is evacuation time estimates that have more off-site response planning and I as a control room operator have to have faith that they're going to move the people away when I say we have an event of a certain magnitude, you know, a certain classification level.

MR. SULLIVAN: I can help with that.

MEMBER STETKAR: But let me just -- my concern is that I recognize that this is some type of stylized analysis. Fine. But I also recognize that we have distinct nuclear power plants that are located at distinct sites. They are not stylized sites.

If I 12-1/2 miles away from my nuclear power plant have Wally World, then the typical number of people in it, Wally World on an average summer day is 50,000 people, and given today's communications, where everyone has cell phones and they spend most of their time looking at their cell phones and looking at news bites and things while they're waiting in line at Wally World, these folks are going to know that something is happening 12 miles away.

It strikes me that mom and pa are probably going to decide that they want to collect their kids and leave Wally World, and that's only from my site. It isn't for a stylized generic site. It's a particular facility at my site that may indeed cause problems evacuating the folks that I really do want to evacuate.

So I was just -- apparently we're not going to reach any resolution over this. I'll just, you know leave it at that. It's not clear to me why a blanket exclusion of transient population out in that 10 to 15 mile zone makes sense for every site.

MR. KAHLER: If I can add on to what Randy was saying, the ETEs to be used by off-sites and also for the on-site licensees in the development of their protective action strategies.

I think what Randy was alluding to was not to have decision points based upon an event being had or a season or whatever, in order to complicate that issue, when what you're trying to do is provide immediate protection, and to take what would be an action, in order to evacuate people.

But again, these kind of decisions quite agreeably, they're for the development of pre-plan protective action strategies. Off-site agencies can

incorporate events into their emergency plan, and incorporate these other type of facilities as they do now with hospitals, as they do now with prisons, as they do now with Seabrook and the seasonal shore, and evacuating people during the summer season after a site area emergency.

So these type of things are currently looked at. So what we're saying is when you develop the ETEs, okay, our guidance is you don't need to accommodate a shadow evacuation from transient population.

MEMBER STETKAR: Okay. We agree that I understand that, I'm questioning why you don't' need to accommodate the shadow evacuation of the transient population.

MEMBER RYAN: Well, did I not hear that you, that Seabrook does address seasonal populations.

MEMBER STETKAR: No. It's within the ten mile zone, Mike. Seabrook is within the ten mile zone. This is 10 to 15 miles I'm talking about. In fact, the guidance as it exists in the NUREG says you do need to consider events and seasons, and within the ten mile zone.

But outside of the ten mile zone, 10 to 15 miles, it says you take this nominal stylized 20

1 percent of the resident population and assume that
2 they're going to move, and therefor e they'll clog the
3 roads. But no transients.
4 MEMBER RYAN: Let me ask you a question,
5 John. It seems to me like you're kind of reaching
6 toward -- well, let's take an example like inside the
7 ten's covered and there may be an adjacent population
8 from 11 to 14 that's in the same ballpark as inside
9 the ten. Let's just make that hypothetically the
10 argument you're trying to make.
11 It would seem to me that there's two ways
12 to do it. One is to require transient populations,
13 and you define them and we'll agree or not agree to go
14 that route, or you could take the alternative view and
15 say, you know, not include it and then we'll approve
16 it or not approve it. But justify why they're not
17 part of it. You could do it the other way too.
18 MEMBER STETKAR: Well, except that the
19 guidance, and people follow guidance. They read the
20 words and they --
21 MEMBER RYAN: So the guidance --
22 MEMBER STETKAR: The guidance specifically
23 says "It is not necessary to estimate a shadow
24 population for transient or special facility
25 populations" --

MEMBER RYAN: But you'd like to say the requirement is not --

MEMBER STETKAR: The special facilities I understand, because they're essentially controlled. But people will read that as saying the regulatory -- the NUREG says I don't need to do that. Therefore, I do not need to do that. It doesn't say that I need --

MEMBER RYAN: We can change the word to say "confirm that," and then --

MEMBER STETKAR: Something. You know, I'm not -- I'm just trying to understand the rationale.

MR. SULLIVAN: I think you've got it. I mean it's a matter of burden and precision, and that's where we came down. But you know, people could differ, and I understand that.

MEMBER STETKAR: Okay. Let me ask kind of -- that was a specific one. I was hoping there was some sort of fundamental answer to that one. I sort of had three issues with the NUREG, and let me see if I can ask them at that level.

First of all, the NUREG in several places says that I don't need to consider, for example under adverse weather, I don't need to consider severe weather with a return period of longer than 100 years, for example.

It essentially, although adverse weather, sort of normal everyday storms, is included as one of the criteria that form the scenarios that people have to evaluate, there are several places where the NUREG essentially discounts very rare severe events.

Now if you look at Dr. Bley earlier this morning mentioned risk informing the process. I wouldn't call this risk information. I would just call it risk knowledge. If you look at the results of risk assessments that are indeed being performed, certainly for all of the new reactors that are being proposed for the U.S., the dominant cause for core damage and off site release is indeed severe external events.

Now those reactors have not yet quantified seismic risk, but everyone is in pretty well agreement that large seismic events, for example, are probably the largest contributor to accidents. Severe storms could be a large contributor, storm-induced blackouts.

And indeed, even for many of our current operating fleets, they've identified as contributors to core damage and off-site releases, not necessarily just core damage events or transience, seismic events and severe external events.

So indeed, although there are very, very

rare events, a severe off-site release is also a very, very rare event, and indeed there might be an extremely high correlation between conditions when you want to evacuate people, and have coincidentally either a very, very severe storm, hurricane, tornado, or a very severe seismic event.

So the question is if we're discounting those events and our emergency planning guidelines and our estimates of evacuation times, are we in fact being responsive to the types of events that we would indeed expect to give us severe accidents at nuclear plants?

In other words, are we planning for things that won't give us severe releases? Granted, TMI happened. But we've learned since TMI and people have designed reactors in many ways to reduce the risk from those types of events.

And certainly for new plants, they are well protected against those internal events. So could you respond to that? I mean one kind of theme here is that this is sort of evacuation under normal external conditions. Granted, it could be summer, it could be winter. I could have adverse weather.

But the adverse weather at most reduces my or increases my evacuation time by 15 percent or

something like that, depending on however you do the -- there's a couple of numbers in there for road congestion and average travel times and things like that.

MR. LAUGHLIN: I will defer to Mr. Sullivan.

MR. SULLIVAN: Yes. I think I should -- well yes maybe. But I think can help with that. I'd like to discuss how this document's going to be used, and in the new protective action logic that will be used by the control room, there's a couple of decision points for the operators. They don't have to look at the ETE, but the ETE will provide criteria for their flow logic. That criteria would be proceduralized in a one-page flow logic, and the ETE will go back on the shelf after that information is embedded in the site procedure.

This procedure has to be implemented in 15 minutes. Hence, we had to make some simplifying assumptions. I don't want them to have a matrix that would change their decision points with a whole lot --

I mean we have, I think we have day and night and summer and winter, and that's already four dimensions of freedom, and we don't want much more than that and be able to work through it in 15 minutes

in the middle of an accident.

MEMBER STETKAR: You keep trying to drag me back into the control room. I used to be a shift supervisor, so I know what goes on in the control room. I need to have a set of criteria, and I need to understand what the level of the accident is, and to whom I must communicate that information.

The outside emergency planners, the local police, fire department, National Guard, state, federal, whoever, are responsible for, given that alert, making sure they have in place plans that can mobilize people.

I thought that the purpose of this NUREG is more guidance that is input to their process also, not me in the control room.

MR. SULLIVAN: It's input to you in the control room.

MEMBER STETKAR: Okay.

MR. SULLIVAN: There's been a revolution, and they'll be a new Supplement 3 to NUREG 0654, that has different protective action strategies, and this, the data from this document will be embedded in those strategies.

Now off site, we would expect that OROs, off-site response organizations, may use this

information. But I've got to tell you, the local police know their county better than my study from Washington. So whatever guidelines I lay out for licensees to perform a study, the local cops know what bridge it out, better than me telling them what the 100 year event looks like.

So we drew a line in the sand, and said just depend on local knowledge above this, below this frequency rate.

MEMBER STETKAR: Well, we did that on Katrina, and it didn't work all that well, did it?

MR. SULLIVAN: Katrina actually worked well.

MEMBER STETKAR: Well, it worked --

MR. SULLIVAN: The evacuation worked well. Those who chose not to evacuate were stuck in the flood. However, the evacuation moved two million people, and this is a Congressional finding, not only mine. So it's that you didn't get -- your emergency messaging was not correct, to get everybody out. Those who were left behind was the disaster that you saw.

So we're counting on the locals to know what's in and what's out in these low frequency events, better than our study can tell them.

MEMBER STETKAR: They certainly will know what's in and what's out. The question is are we providing, are we ensuring that they have enough contingencies in place to at least acknowledge the fact that at a certain area, if I'm in a hurricane-prone area, that indeed this -- their planning for a response from a radiological emergency might want to consider a coincident hurricane, rather than this guidance saying "no, I don't have to do that."

Their planning for a radiological emergency might want to consider a coincident large earthquake, whereas this guidance says "no, I don't need to do that." So that's the genesis of my question, is that this guidance, regardless of whether this is a guidance, you know, as you say, from the federal government for, you know, our studies, versus the local plan.

The whole sense is that the emergency planning is an integrated function, and I understand the limitations of doing these studies. But I also understand that we want to be prepared for events that -- a large release from a nuclear power facility is a very, very rare event, and if that is highly correlated to other very, very rare events that might affect the local infrastructure and evacuation plans,

that we at least ought to understand that and acknowledge it, and not basically say well, our guidance hasn't considered those things.

MR. KAHLER: If I can, and let me offer this up also. What I think we're doing is the discussion between a pre-planned protective strategy versus performance during an actual event, and I think what Randy was trying to get to was we're trying to develop a cadre of situations that is dependent on the more frequent type of things, in order to develop that protective strategy.

But for those rare occurrences, it can then be used to accommodate it off-site in response. Maybe I'm going around the horseshoe here, that this is providing a basis for an ETE to be used, and then that baseline ETE and the strategy that accompanies it can then be modified, as the rare occurrences would dictate.

That's what we see in this document.

MEMBER STETKAR: But you used an important term. You said the more frequent events. My contention is that you have the thought process that all of these events will occur due to some failures of internal equipment inside the nuclear power plant, that are completely independent of the external

environment.

My contention is that for real severe accidents, especially with the newer plant designs, they will be completely correlated. The rare events indeed will be the things that happen inside the nuclear power plant, that are completely independent of the external environment.

And that indeed when you're thinking about planning for conditions, when you would expect to have a release. What are the conditions in the world when you would expect to have a release from that nuclear power plant?

At least for the new plant designs, it is very, very likely that they will be severe external conditions, either very, very severe storms, tornadoes, perhaps hurricanes, perhaps severe flooding, depending on the location plant design, earthquakes, bigger earthquakes than you've ever experienced.

And that indeed those, although they're very, very, very rare in an absolute sense, the correlation between those events and the conditions that you're trying to protect the health and public from, from a radiological perspective, could be highly correlated.

So in the sense of your pre-planning, you should at least acknowledge those conditions. You certainly do also want to plan. I'm not saying you don't want to plan for the internal events. You certainly do need to do that. What I'm saying is should there be guidance that says we have a set of evacuation plans. We understand mobility of people. We understand traffic patterns, integration with off-site responders for let's say normal environmental conditions, with some variation, summer to winter, you know, normally expected storms.

That if indeed an event happens at a nuclear power plant under those conditions, we have good assurance that we have a plan in place, and good communications; people can be moved. However, should we also have, I don't know whether it's another set of plans.

I'm not trying to be very specific here, but should the integrated on-site and off-site personnel also be aware of the fact that indeed, there could be a very high correlation with very severe events, that could substantially disrupt the local infrastructure.

So you make reference to the local people. They know where their weak bridges are, for example,

you know. So when they have an earthquake, you know, they want to make sure they've got a couple of reasonably robust bridges to get the people across.

MEMBER RYAN: So I'm going to try and restate your question in a different way. So what I get out of what you've just said is that you're trying to suggest that people, you know, that licensees should explore what the weak parts of infrastructure are, and they could be affected by a concurrent event to whatever the emergency event is.

So for example, is there weakness in communication equipment? In other words, they have above-ground power lines and they're under trees, and if they lost communication, what would that do, or if communication was only 50 percent. So you're talking about some sort of an exploration of how infrastructure could be affected by a concurrent event.

MEMBER STETKAR: Right, because --

MEMBER RYAN: That could impact the ability to respond to the primary event.

MEMBER STETKAR: That's right, because at least in the new plant designs, there's some evidence th at when you say "concurrent," that could imply independence, that they're correlated, that indeed --

MEMBER RYAN: Well, correlated in the sense that whatever response you're trying to initiate is affected by both in some combined way yet to be determined.

MEMBER STETKAR: Well, and that the radiological emergency is a consequence of that --

MEMBER RYAN: That's the part I'm still struggling with. I don't see how you get to that. I mean I can understand bridges go out and power lines go down.

MEMBER STETKAR: Seismic events.

MEMBER RYAN: Well --

MEMBER STETKAR: Disrupt my nuclear power plants. Hurricanes tear down off-site power and can cause damage to non-safety related pieces of equipment, leaving me just my core of safety-related equipment, then some of that fails.

MEMBER RYAN: Again, I get to the -- in my own mind, I'm saying so what's the probability of these events?

MEMBER STETKAR: They're very, very rare events. We're planning here -- you know, emergency planning is for things that don't happen every day.

MEMBER RYAN: Yeah, but some --

MR. LaVIE: I want to take exception to

that statement. The planning basis for emergency planning talks about a spectrum of events, starting from minor things all the way up to severe accidents.

With the understanding in all that emergency planning is the Commission expressed in the rulemaking, they put the current rules in place, and that is we can't plan for every event, okay, and that also that when we picked the ten mile EPZ, it was with the understanding that there could be events that went beyond that, but the planning that we had in place for the more probable events gave us a basis for expansion into the less likely events that may occur.

So I'm not sure that there is a great deal of benefit from going after all these rare events, if the planning we have put in place gives us a basis for expansion, if that should occur while the response is going on.

MR. KAHLER: And that's what I was trying to talk to before, Steve, is that these ETEs that are provided in the protective action strategies will provide that basis that could be used for these rare events, and then can be modified as necessary in response.

Because to state that we would have a catastrophic earthquake that would render off-site to

the point of where evacuation is almost an impossibility, then the protective action strategy pre-planning is non-existent anyway.

I mean this is where you do begin to get to that -- to the end point of to predict the 100 year flood and such, and how it would impact evacuation strategy. Should that be included into an evacuation time estimate?

That's where, that is where we're saying we don't want to have it where it's a predisposed analysis with an ETE associated with it. What we're saying is the ETE that is there, you can then utilize to understand if I do have this area that's inaccessible, how is that going to impact my strategy that I thought of ahead of time for that type of rare occurrence.

So we're looking at those that are more of things that happen, like day, night, weekday, weekend, people at work, school's in session, certain activities are happening during seasonal events, and then that provides us a basis for development of a protective action strategy.

Once we have that basic protective action strategy, it can be applied to all of these numerous types of events, and that's where the staff says this

ten mile EPZ, what Randy is currently working on in a change to Supplement 3 with a new protective action strategy of staged evacuations and looking at sheltering, more than the evacuation, and that's a whole other project.

CHAIRMAN SIEBER: I think that's an important point that you just hit on, is that evacuation is not the only protective action that can be taken. Whether you decide between sheltering in place and evacuation depends on, to some extent, on the source term that you expect realistically to be delivered, and what the off-site condition truly is.

If there's a seismic event that takes out infrastructure like bridges and highways, the licensee does not make the evacuation decision. He may recommend it, but that decision is made by generally the state.

For example at TMI, it was Governor Thornburg that made the decision as to whether evacuation should occur or not, and it takes into account the advice and consideration of the data from the licensee, plus the advice and consideration from local government, county government, as to whether evacuations are possible or not.

As far as the event that occurs beyond the

ten mile zone, for example, a major football game. I come from a town that has Super Bowl champions, and they evacuate almost every weekend in the fall and winter, and it takes about an hour and 20 minutes to --

MR. KAHLER: If I can then, then a lot of your concern is addressed in the protective action recommendation strategy arena, rather than in the development of an ETE. That is something that we do address there. It is based upon the impediments to evacuation, as we call it.

There are alternative types of protective actions that should be taken, such as sheltering, staged evacuation or delay in the evacuation, until the infrastructure offsite is restored. That kind of stuff is in the protective action strategy, rather than the development of an ETE.

CHAIRMAN SIEBER: Or a sector evacuation, which at one time was the way to go, until it was decided that a 360 degree evacuation was more appropriate.

MEMBER STETKAR: Let me try one last thing, because I have two other topics that I'd like to discuss. Let me try one last thing on this one. These are ETEs, evacuation time estimates.

Those evacuation time estimates then, as you've said, feed into the more detailed emergency plans and recommendations for particular types of protective actions, and in fact strategies fore even which sector we might evacuate and whether it's a staged or wholehearted evacuation or whatever you call it.

By excluding even any consideration of what might be the evacuation time estimates under these extreme environmental conditions, you have absolutely no knowledge of what they might be, because you've created a world under which you've constrained the evacuation time estimates to be as they are within the world that you've defined.

That world excludes things like hurricanes, tornadoes and seismic events that could substantially increase those evacuation time estimates. Why is the knowledge of those evacuation time estimates excluded? I mean it may very well be that if we have a very severe seismic event, the appropriate recommendation is to shelter in place, because we know that we can't get people away.

But wouldn't it be good to know that we can't get people away, that the estimated

evacuation time for that event is, you know, seven days, because we've done an evaluation of our site and our local infrastructure, and it basically can't support an evacuation under a seismic event, or under a severe hurricane, that we might not be able to evacuate 30 percent of the population for a week, for example? Wouldn't it be good to at least know that, because that might affect our decisions if one of those events happened.

MR. SULLIVAN: Well, let's just -- I think I'm tracking with you maybe. Hurricanes, we have a few days' warning, the evacuation really takes place before the nuclear plant requires an evacuation. So I'm not so worried about hurricanes. It's really a different logistical issue.

Tornadoes come and go, all right. So we're not going to evacuate in the middle of a tornado. Everybody knows that. The plant may be damaged; a bridge could be out. I don't know how to plan for that. Now earthquake is problematic.

MEMBER STETKAR: Earthquake is problematic.

MR. SULLIVAN: Now floods also take a couple of days to develop, so they don't just

happen.

MEMBER STETKAR: It's when that dam breaks.

MR. SULLIVAN: Right. So once again, floods, the locals are already on alert, they're already working. I know people get trapped and levies break and that sort of thing does happen, but it's not without warning. Earthquake is really of a concern, and that's an issue where I don't have a good answer for you.

MEMBER STETKAR: Let's just leave it, because we are short on time, although it doesn't end until midnight, I don't want to --

(Simultaneous discussion.)

MEMBER STETKAR: 11:59:59, okay. Let me ask. The NUREG identifies ten scenarios that people need to evaluate, and you know, there's some words in the NUREG that says particular licensees could augment that list if they felt it was necessary, but since it is a NUREG, people will probably pretty much follow that list.

What's the basis for that list? The list is obviously incomplete. The number of parameters that you have, there are 32 possible scenarios. If you look at the possible number of

combinations of weekday or night, summer-winter, special event, adverse weather.

So I'm curious -- and road conditions. I'm curious why those ten were selected, and not the full set, because -- well, I'll just leave it at that. I know you'll shoot me up front.

MR. SULLIVAN: Yes. I'm kind of the -- this update of the ETE, I'm sort of a champion of that. We had to draw the line somewhere. I mean really, once again, I'm back to burden and what it's going to be used for. You know, you get a false sense of precision when you have 32 scenarios, and I'm not going to use them.

MEMBER STETKAR: Well, you have a sense of precision if you have ten scenarios also.

MR. SULLIVAN: That's right. We just drew a line.

MEMBER STETKAR: And you know again, coming back to something Dr. Bley asked about this morning, is that you may not use all 32 scenarios. You may be able to indeed group them together and do your evaluations for classes of those scenarios. It's also obviously it's possible to assign probabilities to each of those scenarios. We know how many days in the week there are.

So for example, 5/7ths of the week we're in a weekday; 2/7ths of the week we're in a weekend. We pretty much know summer and winter are each half of the year, according to this, so there's a .5 there. We can estimate the frequency of the special events on a site-specific basis, you know, depending on what we have around, summer or winter, depending on whether I'm in a ski area or Wally World.

So there are ways of essentially developing this set of 32, a complete set of 32, if those are the important parameters, and essentially assigning a likelihood to each combination.

Now if I have a small likelihood of the most extreme combination, but the ETE for that combination is 100 times longer than the rest of them, that again is important information, I think. It's information.

MR. SULLIVAN: Sure. Doctor, we're coming from a place where we had 30 year-old ETEs.

MEMBER STETKAR: No, I understand.

MR. SULLIVAN: So we're taking a big step forward to improve the landscape. No, we didn't go down that path. You're exactly right.

We didn't.

MEMBER STETKAR: Okay. What I'm concerned about is given what we know now, how long will this thing be in place, you know, before it gets resolved in the future? You know, I don't want to be sitting here in 2030, period.

(Laughter.)

MEMBER STETKAR: I don't want anybody else sitting here in 2030 and asking these questions about why didn't people 20 years ago think of that type of thought process, when indeed we have the capability. We know how to do it. It's not, you know, it's not rocket science, and why wasn't that thought process sort of built into this evaluation.

That's not risk-informed. You know, I use the word "probabilities," but this is not a risk-informed application. It's simply structuring those scenarios to say that yes indeed, we have a complete list and maybe I can group things together.

Maybe if I look at the scenarios and look at my site, and say well, for all practical purposes, I'll do an ETE evaluation for this group of five or six or ten or something like that,

because I don't think there will be lot of variability over that, and the likelihood that that --

MR. KAHLER: Can I present that this does not limit a licensee from performing that? It does not limit a licensee from doing the 32? What it says is the staff is saying to the licensees if you do these ten, we consider this to be a reasonable range of scenarios, to encompass the most amount of possibilities for the 64 cites that are out there, by writing this wide, generic type of guidance document for the licensees to take a look at, and provide them some guidance where they had no guidance before.

So what we're saying is do these ten, take a look at other ones. As a minimum, these are the ones we expect, the ones specific to your site. We can't write this for every possibility, because there could be more than 32. There could be 1,080.

MEMBER STETKAR: No fine.

MR. SULLIVAN: And I'm just saying at this point, we just want to take this number.

CHAIRMAN SIEBER: An even more important question is regardless of whether

there's 32 or 3,200, you only have a choice of two things you can do. You can either evacuate or shelter, okay, and to make that decision, how much do you need to know in advance?

MR. KAHLER: How much detail do you need to provide that strategy --

CHAIRMAN SIEBER: Because that decision is made after the event occurs, and you're aware of what the circumstances is, and you've got a choice of two. You either evacuate or you shelter.

MEMBER STETKAR: Let me ask you a simple question then. How come I can never have adverse weather at night? Why is that? Why do I only have adverse weather during the day?

MR. LAUGHLIN: They do happen at night.

MEMBER STETKAR: Well, no, you know. I've been through some pretty bad storms at night, but according to this ten stylized scenarios, I can never have adverse weather at night.

MR. LAUGHLIN: Well again, I think it's just limiting the scenarios, you know, to the --

MEMBER STETKAR: Oh sure. I would

have probably put in adverse weather at night, for example, if I was trying to limit scenarios. But these don't, so there must be some rationale of why I don't have adverse weather at night.

MR. LaVIE: I'd like to suggest that one of the aspects that we considered in that most recent question is looking at the larger picture. The whole concept here is to take action to protect the public. If this is happening at two o'clock in the night, the public's in their homes. They're being afforded some level of protection.

So the combination may no longer really have meaning, other than in an academic sense.

MEMBER STETKAR: Well, but a lot of your other scenarios have no other meaning other than an academic sense. You're looking at where people are --

MR. LaVIE: But again, as Randy points out, it was a place to cut the line. There's nothing to say the combination isn't meaningful.

MR. SULLIVAN: Night is kind of less challenging, because --

MEMBER STETKAR: I guess because you never have storms at night.

MR. SULLIVAN: Families are united and schools are not in session. So it just isn't as demanding of a case. That may be the only logic that we have for you on that. But you know, that could be included.

MEMBER STETKAR: See my whole point is if you had looked at all 32, you might have run a case with adverse weather at night. You might have grouped it together.

MR. SULLIVAN: Might have. I'm just grateful that there will no longer be 30 year-old ETEs. We thought we were making a step forward here.

MEMBER STETKAR: Well, I think -- I actually think this is a very good document. I think that with small changes, it could be much, much better. Let me ask -- that's enough on that one. The final one is that there is --

MEMBER RYAN: You might put a mark on that one, John.

MEMBER STETKAR: Yeah, I did.

MEMBER RYAN: On your last comment.

CHAIRMAN SIEBER: Or an X or --

MEMBER STETKAR: This is the last one. I did.

CHAIRMAN SIEBER: Okay.

MEMBER STETKAR: The last one is there's absolutely no discussion of uncertainty here. There are a few places where uncertainty is mentioned very, very briefly.

Your statement about the fact that telephone surveys indicate that, you know, a small fraction of the population will take a very, very long time. There's a discussion about well, because we want realistic estimates, we can truncate that tail, but you have to give me a justification for that.

The 90 percent-10 percent is an effort to sort of address uncertainty, in terms of the fraction of the population that will evacuate within a given time window. Why isn't there a more -- this is guidance, remember. Why isn't there, within this guidance, a more explicit requirement to both evaluate and even perhaps quantify uncertainties?

Because you know, as we said, there could be fairly broad uncertainties in all of these parameters, and some parameters have a larger effect, apparently, and people who do these studies and understand these things, that some

parameters have a larger effect on mean evacuation time than others.

But to me, it seems to be rather important to at least try to evaluate the uncertainties on those estimates.

MR. LAUGHLIN: Well, I'm not an expert on this, but there is a lot of uncertainty. You know, we base a lot of what we have in this document on things like surveys, and we're depending on people to give us an answer to a question that they've really never actually experienced maybe.

So yeah, there's a lot of uncertainty, but we took the figures that we got from things like surveys and we, you know, we took a shot at what we thought was a reasonable expectation. With that, Randy, do you have something to add to that?

MR. SULLIVAN: Well, no. I was just going to say yeah, there's definitely uncertainty. By the way, the 10 and 90 comes from really an analysis of road learning curves, that themselves are not certain, right?

MEMBER STETKAR: Yes.

MR. SULLIVAN: I mean it's just what

our models tell us, and you know, it may not be ten percent. But you know, we just laid down that line.

MEMBER STETKAR: I don't do these studies, so I have no idea how they're done. But the impression that I have is that there are a large -- there's a very, very large amount of information that's compiled from a large variety of sources, extending out to, you know, telephone surveys, for example.

MR. SULLIVAN: Right.

MEMBER STETKAR: And all of this information is somehow compiled and it is cranked through some type of simulation apparently, to generate times. Fraction of population at an exit point, I guess, is a function of time.

Is it simply that the simulation routines do not have a Monte Carlo sampling capability, such that I can sample from, you know, uncertain distributions that I put in, so that you -- instead of having a number, you have a probability distribution? I mean that's easily fixed.

MR. SULLIVAN: I bet they do.

MEMBER STETKAR: And if they do, why

aren't we taking advantage of that? Because if I had known, you know, four years ago that I had a three percent chance of losing all of my money, I might have made other decisions.

MR. SULLIVAN: Do you want to hear my talk about relying on OROs to know what to do during an emergency, because we're essentially providing guidance to a group of folks that know their counting pretty well.

When you get way out on the extreme of the technical guidance we're talking about, there really is a cop that lives there, who doesn't need your one percent analysis of what the evacuation will be.

Now it doesn't mean we shouldn't do it. I mean I agree, you know. Earthquake, uncertainty, those are valid questions. I'm not saying that they're not. I'm just trying to give you the lay of the land in local response.

MEMBER STETKAR: And you know, and I understand all of that. My whole point is that a bunch of smart people sitting around a table with a computer, doing a little bit of this work beforehand in pre-planning, might just give the collective group a bit of information they didn't

have before, that might affect the decision that the local cop says oh, wait a minute.

Maybe we need to get people moving a little bit sooner under these conditions, because I had never thought of this combination of stuff before. These smart guys sitting around the table with computers, you know, did think about it.

CHAIRMAN SIEBER: I think when the decision to order an evacuation is made about the government authorities. They do not include in that a time that one would delay before they ordered the evacuation. They either order it or don't, and we're still talking about a relatively simple binary decision that has to be made, to either evacuate or shelter or do nothing. I guess -- is tertiary.

MEMBER STETKAR: Well, but that decision could be affected by the knowledge that there is a 30 percent probability that I will not be able to evacuate 25 percent of my population within what I thought was an acceptable time.

CHAIRMAN SIEBER: So you would shelter them all?

MEMBER STETKAR: I would either -- well, I might shelter more, or I might start the

evacuation. I may make the decision. I might make that binary decision.

CHAIRMAN SIEBER: Either evacuate those who are able to evacuate, and tell the ones who don't evacuate to shelter.

MR. KAHLER: And again, I think in our studies, there were large amounts of uncertainty because of the fact that we are, as Jeff had said, building upon survey results, without actually having actual data f rom actual evacuations in that specific area around the nuclear power site, and that's correct.

So we're saying that the uncertainties have to be to the point of saying when the time of the event occurs, they can be accommodated by this planning basis. Because I have something to work with initially that I didn't have before, or that I least have something to tell me that if the stars, the moon and the sun all align, this is the evacuation time estimate I would have.

If something would alter that, then I have an expectation of which direction it would be, whether it be extend the evacuation or make it even quicker. So these kind of things, to try to accommodate all the uncertainties by even surveys,

to say it has a spread of a certain amount of percentage points, does lend itself to more possibilities for expanding the number of ETEs to be considered.

As we've said, we drew the line in the sand in saying these are what we're going to look at, in order to provide for preparation, for preparedness. From that point, it provides us that basis. That's what we've been using. That's what the staff used. That's what we moved forward on.

CHAIRMAN SIEBER: Well --

MR. KAHLER: As best as can be accommodated.

CHAIRMAN SIEBER: I think that we have a record of the concern.

MEMBER STETKAR: We can move forward.

CHAIRMAN SIEBER: And to the extent that it may reach a point in our deliberations, particularly at the full committee, to become an issue, then we will do so in writing, and I'm not exactly sure where we can go from here to pursue this issue.

So I would suggest, unless you have additional questions or any other member does,

that we move on.

MEMBER RAY: Well Jack, let me just say, as you said at the beginning, I've been involved in this like you have for a long, long time.

CHAIRMAN SIEBER: Right.

MEMBER RAY: It's always been the case that you have a non-mechanistic source term that was inconsistent or is inconsistent with the assumptions you make when it comes to evacuation, in my opinion. Because any circumstance that would result in the source term is going to have significant other effects.

But as you said also, it's just a question of do you evacuate or shelter.

CHAIRMAN SIEBER: Or do nothing.

MEMBER RAY: In other words, we don't have a performance criteria that we're striving to demonstrate can be met. So from that standpoint, although I appreciate the seeming inconsistency, as John has pointed out, it's not something I haven't thought about before.

It just seems to me like maybe I've been listening to all of this, trying to figure out is there really something you would do

differently as a result of taking into account the fact that the source term that you assume is going to have some other consequences, loss of off-site power and so on.

And I have, I can't come up with anything. I mean the upshot of it is that that is the decision that I'm familiar with having to be made, and as a matter of fact, John, I have actually thought about that question, of sheltering versus evacuation, based on what the off-site conditions that are associated with the assumed source term might be.

As I think the staff has pointed out, ultimately that decision gets made by others, based on their knowledge under the circumstances. So I think that's probably as far as we can advance the thing. If we were trying to meet some performance criteria, as I said, under a range of conditions and we had to show that that was achievable, you know, I might feel differently.

MEMBER STETKAR: I'm certainly not advocating performance criteria. I'm simply advocating this is guidance. It's guidance to provide input to that decision-making process, and in some areas, this guidance is extremely

detailed, where it tells people, you know, I need to do -- I might have to go count the number of cars going through a particular intersection and think about the timing of traffic lights at that intersection. It's really detailed.

Yet in other areas, it seems to be quite lacking, you know. So for example, so why would I put those resources into looking at the timing of traffic lights, you know --

MEMBER RAY: I do it because I can, right?

MEMBER STETKAR: Yeah, that's right, because some traffic control engineer has had --

CHAIRMAN SIEBER: It's shovel-ready work.

MEMBER STETKAR: That's yes. But in other areas, again, it is just guidance. It's not -- I'm certainly not advocating performance criteria, but to have the knowledge that under the conditions that exist today, that there is some percent chance that I may not be able to evacuate a large faction of my population.

Maybe I know that. Maybe I already inherently know that in my gut, or maybe I haven't thought about it in my gut today, you know.

Having that information at least available in the background for these planning documents seems like it would be useful.

MEMBER RAY: Well, like I say, the specific discussion you've been having has been had before, in terms of well what other conditions might exist associated with this emergency? It always comes down to well, if bridges are down and things like that, we will take that into account and we'll shelter instead of evacuate, because otherwise people are going to be all jammed up on roads that don't go anywhere.

So that's all I can add to it, is that -- now I think you may be right, that in some areas, just because we can do it, we strive to do it. There's an implication that there's some specific performance goal that we're trying to show we can meet. But I'd just ignore that.

MEMBER STETKAR: You know, the guidance says, for example, the local traffic authorities might want to reconsider the timing of lights at specific intersection. Okay.

MEMBER RAY: I hear you.

CHAIRMAN SIEBER: What they'll end up having is two policeman that block one way and

have the road going out of town opened all the way.

MEMBER RAY: Well, I've had ones in which people have to go toward the plant in order to ultimately get away from the plant, right, and the question is would they do that, as a for instance.

CHAIRMAN SIEBER: That occurs are more than one site.

MEMBER RYAN: Well, Slide 21.

CHAIRMAN SIEBER: I suspect that, at least for my own feeling, that we've exhausted the subject. Okay. Why don't we move on?

MR. LAUGHLIN: Yes sir. With that, I would like to introduce Steve LaVie, and he's going to talk about Reg Guide 1.219.

CHAIRMAN SIEBER: Okay.

MR. LaVIE: Regulatory Guide 1.219, "Guidance for Making Changes to Emergency Plans for Nuclear Power Reactors," is a new regulatory guide that was developed in conjunction with the amended 50.54(Q) rule language, which Bob Kahler described this morning.

As I pointed out, it was developed in conjunction with the rule language, and there was

a lot of reiteration back and forth. In developing the rule, we did not work in a vacuum. We considered other change processes, 50.59 rule, the 50.54(Q) -- excuse me, the 50.54(P) rule for security. We looked at all these change processes.

We also had the availability of some proposed changes that had been suggested to us by the industry, but could not be worked on the time the suggestions were made because we weren't pursuing a rulemaking at the time they were changed or made. We'd worked to synthesize all these information, you know, what are the good things in 50.59?

In addition to 50.59, there was a -- the industry developed a very extensive document that explained the 50.59 rule. We also considered that document in preparing this regulatory guide. Some of our decisions were framed on that basis, and of course we had make a fit for emergency planning, where 50.59 can be made largely numerical. We're not dealing with a numerical science in emergency planning.

The guide provides a method acceptable to the staff for nuclear power reactor licensees

to demonstrate compliance with the rule. Although the examples and explanations in the guide are specific to power reactors, the document may also be used for non-power reactors, licensees who are subject to the rule.

50.54(Q) was a condition of a license on any Part 50 license, and by extension 52 once they have their letter. The guide provides general guidance on the 50.54 change process, and provides explanation of definitions in the expanded rule, and significant terms in the guide itself.

One of the things we looked at when we were developing the rule was the fact that although the rule very nicely talked about decreases, in effectiveness, nowhere in the rule did they ever define what that term meant, and in this particular rulemaking, we sought to define that.

Now the unfortunate thing with emergency planning in a way is that emergency planning is local in nature. You know, you may be able to establish in reactor safety a 1,200 degree parameter or a 17 percent hydrogen embrittlement, but emergency planning is local.

Each emergency plan is written to address the conditions that it cites, the type of reactor, for instance. The EALs have to match that reactor. But even beyond that, there is also considerations off-site.

Is this a plant of a sea breeze location? They need to have obviously different ways of doing the assessment. Is it a plant that's located hundreds of miles away from the nearest volunteer fire department? Obviously, they're going to need to do things differently for their plant.

The regulations and the planning standards are very broadly written, in order to address that diversity. So the rule, the emergency plan then defines how the licensees set out to meet the regulations, and meet all these potential conditions on their site, and the site-specific considerations.

Now if your emergency response organization lives two hours away from your plant if you're in a rural area, maybe you need to have more people on shift, okay. These are the type of way decisions will be made.

Now the plans are all approved, and

now we have licensees who are seeking to make changes to those plans. That's where this process comes into play. But you know, one size does not fit all. So it becomes very difficult when we sit down to try to define what is a reduction in effectiveness?

What's a reduction in effectiveness at one plant may not be at another plant. What is not a reduction in Plant A could be a reduction of Plant B. Well, the guide tries to get that point across.

Now the way we handle this is that the guide identifies, one of the major sections, for each of the planning standards of 50.47 Bravo, one or more emergency planning functions that are used in assessing whether the plan change would cause reduction in effectiveness, and would require NRC approval.

Now this emergency planning function is not, once again, a unique thing. This concept of emergency planning functions was first developed by industry and NRC task forces during the time the reactor oversight process was being worked on, and ended up being reflected in the emergency planning significance determination

process.

Well, with all that excellent effort that went into developing those, it seemed like they could be provided as a basis for working forward here. Now I need to point out that the emergency planning functions are only used in assessing whether a reduction in effectiveness is involved.

The licensee still needs to show that the plan continues to meet the requirements of Appendix C, and for power reactors, the planning standards of 50.47 Bravo. So you've got a two level test that the Reg Guide and the rule is setting out to match.

First, once you change your plan, it has to meet the regulations. Now the regulation says you need to have an organization, okay. I could take the extreme view and say I have an organization. I have a guy on shift. You might have an NRC inspector out there who seems to think maybe you need to have 30 people, okay, but the regulation could be met.

Now the problem comes up as to whether or not it's adequate. That's where reduction comes in. If you've currently got an on-site fire

department, and you have that on-site fire department because there were no volunteer fire departments or paid departments in a near proximity to you, and you decide that gee, you know, we don't really want to maintain this fire department anymore.

Well, if it was just a conservative thing when you developed your plan, it may not be a reduction in effectiveness. But if you still have the constraint that the nearest fire department is 100 miles away, then you're probably going to be looking at a reduction in effectiveness.

So the licensing basis of the plan has a big impact on this decision, and the regulatory guide emphasizes that.

MEMBER STETKAR: Steve?

MR. LaVIE: Yes, sure.

MEMBER STETKAR: Can I ask a question? I was going to ask this earlier, but you sort of brought up an example that prompted it. You noted that some current licensees may have made conservative decisions when they originally developed their emergency plans, so that indeed they might go well beyond the minimal requirements

of the rule, as it's currently drafted, and that indeed under those circumstances, if they want to make some sort of reduction in certain areas, they might very well be justified. They have to look at current -- you know, the example you used was a good example.

MR. LaVIE: Right.

MEMBER STETKAR: They might well be justified, or perhaps current situation might still require that they actually have whatever augmented capability they decided to have.

One thing that struck me in the rule is that it seems that there is now a very strong disincentive for new licensees to do anything that is beyond the bare minimum requirements of the rule, because if they do anything more and they then decide that they want to reduce from that, they then have to justify that it's not a reduction in capability. They have to basically either do an internal evaluation or indeed submit the evaluation to the staff and try to justify it, that it's not an actual reduction in effectiveness.

So it strikes me that if I were a new plant licensee, I would do precisely what is

required by the rule and nothing more. That is my path of least resistance. How do you address that? That's kind of a disincentive, as I see it?

MR. LaVIE: Okay. Like I pointed out, and this addresses changes to the plan you've already got approved.

MEMBER STETKAR: Well okay --

MR. LaVIE: But a new licensee has to go through a process, where he has to be able to demonstrate an emergency plan that will be effective for his site, and he may be required to commit above the rule, if necessary, to get that effectiveness.

MEMBER STETKAR: I understand that. But the example that you used was that an existing licensee had made commitments that are beyond the rule, simply because they felt it was prudent, conservative, easy thing to do, I don't know why. They did it for some reason.

CHAIRMAN SIEBER: Good.

MEMBER STETKAR: Good engineering public Relations practice, for example. And under those conditions, if that particular licensee wants to make a change to their plan, they might be well justified for those extra above and beyond

type things. They might be well-justified to say that the reductions are not a reduction in effectiveness.

Because it was something that they voluntarily put in their plan, as something that was above and beyond the minimum requirements. So if they want to go change that plan now, you're saying that well, they might very well do an internal evaluation that says reducing the number of people on shift or some communications or something that is not really a reduction in effectiveness; it was just something extra that we had in there.

Whereas if I'm a new licensee coming in today, submitting my plan for approval, I probably will not put anything extra in there. Because if I put it in there, then I'm going to have an awful lot of difficulty trying to justify removing it later.

MR. LaVIE: I'm not sure of the characterization. If it is -- some of these issues are very, very gray, obviously, okay. We're dealing with -- in the 50.59 space, you know, either you met the limit or you didn't. Well, we don't have limits.

But the decision -- licensees currently make changes to the emergency plan, I want to use the word frequent, but they're not rare, okay. A typical licensee may have 10, 15 changes to its plan in a year. So the process has not forced them not to make changes.

Now the up and coming licensees, in this day and age, they have much less incentive to throw in extra stuff. The plans that are coming in, I'm reviewing a plan for a plant that's in for licensing now, and the plans are very sparse, okay, and then of course, we go through the RAI process to get more detail, to the point where we agreed that the plant meets the regulations, and then we go forward with it.

Now once it's in place, if the staff in the process of approving your plan said that you need to have some extra people on shift or you need to have a different TSE or whatever, okay, and you built it, you get your license and now you're operating, you may even in ten years be able, to be able to justify that the decision the staff made at that time is no longer necessary.

For instance, we've had licensees recently that had liaison people located in the

technical support center, to talk to the emergency operations facility. Well, in this day and age of electronic communications, you really no longer need a liaison person, so get rid of them. Fire them, no problem.

But the thing we always have to strive for is watching that, the one-size-fits-all, is that plants aren't all the same, and that's what we're trying to get -- that's what we ask the licensee to consider. The reg guide asks them to consider, and considering the licensing basis for their plant.

Why is that requirement in your plan ought to be the first question? Now once you understand why the requirement in your plant is, you now know whether or not it's still applicable. But until you do that evaluation, you don't know that. Just because four of the plants in the fleet can do it, doesn't mean the fifth plant can do it.

MEMBER STETKAR: Okay.

MR. LaVIE: If that answers your question. In addition to providing the scheme and definitions for each of the planning standards, the guide also provides illustrative examples of

typical changes that would likely be a reduction in effectiveness and those which are not.

As the guide specifies, I'm going to emphasize again, that these examples are not intended to be all-inclusive, all-exclusive, nor serve as criteria. Just because your plants meets once of those examples doesn't mean that you're not necessarily not incurring reduction in effectiveness. You need to consider them in the context of your individual license.

One of the things you mentioned about the staffing change is that where we sometimes see staffing changes is when an exercise is run, or an actual event occurs, okay, and that's when things typically -- like staffing deficiencies will show up.

Licensees have often committed to adding additional people to their staff, as a corrective action for an exercise. Now once you put that person on your staff, you need to assess whether or not taking them off the staff is going to reduce the effectiveness. Complying with the regulations is only one part of the change process.

Okay, the guide goes in with the

administrative details about how to submit changes of a reduction of effectiveness for NRC approval. As Bob mentioned earlier, we're now requiring the licensee amendment process for these changes, and documenting the changes made and in recordkeeping of all these changes. So are there any further questions?

MEMBER STETKAR: Just one, and this one should be easy, really.

CHAIRMAN SIEBER: Harder than the others, but easy.

MEMBER STETKAR: The other ones were impossible. This one is possible.

MR. LaVIE: You haven't gone too far yet. I once spent an afternoon in here a few years ago being challenged by Dr. Powers on a technical matter for two hours straight.

MEMBER STETKAR: You're lucky Dana isn't here.

MR. LaVIE: So we're doing good here.

MEMBER STETKAR: In Section 5.2, under the evaluation process, there's a paragraph that's 5.2(c)(5) if you want it for reference, and I'll read it, just so that we have it in the record. "The NRC expects licensees' 10 C.F.R. 50.54(Q)

evaluations to be of a level of rigor and thoroughness consistent with the scope of the proposed changes, with particular emphasis placed ion the risk-significant planning standards," and I won't read those, because it's a long string of citations.

The second sentence says "The NRC would consider any 10 C.F.R. 50.54(Q) evaluation that is of inadequate scope and extent to reasonably assess the impact of the proposed change on the effectiveness of the emergency plan, to be a violation of the rule."

Now that sounds like people are going to be cited for violating the rule, based on --

CHAIRMAN SIEBER: Inadequate.

MEMBER STETKAR: --individual's judgments or a group's judgments about what is an adequate scope and extent to reasonably assess something. That doesn't seem too well defined to me, if indeed that's the way it's going to be interpreted. How do I know that something is adequate?

MR. LaVIE: It is defined in the inspection programs.

MEMBER STETKAR: It is defined in the

inspection program. Okay.

MR. LaVIE: If an inspector goes out and when he does these evaluations, and in the future the 50.54(Q) evaluations licensees submit not the ones for, that are decreases, but the ones that are not, they implement without our approval, is the review is going to be done at headquarters, rather than the regions, for consistency purposes.

But in the current program, the inspector goes and looks at it. If the inspector finds a change that you have made. Let's supposed to have decided to chop 20 people off your shift, and he looks at the evaluation and says "Gee, you didn't consider this, you didn't consider that, you didn't consider this. I don't think this an adequate scope," and obviously you violated this rule because you didn't -- the rule obviously is a reduction in effectiveness, and you didn't request our permission. That is a violation of the rule. We treat it under traditional enforcement.

Now the inspector's language isn't the last point in this. The inspector, when he finds this, goes back to his management and writes up the inspection report, and it processes through the organization. So at some point in time, when

the licensee sees this inspection report, it's now NRC position, okay.

But that's what this is going to, is if we go in and we find that you've made a change that does, decreases the effectiveness, and that you didn't submit it for our review, that's a violation.

MEMBER STETKAR: Well, that's a black-white type finding.

MR. KAHLER: Oh yes.

MEMBER STETKAR: The way the words are though, is the evaluation is of inadequate scope and extent to reasonably assess. Those are very qualitative words. We've run up against this part. The committee has seen this in other types of activities, where the discussions regarding an analysis process, because what we're talking about here is an analysis that justifies whether or not something was a reduction in effectiveness, and discussions regarding someone's interpretation of the adequacy of that analysis, to reach a particular conclusion, have indeed been elevated to notices of violation, simply because that's left up to the reactor oversight process and the inspectors, and the only vehicle that they can use

is a notice of violation.

Which is basically what you said, and the concern, I think, is that are we going to be generating large numbers of notice of violation due to misunderstandings about the level of detail in a particular analysis.

Not the final determination, that indeed you determine -- you did X and Y and Z and therefore it is not -- and I look at X and Y and Z and I think therefore it is. That you did X and Z and I think you should have done Y also.

MR. KAHLER: Well, if I can then, it is -- a lot of this is where an inspector or the staff would need to evaluate the change, in order to determine whether or not they agree with the licensee's analysis that it has -- ultimately it is a reduction in effectiveness or it is not a reduction in effectiveness.

So what we're saying is the analysis that you provide to support your determination has to be such that it's reasonable that we can come to that conclusion.

If I can quote from the rule change itself, it says the licensee may make changes to its emergency plan, without NRC approval, so

that's the one they can do on their own, only if the licensee performs and retains an analysis demonstrating that the changes do not reduce the effectiveness of the plan.

So what we're saying is the analysis itself has to be able to lead me to that ultimate conclusion. So what we're trying to get around, and the guidance is trying to allude to, is the fact that it's not sufficient to say I made this change because it doesn't reduce the effectiveness of the plan, and that's the reason.

So we're just trying to say you need to have it of such a nature that it's a logical progression to the end point, that it doesn't reduce the effectiveness of the plan, and that's what I believe Steve is trying to put into --

MEMBER STETKAR: That's fine. In fact, I read the words in the rule. The rule words are fine. It's only in the reg guide where the reg --

MR. KAHLER: Where it talks about violation?

MEMBER STETKAR: Well, it talks about violation, but it doesn't talk about the fact that I need an analysis to justify the conclusion,

which is what it says in the rule.

In the reg guide, it's a lot more gray, because an analysis that is of inadequate and scope and extent, and in other words, my example, that I did X and Z, and therefore I justified my conclusion that it's not a reduction in effectiveness.

And a particular review looks at that and says "Well, oh. I don't think that's an adequate scope. I think you should have also considered Y, and because you did not consider Y, this is a violation," because it's of inadequate scope in my interpretation.

Despite the fact that indeed you had an analysis to justify your conclusion, which is all the rule requires.

CHAIRMAN SIEBER: Isn't this similar to the way 10 C.F.R. 50.59 works? In the old days, 50.59, you checked off the three boxes on the form and that was the analysis, and nowadays, a lot more is required in order to justify your response to the limits of the rule. I think that the same thing applies here. Maybe the wording is a little different.

MR. LaVIE: Maybe I should point out,

and we'll take this into consideration, is that the last sentence does prejudge, okay.

Until the licensee, in receiving this quote-unquote "apparent violation," has the opportunity to request reg conferences and provide additional information, in other words, before it's cited. This sentence would never always result in a violation.

MEMBER STETKAR: Okay. I'm sensitive to this because --

MR. LaVIE: It's more of a shot across the bough maybe.

MEMBER STETKAR: --because our committee, in other licensing issues, fairly recently has seen notices of violation being issued for things that under a different venue, for example, if it were a design review, would typically be resolved through an RAI-type process.

MR. LaVIE: Right.

MEMBER STETKAR: Questions regarding, you know, should you have done X and Y and Z, or was the algorithm that you used for X --

MR. LaVIE: Right.

MEMBER STETKAR: You know, the most appropriate algorithm, for example. Those have

been elevated to notices of violation, simply because of the process, the inspection process.

MR. LaVIE: Well see in that particular case, I would say that I would agree with you --

MEMBER STETKAR: And I would hate to see this, because a lot of this stuff is indeed not as rigorous.

MR. LaVIE: The difference here though is that this is an after the fact thing, okay. The licensee's done this, say maybe in January. He's done this analysis. He's made the change to his plan, and then December of the following year, the inspector goes out.

Well this decrease in the effectiveness of the plan has been in place for 11 months perhaps, where as an example you gave, if you're in an RAI process --

CHAIRMAN SIEBER: It's not in effect.

MR. LaVIE: It's not in effect yet.

MEMBER STETKAR: No. But my point is that in some venues, if we're looking at, for example a design review, before the staff makes a final determination on that design, there's a large interaction between the applicant and the

staff, over things like details of analysis, codes that you use, a lot of things.

There are examples, and I don't want to cite them, because it gets into some possible security areas, but there are some examples where people have done analyses, submitted them and then under the inspection process, the inspectors have gone in and said "Oh, I don't think that the algorithm that you used in this analysis is correct," or "I don't think you've done a complete enough evaluation of a particular issue. Therefore, notice of violation.

Whereas in a design review process, all of that would be resolved in an RAI-type environment, and in many cases, there are differences of opinion over things that are not black and white; they're rather gray. You know, level of refinement of a particular analysis. Disagreement over, you know, scope essentially. Should you consider Y or consider X and Z sufficient.

You know, that's exactly -- that is why I kind of hung up on the words in that last sentence, because it seems prone to different interpretations over what is sufficient scope and

extent to reasonably assess, because my criteria for reasonably assessing something might be different than someone else's criteria.

MR. LaVIE: You see, that was the point I made about the inspector, though. What the inspector says isn't the final rule. But after it's gone through the process and is issued as an informal violation for the licensee, now it's the agency's position.

I will point out that maybe it will help your decision is that, you know, in the RAI process, we are not blind to the fact that these things could be problematic, and in fact, we had identified a list of five items, typical changes we keep getting, seeing in violation space.

MEMBER STETKAR: You've at least thrown the flag up.

MR. LaVIE: And what we said is that yeah, you know, we would encourage you to talk with us first on changes of this nature. Now we get public comments on that as well. You know, we are not allowed to verbally say yes or no, but we can say hey, you know, you guys really ought to have another look at this, or have you thought about this or something of this nature.

MR. KAHLER: Or you need to provide analysis of sufficient depth in order to prove your point.

MR. LaVIE: You need to provide analysis.

MR. KAHLER: Because we're not getting that from this phone call, and that sort of a thing. So you need to probe into it more, and those are things we do encourage.

MEMBER BLEY: As a Committee, we don't have quite a position on this, but I know we've been concerned about it. But at least to me, the way Bob described it, gets a little beyond --

I mean there always has to be a level of judgment. But it builds the case that leads to the conclusion, you know, language along those lines at least anchors it somewhere, a little more I think than what we had here.

But I don't think of that as guidance from us. It just resonated a bit better than the other --

(Simultaneous discussion.)

MR. KAHLER: And we're trying to provide that guidance. Yeah, we're trying to provide that guidance in the reg guide, and that

is of particular concern to the staff, where we do see violations, where there are reductions in effectiveness, where there are changes to the emergency action levels, that had insufficient analysis.

What we're trying to say is if you would have performed more analysis, you would have readily seen there was a reduction in effectiveness, and what we're concerned is the amount of rigor that is placed into these, what we consider to be significantly, you know, essential parts of your emergency plan. You need to give it the proper amount of attention, because we are.

So we're kind of putting them on record. If you're not going to do that sufficient scope and analysis when you submit it to us, we're going to take a hard look at these four specific areas especially, and if you think you meant, you know, tickle us to say this is close to the borderline of reduction of effectiveness, please make the phone call and discuss with us, and we'll be glad to discuss with you.

So we're opening that up, to have a more involvement, a little bit, in that.

CHAIRMAN SIEBER: Yes. I think it's

appropriate. I don't think the staff, the NRC staff, should approve every change that a utility makes.

MR. KAHLER: We shouldn't.

CHAIRMAN SIEBER: On the other hand, I think the licensees should be forewarned if they do this frivolously, they're going to end up with some extra things to do, and perhaps a C or a D on their report card, or perhaps even a B, depending on the scope.

Frankly, if you're going to allow licensees to make changes without NRC approval, you have to have some kind of constraint on that change process, to make sure that you continue to comply with the law, and you've done an analysis with sufficient rigor to justify it.

I don't see a difference, except perhaps in minor wording, between this and 50.59.

MR. LaVIE: I tend to agree, Jack, and I tried to keep that in mind. I had no desire to reinvent the wheel. They taught me when I came in here, hero worship is a wonderful thing, you know. Words that have already been approved, if they fit, use them.

We did. So we definitely looked at

50.59, you know, recognizing that 50.59 is an awful lot of numeric criteria, which we don't have.

CHAIRMAN SIEBER: Yes, right.

MR. LaVIE: It's more subjective. But we don't, I'm certainly, even though I was the author of the document, I'm certainly not going to sit here and say that we think this will solve all the problems.

We're not -- we hope that it will improve the situation, because quite frankly, the staff, every time we have a problem with a decrease in effectiveness, it's extra pressure on the licensee, it's pressure on the staff, and if we can provide more guidance of what's expected, perhaps we get to some place where these changes are made more efficiently.

CHAIRMAN SIEBER: Right.

MR. LaVIE: Because you know, if you look at the history of violation space for emergency planning, a very large percentage of them are decreases in effectiveness. Hopefully in the future, we can stop citing them. If there are no further questions.

CHAIRMAN SIEBER: Do you have one more

slide?

MR. LaVIE: Yes.

MR. TAILLEART: One more to finish put his agenda item.

MR. LaVIE: Don Tailleart will take the rest of it.

CHAIRMAN SIEBER: Go ahead.

MR. TAILLEART: Thank you. I'm just going to talk a few minutes and give an overview of the interim staff guidance document. This document was put together to provide guidance for both licensees and applicants, on how to address the changes in the emergency preparedness regulations.

It also provides guidance for NRC staff on assessing changes that licensees and applicants make to their programs, to address these rulemaking changes. Eight of the rulemaking topics are addressed in this particular document. Each one is addressed in a separate section.

In those sections, we provide some basic background information and discussion of the issue or issues that led to the rulemaking, as well as the guidance that the NRC feels would be acceptable methods for addressing these changes in

the regulations.

It's not the only way that licensees could address the new regulations, but it is a method that the NRC staff has deemed to be acceptable. There are three rulemaking topics that aren't addressed in this guidance document, two of which we'd just discussed. One is on the evacuation time estimate updates, and the other is on the amended emergency plan change process under 50.54(Q).

The third topic not addressed in this document are the hostile action emergency action levels, which Bob discussed other guidance that have been put in place for those. One of the challenges and we recognized in providing this guidance in this particular document is that there are several additional guidance documents that have been developed over the years, many of which have not been updated for quite some time, such as NUREG 0696 and NUREG 0737, Supplement 1, which addressed the emergency response capabilities.

These documents are essentially 30 years old, same vintage of NUREG 0654, to try and update all those documents to support this rulemaking we felt was beyond our capability to do

so. So that's one of the reasons why this particular guidance to address the eight rulemaking topics --

MEMBER BLEY: Beyond your capability in a time and schedule?

MR. TAILLEART: Yes. We wanted to support the rulemaking, but in order to put out guidance at the same time as the proposed rule went out last May or May of 2009, and also then to support the final rule, whenever that comes out, we didn't think we could update all of those documents.

So we consolidated it into this interim staff guidance. At some point in the future, we do intend to update the guidance in certainly NUREG 0654, and we'll also take a look at some of these other guidance documents as well. But that's going to be two or three or several years down the road before we can complete that.

MR. KAHLER: Rather than saying it was beyond, I think you said that it was -- rather than saying it was beyond the capability of the staff, it was more of we chose this method as the most effective method to provide guidance for the rulemaking, rather than revising the individual

guidance documents that the rulemaking touched.

MEMBER BLEY: So this ISG, you think, has the guts of what would eventually end up in those other documents?

MR. KAHLER: Yes, and that is the plan for the future, is to actually create one guidance document incorporating all EP guidance during the project we will be doing in the future, which we call revising NUREG 0654, whatever that final document's going to look like.

MEMBER BLEY: Right.

MR. TAILLEART: Okay. Some of the changes that are in this document affect both on-site and off-site emergency preparedness programs. So we did coordinate the changes with federal emergency management agency staff, and had them take a look at it, review it, make sure that the guidance was consistent and aligned with guidance that they're providing for off-site organizations.

We did address one additional topic that's not specifically part of the rulemaking, and that has to do with integrating off-site response organization concepts with on-site emergency preparedness programs.

Specifically, it has to do with the

interface between the utility, emergency response organization and incident commanders that off-site organizations typically use, and the set-up of incident command posts.

So we did provide some additional guidance. Even though we're not making a requirement for licensees to formally adopt the Incident Command System, or the National Incident Management System, they at least need to be able to effectively support off-site organizations that do use that approach.

So we did provide some additional guidance to ensure that liaisons are provided to the incident command post from the utility organization to support the response, that there's communication links between the incident command post and emergency response facilities, that the notification links are in place, things like that.

So that is a very high level brief overview of what's in the interim staff guidance. There is some information up front that goes into some of these other guidance documents that I mentioned, just to provide kind of a general overview of what the landscape looks like as far as guidance that addresses emergency preparedness

in general.

So with that, I'll open it up to questions or comments.

CHAIRMAN SIEBER: Well, if there are no questions, we have 12 slides on comments, which I think we should tackle after lunch. Why don't we try to be back at 1:15? Until then, we're recessed.

(Whereupon, at 12:26 p.m., a luncheon recess was taken.)

A F T E R N O O N S E S S I O N

1:18 p.m.

CHAIRMAN SIEBER: I think we're ready to resume. I will point out that there was 135 public comments directed to the staff. There were 13 directed toward the FEMA portion, and I think there were 11 comments that were duplicates, which is sort of a low number, and we have 13 slides to go through.

There is, in the package that you received, did everybody get the disk that you gave me?

MR. SHUKLA: Yes.

CHAIRMAN SIEBER: Okay. There is a resolution of each of the comments and the details associated with that, and I think it's either the first or second file on that disk. So we can ask the staff to begin.

MR. TAILLEART: Okay, thank you. My numbers may be just a little bit different than the ones you just mentioned, Dr. Sieber.

CHAIRMAN SIEBER: Okay.

MR. TAILLEART: They did a public comment period last year. The NRC received 95 submittals and from those, we identified

approximately 700 individual comments. So close.

CHAIRMAN SIEBER: Okay. I'm working with the table that was in your report, where you numbered them. There may be duplicates in there.

MEMBER STETKAR: Yes, within a factor of ten. It's uncertain.

(Laughter.)

CHAIRMAN SIEBER: But close enough.

MR. TAILLEART: FEMA did receive over 120 submittals, and identified over 2,300 individual comments and Barry Sherwood from FEMA will go into more detail about those comments in just a little while.

Once we identified the individual comments, we then bend those according to the rulemaking topic, for both comments specific to the rule language itself, as well as guidance documents that address a particular topic. And as mentioned, the comments and the results of the staff's disposition of those comments were documented in the comment summary document.

The group responsible for developing the comments was the emergency preparedness rulemaking working group. We had members from several different offices, Nuclear Reactor

Regulation, New Reactors, the Office of the General Counsel, Administration, as well as Nuclear Security and Incident Response. Basically the same people that were involved with developing the rule and the guidance documents, were also responsible for resolving comments.

In addition to that, there were a number of comments that impacted both on-site and off-site emergency preparedness, and to resolve those comments, we formed a joint comment adjudication team with FEMA, with representatives from FEMA and NRC headquarters staff, to work towards a common resolution of the number of comments that impacted both on-site and off-site EP, and to ensure that we maintained alignment on the response to those comments.

What I'm going to do in the next few slides is just highlight a few of the comments for each rulemaking topic. I'll not go into a lot of detail, but if you have any questions about other comments that I don't address, I would glad to respond to that as well.

So I'm just going to run through, again, the rulemaking topics, pretty much in the same order as we covered this morning. Regarding

on shift multiple responsibilities, we did receive comments requesting additional guidance on what types of events needed to be analyzed, in order to support the staffing analysis that would be required by the rulemaking.

So we did provide additional clarification in the interim staff guidance document, to specify that the detailed staffing analysis must be performed for the design basis threat, as well as each design basis accident in the licensee's updated final safety analysis, that would result in an emergency classification.

We also clarified that the detailed analysis should include all on-shift actions that must be performed in the period before the arrival of the augmented emergency response organization staff, as specified in that site's emergency plan.

So that may extend it to a period beyond 30 minutes. It depends on what the site has specified as far as when their initial augmented staff is expected to arrive.

With respect to emergency action levels for hostile action, we did provide some clarification in the rule language, that emergency action level schemes currently under NRC review,

such as Nuclear Energy Institute 0701, or any future emergency action levels schemes that are approved or endorsed by the NRC, would be allowed for conversion by a licensee from a current scheme to whatever that currently approved scheme was.

In the proposed rule language, it made reference to some existing EAL schemes. A couple of those are essentially being phased out and replaced by newer schemes. So it was just a clarification of the rule language.

MEMBER STETKAR: If somebody makes a decision to transition from their current scheme to, you know, a new approved scheme, do they need to submit a change to their plan, or is that fall beneath the radar in terms of changes in effectiveness of their plan?

MR. TAILLEART: They would need to submit that for NRC review and approval.

MEMBER STETKAR: Thanks.

MR. TAILLEART: Okay. Regarding emergency response organization augmentation and alternative facilities, actually some of these comments we have already discussed. I'll go through a couple of others.

One was to clarify the wording in the

proposed rule that referenced making sure that the alternative facilities were accessible during a threat or under actual attack, and we replaced that terminology with reference to hostile action, to be consistent with the rule language, since we didn't really define which threat situations or what we meant by attack in this particular part of the rule language.

We talked earlier today about the use of multiple facilities, alternative facilities versus one alternative facility, and what characteristics those alternative facilities must collectively have. Good comment about the accessibility piece of that. But the attempt was to clarify the rule language that collectively, the facilities needed to provide for those capabilities, and we'll take a look at --

MEMBER STETKAR: But the original intent was that they should all be accessible. I think as long as the rule clarifies that, then it's okay.

MR. TAILLEART: All right. There are also some comments regarding the interim staff guidance. In the draft interim staff guidance, we had language in there that licensees strongly

consider providing event classification capability at the alternative facility, since this provision was not contained in the rule. We received comments that we should take another look at that wording, and basically we just, we took out the word "strongly consider" and just said that "licensee should consider that capability."

This would allow the alternative facility to serve as a backup to the control room, if for some reason the emergency operations facility was not available, if that's where classification capability was being performed, in addition to the control room.

It's not a requirement, because do expect the control room to at least be able to make the initial classification, that we think it would be something that a licensee should consider as an additional capability, for at least one of the alternative facilities, if they're using more than one.

Licensee coordination with off-site response organizations. We did receive a large number of comments, not only from nuclear industry but from state and local organizations as well, that had some concerns about the proposed rule

language, which made reference to licensees ensuring the availability of off-site resources to respond to the site.

That caught a lot of people's attention, and the concern was that the NRC and the licensees were now being directed to assess off-site capabilities in conflict with the role of FEMA ind doing that kind of assessment.

So as Bob went through earlier today, the rule language was changed to remove that part of the language that was in the proposed rule regarding ensuring availability, and focus on the identification of what off-site resources the licensee would rely upon or need to respond to an emergency at the site, including hostile action, and also to describe what type of assistance is expected from each of those organizations.

That change also applied to the interim staff guidance. We made similar changes in the interim staff guidance, that made reference to again ensuring availability, looking at training and other capabilities of off-site response organizations, to focus on making sure that the licensee had in place the appropriate agreements, either through letters of agreement or

a memorandum of understanding, that identified clearly what resources they were relying upon, and the assistance those resources would provide.

We think that by making those changes, we've clarified the intent of the regulation, which was not to get the licensees and/or the NRC involved in assessing adequacy of these off-site resources, in conflict with FEMA's role.

MEMBER RAY: Well, is it in conflict with FEMA's role to assess the responsiveness, say, of a fire brigade from a nearby community?

MR. TAILLEART: If it's responding to the site, no. But I think where the issue was was with a fire brigade, let's say, that was responding to the site. If they also had a role under the off-site response plans to perform other actions, the way we had worded the proposed rule, one could make the connection that then we would also expect the licensee to ensure that that organization, that fire brigade that was now responding to the site, had made arrangements for some other organization, through mutual aid agreements, to cover whatever roles they would perform under the off-site emergency response, and that really wasn't the intent.

MEMBER RAY: Why not?

MR. TAILLEART: Because that is under the purview of FEMA and the off-site response organizations, to make sure that they have adequate resources to perform whatever actions are necessary under the off-site plans.

I think there is some coordination that should take place between the licensee and the off-site organizations if they're competing for some of the same resources.

MEMBER RAY: Will inevitably they will be, Don. I mean --

MR. TAILLEART: But to make sure that those resources are addressed through other means, such as other organizations that would then backfill for that fire brigade. That really gets into FEMA's role.

MEMBER RAY: Well, I'm not sure I agree. But in any event, the real question isn't how the other responsibilities of the fire brigade will be backfilled, as you say, but the question is what is the availability going to be to the plant, to the licensee of this agency, when required?

I mean I agree that it shouldn't be

our job to examine the mutual aid agreements, as you say. But on the other hand, it would seem appropriate for us to have some assurance that the resources will be available whenever needed, and not --

MEMBER BLEY: At the plant.

MEMBER RAY: At the plant, and not be in conflict with -- in other words, we shouldn't look to FEMA to make sure that the plant receives the fire protection services when they're needed.

I'll give you a different example. Let's take the grid operator, and restoration of on-site power in a blackout, okay. It's not FERC's job to make sure that the plant is number one on the list to get off-site power restored. It's the licensee's job, and this is the same issue.

In other words, FERC doesn't go around and say "Mr. ISO operator, you've got to have a special agreement to restore off-site power to the nuclear power plant when there's a blackout," but that sure as heck is a requirement of the licensee to get that established. It's the same thing here, it seems like, to me.

MR. KAHLER: If I can sir, what the

rule language had said, that needed to be changed, was a licensee shall ensure that there is off-site resources, rather than just identifying that the off-site resources are being committed to by the off-site agency, to them. That would be sufficient.

I think what Don was talking to was the ability to evaluate that that condition existed, and people were thinking since we were making the licensees ensure that capability, just that we would then go out to look at the off-site resources available, rather than FEMA providing that to us.

So what we did instead was to go back to, yeah again, to requiring the licensees to identify that they have a commitment from the off-site agencies, to respond with resources necessary for the hostile action response, and to still implement their emergency plan.

MEMBER RAY: Okay. Well, I'm not focusing on hostile action here right now. I used fire protection as an example instead, okay?

MR. KAHLER: Right, and it's the same -- because that was the issue, was that we were trying to separate out the hostile action, that

they were ensuring capabilities for a hostile action, whereas they were only identifying a commitment for fire brigade, because that's what the current language says. They need to identify fire response capabilities on site, that would be provided by off-site agencies. That's the way the current rule language reads.

MEMBER RAY: That's not going to be required any longer, if I understand.

MR. KAHLER: No, it will be. It will be. All we did was we just added that not only do you need to identify the resources that are going to respond to a fire, or to a medical emergency, or to a security event; you have to add in that commitment resources necessary to respond to a hostile action.

MEMBER RAY: Well --

MR. KAHLER: And that was the addition.

MEMBER RAY: Yeah, but that's not what was said. What was said was that we were not going to interfere in FEMA's assurance that the resources would be available to us, because that was FEMA's job. That's what was said.

MR. KAHLER: It was more of evaluate

that the off-site agencies have the resources, and it's not an NRC. We didn't want to overstep the authority of FEMA to evaluate the off-site capabilities, which was being misunderstood by those who read the proposed language, to say that we're going to be doing it, rather than FEMA.

MEMBER RAY: Well, I would say it's probably being misunderstood here too. But it seems like sophistry to me. Either you have to go out and have an agreement that puts you first in line for a fire brigade, or you don't.

MR. KAHLER: That is correct.

MEMBER RAY: Okay. Now which is it?

MR. KAHLER: You are -- you will receive a fire brigade response to the site. That is something the licensee --

MEMBER RAY: Regardless of any other demands that may be placed on the fire brigade, we want it to go to the site first, right? That's the way it's always been.

MR. KAHLER: That's the way it's been, yes.

MEMBER RAY: That's right.

MR. KAHLER: But what we haven't done though was to ensure that when the fire department

responded to the site, that somehow off-site was still capable of fighting fires still within their community.

MEMBER RAY: I agree that's not our business.

MR. KAHLER: And that is what we're saying here, is that if we are saying we need to identify that off-site resources are available to respond to hostile action, it's not our business to determine whether or not off-site still has sufficient responders to implement the emergency plan, such as route alerting, such as traffic control points. That is under the purview of FEMA.

MEMBER RAY: That's fine, but again, I've got to tell you that's not what was said. The point is you've got to make sure that you're first in line for these services, or know that you're not, not leave it up to some other agency to figure that out.

MR. KAHLER: Leave it up to some other agency.

MEMBER RAY: I'll say it again. You've got to know that you're first in line for these services.

MR. KAHLER: Yes.

MEMBER RAY: Okay, and not leave it up to some other agency to decide you should be first in line for the services.

MR. KAHLER: Okay.

MEMBER RAY: All right. Is that the way it is?

MR. KAHLER: Yes.

MEMBER RAY: Okay. That takes care of it.

MR. KAHLER: If I'm understanding you correctly.

MEMBER RAY: Well, I tried to say it really simple.

MR. KAHLER: I understand. Excuse me. If I can, this was, during our 12 public meetings last summer, if I can say there was one issue that we had had a large discussion on during these public meetings, was trying to come to an understanding with the stakeholders that were at these public meetings, over what the intent of this rule amendment was, in adding hostile action, and ensuring that everybody was on the same plank going forward, and that to have the words and the rule accurately reflect what the intent of the NRC

was in the rule change.

That's what I think Don is saying. The commenters provided us with that input. It was said again during our December 8th, 2009 Commission briefing that we provided. We discussed the comments, and we believe, through our change that we've made in the draft final rule from the proposed rule of last year, we're giving a clearer picture to the licensees as to what our intention is.

MEMBER RAY: Well, all that is very well and good.

MEMBER STETKAR: Can I ask something that's kind of simple-minded? Listen to me Randy.

MEMBER RAY: Yeah. I was going to say -- so when I asked you if you agreed that what I said was true.

MEMBER STETKAR: Listening to this, I have confidence that there's an agreement in place that my nuclear plant, should I need off-site fire assistance, is number one on the list. The question is when the off-site fire department sends somebody to my plant, yes, you're on the list.

Do they send one guy on a bicycle,

because they only have ten people in their department, and the other nine people are out busy, you know, fighting fires in other places, or indeed do they have enough resources to make sure that they send an adequate response to my plant, and still have remaining resources to do whatever else they need to do. Is that --

MEMBER RAY: But John, wait. Before he answers, I would stop what you said with the part of your statement that says "adequate resources to my plant." I don't care whether they have adequate resources for anything else or not.

The only issue is are they going to Send adequate resources as a first priority to the plant.

MEMBER STETKAR: Well, what I'm trying to understand is it FEMA's responsibility to look at what are the amount of adequate resources for my plant, in combination with what other demands might be put on that off-site response organization.

MR. KAHLER: As a result of the emergency, which is a hostile action event, which would render the need for the emergency plan to be implemented. So there is a reason why we are

interested in what's left out there as far as emergency responders, and what we're saying is it's not our purview to ensure the emergency planning can still be implemented.

That is FEMA's, and that's where the line, where we were. People thought we were crossing the line.

MEMBER STETKAR: Okay. But my question was back to does FEMA make the decision that it's sufficient to send one responder on a bicycle to me, and therefore there is enough available for the other things that they need to do, or --

MR. KAHLER: No. That is essentially ours to ensure that the licensee has sufficient support from the off-site response organization, and we ensure the licensee is getting that sufficient response, by them identifying and providing a description of it.

MEMBER STETKAR: And then it's up to FEMA to determine whether or not whatever is left is sufficient to support whatever other off-site response activities, whether it's firefighting or, in the case of police organizations, traffic control or things like that?

MR. KAHLER: That is correct, right. That is correct. But there are also -- just to give you this little bit more of the complexity of all of this, FEMA will also be evaluating that off-site response to the plant, on how well they coordinate that off-site response with the on-site responders.

Because that's also something they're interested in, is incident command. We're relying upon them to tell us whether that incident command coordination, from an off-site perspective, is adequate in their eyes.

We'll be watching the on-site portion, to see if the licensee can adequately coordinate the on-site response with the off-site organizations. But they're looking at the other side of that incident command post. So we're trying to draw a fairly straight line in a gray area.

MR. SULLIVAN: Folks, gentlemen, I just want to say the only difference between this rule and the way it was is hostile action.

MR. KAHLER: Hostile action.

MR. SULLIVAN: So we're talking about fire. FEMA doesn't look at fire under REP, if I'm

not mistaken. FEMA's here; they can speak for themselves. But you know, they're not looking at the adequacy of the local fire department to fight local fires, right, and that hasn't changed.

What's changed is the dynamic of hostile action that may draw down resources and send them elsewhere, when we think we made agreements for them to come on site and now they're not available. So we asked that that be trued up.

MEMBER RYAN: So you're really agreeing that Harold's question is the right question. Have you guaranteed that these --

MR. SULLIVAN: Fire has nothing to do with it.

MEMBER RYAN: --resources are going to be sent to the plant first.

MEMBER RAY: Wait a minute. Fire does have something to do with it. What is the "it" you're talking about?

MR. SULLIVAN: The fire response commitment has not changed due to hostile action.

MEMBER RAY: All I did was take what Don had said and asked a question.

MR. SULLIVAN: Fire's the way it's

always been.

MEMBER RAY: Okay, fine. Then why not just say that? It is the way it's always been, full stop.

MR. SULLIVAN: That is correct, that is correct.

MEMBER RAY: Okay, which means --

MR. LaVIE: Let me try to help out in this. Where this issue arises is licensees for years, as everybody's pointing out, have been required to have arrangements for fire support. But those arrangements for fire support were never written exclusively.

CHAIRMAN SIEBER: That's right.

MR. LaVIE: You had no guarantee the fire department was going to come to your site under the original agreements.

CHAIRMAN SIEBER: That's right.

MR. LaVIE: Okay, just like the agreements the fire department makes with any large facility. Our licenses didn't necessarily have a commitment that says "we will be coming to your site first."

During the comprehensive reviews that were done a few years ago by DHS, when they went

in and talked to the off-site agencies, and they talked to the fire chiefs, the fire chief says "We're going to the site." The local emergency management agency individual says "no, you're not. You're going to be doing route alerting." Hence the problem.

Now we're not all that concerned about the off-site route alerting, as rightly that's a FEMA function. We are very concerned whether or not our licensee gets fire protection. So when it comes to the adequacy of the fire department coming to the site, yes, that is an NRC issue.

Whatever else the fire department was supposed to be doing, route alerting, traffic control points, that's not our issue. FEMA evaluates that. But as Randy points out, FEMA is not in the business of evaluating whether they can fight a fire. Hope that helps clarify it.

MEMBER RAY: Not really, but never mind. I give up.

MEMBER STETKAR: No, not for me, because I agree with Harold. I don't care whether it's a hostile action or a fire in the nuclear power plant or some other type of an event that causes the operator of that plant to declare a

certain emergency level, and thereby activate the emergency plan.

So let's keep with the fire example, you know. I have a bad fire inside my nuclear power plant. I don't care how it started; it just started. I declare an emergency, the appropraite emergency action level, and I feel that this fire is imminent of causing an off-site release, so I declare, you know, a very severe accident level, and I now require off-site assistance from the off-site fire department.

So I'm implementing the emergency plan for a fire. How do I have assurance that indeed the off-site fire department is going to respond with sufficient resources to help me fight my fire, because they are not being dispatched to, for example, go out and alert elderly people because the siren system is not working?

MR. KAHLER: Now you brought in -- you brought in a --

MEMBER STETKAR: Because that's all part of --

MR. KAHLER: You brought in the issue, and that is indeed what we're saying, is that we're not in the business of determining whether

it is only necessary to send one firefighter on a bicycle, or whether it's necessary to send in six fire trucks.

That is up to that off-site agency to determine what is necessary to respond. All we want is the licensee to identify that the off-site agency is committed to what they believe is necessary, to adequately respond to the site for the situation at hand.

Now in addition to that, okay, the off-site agencies, as in the past, before this rule came out, because they knew they were responding to a fire, they also knew that that fire may have resulted in an emergency declaration.

So they, in having that fire department respond to a plant site, also took into account that they would need to do some off-site emergency plan implementation, such as route alerting, okay. So they knew how many resources they needed, what that response level would look like for a fire.

They knew what it would look like if there was a medical emergency on site during an emergency. What they didn't know and what became

readily apparent during the hostile action pilots, was they didn't know what the impact was of sending the sheriff's department, which they never would have sent during a security event before. They would have only sent the local law enforcement.

But if they sent the sheriff's department to that plant to respond to a hostile action, how did that impact their off-site response to implement the emergency plan? Because they were counting on those individuals to do the traffic control, because they were sending the local law enforcement to the site, to take care of the people who were chaining themselves to the fence.

But now, it's a whole different animal. It's a different type of attack, it's a different type of hostile action. So what we're saying is the licensee needs to identify and describe what's going to be provided to them for on-site support, in order to ensure that the off-sites are looking at the fact that they still need to be able to implement their emergency plan and get the commitment.

So they're saying "Oh, my emergency

plan comes first. I can't send the sheriff's department in. So you're going to have to figure out how you're going to fight that hostile action activity without my sheriff's department, when indeed the site might have been relying on it.

So what we're saying is this additional set of conditions, this additional type of event initiation is something that not only licensee needs to ensure they do get a response from off-site to their site, a lot of sites, but they also, okay, ensure that they can still implement their emergency plan off-site.

That's why we added the hostile action to the type of events needed to be supported on site. It's a different type of response than just a security event, a fire, a medical emergency, so on and so forth. Different type of analysis that we're asking the off-sites to do and commit to to the on-site.

But we're leveraging that need onto the licensee, to have that letter of agreement with the off-site agency. Does that help any? I know. I think we were in violent agreement before over, you know, the fact that yes, off-site will Support on-site. That's what we intend.

They are going to respond. The piece that was missing was can they still do their off-site emergency plan implementation, and now that's going to have -- that's part of that look that was in that rule before.

MEMBER BLEY: Everybody's still looking vague. Let me ask you the question in a slightly different way.

MR. KAHLER: Okay.

MEMBER BLEY: To meet the intent of the rule as you expect it to be, at some point in time there will be an inspection of documents submitted by the licensee, that state that they have adequate capability from off-site for all these emergencies, and where it's coming from and that in fact they have guarantees, and you'll be looking at that to ensure that they claim they have those guarantees?

MR. KAHLER: That is correct.

MEMBER BLEY: Okay. I think I understand.

MR. KAHLER: that's correct, and we're expecting it by the guidance document that Don was talking about in the ISG, the interim staff guidance. It talks to what we're looking for,

letters of agreement, memorandums of understanding.

We don't look at right now to assess whether or not five fire departments responding to a site is sufficient. That's not our purview. That's an off-site requirement. How much is enough to respond to a nuclear power plant for the type of fires they're telling me I would have to respond to? Then they make that commitment to the site.

MEMBER RYAN: But then again, it's sort of a blind eye sort of approach. I mean how do you make the judgment on inspection or however you want to review it, to say this letter of agreement is founded well?

I mean you've got -- I mean how do you get there without some evidence to say the off-site folks have adequate resources to support the on-site resources, yet continue with some, at least part of their function?

MEMBER BLEY: That kind of surprises me, in that I know we have fire protection engineers on staff at headquarters. I think we have them out in the regions, and I would have anticipated that they would be part of such an

inspection, so that in fact you would have some confidence that the level of support.

I'm sure the NSIR people are involved in this too, for the hostile action side, that the level of support they're saying they're getting is reasonably adequate to cover the situations. It sounds like you're saying no.

MEMBER RYAN: I don't think it's 100 percent for this and 100 percent for that. But you know, if it's 20 percent for one and 20 percent for another, it may not be adequate for any thing.

I'm just trying to understand the judgment scheme that you used to judge that this plan represents reasonable and adequate thinking on how this will work.

MR. KAHLER: I'm trying to formulate a response here, and trying to relate it to current arrangements that are out there now.

MEMBER RYAN: Yeah, that would be helpful.

MR. KAHLER: And whether they're -- and I'm trying. I mean that's the thing, is that a lot of this is done by the reasonableness of what's being provided, and us saying that when a

local agency says this is what I'm providing because I consider it to be sufficient, unless there's reason to doubt, then we do accept.

I mean it's a matter of saying if I have a police force in a town that has three full-time and ten part-time, is that adequate for me. That determination is not to the NRC to identify whether that level of oversight is appropriate. That's by the community.

And also, when you're talking about fire response, there are certain national guidelines that are associated with that.

MEMBER RYAN: So let me just ask a follow-up question right there. So absolutely, the NRC, let's say for the sake of your point, you're not qualified to determine that that police force or, you know, six officers and five, ten part-time folks, are capable for us. Who is?

How are you going -- the NRC assure that somebody, a competent authority, has made that determination that what they're representing is right? Or are you going to make a determination at all that somebody verify that that structure of that police force was adequate for X?

MR. KAHLER: Go ahead Randy, because I know there are programs out there.

MR. SULLIVAN: Yes. Maybe I can help; I'm not sure. But there's a fire protection plan fora site, and I'm hoping maybe you know it better than I do. But I would think in that plan that we've approved is a determination of fire support.

MEMBER RYAN: So the answer to my question is the NRC approves it through the fire plan?

MR. SULLIVAN: Well, for fire protection.

MEMBER RYAN: For fire protection plan. You've looked at the adequacy of the plan.

MR. SULLIVAN: That's my understanding.

MR. KAHLER: But we don't. Emergency preparedness does not. That's something that we're, I want to call it, the same way we would take credit for a health physics program, or the same way for mechanical maintenance and calibration of equipment program.

That's not part of the emergency preparedness purview. It is something that's seen by others. So we're taking that and saying

because it's an oversight of somebody else, we accept -- the same way as with OSHA on a plant site. We don't tell people well, you need to have fall protection for ten feet.

You're saying "No. OSHA determined that you need to have it at six feet," and that's what we're relying on with these other groups.

MEMBER STETKAR: Well, let's come back though, Mike, to the question you asked about the local police department.

MEMBER RYAN: Right.

MEMBER STETKAR: Is the determination that the staffing of that police department is adequate to handle the range of emergency conditions, simply left up to the local town?

MR. KAHLER: No. That's more of a state function actually, and that is something that is looked at by their homeland security groups, as to what is necessary to respond to different types of -- and if they don't have it, if they don't have that, what agreements do they have to obtain it?

I got asked that specific question even just two weeks ago from the state of New York, that said do you mean you're going to

question what I already have in place by what I've been legislated to by the state of New York?

I mean it's that type of a response that you're getting, and you're saying no, we're not going to question the authority of the great state of New York, if that's what the state of New York says that you need to have in order to combat this type of an event in these type of areas, then we'll accept that as being appropriate, because yo are following those kind of --

MEMBER STETKAR: Why isn't it appropriate for us to at least ask to have some assurance, though, that indeed that plan that's in place, with all of those agreements, satisfies the requirements? We can ask.

MR. SULLIVAN: Now we're simply focused on the ability to implement the emergency plan, right, not to perform police and fire duties in the community, right?

MEMBER STETKAR: Well yeah. But part of those duties --

MR. SULLIVAN: But our authority is to implement the nuclear plant emergency plan. FEMA looks at their ability to do that. FEMA, in RERP, does not look at their ability to do community

policing or to fight fires, although they're probably qualified.

MEMBER STETKAR: But part of implementing the emergency plan under -- you know, you keep bouncing around from fire departments and police departments and hostile actions and fires and you know, whatever.

Let's take a hostile action. Part of the local police department may be to respond to the plant, to help out with security issues under the emergency plan. I don't know what the emergency plans look like.

MR. SULLIVAN: Under the security plan.

MEMBER STETKAR: Okay, security plan, fine.

MR. SULLIVAN: Thank you.

MEMBER STETKAR: Under the security plan. However, part of the emergency plan might also rely on members of that police Department, to enforce traffic control.

We had this talk about the fact that the light is green in this direction for only 15 seconds, and I know that, so it's good to stick an officer out there and say keep the traffic moving

out, you know.

So that's a burden of that local police department under my emergency plan. How do we ensure -- ensure is the wrong word. How do we have confidence that indeed the police department has adequate resources to handle those functions? Do we do that?

MR. SULLIVAN: Now you've got it. That's the issue this rule change was meant to address. We want them to say that you have who we expect coming to the site. We want to know that. FEMA will ensure --

MEMBER STETKAR: So we rely on FEMA to make sure that there enough extra bodies to do the traffic control?

MR. SULLIVAN: That they can implement their plan off site, yes.

CHAIRMAN SIEBER: You can correct me if my memory is not good, but my understanding is that there is a design basis threat, security threat, and it's the licensee's responsibility to supply for his or her, its organization, the capability to resist and defeat the design basis threat, without the use of off-site forces.

As a contingency for some malfunction

of the licensee's security force for a threat that exceeds the design basis threat, then you have mutual aid agreements. As I recall, the mutual aid agreements did not give preferential treatment to the licensee.

The mutual aid agreements not only covered relationships between licensee and a fire department or a police department, among the fire departments that surrounded the plant. In other words, if you had a forest fire that had nothing to do with the nuclear plant, and it was in some township someplace, then the mutual aid agreement would call upon surrounding fire departments to assist, to control that place.

That's my understanding of how that worked, and you looked a wide range of resources that were to assist the licensee if he went beyond the design basis. As an aside, in the cases where we had drills where we tested these sites, the problem was finding enough parking spaces for all the fire trucks that showed up.

That may be different at different sites, but we happened to be in an industrial area, where there was a lot of fire departments, which the vehicles and they were responsive.

Different plants may have different circumstances, but the licensee is required to satisfy, within his own resources, the design basis for the plant, and that's what the rule says.

Do I misinterpret that, or is that correct? You can tell me.

MR. SULLIVAN: That's correct. That's correct to the best of my knowledge. I mean I don't want to quote the Commission's direction, but the licensee is to be able to defeat the design basis threat, and at least delay, should that defeat fail or the threat be greater than design basis, and local help will be there.

One data point I want to feed you is that the stealth turkey event at Seabrook, there was over 100 cruisers at that site in what, maybe 30 minutes, one hour. I saw -- yeah, well we have those who believe there was no turkey.

But nevertheless, when there was that intruder event at Seabrook, there was literally dozens of cruisers there very rapidly.

MEMBER STETKAR: Okay. But I mean some of those examples, not enough parking spots for all the fire trucks, hundreds of cruisers from Lord knows where, coming to the Seabrook site,

might actually be contrary to the emergency plan, because maybe six cruisers at the site was adequate response, and you really wanted all of those other people available to do other things under the emergency plan. The question is who's coordinating that --

MR. SULLIVAN: That actually predates the incident command system being nationalized the way it is.

MEMBER STETKAR: But the rule doesn't require compliance with that.

MR. SULLIVAN: Yeah, but all locals are into NIMS and the ICS. So it's the licensee that's not required to bring that in-plant by regulation. They will be bringing it in, however, I can assure you.

CHAIRMAN SIEBER: It's pretty clear that police and fire departments are under the control of local governments, and it's the local government in the emergency plan who decides what's best for the citizens that live in that municipality, township or what have you, and they are the ones that do the allocation. Is it adequate?

MR. SULLIVAN: I think, I mean I think

I understand the basic philosophy of the process. There's essentially an abrogation of responsibility from, you know, this agency to FEMA, in terms of assurance that the off-site responders have adequate capabilities to respond to functions that are part of the emergency plan, but not directly associated with something inside the fence. That's just the way it is.

CHAIRMAN SIEBER: And the way these agreements, as I understood them, work, not only does the power plant have a mutual aid membership in an agreement with all these fire departments and police departments; they themselves, for example, local police departments, can call for assistance from the state police. I have seen involvement with the FEI in certain cases, and county police, and the resources come in from outlying areas to -- until they're adequate for whatever situation is there.

Now is that a guarantee that it's going to be prompt and timely and all that? If the incident is beyond the design basis, maybe it isn't. On the other hand, the mechanism is there to perform all of this, and that's what the mutual aid agreements are and that's what drills are all

about, and that's why people have the lines of authority that are set forth.

MR. KAHLER: And you know, Dr. Sieber, that's what we're kind of relying upon, and that's why the question from the state of New York came up when I was there two weeks ago, was the fact of I will provide you what I need to provide you to fight to the level I need to fight to, because that's what I'm committed to to the public.

So they're not even saying what it is that's necessary to combat a design basis threat, but they will assure the licensee that they will continue through whatever they need to get to, to provide adequate resources to combat the hostile action. They'll provide that commitment to the licensee, and that's --

What they're saying is are you going to have me do something different than what I already have in place, that I've already -- what I've already committed to to the licensee. What we're saying is all we want is for the licensee to get that commitment off of you, to make it part of their emergency plan, that it's there.

That's what we're saying, to identify it and a description of what you can be assured of

from that off-site response. So --

MEMBER ARMIJO: And I think you left out the part that Harold Ray mentioned, which is we're first priority.

MR. KAHLER: First priority? I would think, as Randy said, 100 squad cars. You know, it brings back days of years gone by, where you can't keep them away from the plant.

MEMBER STETKAR: But nothing else going on. I mean, you know, bright, sunny day in New Hampshire, nothing else to do. If there is a hostile attack, if it was 9/11/2001, you might not have had 100 police cruisers at the nuclear plant site.

MEMBER ARMIJO: I think you would have.

MR. KAHLER: I think so. I think that's when you really would have gotten them.

(Simultaneous discussion.)

MEMBER RAY: Don, could you repeat what you said 30 minutes ago?

MR. TAILLEART: Probably not.

(Laughter.)

MEMBER RAY: Because most of all these discussions had nothing to do with it, in my mind.

But so why don't you just try and start again?

MR. TAILLEART: I'm reluctant to do so, but I'll give it a try. I don't know if this would help or not, to take a look at what the proposed rule language showed or how it was stated, and what the concern was. So bear with me just a second. Let's see what a quick way to do this would be.

(Pause.)

MR. TAILLEART: I don't have to go back to the beginning anyway.

(Pause.)

MR. KAHLER: It's Slide 45, Don.

MR. TAILLEART: Okay. The text that's in red and with the strikethrough was what was in the proposed rule, and that's what we're recommending be changed by deleting that particular text and adding in the words that you see in red, without the strikethrough.

The concern was that having licensees ensure outside organization resources are available to respond, not so much that they would respond to the site, but if there were competing demands for those resources, for example, we mention performing route alerting or doing traffic

control or something else that they had been assigned to under an off-site plan, would that compete with their ability to respond to the site?

A concern was that yes, we definitely want their resources to commit to responding to the site, to document that in a letter of agreement or a memorandum of understanding, as you say, to basically commit to responding to the site first.

Then how they address those other responsibilities under the off-site plan that they had been assigned, that was the part that falls under the purview of FEMA, and that was the concern, I think, of a lot of the commenters was that this not only would require licensees to ensure that those resources were available to respond to the site itself, but now also to fulfill any off-site responsibilities that they had, and by making this change, we were trying to address that particular concern.

So we still want the licensee to identify those resources, describe them. This goes into the emergency plan. That commitment for those resources is documented through some kind of written agreement with that resource. But yes, we

will respond to the site under these conditions, whatever those are that are appropriate, and that's basically where the licensee responsibility would stop.

MEMBER RAY: Well, the stricken language is "Nuclear power plant licensees shall ensure that off-site response organization resources are available to respond to an emergency." Now that's gone.

MR. TAILLEART: Correct.

MEMBER RAY: All right. The stuff about including, blah blah blah blah, that isn't germane to the question I was trying to ask. But that statement that's taken out, if I were still a licensee, I would say "Ahh. I no longer have to ensure that off-site response organization resources are available to respond to an emergency at my site. All I need to do is to identify and describe the assistance expected."

Now that's what I heard you say before we got into all these side discussions, and I guess that's what I still see there. It seems substantive to me, and you also added at the time that well, you know, this is a FEMA thing. We don't meddle in other people's business.

Well, that seemed to me like a change. Now I heard everybody say, time after time, no, no, no change. We're talking about hostile actions. We're not even interested in fires. Well, fire is up there, and you know, I don't want to talk about hostile actions. I want to talk about fire.

And so I guess I'm still where I was before, and I don't think we should take everybody's time to debate it any further. The language that is being deleted to me, and I may be alone in this, puts an obligation on me as the licensee, that by deleting that language I no longer have.

Of course, as a licensee, I endorse that. I think that's terrific. Yeah, I mean I'd say "whoopee." That's a great step forward. Thank you.

MR. KAHLER: If I can clarify one thing, excuse me, is that the black words you see up there is the current rule in 10 C.F.R. as it exists today.

MEMBER RAY: Okay. So the stricken out words are not in there either, right?

MR. KAHLER: That is correct. That is

what was in the proposed rule for comment.

MEMBER RAY: Okay, fine. Well then I'm glad, again, as the licensee, it got stricken before it got in.

(Laughter.)

MEMBER RAY: But be that as it may, again, I was just responding to what Don had said, all right, and now I look up there and I say well, that's what I heard him say and I guess that's what I didn't hear him amiss. But if the current language is the black language, without an -- in other words, it says "identification of and assistance expected from" --

MR. KAHLER: Right.

MEMBER RAY: "Appropriate state, local and federal agencies with responsibilities for coping with emergencies," that's not as explicit as the language that's been stricken, because it doesn't name me as a licensee.

But my belief is that when you put it into context, it does in fact name me as a licensee, and I am responsible for doing what the black words for doing what the black words say today.

MEMBER STETKAR: Today.

MEMBER RAY: Today, that's right. So you could say well all right, you're still as responsible in the future as you were, as you are today, and so, as has been suggested, nothing has changed.

MR. KAHLER: The only thing we've changed is --

MEMBER RYAN: Well, the first sentence here with the black and the red together, that's not even a sentence at this point.

MEMBER RAY: "Identification of and assistance expected from appropriate state and local." If it's in a laundry list of things to do --

CHAIRMAN SIEBER: It's in a list.

MEMBER RYAN: Oh, it's in a list?

MEMBER RAY: Yes, yes. It's in a context.

(Simultaneous discussion.)

MEMBER RAY: That's right, right, right. MR. TAILLEART: The licensee's emergency plan shall --

MEMBER RYAN: Shall include, okay.

(Simultaneous discussion.)

MEMBER RAY: So you know, I guess

that's fine. I mean you could -- he put that up right away when I asked the question, and say that here is -- obligated after the additional red words are added, that survived the strikeouts, as you were before for doing what you've always had to do, and you know, that was said.

But again, my question just went to I couldn't understand what was being said about something that's not our responsibility. Well of course, it's not our responsibility, but Jack mentioned forest fires. Well, you know, I'm from a place that has a lot of significant fires sometimes, and it takes all the damn firefighters that there are and more.

MEMBER STETKAR: For a couple of states.

MEMBER RAY: To fight them, and there aren't any left. I happen to have dealt with the San Clemente fire department, and they said if you want us to respond, you pay us to keep a fire engine here all the time. I said no, I'll just keep it at the plant, and that's why you wound up with a fire engine at the plant, okay.

So that's what I'm talking about. It's not making it up out of some thin air.

MR. KAHLER: And quite honestly, if there are emergencies that happen that are close to a plant site, that challenges the capability for off-site responsibilities, for off-site resources to respond to the site, if there were an emergency, then the adequacy of off-site capabilities comes into question.

And FEMA then, such as in a disaster-initiated review, as we've had during hurricanes, during floods and those kind of items, where the off-site agencies are strained with their capabilities, then we do indeed require a reevaluation of the off-site response capabilities, that the plant cannot restart until those capabilities are restored.

MEMBER RAY: Okay. But again --

MR. KAHLER: Fully committed to.

MEMBER RAY: I've got to interrupt you to say I was trying to figure out if we had transferred that responsibility to FEMA, so that the plant was just one of the many things that may have to be dealt with, whereas in my opinion in the past, that had been an NRC role, to ensure that you had what I call "first call."

I gave you a perfect example of where

I wound up with a fire engine at the plant, because I could either pay for it in San Clemente or I could pay for it at the plant. But I wasn't going to -- because sometimes the San Clemente thing is in El Toro or someplace like that, fighting a brush fire, okay.

MR. KAHLER: Agreed, agreed.

MEMBER RAY: And you guys know what I'm talking about.

CHAIRMAN SIEBER: Well, we bought the fire truck and let the city have it.

(Laughter.)

MEMBER RAY: Well, that's another way to do it, but there were complicated reasons why we did it the other way.

CHAIRMAN SIEBER: Stingy.

MEMBER RAY: I know.

MR. TAILLEART: Okay. Ready to move on. The next area of comment was protection for on-site personnel, and one of the comments was that the proposed rule in the new section 4(I) of Appendix E, although it required that protective actions be developed for on-site personnel during hostile action, it didn't specify what those protective actions should be.

Although we agree with the comment, that was intentional. We did not intend to specify in the rule language what the range of protective actions might be, because it's going to vary by site, and we'll leave it up to each of the licensee to determine for their own particular site what those appropriate protective actions are.

We do provide guidance in the interim staff guidance on types of protective actions that licensees should consider. But the ultimate determination of what those actions should be are left up to the licensee. So we're not proposing to change the rule language on that one.

The other comment that we addressed here was that in the guidance that references the use of an operating procedure to contain these protective actions, it was pointed out that depending on the site again, the response to a hostile action or a security-related event may be described in a procedure or several procedures.

So we should make the language a little more generic, to recognize that there may not be just one procedure that describes what these actions are.

Under challenging drills and exercises, some of these we have mentioned already. In the proposed rule, we had put in the specification for the exercise planning cycle, the length of time in which the required scenario elements need to be demonstrated as six years, which has been the practice for quite some time, both in the industry and by off-site organizations.

The comments came back that with the new scenario elements that had to be demonstrated within each cycle, six years would not be enough time. They recommended increasing the length of the exercise cycle. Many of the commenters felt that eight years would be sufficient time in which to do that.

That would allow for biennial exercises, plus a number of drills in addition to those exercises. So in the final rule, we've changed that to eight years.

One of the main issues was the use of minimal or no radiological release scenarios. Particularly amongst a lot of the off-site agencies, they were concerned that by using the se types of scenarios, which did not require that a

large radiological release occur and off-site protective actions to be recommended by the utility or implemented by the off-site organizations, that it would not allow them to demonstrate a lot of their actions that they would go through to implement protective actions, and it would not allow FEMA then to evaluate how well they did that.

So we did not change the rule language, but in the guidance, we provided -- and the rule language still requires licensees to perform a no release or minimal release scenario at least once a cycle.

We did provide guidance for off-site response organizations, developed in conjunction with FEMA, that they now have several options from an off-site perspective. If they wish, they can participate in the licensee exercise, but no release or minimal release, and then FEMA will evaluate their ability to implement protective actions through some other means, maybe mini-drills or plan reviews or some other type of evaluation activity.

Off-site organizations also have the option of continuing on during the biennial

exercise, with additional actions to demonstrate implementation of protective actions. So this would be through some controller injects or again, many scenarios that allow outside organizations to demonstrate these capabilities and FEMA to evaluate while they're there for the biennial exercise.

The third option would be for outside organizations to decide that they did not want to participate in the licensee biennial exercise. They still have a requirement to participate in an exercise, so that would have to be scheduled at a time separate from the licensee exercise.

So it gives them several options. The bottom line is it would still allow the outside organizations, through some means, to demonstrate protective action implementation, and for FEMA to do their evaluation.

One other comment that we got was that hostile action in the rapidly escalating scenario should be conducted more often than once per cycle, to allow an additional opportunity for organizations to participate in these exercises.

We did not agree with that particular comment. We felt that that would, at least in a

biennial exercise, over-emphasize those particular aspects. But there are opportunities through drills outside of the exercises, if they wish to practice those elements more often, to do so. So again, we did not make a change to the rule language for that.

The next area, a backup means for the alert notification system. Commenters suggested that the NRC should publish a design specification for the backup methods. We agree that a specification is useful, and would be open to receiving such a proposal.

But really the design specifications for the backup system falls, again, under FEMA, who sets up the evaluation and acceptability of alert notification systems, and would do the same for the backup methods.

One other comment with regards to this area was that backup battery power for a primary alert notification system should be considered sufficient backup capability or in general, that we should require backup power as one of the backup methods.

Again, we did not agree with that particular comment. Backup power is typically

used for sirens, in cases of loss of A/C power. So for that particular portion of the alert system, or the alert portion of the system, that is an acceptable backup means. But there are other components within the alert system. The computer that activates the system; there's transmitters that send the signal out to the sirens.

The backup power for sirens did not address failure of one of those components. So although it may be an important piece of a backup system, they would need to look at the entire system itself, to ensure that the rest of it was backed up.

So for that reason, we didn't -- we're not requiring the use of batteries as backup power sources for sirens. We understand that a lot of licensees have already installed those for their siren systems. We think that's a good initiative, but it's not going to be a requirement in the final rule.

MEMBER STETKAR: Don, is local, oral notification by local police departments or fire departments or whoever does this sort of thing, considered an acceptable backup to the sirens, in

terms of alerting, you know, the local police department driving down the street, as they do in California, to alert you during fire emergencies. Is that --

MR. TAILLEART: Yes. That's commonly what we call route alerting.

MEMBER STETKAR: Right.

MR. TAILLEART: Route alerting is already in place as a backup means for a lot of sites, and FEMA has evaluated that over the years.

MEMBER STETKAR: For FEMA, for example, that would be an acceptable backup --

MR. TAILLEART: Right, and they found that to be acceptable.

MEMBER STETKAR: Understood, okay.

CHAIRMAN SIEBER: But generally that's not accepted as a primary means. Generally, that's not accepted as a primary means of alerting. For example, there are these personal home alerting devices which are often used for siren. You know, you don't want an individual siren for each house.

If the homes are separated by some distance, they put those in and then route alerting is the backup.

MEMBER STETKAR: I just wanted to make sure I understood that the route alerting was -- you're not just talking, you know, additional hardware here. This is human being type alerting.

CHAIRMAN SIEBER: Police cars and megaphones and --

MEMBER STETKAR: Yes.

MR. SHERWOOD: And that's for your very -- that's evaluated every biennial exercise. We figure in a simulated failure of one of the sirens or two of the sirens, and we actually --

MEMBER STETKAR: Well, I'm thinking more of, you know, I'll go back to my severe weather events, where you have no sirens.

MR. SHERWOOD: And that's considered also fine.

MR. KAHLER: If I could just add a little point. We consider this mostly codifying what's already in place, and it's really to deal with future applicants in the applications we have now. There's nothing that compels them to have a backup means. This compels them to.

MEMBER STETKAR: Okay.

MR. TAILLEART: Again, I think we've already discussed a couple of these comments

earlier. One was when the -- for emergency declaration timeliness, when the clock starts and there is, in the rule language and the guidance, some clarification on when the clock starts and when it stops, to make sure that the intent is clear.

There was also some comments about the use of the term "plant operator" in reference to making emergency declarations, and whether or not that was the appropriate terminology to use. We left that terminology in. That's a carryover from some of the previous rule language. We look at plant operator in pretty broad terms here.

It could be really anyone who's involved in the decision-making process, to determine what the appropriate declaration is, whether it's in the control room itself or at one of the other facilities, if the responsibility for declaration is transferred to that other facility.

So again, we did not make any change in the rule language on that one, or in response to that comment.

For emergency operations facilities performance-based approach, two major comments. We really didn't get a large number of comments on

this particular topic. One is some of those commenters objected to allowing exemptions for existing currently approved emergency operations facilities, that are located more than 25 miles away, and these decisions and approvals have been made over the last, really the last 30 years.

The intent was not to require any currently approved EOFs to be relocated as a result of this rule change. So we are recommending that we leave in this exemption. We think that the basis for approving the exceptions in the past were well-founded, and those facilities have proved to be very effective over the years. There's no reason not to include them in the exemption.

There were some comments that the NRC really shouldn't be allowing licensees to consolidate emergency operations facilities, which we talked about a little bit earlier. But again, there have been a number of licensees that have made requests to consolidate these facilities. With I think just the one exception, the NRC has approved those requests.

Some of those facilities are located at quite some distance from plant sites, maybe

even in a different state from some of the plant sites. We think that those facilities have proven to be very effective during drills, exercises and actual events over the years.

So we see no reason to exclude or not permit licensees to consolidate facilities, as long as they meet the performance-based criteria that would be included in the new rule. And even though it's not part of the rule language, we do address, in the statement of considerations, that licensees do need to work with the outside officials, state and local agencies, to ensure their buy-in on the location of these facilities and the consolidation approach as part of the process.

CHAIRMAN SIEBER: I don't object to the rule allowing that, but I would believe that licensees should exercise caution when they choose to do that.

MR. TAILLEART: Absolutely, and they do need to get the buy-in of all the impacted off-site officials.

CHAIRMAN SIEBER: Yes.

MEMBER STETKAR: Don, you said it's not part of the rule language, that requires a

buy-in for the state and local officials. But it is part of the rule that the licensee provide some, for lack of a better term I'll use the term "near sight," some near sight facility to provide that kind of assembly function; is that right?

MR. TAILLEART: For any emergency operations facility, whether it's a single site or consolidated facility, if it's more than 25 miles from the site, then that would be a requirement.

MEMBER STETKAR: And that is a requirement under the rule?

MR. TAILLEART: And that is the rule language, correct.

MEMBER STETKAR: It's just a matter of who's running the show after that.

CHAIRMAN SIEBER: Yes. I noticed if you have an incident, CNN shows up at the plant, not at your EOF.

MEMBER RAY: Well, for an off-site release, they may not.

MEMBER STETKAR: They'll show up at both places.

MR. TAILLEART: Let's see. Just a couple more to go here and then we'll wrap up the comments. On the evacuation time estimate

updating, I think we have talked about the change in the threshold criteria for updating, for doing interim updates to the evacuation time estimates, that would trigger the need to do an update more often than the decennial census.

the other comment that we received had to do with the time period in which to perform an update. We had originally proposed an 180 day time period, once the population data was available, and commenters pointed out that there's a very limited number of vendors who perform these types of updates, and there's a lot of coordination that also has to take place with off-site officials.

So we are recommendation that the time period be expanded out to 365 days from 180 days. Then finally on --

MEMBER STETKAR: Don, once you have the evaluation in place, I understand resource requirements in terms of an external support to do the initial evaluation. Is an update to that evaluation as resource-intensive? I mean you should have your models set up; you should have, you know, whatever software.

I don't know how these things are run,

but they're simulation programs. You should have all of that set up. If you're talking about an update to the evacuation time estimates, why should that be extremely resource-intensive in terms of the use of external support, especially given the fact that these are going to occur randomly over time.

Well, I think it depends on the justification of why do I need a year, simply because there are only a limited number of organizations outside that I can rely on?

MR. TAILLEART: I would agree. Some updates probably would be less intensive, if there haven't been any large changes in population or infrastructure, roadway networks or other changes within the emergency planning zone. But I think there will be a number of sites where there have been population increases or changes in the roadways and things like that, where it will require --

MEMBER STETKAR: I think the guidance in the NUREG though, as far as updates to the population. First of all, the NUREG actually recommends when you do your initial estimates, you do sensitivity studies to say well, you know,

where are my thresholds?

So it should be kind of a no-brainer whether you're above or below that threshold. If you're above that threshold, the guidance in the NUREG also says for a first cut it's reasonable to assume that existing infrastructure, you know, remains applicable. So you don't have to go back and do a re-survey of the highways, you know, and timing of those traffic signals and things like that.

MR. SULLIVAN: Well, once you've got the model in, manipulating it is fairly straightforward. It's sort of an issue of freshness, you know. If it's six years later and you have to do an update, you know, then there's some work to get back up to speed. We've been told by vendors, you know, who do this for a living, that the few licensees that have tried to bring this capability in-house, it gets stale real quick.

You know, guys leave or get promoted, and three years later, when you need to take a look at things, they're not available or they're rusty. So --

MEMBER STETKAR: My day job as a

consultant, believe me, the vendors will be just as rusty as -- honestly. I mean if that's your -- I'm not trying to be facetious here, is that if you're looking at an analysis that, you know, I'll own it. If I'm looking at an analysis that I did six years ago, I have the same start-up time as anybody else. I don't remember that.

MR. SULLIVAN: Yeah, but you've probably been doing this for a living in the meantime, and so you're still an expert. Whereas if I'm an in-house guy and I went back to being, you know, maintenance coordinator or something.

MEMBER STETKAR: No, it's true. It's just a year is an awfully long calendar time, especially if you have an in-place model, something that you're not building from scratch. You're essentially reexercising, and even tweaking in a few places, but reexercising the same model.

MR. SULLIVAN: We have some big plans for these models going forward, but --

MR. TAILLEART: Okay. Regarding the emergency plan change process, a couple of slides on this one. It has to do with final rule changes or changes to the final rule language. There were some comments about revising or clarifying the

definition of change. So in the final rule language, we clarified that the change applies to the emergency plan rather than a change to an activity which may affect the plan.

The intent was that the change process applies to intentional changes to the emergency plans, rather than changes to or failures of equipment or capabilities outside of the plan, that might adversely affect the plan.

We also clarified the definition of emergency plan itself, to replace the reference to maintaining emergency planning functions, which Steve had talked about earlier with "maintaining emergency preparedness and responding to emergencies, to avoid any possible inference that compliance with these emergency planning functions" was required.

Then finally, we clarified the timing on submitting reports of changes to the NRC, and also modified the requirement of what needed to be submitted from the complete 54(Q) analysis to a summary of that analysis, at least for the initial reviews, so the reviewer could determine if additional documentation was needed.

The clarification on timing had to do

with a reference in the draft rule or the proposed rule that the change be submitted within 30 days of when the change was made, but there's no clear definition of what that means. Is that when the procedure's updated or plan is updated, or is that when it actually goes into effect, or when there's training completed on it or what? You know, what exactly did that mean.

So the language was changed to reference when the actual, when the change was actually put into effect, rather than when the change was made. We did retain the requirement in the proposed rule to require licensees to use a license amendment process for submitting proposed changes for prior approval, so that did not change.

Then the regulatory guide, based on some of the changes that we made to the rule language, we made corresponding changes in the reg guide to maintain alignment with the final rule. Again, consistent application and usage of the term "change."

MEMBER RYAN: Don, you may not want to whack that microphone, because it rings in his ears.

MR. TAILLEART: Okay. I didn't even realize I was doing that. Thank you. The proposed guide had listed some emergency plan changes which were often mischaracterized by licensees as not being any reductions in effectiveness. I think Steve mentioned this as well.

So the reg guide was revised to replace the requirement that these be submitted for staff review, with a recommendation that the licensee interface with NRC staff on these changes prior to implementation. We also added in a new section which addressed an issue that was raised through the comments, about the existence or apparent existence of margin between the licensee's emergency plan and the regulatory requirements. Again, I think we've already discussed that.

So we've provided some clarification on whether or not those would be -- well, the fact that a change to address this particular situation may result in still being in compliance with the regulations, which is one part of the 54(Q) requirements, but it doesn't address the issue of whether or not the licensee reduced the

overall effectiveness of the plan, which they still have to evaluate.

Then finally there was a new implementation or an upgrade to the implementation section added to the reg guide, and this stated that the reg guide would not be applied retroactively in our evaluations of plan changes that would be made or have been made prior to the effective date of the final rule.

Those were some of the, I guess, the highlight of some of the more significant comments or issues that were identified during the comment period.

CHAIRMAN SIEBER: I would point out to the members that we did get an extensive summary list of comments from the staff, which was the first item in the emailed set of files that were sent to us about ten days ago. So if you need to get additional information, there's plenty of additional information to look at.

Thank you very much, Don. I appreciate it. Anybody have any questions?

(No response.)

CHAIRMAN SIEBER: If not, I'd like to introduce Harry Sherwood from FEMA, and his set of

slides is the ones with the beautiful American flag on it, and you may begin, sir.

MR. SHERWOOD: Good afternoon. I appreciate the opportunity to speak to you about some of our parallel activities. I'm Harry Sherwood. I'm the Technological Hazards Branch Chief, FEMA Region IX, so I made the cross-country jog to come out and visit with you today.

What I'd like to talk to you a little bit about is you've heard a lot about what we have done in parallel, and I would like to highlight a few of the things that we have done in parallel in the rulemaking, the things that we had to bring to bear on the FEMA side.

Well first of all was the public comment process. As you may have heard, we released our program manual in Supplement 4 on May 18th, 2009. Now the revised program manual was a work in progress since 2002, so it's taken a long time to get going and to get off the ground.

We received over 120 submissions, and they contained over 2,300 individual comments. So to eat that elephant one bite at a time, we put together two teams. You've heard about the joint FEMA-NRC, the Joint Comment Adjudication Team or

the JCAT.

Internally, we put together what we called the PCAT, or the Public Comment Adjudication Team. That included ten FEMA regional representatives and five FEMA headquarters staff. They got together several times during the past year, including just in time for the great blizzard out here on the east coast, so I didn't get my senior site specialist back for almost a week.

So they went through the comments relating to these key policy changes. Now in addition to retiring a lot of legacy documents, finally publishing a Section 2 of the program manual, which many people had heard about over the years but nobody had ever seen it, we also wanted to bring into play the preparing for and responding to hostile action-based events, aligning the REP program manual with national preparedness initiatives, such as National Incident Management System, ICS, the Homeland Security Exercise and Evaluation Program.

We had a 30 year-old program, and the rest of the emergency management community had evolved over the years and they were doing

business differently. Also, to ensure more challenging drills and exercise, enhance the exercise activities, and also provide for the backup means for the alert notification system.

The comments we got back came from a variety of audiences. The states were very interested, as you can see by the graphic. That was the vast preponderance of comments we received back, and from local governments.

We also got quite a few from private citizens, utilities scattered among other groups, and then quite a few anonymous comments as well. These comments, along with the rest they were adjudicated, and we duly considered them.

Besides the different issues that we covered, the whole program manual was being put out there. So in many respects, a great deal of the entire FEMA REP program was being looked at and commented by the public. Far and away the largest segments of comments related to hostile action-based scenarios and what exactly was this Homeland Security Exercise and Evaluation Program, or HSEE.

A great deal of comments about alert notification systems, about the requirements that

we have for them and the possibilities of other types of alert notification systems. NIMS and ICE, dosimetry. So you can see the broad range of subjects that people commented on.

So once all 2,3000 comments were adjudicated, we put together a time line, and this was put together by an integrated transition and implementation team. As you can see, rather fine print up there and can be a little bit difficult to read, we have endeavored to keep all of our efforts in implementing the revised program manual in alignment with the NRC rulemaking.

The two have to go together of necessity, because if we're out of step with what NRC is bringing to bear, then our off-sites and our partners get confused as well. So we're in the middle of the chart now, and while the rulemaking is going on and beginning the ACRS review, you can see that we are going through some public outreach with our portion of it, and I'll get into that outreach a little bit further on.

If we look on into next year, our activities hope to culminate on or about the projected day of the final rulemaking or the FR, the *Federal Register* notice for that.

Now to bring that to pass, we brought a team together, a joint NRC-FEMA integrated transition and implementation plan working group. The chart that you saw on that schedule was one product of that team.

What it is to determine the scope and the milestones that we want to achieve, with bringing about our publication of the revised program manual and Supplement 4, in alignment with the NRC rulemaking, and to develop a Schedule for the integration of the FEMA-NRC transition and implementation plan.

In order to do that, one product was a series of impact papers, explaining what exactly are we doing. So the team put together summary documents that were intended to highlight the key areas that were important to this implementation process, what we felt is important for our state partners, our off-site partners, and everyone involved in the REP program, to understand what exactly we're doing, and topics that have the most significant changes and impact to our stakeholders.

So we have come out with seven impact paper topics. These include the variations in the

scenarios. What exactly do we mean by an eight-year exercise cycle, plans and procedural updates. How do you bring about and incorporate hostile action-based drills and exercises.

In addition to the no release and the rapid escalation, how do you bring those into your plans and procedures, how soon do you have to do it, and how do you incorporate that into your exercise program? Backup alert notification systems, what's acceptable, what kind of time lines are we talking about?

What exactly do we need to do with regards to the National Incident Management System and incident command? The Homeland Security Exercise and Evaluation program, and then something that we have been hearing a great deal about. Yes sir.

CHAIRMAN SIEBER: Could you tell us a little bit more about the National Incident Management System?

MR. SHERWOOD: I will do that, and as a matter oi fact, that's coming up.

CHAIRMAN SIEBER: Okay.

MR. SHERWOOD: Interpretation of the terms "should" and "shall." What exactly do we

mean by that? So to look at the impact papers, and we have one on NIMS and ICE, and I'll get into a great deal of detail with that.

The initiating event of a REP program exercise will now be varied, as we have heard, to bring about more of an all hazards perspective to the overall exercise cycle.

That's one of the things that we look at. We've heard a lot about different initiating events. In addition to what takes place at the plant, we also includes things now like hostile actions, rapidly escalating events, initial classification of site area emergency, starting it later on.

Or no minimal release, resulting in at least a site area emergency. Decision-making still has to take place. What kind of decision-making? Sometimes even doing nothing is a decision. Now historically, the exercise scenarios have paced along with the plume exercises. We're also revising the ingestion pathway guidelines, and these are also going to be enhanced.

So we're going to see some development in how we bring about the exercises and variations

in the cycle. The cycle has been changed to an eight-year cycle, as you have heard, to be able to exercise all of the scenario options, and we anticipate that full transition into incorporating all of the possibilities, including hostile action-based events, will take place by 2014.

Now some elements, you've heard of the eight year cycle. We also need to bear in mind that some items, some criteria we need to look at on a biennial basis; some we need to look at every six years. We will -- we still need to consider those items on a more frequent basis. So we don't want to put things off for a total of eight years and then come back and wonder if everyone still knows how to do things.

So we still will have our biennial exercises. We still will have our periodic ingestion pathway exercises. Then, we want plans and procedures to be updated in a timely fashion too, rather than go into a biennial exercise cold, that's going to include a hostile action-based event, we would like to have a good assurance that the plans are in place to deal with the hostile action-based event.

Our experience is most of our off-

sites already have good, effective plans in place. But this is going to provide a good opportunity for them to bring those to bear on the exercise program. In some cases, you might have two different sets of plans.

You have the radiological plan and then you have maybe a law enforcement integrated plan. We want sufficient time to bring those together and have at least six months to be able to work with our off-sites, and look at the plans and see if we're going to have a good exercise ahead of us. Backup alert notification.

MEMBER RYAN: So Harry, I'm guessing at that step, this is where you'd identify synergies and conflicts and all that sort of stuff, so that planning for an exercise is really the way where you coordinate different views of that exercise from different organizations into one coherent --

MR. SHERWOOD: Exactly, and the way we want to do that is we're going to be talking a little bit about some new tools that we want to bring to the exercise planning process, and also to the overall planning process as well. So part of this is we'll be looking at the plan reviews.

We're going to be looking at planning the exercise, be more objectives-based with our exercises, and give us sufficient time that if we identify some issues, rather than wait until they come to a full-blown issue or deficiency or something like that, be able to work some ways to make the plans better, solidify them. In other words, give us some more versatility in how we can deal with these eventualities.

Backup alert notification. Clarify the time requirement for backup. You know, we've heard such things as backup route alerting and what do we consider timely and efficient. We recommend a goal of 45 minutes from identifying when something has failed, or say a siren has failed or a primary means has failed.

We want to look towards again, a goal. Is it a hard and fast thing? We want to still keep it timely. We recognize that there are variations in capability, the different weather conditions. There's also going to be new systems and new technologies brought to bear.

So we will entertain proposals for new systems. We want to see their capabilities, be able to give them a technical review and

compliance with design design objectives. So if there are new technologies out there, if there are new ideas, we want to start looking at those in terms of is this a good backup means for alert notification.

Our primary purpose is to make sure that everyone in the emergency planning zone is notified in the event of an emergency. So how do we go about that? There are many new ways out there that we can look at, and implementation periods of up to three years, to transition to new backup means.

MEMBER STETKAR: Harry, before you leave this thought, I have a couple of questions.

MR. SHERWOOD: Yes.

MEMBER STETKAR: This 45 minute goal that you note, is that a goal for alerting of everyone in the EPZ of the conditions? For example, of a regional backout, loss of all A/C power, so that you have, you can assure -- and if it's done under route alerting. So you have to then mobilize a fairly large number of resources to accomplish that level of alerting within 45 minutes.

So do you -- is that part of this

planning?

MR. SHERWOOD: That's part of the planning process that we look at now. Now there have been variations in how that has been interpreted over the years, and it went from a hard and fast rule, at one time, that we set a time limit, to other times that we wanted a timely alert notification, or a timely execution of backup route alerting.

So between all the pushing and shoving back and forth, we have set a target of 45 minutes. You'll see some more, so much more detail in the impact papers, which now have been published. They are official, and we really mean it this time, and we made them public documents, and they're up on Regulations.gov.

But yes, 45 minutes is the target. We do recognize that there are variations. When we see a demonstration of it, now do we expect the -- our off-sites to simulate a full-blown complete outage of the entire siren system and then mobilize everybody and go out and do that? Is that reasonable? No.

MEMBER STETKAR: Why isn't it reasonable?

MR. SULLIVAN: Wait. I'm having deja vu all over again of a conversation we had about SOARCA --

MEMBER STETKAR: No, no, no. This has nothing to do with SOARCA. I mean it does, but I'm over that.

MR. SULLIVAN: Right. We're talking about a key hole. The current power system is for a key hole, and come the revolution it will go to staged, which is two mile and then expand. So you don't need to do ten mile 360 immediately. You eventually need to, but not in the first whack at it.

MEMBER STETKAR: When the sirens are activated, where are the sirens activated?

MR. SULLIVAN: They activate 10 mile 360.

MEMBER STETKAR: Okay, thank you. Now if I have the great Northeast blackout, and I have only A/C powered sirens, and my power supply for all of those sirens is dead. So therefore I'm met with darkness and deathly silence 360 ten miles.

The goal is to have alerting of all the public within that area within 45 minutes, if I heard you.

MR. SHERWOOD: Not from when the lights go out, but in the event of an emergency. So --

MEMBER STETKAR: Okay, yeah. But loss of offsite power and station blackout are important contributors to risk at many nuclear power plants.

So there's some chance that my plant could declare some emergency situation under those conditions. You said that it's not reasonable to exercise the capabilities of off-site responders under those conditions.

Well, we've had several blackouts. Fortunately, you know, we've never had a serious nuclear power plant accident under those blackouts. But large, protracted blackouts are a countable event. We're not talking about now the biggest earthquake that you've never seen or that sort of thing. These are countable events.

I was curious why you don't feel that that's something that you should exercise --

MR. SHERWOOD: To send them all out on the routes, what we do typically in an exercise is we'll have them demonstrate a couple of the routes.

Now that doesn't mean we don't make sure that that capability is there, because during the exercises, we have people at the various stations where they have the resources for backup route alerting. We make sure that there's sufficient people there, there's sufficient vehicles in the event that okay, your station covers sirens XXXXX. If they all go out, if they all fail, can you cover those routes, and they'll say "Yes. So and so and so and so and so and so, and they'll do this route."

MEMBER STETKAR: Good.

MR. SHERWOOD: So we want them to go out all over the countryside. We have them demonstrate from time to time, and they will run some individual routes.

MR. SULLIVAN: Let me ask you something related, but somewhat different. In the statement of considerations for the rule, there's a discussion regarding whether or not the rule should have required either D/C powered or some other emergency backup power for siren systems, and we had a discussion about that a few minutes ago.

In the statement of considerations, it

says "Rejecting this approach does not mean that the issue of backup power for warning systems will be left unaddressed. As discussed previously, the House Committee on Appropriations directed FEMA to require all outdoor warning systems to be operable in the absence of A/C power." Is that true?

MR. SHERWOOD: Well, we are currently under the revising, FEMA Rev. 10, which does set the requirements and the technical specifications for alert and notification systems. That's a work in progress right now.

MR. SULLIVAN: Okay. My question was going to be will FEMA require all outdoor systems to be operable in the absence of A/C power, and if so, when is that requirement going to be implemented, and if the requirement is implemented, what is the penalty for failure to comply with that requirement?

MR. SHERWOOD: That I don't know, but I can get you an answer.

MR. SULLIVAN: Okay. I appreciate that.

MEMBER RAY: Different subject, but as long as you've been interrupted, you're talking about things which cause me to wonder about

circumstances in which you may have heard me say earlier, somebody says "well, if you want the support you're going to have to pay me for the support," and you wind up having to work that out with the -- between the licensee and the agency.

Is that something -- how do you manage that or is that something you've never experienced? What's the implications of that kind of a circumstance for the work that you're talking about doing here?

MR. SHERWOOD: You mean as far as implementation?

MEMBER RAY: The fire department, whoever, would say you want me to be responsive. That means I'm going to have to have somebody committed to be responsive, and that's going to require some increase in my budget, so pay me.

MR. SHERWOOD: Well, there's a number of things that -- now does FEMA regulate local responders?

MEMBER RAY: You get involved in solving those problems. That's what I'm trying to say. Do you just say it's not my business, I don't care?

MR. SHERWOOD: We can bring some

things to the table, but like every other agency, there's a certain amount of things that we can do. For instance, we have various grant programs that we can assist local governments and states and assistance to firefighters.

MEMBER RAY: I would think you'd just tell the licensee "pay up and let's get on with things."

MR. SHERWOOD: Well, we don't regulate the licensee.

MEMBER RAY: That's what I'm -- I'm also aware of that too.

(Laughter.)

MEMBER RAY: That's what these guys would say.

CHAIRMAN SIEBER: Well Harold, I think that it's much more subtle than that.

MEMBER RAY: Well, I know Jack, but I've been there.

CHAIRMAN SIEBER: If you can't meet the rule, you figure out what it is you have to do to meet the rule, and then after you do that, you meet the rule.

MR. SHERWOOD: Well, I approach it from the standpoint of an emergency manager. I've

been in the REP program X number of years; I've been an emergency manager for 32 years. The off-sites that I work with are professionals, and they are excellent organizations.

So what I look at it as, it's a partnership, that there are some times that they might have a need. If they're unable to meet that, I can go back to my agency and I can have people start looking around for okay, what can we do in the way of resources here?

MEMBER RAY: Well, that's very generous of you. I just think that there's a reason why I ask the question, which is where lies the incentives? If something is needed in order to provide an adequate response, clearly the licensee can pay if they choose to.

Do you find that that's something that has to be done, or do you go back and look for the taxpayer to pay for it somehow, which is what it sounds like to me?

MR. SHERWOOD: Well, that's internally within the state, for what the state wants their taxpayers to do.

MEMBER RAY: All right. So you just don't get involved in that. I can clearly see

that's --

MR. SHERWOOD: To some extent. There's only so much we can do. The two states that I deal with primarily, one is a home rule state. So the state doesn't even enter into the picture. It's strictly the local governments to determine what they want and what capabilities that they have and what they deem adequate and what they want to participate in.

MEMBER RAY: They're even more likely to do that. But anyway --

MR. SHERWOOD: So a lot of it is --

MEMBER RYAN: Harold, you pay property taxes that funds these agencies.

MEMBER RAY: Well, I didn't mean to get into a philosophical debate --

(Simultaneous discussion.)

MEMBER RYAN: Did they tell you to get lost when you asked for support?

MEMBER RAY: No. They simply say what I said, which is if you want something dedicated to respond to you, you have to pay. I just wondered if FEMA had a -- it doesn't sound like you guys get involved in that at all.

MR. SHERWOOD: We do to an extent, but

as far as within the limitations of law. Like we, FEMA has been over the years a coordinating agency. We do the REP program in support of NRC, and in the meantime, you know, our primary role is emergency management.

So all of the off-sites that I deal with now under the REP program, I've worked with for years on the emergency management side of the house. So --

MEMBER RAY: Okay. I guess I would have felt better if you'da said well, that's the licensee's problem, rather than it's your problem.

MR. SHERWOOD: Okay.

CHAIRMAN SIEBER: That may make it the licensee's problem.

MEMBER RAY: It may, but it doesn't sound like it does. Yeah, okay.

MR. SHERWOOD: I promised a discussion about NIMS and ICS. National Incident Management System and the Incident Command System. More often than not, I'm -- I frequently have to talk to groups and say what it isn't, and one of the first things that people say "Well, NIMS is ICS." Well, it is and it isn't.

National Incident Management System

basically is a whole set of tools that we have guidelines that are out that assist local planners, state planners, supposedly federal agencies too. We as FEMA, we are required to be NIMS-compliant, and if we provide grant assistance to a state and local government, we require them to be NIM-compliant.

Well, what is NIMS? It's a whole set of things. It includes common ways of doing business, and the goal for NIMS is so people and resources from multiple organizations can come together and be able to speak the same language or understand each other, know what they're doing, be able to support each other in a way that's scalable and efficient.

Well, what does that mean to a local government? Well, a local government is fighting a fire and there was a rather vigorous discussion of a brush fire off someplace, and say somebody else has a need for a fire resource. So a local government is committed one place or another and somebody calls up and says "Well, I've got a big fire over here." Well, what do you need?

Under NIMS, you have what's called resource typing. So a fire lead in a certain

agency or a facility can say well, I need a Type 2 truck. Immediately, if they understand NIMS, they'll know exactly what kind of crew would come with that, what capability it has. It makes it simpler.

Then and whoever is the responding agency will understand, okay, do I have one available? If not, who has one, and who can dispatch it right away? So the people providing it knows what's needed; the people requesting it knows exactly what to expect when it gets there and what capabilities they have.

The same applies true to things like air tankers, medical response equipment, law enforcement, incident command teams, hazardous material response. So it's a number of things.

Second, when they get there, they will know who to report to, who is in charge, who is doing business and in what manner, and where exactly in the organization they will fit. So it's something brought together by years of experience, and it's still an evolving process.

But the whole idea is to make local agencies, multiple groups that have diverse backgrounds, be able to work together and do it

efficiently. That is why we encourage people to be NIMS-compliant. Our local governments, we do have the grant requirement, that we expect them to be NIMS-compliant.

All of the off-sites that I deal with are NIMS-compliant, and they have adopted the Incident Command System, and it's something that we encourage our utility partners to become NIMS-compliant, to the extent that they understand how it works and how it ties into the process.

In the discussion about providing say, for instance, fire support or law enforcement support to a utility, wouldn't it be much simpler for a utility to be able to call up and say "I need a Type 2 strike team right away." Immediately, they know what's involved there. Or in terms of being able to provide mutual aid agreements.

Nowadays, many mutual aid agreements are structured along that, that not only would they make a commitment that we will keep so many types of resources of this sort available at any given time, and here's how you go about requesting it.

So that in a nutshell is really what

we consider the benefits of NIMS and ICS. ICS is simply a structured, scalable way of managing incidents. In a place that's adopted incident command, the first responder arriving on the scene, you have an incident commander.

So if the foreman has a radio, then okay, we have the incident commander and we have the operations officer. If he has a credit card in his wallet, there you have your administration and support element. So as it grows, as the individual elements arrive on scene, control of the situation and command is handed off in an orderly fashion, and it's scaled up and scaled down as needed.

So I have seen many ICS operations work very, very efficiently and I've seen them coordinate very well with utilities. The next --

MEMBER STETKAR: Harry, before you leave that.

MR. SHERWOOD: Yes.

MEMBER STETKAR: Just for my own sort of personal interest in this, how long has this system been -- you mentioned it's an evolving process. But when did the evolution begin and --

MR. SHERWOOD: Well, now that it's

being adopted, everybody claims to have invented it now. But I could probably say my first exposure to it was easily about 20 years ago, and it emerged from the firefighting community.

MEMBER STETKAR: Let me now bring my personal interest. I happen to live in Orange County, California. Two years ago, during the terrible fire storms in all of Southern California, Orange County responded to mutual aid requirements in Los Angeles County and sent all of our firefighting helicopters north.

When the fires broke out in Orange County, we had precisely zero firefighting helicopters for three days, until they -- for some reason. I don't know why it took three days to fly the helicopters down south, but it did. Why is this little story pertinent? It's pertinent in terms of how does FEMA get involved in terms of nuclear, radiological emergency planning, some of the questions we were talking about before, to assure that the resources are available to respond to these types of incidents?

In other words, I at my nuclear plant, I'll call it San Onofre, since it happens to be in Southern California, require some support from

1 off-site firefighters. How does FEMA and under my
2 emergency plan, I expect to have that support.
3 We heard earlier that it's FEMA's
4 responsibility to provide assurance that indeed
5 all of the resource capabilities are available out
6 in the local firefighting organizations, whether
7 it's police or whatever, to support that emergency
8 plan.
9 It seems to me that under t he fires
10 in Orange County, this was not a radiological
11 disaster, but under the fires, there was no
12 assurance that indeed adequate resources were held
13 back to deal with these types of situations. And
14 indeed, it took them, you know, it took them three
15 days to fly the helicopters down south, not -- it
16 wasn't a couple of hours.
17 MR. SHERWOOD: And that was one of the
18 key questions that we addressed. As you'll
19 recall, a couple of -- at that time, there was a
20 plant shutdown at that time, and for a restart, we
21 had to do a disaster-initiated review. And while
22 the fires were in progress, we did happen to be on
23 site, and that was one of the questions that I did
24 have for the off-site responders.
25 Okay, you've got people scattered all

over Southern California moving people around. Are your key personnel for executing your emergency plan still in place? That was one of the things that we did get assurance on, and during the DIR, we found out that yes, they do that.

If they do have to stage people and provide mutual aid, the people that -- the resources that are dedicated to their particular emergency plan are held in place. If they have to move them, they first bring in backfill and they ensure that those positions are covered.

Otherwise, they would notify the state that something, you know, that they do have an issue with, in terms of being able to maintain that capability.

MEMBER STETKAR: Good. But what you said helps an awful lot. Thank you.

CHAIRMAN SIEBER: Okay.

MEMBER RAY: Yes. We still had to pay for -- anyway.

(Simultaneous discussion.)

MEMBER STETKAR: What I heard is indeed they confirmed that at least those resources to comply with San Onofre's emergency

plan were in place. So that's good.

MR. SHERWOOD: And as part of our plan review process, these are among the things that we do cover with our off-sites. Another thing is the Homeland Security Exercise and Evaluation Program, HSEEP. It's a five-letter word, not a four-letter word.

But that, there has been a great deal of interest in what exactly is HSEEP. HSEEP is essentially a system of a set of tools, again, for planning, executing, evaluating and doing the improvement planning following exercises.

HSEEP actually was a product many years ago, when they started developing a national exercise program, they looked at what were the best-developed exercise programs in the country, and they looked at two of them: CCEP and REP, the Radiological Emergency Preparedness Program.

And a lot of the elements of HSEEP were drawn out of the REP program and incorporated into this system. So what it does is it provides for objective-based exercise planning. So we look at a slightly different way and gradually it will give us a lot more tools to be able to plan our exercises and look at different ways of evaluating

things.

But we look at objectives. HSEEP nationwide, it has what's called a target capabilities list. So they conduct their exercises and the exercise planning based on target capabilities. We have specific criteria that we look at.

So as we incorporate the REP program into the national exercise program, we start looking at okay, what are the commonalities in the program, what can the REP program bring to HSEEP to make it better, and what HSEEP bring to the REP program?

You heard a number of things with variations in the exercise cycle, and what in the event do we have if we have a biennial exercise where there's no release? Well, how do we demonstrate those capabilities then? HSEEP gives us an additional set of tools that we can use. There are other ways that we can look at and evaluate capabilities.

So instead of full-scale exercises, we can do functional exercises, we can do drills. There are numerous opportunities where we can take advantage of regular training opportunities, and

being able to evaluate those capabilities, and do it in a way that first of all, we reduce the exercise fatigue.

Not only are our off-site organizations conducting exercises in response to our program; they're running all over doing exercises for everyone else too.

We want to reduce that exercise fatigue, but at the same time, if they're participating in other exercises, or if they need to meet an exercise requirement for another program, let's take advantage of these opportunities we have in the multiple exercises we're doing.

We also have a process that we can document the outcome of an exercise, and bring it into a planning and improvement planning process. So rather than simply saying ahh, pass or fail, we have a system now to capture the exercise issue. What happened in the exercise; what can we improve, what can we make better, and have a sensible way and a documented way to follow through on making things, making the program better and at the same time if there are issues that do need to be corrected, we have a way of

tracking those issues and making sure that everything that we need to look at gets addressed.

So there's follow-through. It's a systematic approach to conducting exercises that we hope will give us a lot more tools to be able to bring to the REP program, and if anything, make the program more sensible, and at the same time more robust, what we like to call "cost effective," more bang for the buck.

CHAIRMAN SIEBER: I'm thinking HSEEP applies to more programs than just the REP program?

MR. SHERWOOD: That is correct. HSEEP is basically the cornerstone of the national exercise program. You will look at everything from local exercises being conducted by state and local governments to national level exercises. They are all being conducted under HSEEP.

CHAIRMAN SIEBER: For example, there are exercises for aircraft disasters and so forth, the same program. So that way, it's through all of these initiatives, through HSEEP, through NIMS, through ICS, what we're doing is we're bringing this program into, and the way our off-sites conduct business.

So rather than having a separate way of doing business for a radiological emergencies, let's do an all hazards approach. So let's plan, let's exercise, let's communicate and let's respond, the same way we do for our plants as we do for every other type of emergency.

CHAIRMAN SIEBER: Now the off-sites have training requirements also.

MR. SHERWOOD: Yes.

CHAIRMAN SIEBER: In the old days, they used to look at exercises that are exercised every portion of their plan as fulfilling their training requirement. HSEEP doesn't do that, doesn't require exercise each and every portion of your plan.

So do you have objections from state and local officials that say your exercise evaluation program has not permitted me to train and evaluate each aspect of my emergency response?

MR. SHERWOOD: Well, that's where the planning process comes into play, because for HSEEP to be able to do that, it requires that, you know, I for one, as the RAC chair, be able to work with my states and with my off-sites, and meet their training and exercise objectives.

So it's a partnership. They have to tell me what they need to, what their capabilities are that they want to exercise, what objectives they need to demonstrate in order to meet their requirements, and I bring to the table what I need to see during that exercise cycle. So it has to all come together.

CHAIRMAN SIEBER: That shapes what the exercise, what components the exercise will have.

MR. SHERWOOD: Uh-huh.

CHAIRMAN SIEBER: Now in the ordinary planning process, licensees only -- a few of them really knew what the exercise was going to be about before the licensee participated in it. Do you maintain that same carve-out of confidentiality with state and local officials, so that the exercise actually does evaluate --

MR. SHERWOOD: Well, there are certain requirements of confidentiality we still meet. So for instance, we don't, we still maintain that the scenario remains confidential.

CHAIRMAN SIEBER: Right.

MR. SHERWOOD: They know there's going to be an exercise, but that's about all they know.

CHAIRMAN SIEBER: They may not know

exactly when.

MR. SHERWOOD: Well, most of the time they have a pretty good idea of when now.

CHAIRMAN SIEBER: Most of the time they know it's coming this week or --

MR. SHERWOOD: Yeah. Well nowadays they pretty much know the exercise day as well. Now as far as opinions, whether I'm old school, I should think they should be unannounced. That's opinion. That's my opinion, but that's -- but then again, we want to meet our objectives, and that's the main focus.

And there's other, there are other things that we can do as well, where traditionally we looked at everything in an exercise. There's pieces we can bring out of the exercises and look at them separately as well.

MEMBER RYAN: Is there any sharing with the REP program in NSSA for the radiological part of all this, because they have a very similar set up?

MR. SHERWOOD: Well, we do have their support in many of our exercises. So sometimes they come out and they assist us in evaluating our adjusting pathway, or sometimes just in our

regular --

MEMBER RYAN: Are they an expert resource for FEMA and for these exercises?

MR. SHERWOOD: Yes.

MEMBER RYAN: That's interesting.

MR. SHERWOOD: Yes. We use other federal agencies as part of our evaluation team.

MEMBER RYAN: Yeah. So they focus mainly on some of those skill sets, like internal dosimetry, plume modeling, those kind of things?

MR. SHERWOOD: Yes.

MEMBER BLEY: Harry, you began this discussion with something that made me a little nervous, but maybe it changed a lot.

When you said this was based on the very successful CCEP program, the CCEP I was aware of was associated with the chemical weapons program, and at least when I saw it, it was sort of a way to move vast quantities of money from one government area to another. But I think FEMA took it over at some point.

MR. SHERWOOD: That is correct.

MEMBER RYAN: They tell me that it changed a lot after --

MR. SHERWOOD: That's the other side

of the floor. If you go to the headquarter where we operate here in D.C., one half is REP and the other half of CCEP, and that program, about how far along -- is it towards closing down now.

MEMBER RYAN: Moving along, yeah.

MR. DeFELICE: The CCEP program is closing out. We have six Army depots still in existence, and four will be closing out by next year. There will be two. Colorado and Kentucky will be closing in 2017, and I think 2023 are the other. But they'll be around for a while. But yes, CCEP is winding down.

CHAIRMAN SIEBER: Sir, just make sure you identify yourself for the record.

MR. DeFELICE: Anthony DeFelice, FEMA, Office of Chief Counsel.

MR. SHUKLA: And this can be public knowledge?

MR. DeFELICE: Yes.

CHAIRMAN SIEBER: Oh yeah.

MR. DeFELICE: Yes. The CCEP program, Chemical Stockpile and Preparedness Program, yes.

CHAIRMAN SIEBER: Okay, Harry.

MR. SHERWOOD: Okay. Do we have -- are there any other questions about HSEEP or NIMS,

ICS or -- so we've come to the final slide. What do we do next? Okay. We've adjudicated the comments. Basically, we're in that FEMA and NRC regional and headquarters management review and we will continue with that.

As part of our way of life, once we complete our management reviews, it goes on to DHS review and we have to go through review by the Office of Management and Budget. Our target date for publication issuance, we still want to maintain alignment with Nuclear Regulatory Commission rulemaking process. So that's basically my presentation.

CHAIRMAN SIEBER: Thank you very much. We have ample time between now and 11:59 p.m. I suggest we take a 15 minute break and come back at 3:45.

(Whereupon, a short recess was taken.)

CHAIRMAN SIEBER: Okay, I think we can begin again.

MS. PERKINS-GREW: Okay. Good afternoon, Dr. Sieber. Thank you for this opportunity to present in front of you and the rest of the Subcommittee our prepared remarks.

I'm Sue Perkins-Grew. I'm the

Directors of Emergency Preparedness at the Nuclear Energy Institute. I heard some hinting around the Seabrook Station site. I spent 27 years at Seabrook Station before I took a loan position at NEI, coordinating the hostile action-based drill initiative for NEI and now I am permanently with NEI as an employee.

I'm joined here by my colleagues Mr. Mike Slobodien from Entergy, Marty Hug from NEI, Keith Kemper on my right from Excelon and Paul Serra from Dominion. We provided the NEI comments submittal package to you, I think it was last Thursday, so hopefully you have that as a reference, because a lot of the comments that we're going to make this afternoon are based from our comment submittal.

MR. SHUKLA: No, they do not have your comments.

MS. PERKINS-GREW: They do not?

MR. SHUKLA: No.

MS. PERKINS-GREW: Okay. Well, they will be made available at some point.

MR. SHUKLA: No, no. We don't entertain comment directly.

MS. PERKINS-GREW: Oh, you don't.

Okay. Well nevertheless, they are the basis of our comments here today, and I think it's worth noting that not only do my colleagues have extensive experience in emergency preparedness, health physics and nuclear security and just nuclear power plant operations, but a lot of the individuals that have provided those comments --

MR. SHUKLA: But just to correct myself, these comments were provided to the staff before.

MS. PERKINS-GREW: That's correct.

MR. SHUKLA: And you just sent me the copies?

MS. PERKINS-GREW: That's correct.

MR. SHUKLA: Yeah. We don't take those comments.

MS. PERKINS-GREW: Okay. That's a process I didn't understand.

CHAIRMAN SIEBER: But they're a public comments.

MEMBER STETKAR: We have access to them, of course.

MR. SHUKLA: Yes, we have access.

MS. PERKINS-GREW: Yeah, they're on the public docket.

MR. SHUKLA: Thank you.

MS. PERKINS-GREW: Absolutely, they're on the public docket.

MR. SHUKLA: She asked me for you guys to deliberate in the meeting, and we don't do that.

MS. PERKINS-GREW: Just so you have for a reference.

MEMBER BLEY: But we have them.

MS. PERKINS-GREW: You do, okay. I think it's appropriate to open up our remarks with the following statement, that NEI agrees with the NRC's conclusion that the existing basis for emergency preparedness at nuclear power plants does remain valid, including the scope and the timing issues.

And I think the fact that the NRC has affirmed that our emergency plans remain valid, and that the proposed changes are actually enhancements, is the foundation for our remarks. Next slide, Marty.

Our remarks fall into the three topical areas of the process of proposed rulemaking implementation, the cumulative impact on licensees and their off-site response

organization partners, and consideration of state-of-the-art reactor consequence analysis or the SOARCA.

Our first concern with the process regards a proposed or excuse me, implementation schedule. According to the schedule, all 12 rulemaking issue areas must be implemented within a time frame that ranges from 30 days to 395 days. There is little stretch time for the hostile action evaluated exercise, dependent on the schedule of exercises after that published date.

But for all intents and purposes, we're talking a fairly short window of 395 days for all 12 rulemaking areas. This overly-aggressive is not, doesn't appear to be commensurate with the affirmation that these changes are indeed enhancements to the existing plans, and conveys a sense of urgency.

Yet we need to proceed with a very deliberate and disciplined manner for implementation. It took over ten years of a process to determine what these changes should be, yet the licensees and the off-site response organization is expected to implement all of these areas within a relatively short period of time.

These changes require considerable coordination with off-site response organizations, interaction with other recent rulemaking including cybersecurity, regular security, physical security improvements and the fatigue rule, and the program requirements establish and yet-to-be published by FEMA.

We just heard about the eight impact summaries from the FEMA issues, and I think we need to really understand and accept the fact that the off-site response organizations, through the rewrite of the FEMA programming, are going to change extensively, and those plans have to be closely dovetailed with the licensee's plan.

The industry does support enhancing its emergency preparedness programs to heighten preparedness in a new threat environment. I think we demonstrated this by the hostile action-based drill initiative. Over three years, every nuclear power plant and their respective off-site response organizations demonstrated a hostile action-based drill at each site.

Not only that, but NEI developed the guidance that licensees could use in order to conduct a hostile action-based drill, and we've

also submitted Rev. 2 of that guidance document to the NRC for endorsement. So I think we've demonstrated that we are certainly behind the notion of enhancing our emergency preparedness programs.

However, in the aggregate, the requirement to implement all of these rule areas within the short period of time causes considerable burden to licensees and their off-site partners.

A specific example to illustrate this, if you take the hostile action-based exercise requirement to demonstrate within two years of the publication of the rule, that means that, for example, for Excelon in the state of Illinois, they must conduct six hostile action-based drills within a two year time frame.

When you look at the off-site consideration of this, the state of Illinois and respective counties have to conduct six drills using the same response organizations in a very short, within two years.

Similarly, the state of Pennsylvania, they will have to conduct five hostile action-based exercises within two years.

CHAIRMAN SIEBER: And that's from the date of final publishment of the rule.

MS. PERKINS-GREW: Correct.

CHAIRMAN SIEBER: Which is going to be seven months from now.

MS. PERKINS-GREW: Correct. So they have --

CHAIRMAN SIEBER: Two years and seven months.

MS. PERKINS-GREW: But still a compressed period of time when you have to do consecutive redundant drill exercises.

MEMBER ARMIJO: Are they really redundant, those drills?

MS. PERKINS-GREW: They're using, they're concentrating the same resources, which is largely law enforcement. Yes, the scenarios will be different. They'll be varied, from a land-based attack, air attack. I mean that's up to the licensee and the off-site. But you're focused on the same limited resources.

MEMBER ARMIJO: Yes, okay. I understand.

MS. PERKINS-GREW: The second concern regarding the implementation process pertains to a

change in basis or expansion of scope, that will require more time to implement.

What we mean by that is from the time the draft rule was made available, and we started monitoring this, commenting on it, it seems to be, have some expansion from the original, either pre-draft or preliminary rule language or when the statements are made that this codifies the security rule or codifies the Bulletin 2005-02.

The language that we're dealing with now in the pre-decisional seems to have expanded the scope a bit. An example, licensees will have to perform an on-shift staffing analysis within 365 days. We talked about that a lot earlier today from the proposed rule.

Yet the guidance is unclear as to the timing of the implementation. So if a corrective action has to be taken as a result of that in-depth staffing analysis, such as adding additional personnel on shift, it's unclear to us what the timing is of that actual implementation.

This is also why that part of our preparation for implementation of this rule, the industry and NEI have drafted NEI 1005, that is proposed template for conducting this on-shift

staffing analysis, because where we don't want to be in the future is having licensees taking different approaches to conducting the staffing analysis. Therefore, it leads to inconsistency and therefore leads to inconsistency in inspection.

So we have drafted Rev 0 of this analysis template, and we will be asking for another public meeting with the NRC, and ultimately, we would like this to be endorsed by the NRC as the standard for the analysis going forward.

We also see the current reuqirements for the alternate facilities as an expansion in scope from the Bulletin 2005-02. The current characteristics and capabilities seem to be more than codifying the bulletin as it was originally presented.

So again, we're looking for, and I think some of the discussion led down this path this morning, where we need additional clarity to know exactly what it is we are to implement, and how we are going to be evaluated on it. What are the criteria that we will be evaluated going forward, once we reach implementation, and there

seems to be a need for additional clarity.

Therefore, a need for perhaps if there are additional requirements for these alternate facilities, that may mean additional time to implement. Lastly, we've seen that both FEMA and NRC agree with the need to require backup to the alert notification system.

The NRC is prescribing capabilities for a backup alert notification system through the interim staff guidance. Yet the criteria for evaluation and acceptance of the ANS, the alert notification system, resides in FEMA's REP 10.

FEMA's REP 10 report hasn't been updated since 1985. So here, we have the ISG prescribing the backup system, absent a FEMA criteria for which it's going to be evaluated, and the revised FEMA REP 10 manual will most likely be published for public comment, it seems like it could be published for public comment after the Commission even approves the final rule and therefore the guidance documents.

Regarding the cumulative impact on licensees in the off-site response organizations, the cumulative impact stems from the total burden imposed on licensees by the NRC from simultaneous

or consecutive regulatory actions. It may have a consequence of adversely affecting the licensee's capability to implement those requirements, while continuing to operate in construct its facility in a safe and secure manner.

The NRC had been directed by the staff, following a December 8th, 2009 briefing on emergency preparedness, to consider for all future rulemakings, if the schedule for implementation of those new regulations should be influenced by the aggregate impact of the new regulations, and others that may be scheduled for implementation.

The Commission had queried the staff in several briefings last year on the impact of rulemaking implementation dates, noting the overlay of several rulemakings, and again, you know, referring to the cybersecurity rule, the physical security rule and the worker fatigue, placing you know, enormous demands on the licensees.

And again, I go back to the EP rule is focusing on enhancements. So we're just looking at the aggregate impact that that has from the holistic viewpoint of all the other rulemakings that are occurring within the same time frame.

As we heard earlier today, as far as the EP rule, this is just first wave. Once this is complete, we're going to be looking at the initiative that Randy Sullivan talked about, which is the risk-informed emergency preparedness project that will be, I guess will be starting in 2011 as a project.

Also, when we talk about the collective impact on licensees, we also have to recognize the same for the off-site response organizations. The licensees cannot be successful without the off-site response organizations that supports the emergency preparedness process. And again, we looked at a lot of changes that are going to be taking place, that impact state and local response plans and programs.

That has to be done in a very choreographed manner, with the licensee making its changes to comply with the NRC side of the proposed rules. So again, cumulatively, this is, you know, it's very important to us, to make sure that ample time is provided to both our off-site partners and the licensees, to make sure it's deliberate and disciplined.

Lastly, in consideration of the state

of the art reactor consequence analysis, the pre-decisional interim staff guidance states that the NRC will review the final results of SOARCA, and determine if changes to emergency planning bases are warranted.

From the preliminary reviews, conclusions in SOARCA could impact some aspects of the current rulemaking pertaining to 10 C.F.R. 50 Appendix Echo 4.4, 4.5, relating to evacuation time studies and the supporting guidance in the new NUREG 7002.

Further, if the preliminary conclusions of the SOARCA study hold that accident progressions are slower and source terms are smaller than current models, they could be a significant impact on the analyses required in the proposed Appendix Echo, and interpreted in the new NUREG 7002. Next slide, Marty.

So with all that, we just come and offer a few recommendations, most importantly to consider the holistic impacts to licensees concerning the implementation schedule. And although the staff has adopted some of our schedule implementation suggestions from the comment submittal that we provided last October,

we request the same, that the Subcommittee review additional schedule recommendations for the following reasons:

The aggregate impacts from the rule areas and the comments the industry has submitted with proposed guidance we feel would have sewn up some of these clarity issues that we have. However, some of the comments are not in -- were not accepted by the NRC.

We will be providing the NRC another letter detailing the issues of clarity that we still have, and we also will be in attendance for the next public meeting. But again, when you don't have clarity to begin your implementation process, it may impact the implementation time. That's all we're saying.

And the guidance has expanded the scope from what was originally required in the post-9/11 orders and bulletins, so that in some cases the work that we did to comply with those orders and bulletins will have to go back and require re-analysis or rework to some degree.

Then lastly, considering SOARCA findings, we understand that it has yet to be reviewed and finalized. We understand that. But

we request that, you know, that be taken in as a consideration, as the final rules are reviewed.

Taking SOARCA into consideration, you know, there might be consideration of how this impacts the new rule changes as they impact the ETEs, the evacuation time estimates, and we have expectation that the entire concept of the emergency planning zone and the need for protective actions would likely change, once SOARCA is approved.

CHAIRMAN SIEBER: But that's not going to be immediate. That's going to take time.

MS. PERKINS-GREW: We understand that. But we just thought since the ISG referenced the SOARCA, that perhaps, you know, we just wanted to put it on record that we would like it -- if it could be reviewed --

CHAIRMAN SIEBER: But right now, SOARCA is not part of the consideration.

MS. PERKINS-GREW: So that concludes our prepared remarks, but on behalf of my colleagues, you know, we're here to answer any clarifying questions that you may have.

CHAIRMAN SIEBER: So it seems that the bulk of your problems revolve around the schedule

for doing all of the tasks that are necessary to fully implement and test the rule?

MS. PERKINS-GREW: That's correct.

CHAIRMAN SIEBER: Have you come up with any industry estimate of what would be a better schedule, other than never?

MS. PERKINS-GREW: Like I said, we do support -- I'll turn to my colleagues. We did submit our requested implementation time frames for some of these. I would turn to Paul, Keith or Mike to elaborate on what some of those time frames were.

MR. KEMPER: Yes, I can start off. You know, the hostile action-based drills. I mean certainly we agree we need to begin to use those in evaluated settings.

You know, my concern is looking to get all of them done in a two-y ear period. I think that's going to create a significant burden for the off-site organizations, we mentioned, for them to continue to do that.

I would suggest that that gets expanded over the cycle, you know, with approval of the specific dates from the NRC, so that we could accomplish two things. One, what you're

going to end up doing is creating a situation where every cycle starts out with a preponderance of all hostile action-based drills.

If you can spread them over the whole cycle, that's going to leverage learning across the industry, as we learned from other folks doing them, instead of them being in such a compressed time. It will allow the schedule to be normalized, so that the drills across the industry are spread out over time.

So for example, for that one, I would suggest that we look at a pre-approved date for those, but not to get them all done in such a compressed amount of time.

CHAIRMAN SIEBER: Yes. Well, it's a difficult question, and unfortunately it has taken a lot of time to get the, first of all the orders out on hostile actions and then the bulletin, which was four years ago, four and a half years ago.

MR. SHUKLA: About five.

CHAIRMAN SIEBER: And the rulemaking has been, had a lot of extensive work. We're coming up pretty soon on the anniversary of 9/11, 10th anniversary, and it's not clear to me that

anyone could say that our collective actions have been timely, you know. It's just taken a lot of time, and unfortunately various agencies have used up some of that time.

But I certainly appreciate your comments, and some of us having worked in plants recognize that these things don't' happen overnight. On the other hand, with a fine organization like NEI, I'm sure that you'll provide assistance and guidance to your members, that will make them -- make it easier for them to accomplish what they need to accomplish.

I think that we can look at the schedule to see if it's practical or not, and the staff will, I'm sure, do the same.

MEMBER ARMIJO: Well, what's wrong with having, as far as I understand it, the licensees will have the capability to address these hostile actions without necessarily demonstrating them in a drill. So I just don't understand the need for compressing, a compressed schedule for something that's viewed as an enhancement.

I think an enhancement, you know, what's the benefit of trying to squeeze everything

into a very short time frame, if we're in pretty good sh ape right now?

CHAIRMAN SIEBER: Actually --

MEMBER ARMIJO: I don't understand, I don't see that. I'd like to hear a little more about the additional scope that was not contemplated when this started. You mentioned that, and I guess I just missed it.

MR. SLOBODIEN: Let me pick up on the point that you just made. When we, the industry, look at -- and I'm talking about both regulator and licensees, look at the hostile action threats and exercises, we tend to look at it through a narrow window, our window.

We may not take into consideration that the off-site response organizations deal with threats of the kind that we're concerned about in other venues, not necessarily nuclear power plants. They don't deal clearly with the specific attributes of the nuclear power plant, but they do deal with communication, they do deal with takeback, they do deal with a variety of topics that are certainly relevant and included within hostile threats.

So that's one reason, from an off-site

response organization perspective, that compressing exercises into a very narrow and short-term schedule may not be so necessary.

MEMBER ARMIJO: Well, the benefit.

MS. PERKINS-GREW: And to underscore your point, the off-sites, I think Harry mentioned, they have a lot of other exercises they have to do. They can't focus all their time and resources on the nuclear power plant.

So you know, that's again another tension spot that's created when you require them to participate in our compressed schedule. Do you want to address the additional scope, Keith?

MR. KEMPER: Yes. The additional scope, for example, in the off-site assembly areas, there was some wording in the new ISG that came out, that indicated that communication, full communication capability with off-site organizations would be required. Previous versions indicated that if you had capability in your EOF, for example, that you wouldn't need to have that capability at the alternate facility. That has now been added into the alternate facility.

There was also a mention of their had

been comments about classification capability at the alternate facility. Although that's not a requirement, that is recommended in the rule. You know, that would require additional hardware and the facility to be able to monitor plant parameters for that to be a fully functional facility capable of classification.

So not that we don't agree that those things shouldn't be included in those facilities; it's just that we had not planned on that and that would take some modifications, cost changes, things along those lines.

CHAIRMAN SIEBER: Doctor John, do you have a question?

MEMBER STETKAR: I guess I missed something subtly, because I asked a question this morning about the interpretation of collective achievement of those capabilities among all of the facilities that were designated as alternate facilities. You seem to be taking the approach that all of the requirements, all of the capabilities must be provided at each -- I thought the rule and the discussion this morning said that you don't have to have all of the capabilities at each facility.

MR. KEMPER: Well, I think there's a slight difference between what I was saying. The EOF, the emergency operations facility, always had that capability. It's not considered an alternate facility.

MEMBER STETKAR: Okay, okay.

MR. KEMPER: But what it originally occurred in the wording was that the TSC alternate assembly, the alternate facility for the technical support center didn't need notification capability if the EOF could perform that function. Because typically what happens is EOF takes over state and local and NRC communication. Now it appears that we would have to that --

MEMBER STETKAR: Thanks. That clarifies it.

MR. SERRA: And there's subtle differences throughout the bulletin and throughout some of these.

MR. HUG: And we do have a public meeting coming up with the NRC on the 15th of this month, and we'll send a clarifying letter to the NRC on the issues, such as Paul and Keith have brought up. So we're looking to hopefully where maybe our read of the current ISG language may be

different than what the NRC intends us to implement. So we're seeking clarification there.

MEMBER RYAN: Since I don't know who the right person is to address it, but maybe you can expand on this last bullet, on SOARCA findings and ACRS review. What's your view there?

MS. PERKINS-GREW: Mike?

MR. SLOBODIEN: We know that the SOARCA study has not been completed. It has not been completed and reviewed by ACRS. But there is a fair amount of information that's been published by NRC itself, that talks about early conclusions. It's reasonable that these conclusions will hold, albeit perhaps adjusted.

But the conclusions are so significant that we feel it's of great concern that they be considered or we be aware of them, as you deliberate, because they have potential for impacting the whole concept of emergency planning. The concern then is we take actions now to meet the existing rules, and we'll potentially turn around, within a relatively short period of time, and be revisiting this again, with quite a significant effort.

MEMBER RYAN: So I guess the message

I'm taking away is maybe the Subcommittee should understand where SOARCA calculations and the staff are at this point.

MR. SLOBODIEN: And to the extent that the Subcommittee believes that they're of significance to the existing rulemaking effort, make that known to the Commission.

MEMBER RYAN: Okay.

MR. HUG: We believe that the staff has used SOARCA, for instance, in the challenging drills and exercises, if you read the staff's discussion on that and their adjudication of the comments. They state that a non-release type scenario is warranted, because that may be more of the indication of the type of event that you would see.

So it appears to us in some cases that staff has selectively used SOARCA when it suited their basis and not in other areas. We would ask you to take a look at the whole rule and see if SOARCA should be utilized.

MEMBER RYAN: Or not.

MR. SLOBODIEN: Or not. That's an important point. If there's -- from where we sit today, with what view we have, it appears to be

important. Perhaps you have information that would be saying to us and the industry "you're barking up the wrong tree." We don't know that. From where we sit today, it looks like it's important.

MR. HUG: And I believe you had a conversation on classification timeliness this morning. Is 15 minutes still appropriate, you know? If you were to look at SOARCA, you may derive the conclusion that it's not.

MR. SLOBODIEN: It also goes to staffing. If progressions are slower in particular, the importance of staffing in the time frames that -- or under the guidance that we're going to see for the job task analysis appropriate? Perhaps not.

MEMBER BLEY: Well as far as I know, SOARCA has not looked at hostile activities. Have you done anything on your own to consider if that would have an impact on the kind of things one might learn from SOARCA?

MR. SLOBODIEN: One of the things the Commission has said is that hostile actions are not likely or will not affect the physics of an event, that is the progression or the severity.

We believe that's likely to be the outcome as well.

So I think that what hostile action threat really involves, more than anything, is communicating and effectively integrating with off-site response organizations, to accomplish protection of employees, the physical plant and the public.

So things like deployment of personnel, understanding how the facility works, takeback, use of weapons and so forth, those kinds of things are clearly very important. But they don't change the time progression or the severity of an accident, because we believe that they're the same, regardless of whether the initiating event is a hostile threat or something of the traditional scenarios that we're considering right now.

MEMBER STETKAR: But could you explain to me why then the SOARCA is at all relevant to delaying implementation of hostile actions into the emergency planning, and running those exercises? From what you say, you should go ahead with the hostile action type of plans, and --

MR. SLOBODIEN: And indeed we have.

MEMBER ARMIJO: And we should, yes.

MEMBER STETKAR: Okay, absolutely.

MR. KEMPER: Yeah. I don't think we're saying that SOARCA would affect the hostile --

MEMBER STETKAR: You're just saying the source term, it doesn't make any difference whether it's a hostile action.

So a decision on projected doses doesn't necessarily make any difference. But the interface with off-site response organizations and the resources necessary to both aid the plant and do whatever else is necessary in the off-site community could be tremendously different under those scenarios, compared to what the current emergency plans include.

I'm not quite sure that I'm personally very --

CHAIRMAN SIEBER: Optimistic?

MEMBER STETKAR: Well, no. SOARCA is one issue in terms of timing and source term. That's what's coming out from the facility, but on the other hand -- and that can affect an awful lot of times.

CHAIRMAN SIEBER: Source terms, while

the times are maybe perhaps a little longer and the probability of occurrence may be lower, but the event is the event, and perhaps you won't have to use the emergency plan as often.

MEMBER ARMIJO: You may not have to polish.

CHAIRMAN SIEBER: Or the probability that you'll use it is perhaps lower in a real event, that it doesn't necessarily mean that you shouldn't prepare for the real event, because it could happen tomorrow.

MEMBER STETKAR: Well, and in the sense of delaying all of this simply because SOARCA has yet to be published --

CHAIRMAN SIEBER: It's not going to hurt.

MEMBER STETKAR: --is not very compelling, you know, in the sense of hostile actions.

CHAIRMAN SIEBER: I think the public --

MR. KEMPER: I don't think that's what we're saying. I don't think we're saying delay the whole rule for SOARCA. There are certain aspects that SOARCA needs to be included for --

MEMBER STETKAR: I think maybe, you know, when you said you were going to prepare another position paper or a set of questions, that that might help to elaborate --

MEMBER RYAN: Are you going to -- on this in your next meeting?

MS. PERKINS-GREW: Perhaps yes. Yes.

MEMBER RYAN: Okay.

MR. KEMPER: Absolutely.

MR. SLOBODIEN: You mean the meeting with NRC staff on --

CHAIRMAN SIEBER: Yes. Well, I think this is a policy matter as opposed to a technical issue, and that's sort of up to the Commission to decide, from a policy standpoint, unless it's clearly impossible. It doesn't appear to me and perhaps my colleagues would give me better advice. But it doesn't appear to me that it's impossible.

Actually, after TMI, I remember working very hard to get prepared for emergency planning at that point in time also.

MEMBER RAY: What do you mean, Jack, "it doesn't appear impossible"?

CHAIRMAN SIEBER: To meet these schedules.

MEMBER RAY: Oh. Well, I think insofar as SOARCA is concerned, wasn't the question whether or not you should do what you're going to do without the benefit, whatever it may be, of SOARCA, or whether you should somehow arrange to take into consideration what the results of SOARCA, so you don't wind up doing things twice, particularly since most of the people affected are not in this room or represented here even, but they're out in all the agencies around the place, and if you keep coming, taking bites out of the apple, at some time they'd tell you "go away. I don't want to talk to you anymore."

MR. HUG: The rule is broken down into two distinct sections, a security part and a non-security part.

CHAIRMAN SIEBER: Right.

MR. HUG: I think, and Mike tell me if I'm wrong, SOARCA considerations really affect mostly the non-security portion of the rule.

CHAIRMAN SIEBER: That's right.

MR. HUG: So on your question, would you delay the hostile action, you would not.

MR. SLOBODIEN: No.

MR. HUG: We agreed to get the hostile -- in fact, a lot of that's already been implemented.

MEMBER RAY: Thanks.

CHAIRMAN SIEBER: Okay.

MEMBER ARMIJO: But it's these exercises that you say are unrealistic, to try and squeeze everything into a two year period. In other actions that the staff has promoted, there have been pilot studies. Do you have thoughts along those lines of the hostile action of a certain scenario being a pilot for this program, without having to --

MR. KEMPER: Yes. "We've been through the pilots already. Every site has run a hostile action-based drill, you know, through a pilot process. So we've already demonstrated that we, you know, can do it. It's just a matter of having it as an evaluated exercise for NRC and FEMA in that tight time frame.

MEMBER ARMIJO: So just to, what resources would it take to do one of these exercises? You know, what are we talking about? Is it several man years of resources?

MR. KEMPER: Many man years of

resources.

MEMBER ARMIJO: Many.

MR. KEMPER: There's first --

MEMBER ARMIJO: I mean per plant.

MR. KEMPER: I'm talking about per plant. There are first an effort to coordinate with off-site response organizations, of which there are a few, quite a few, to provide requisite training, to ensure that procedures and plans are up to date, and even though we've done this in a pilot already and have done much of this work, there are new people coming in all the time who need training, qualification, and we are building upon the lessons that we have learned from the pilot study.

The coordination with federal agencies, with NRC and FEMA alone, is fairly extensive in the scenario development, to get a scenario designed and reviewed and acceptable to all parties, someone that may require negotiation. Certainly, it's complex, because we're dealing with both an on-site component and the off-site component.

The on-site component is something that we're relatively used to. We've been doing

that in exercises as a routine. It's the off-site component, particularly dealing with the many law enforcement agencies. We deal with, for example, in -- I'll cite one example from the state of New York.

The state police, county police, county and local fire departments, the FBI, and then sometimes we would want to incorporate, based on input we might get from NRC and FEMA, those organizations both as evaluators as well as participants. So it's a fairly extensive effort.

MR. SERRA: And if you take the state of Virginia, when you've got North Anna and Surry with two plants, you're talking about utilization of the same resources between now and 2014, or whenever it gets approved, using those same resources time and time again.

MEMBER ARMIJO: So to pull off one of these exercises, what's your estimated time from start to finish, a year?

MS. PERKINS-GREW: A year.

MEMBER ARMIJO: It's a year per plan?

MS. PERKINS-GREW: Yep.

MEMBER ARMIJO: To pull it off.

MS. PERKINS-GREW: Uh-huh.

MR. SLOBODIEN: These exercises may involve as few as 100 to perhaps as many as 1,000 people, involving various both as participants and controllers, organizers, structural members. It's quite a large effort.

MEMBER ARMIJO: Okay. I appreciate that information.

MR. SERRA: And many, many volunteers.

MEMBER BLEY: Well, one thing wasn't clear to me. Do these have to be done, say for a two unit site, for each unit? The state of things you can't combine them and do --

MR. SLOBODIEN: It's a site by site.

(Simultaneous discussion.)

MEMBER BLEY: By site. So a two unit site that does an eight-year window. Once this gets rolling, two years right now.

MR. SERRA: But there are two sites in Virginia.

(Laughter.)

MEMBER BLEY: Yes, okay.

MR. KEMPER: Yeah, the biggest concern is that it's going to impact our off-site organizations, and negatively -- the workload is going to impact their ability and willingness to

support us. That's really the big concern, at least for me.

I'm speaking for myself, and I'm concerned about the state of Illinois and the state of Pennsylvania, looking at this additional workload at a time when, you know, budgets are tight and things along those lines. I'm not disagreeing at all that we need to do this. I'm just concerned about six and five per my two major states.

MEMBER ARMIJO: So if we issued the regulations that require you to do it, and the states can't support you, and we certainly don't regulate the state activities, then you'd have to come back for an exemption or a waiver or something like that to get more time, on a case-by-case basis?

MR. SERRA: That's my understanding.

MR. HUG: Absolutely.

MR. SLOBODIEN: And to conduct such an exercise absent the off-site response organizations has no value.

MEMBER ARMIJO: No, and I agree with that.

CHAIRMAN SIEBER: Okay. Any other

questions?

(No response.)

CHAIRMAN SIEBER: Okay.

MS. PERKINS-GREW: Thank you.

CHAIRMAN SIEBER: Thank you. Do we have an additional industry representative?

MR. SHUKLA: No. There's no one.

CHAIRMAN SIEBER: Okay. They're all together. Okay.

(Simultaneous discussion.)

MR. SHUKLA: They decided to come together.

CHAIRMAN SIEBER: Okay, good. I think what we need now is the staff summary remarks.

MEMBER STETKAR: God Jack, according to your time, we also have something like, I don't know, seven hours and 36 minutes that they can wrap up.

MR. SULLIVAN: That's plenty of time.

MEMBER STETKAR: Plenty of time.

MR. SULLIVAN: That's not a problem.

CHAIRMAN SIEBER: That was my original prediction, eight hours.

(Off record comments.)

CHAIRMAN SIEBER: Okay, Bob.

MR. KAHLER: Okay. I'd like to give you some closing remarks from the staff, and I would like to respond to some of the comments that were made by the industry here this afternoon, also. If I could, in order to clarify, I believe what has been mentioned at public meetings in the past, and also what is in our comment summaries were some of the comments that we've received from the industry.

But as part of my closing remarks, I would like to present to you what current future activities the staff has planned with regard to the rulemaking project.

As you know, shortly after the EP rulemaking documents were provided to you, the staff made the draft final rule language and NRC guidance documents publicly available in ADAMS, on regulations.gov on October the 8th.

I'd like to say that is indicative of this being one of the most open and transparent rulemaking efforts the NRC has ever undertaken, that has engaged off-site, or excuse me, has engaged stakeholders throughout the entire rulemaking process, as we indicated on the chart we have provided to you and our presentation.

And also included in that was engagement with FEMA, with our off-site stakeholders, that have been along with us the entire rulemaking process, such that we have been listening to what they have been telling us, and we have incorporated a lot of their comments along the way, as we've been preparing the rule.

The 150 day comment period is almost an unprecedented comment period that was available, along with 12 public meetings in six different locations, along with web conferencing, touching out to as many stakeholders as we could, in order to have them fully informed, in order to help, aid them in providing us their comments.

CHAIRMAN SIEBER: You may have achieved a record number of comments also.

MR. KAHLER: We may have, and you know, Dr. Sieber, I would just say that whenever we contracted this with a vendor, and we were talking with the vendor and I was telling him about the number of comments he should expect to receive in order to bid, I was telling him upwards around 1,000 comments for us and probably even more for FEMA, and they were kind of shooing me, and saying no, couldn't be. If you get more than

200, that's going to be phenomenal as it is.

CHAIRMAN SIEBER: Should have gone for a firm price.

(Laughter.)

MR. KAHLER: As I said, we received 700 comments and FEMA over 2,300 comments. So as you can see, there was a lot of input provided to us, and also a lot of back and forth. I believe that came as a result of this open and transparent rulemaking, in which there was a lot of interest. There was a lot of people providing us the comments, and they were fully educated on what we intended in the rule.

However, with FEMA, NRC staff, which was myself so far, Randy this week and Don in the future, and other staff members as they become available, will be attending with FEMA and mostly at their coordination and their request, several meetings with our stakeholders, now that we have the draft final rule on public record, in order to present it to them and let them know how we've adjudicated their comments, and also to help clarify some of the points that they may not have realized how our comments were intended to -- or how their comments were incorporated.

And that was again, to inform them of the rulemaking progress and activities, and we have committed to continue to keep our stakeholders involved in our rulemaking process. As has been stated here many times, the NRC staff will be conducting a public meeting November 15th at the Rockville Hilton, just down the street from the Twinbrook Metro, to specifically discuss the implementation dates for various rule topics.

That meeting was generated by the NRC staff. That didn't come from comments received from industry, for requests for another set of implementation dates.

That was as a result of the Commission briefing received on December the 8th, and ongoing work within Nuclear Reactor Regulation, in which they're looking at the cumulative effects of all the rulemaking and how to approach that issue for the rulemaking process.

We became aware after we had in our FRN last year, from May to October of last year, during a public comment period, the request for input from industry, stakeholders, states, whoever wanted to reply to us, a request for input on those implementation dates. We were looking for

that insight as to what that cumulative effect would be, what our impact would be on the state agencies, in the locals, on the licensees, on all of the implementation dates for all portions of the rule.

We received comments from the licensees. Not many came in from the stakeholders such as the states, and it became somewhat apparent through discussions that this cumulative effect may not have reached out in order to look at the impact upon state agencies or even cumulative effect on the licensees themselves.

So we have committed to having this additional public meeting, in order to have an other round, go-around. But quite frankly, we'll be needing some pretty compelling evidence as to why it would be that their original request for input comments that we received as a result of that request for input, would have changed from what we previously adjudicated, okay, because we have reasons why we either accepted them or rejected the comments we received.

To continue on with this, let me see. We also, as we go out talking and we have informed our state agencies, we want to hear from

them during this implementation date public meeting on November the 15th.

MEMBER STETKAR: I was going to ask you. Have you made any -- I know you can't call people in.

MR. KAHLER: Yes, we can. As a matter of fact, we emailed --

MEMBER STETKAR: That's what I'm saying. Have you made efforts to try to elicit that input --

MR. KAHLER: Our state liaison officers at every region has been informed of November 15th. They have contacted their states. They have told them about this. I have, in our meetings and in the meeting announcement that went out. I believe the individual here who helped put out the meeting announcement, maybe she's gone.

We did indeed contact our local groups in order to get the word out to everybody on this November 15th meeting.

MEMBER STETKAR: You have made positive efforts to try to elicit input from those other stakeholders.

MR. KAHLER: Yes, we have.

MEMBER STETKAR: Good.

MR. KAHLER: Yes, we have. Some of the things I'd like to continue on with here is that we have been continuously sensitive to this impact of the rule on our licensees, the off-site agencies and the applicants for the new reactors, as well as preparations for us, NRC and FEMA staff, in order to evaluate their conformance within the requirements and the guidance.

So we're also sensitive to the fact that once we put the rule out there, we have to prepare to evaluate it also, and that's another portion of what FEMA and ourselves are going through. With that, as you know, continuing the submittal of the EP final rule package to you. It is then going to be prepared, if you want to call it that, for submittal to the executive director of operations.

That current date on schedule is for February the 11th, and to the Commission on February the 28th of 2011. So that is our target date as we have shown in some of our previous slides.

Once we give it to the Commission, our job does not stop there. We will continue our outreach efforts with the public, which will

include implementation workshops with the licensees and with the state agencies.

CHAIRMAN SIEBER: Once you send it to the Commission, opportunities to change the rule cease?

MR. KAHLER: That is correct.

CHAIRMAN SIEBER: So it becomes frozen the day you sent -- the day it goes to the EDO?

MR. KAHLER: That is correct. What we want to do though is these workshops are not to discuss -- let's put it this way. We see it as a two-stage effort, in which the first round of public meetings we're going to have is going to be discussing what would be included in our assist public workshops, after the rule is finalized and published.

Okay. This is going to be discussing implementation schedule, and not the implementation dates, as much as what do the licensees and the states want to see in future public meetings and workshops? Are we all in agreement? How much time should we spend in some areas?

So there is a collaborative effort for creating these workshops on implementation. So

that's what we envision right after we give it to the Commission, and also that if I can, to answer a few other items that were brought up here just recently.

Let me see. I believe the alternative facility, when it was discussed about the EOF and the fact that can it be used, the communication links and so on, there is nothing in guidance, there is nothing in rule that eliminates usage of the EOF as an alternative facility.

The only thing, and we've heard it again today, is Accessibility.

MEMBER STETKAR: If it's not accessible --

MR. KAHLER: If it's not accessible, you need another facility. But you can utilize your EOF as your alternative facility if it's accessible. We're just saying something other than the on-site facility, okay, that they would normally go to, which they cannot access. You need to have a facility off-site they can access that has these characteristics. It can well be the EOF, okay.

Nothing has ever said, nor have -- and we have in the past mentioned yes, you can, okay.

MEMBER STETKAR: Thanks.

MR. SULLIVAN: Let me take another one of those. I sense that either we haven't communicated well or there's a mistaken impression, but the schedule for hostile action drill implementation is we want to see it in the first biennial exercise that's more than a year out. So in fact there is potentially a three-year window or so --

MR. KAHLER: It could be even longer than three years.

MR. SULLIVAN: It could be longer, and there's no intention for us to have a state like Illinois, with five sites right next to each other, all do them one right -- all do hostile action events one right after another.

Now we didn't know what's best for them. We wanted them to ask us for a different schedule, and we'll certainly consider that. But there's no intention to have -- I mean some of those share the same county. You know, we wouldn't ask them to go one by each.

CHAIRMAN SIEBER: By the time they're done, they ought to have it down pretty well.

(Laughter.)

MR. KAHLER: First of all, I would expect quite honestly that the biennial exercise schedule is set up such that the state of Illinois isn't taxed in order to do back to back exercises with two counties.

That's something that's worked out between the state and facilities, such that a biennial exercise now would be taxing on them, doing two concurrently utilizing the same counties or whatever.

MR. SULLIVAN: But perhaps we weren't smart enough to know how to tell Illinois how to schedule that from here in Washington. We were doing it in the reverse, and asking them to tell us what works for them.

And Pennsylvania's a different kettle of fish, because the plants are kind of spread further apart, and once again we don't know what's best for Pennsylvania, but we're happy to consider those things, and I don't know where that was lost in the message, because it isn't a lock-step go do it all one by each.

But in any case, I understand there is miscommunication.

MR. KAHLER: Well, if I can, maybe I

can bring it up here.

MR. SULLIVAN: Well, I mean I think, I think the members have heard our view and it maybe wasn't communicated well to industry.

MEMBER ARMIJO: You're not that far apart then, the way I'm kind of hearing you, because --

MR. TAILLEART: We did put provisions in the final rule *Federal Register* notice, because we recognized for states with multiple sites, it would be -- could create a burden, would likely create a burden for them to do all these exercises in a short period of time.

So we did ask or make provisions for those states to work with the licensees and get back to us with a schedule, an alternative schedule, that they felt more comfortable with, and we'd take a look at that.

CHAIRMAN SIEBER: That requires coordination among the utilities in a given state, because the state is not going to write an EP for each facility. So there has to be another organization --

MR. SULLIVAN: But I don't know how to do that.

CHAIRMAN SIEBER: It used to be in Pennsylvania. Now the difficulty there was one of the plants had the EPZ extend into two other states, two NRC regions, two FEMA regions and that made it a little more complex, because you had to get two states to agree.

MR. KAHLER: And actually the -- we're not asking for a HAB drill to be performed in addition to a normal biennial evaluated exercise. It is one of the biennial evaluated exercises. So it's something that they should be preparing for in advance anyway. So the off-site agencies would be taxed with conducting an exercise with that site anyway.

It's just a matter of a different type of initiating event, which is a hostile action, and we do agree that in September 11th of 2011, that's going to be the 10 year anniversary, we don't want to delay any further the evaluation of the capability of a site and off-site agencies to respond to a hostile action event.

It's not as if we don't want to listen to if there are some sort of burden placed upon licensees or states, again November 15th, but we believe that we should be progressing along,

rather than trying to delay.

MEMBER STETKAR: In the sense, just for the record, I did look up the statement of considerations for the rule, and indeed it does say "Licensees and states with multiple sites may work with the states and FEMA to submit requests to the NRC for different implementation schedules for the new exercise requirements, if licensees would not be able to meet the new requirements within the required time frame."

CHAIRMAN SIEBER: Right.

MR. KAHLER: That was in the SOC.

CHAIRMAN SIEBER: In the statement of considerations.

(Simultaneous discussion.)

MR. KAHLER: And to let you know, it's not a two year time frame that Illinois might be spanned across, because as we stated, it's 395 days from the date of publication, 365 days from the effective date, that if it becomes effective on September the 1st of 2011, then only those utilities that would have an exercise, the next biennial exercise afterwards.

If they're doing one between September 1st and December 31st, they would have to do one

in 2013. If they do one in 2012, they've got to do one in 2014. So that extends it out even three years beyond, three years and four months beyond the effective date of the rule, where they could actually perform an exercise in December of 2014, possibly the state of Illinois. So it's not going to be crammed into a two-year time frame.

So all I'm trying to say -- but again, the statements of considerations provides for requesting some sort of relief, as we saw that.

CHAIRMAN SIEBER: You know licensees have had an opportunity to make comments. Have the States made comments with regard to schedule?

MR. SULLIVAN: Yes, oh yeah. Oh, with regard to schedule?

CHAIRMAN SIEBER: With regard to schedule.

MR. SULLIVAN: I don't believe there was many comments received on the schedule.

MR. TAILLEART: The only comment I recall from the states did concern the initial hostile action exercises, and for states with multiple sites, the comment was we would like more guidance on how to schedule these, and we looked at that and we go we really, from my point of

view, don't know what the right guidance or schedule would be. So you tell us what would work for you.

(Simultaneous discussion.)

MR. SULLIVAN: There was a lot of comment on extending the cycle from six to eight.

CHAIRMAN SIEBER: From the states?

MR. SULLIVAN: Yes, from state and local. It was -- it's just going to be predicable again, but if you'll give us -- if you expand the cycle, they'll be more scenario variability possible.

CHAIRMAN SIEBER: And that's not a bad idea.

MR. SULLIVAN: No, it's not a bad idea. I'm fairly pressed to talk about SOARCA a little bit. I know that I've met with some of you and discussed SOARCA, and I've had the privilege to contribute to that project.

Can I start out by saying one item to try to say, because it was mentioned about how the rule alludes to SOARCA being used to create the no release scenario. That did not happen. That was a direct result of the SRM coming out of SECY 0602, as a result of the Commission directing for

varying exercise scenarios.

MEMBER STETKAR: The ISG refers to SOARCA. The rule doesn't.

MR. SULLIVAN: That's correct.

MEMBER STETKAR: Plus SOARCA isn't mentioned even in the statement of considerations.

MR. SULLIVAN: No, it's not. But the birth of the thought process of varying scenarios and including no release/minimal release, it was stated earlier about how that was possibly a result of SOARCA, because SOARCA identifies the possibility or the probability of no release accident type of scenarios.

That's not the reason for it. It's a reason of varying scenarios, in order to get away from that preconditioning that we talked about, and that was a direction from the Commission before even SOARCA identified any of those kind of items.

CHAIRMAN SIEBER: You can -- when you found out a drill was to occur, you could almost predict the times, that you would go from, you know, to site area --

MR. SULLIVAN: To dessert, to a wind shift, yeah.

MR. KAHLER: But now I'll turn it over to Randy for SOARCA.

MR. SULLIVAN: But I have to tell you, I'm you know, having been involved in SOARCA and as a staff member I wish it was published already.

CHAIRMAN SIEBER: It's not.

MR. SULLIVAN: However, it's not, and we're not going to use it for regulatory issues in itself, SOARCA has interesting things. SOARCA has shown us that rapidly developing general emergencies are major events we should be preparing for.

CHAIRMAN SIEBER: That's right.

MR. SULLIVAN: Now that's not necessarily a release. The release is delayed and it's shorter, but the way we define general emergencies today, they can develop very rapidly. Hence, the protective actions would be done rapidly, let's just say. And so I don't --

CHAIRMAN SIEBER: Well, it makes decision-making more difficult because evacuation may not be appropriate in a rapidly-developing emergency.

MR. SULLIVAN: Well, may not, may not, and --

CHAIRMAN SIEBER: Under meteorology.

MR. SULLIVAN: I think and I realize without the document being published, I'm sort of saying "trust me."

MEMBER RYAN: That's really a key point. I mean without, you know, without "here it is," how can we react to it? I can't.

MR. SULLIVAN: Okay. So I've done this for a living for 35 years and I've been deeply involved in SOARCA. I did, I am the principal contributor to the emergency preparedness part of it, and in my opinion, it is not a basis to change our rulemaking or our current basis.

CHAIRMAN SIEBER: Okay.

MR. SULLIVAN: But you'll make your own judgment when it's published.

MEMBER RYAN: So that's -- I mean I think, correct me if I'm wrong, but the licensees are in that category too. They don't have it either.

MR. SULLIVAN: Of course they are. Of course they are.

MEMBER RYAN: So I mean the uncertainty of it is probably part of it. So you

know, at what point in the scheduling in the process would they get it to react to? Late in the game, it sounds like.

MR. SULLIVAN: The schedule's changed so often I can't even tell you when it's --

MEMBER RYAN: So it's late in the game and in the fog.

MR. KAHLER: So we don't want to delay the rulemaking in waiting for not only SOARCA being published, but for Commission direction on policy change to utilize --

MEMBER ARMIJO: So we're back to the "trust me" part. So why did we spend so much time and money on SOARCA, if it doesn't contribute to our regulatory policies?

MR. SULLIVAN: I think the way SOARCA is laid out, it in itself is not the tool for regulatory change. I see regulatory change growing organically out of SOARCA. Like for instance, we'll use it to take a look at risk informing emergency preparedness. That will be part of our deliberations. It will flow from SOARCA, but it's not SOARCA.

So for instance, we need to look at hostile action events and SOARCA, and maybe take

another look at natural events, like the large earthquake and that sort of thing. We need to combine those things. So I see it growing organically out of that.

MEMBER RYAN: I'm not sure what that means.

CHAIRMAN SIEBER: Emergency planning right now is totally deterministic.

MR. SULLIVAN: Yes.

(Simultaneous discussion.)

MEMBER ARMIJO: And that's a change from deterministic and probabilistic genre is going to take a lot of time, and you can't afford that. You can't afford to wait four or five more years to get a new rule in place.

MR. KAHLER: Yes. Dr. Sieber, the performance-based risk EP project has commenced. We have started it. I mean when it was said that it's not to commence until later, it has commenced. But what has commenced is two items. One is risk-informing EALs. That has commenced. That portion of the study and it's being performed by our own research group here in the NRC.

But the first portion of it is a feasibility study as to whether or not we want to

have a performance-based EP. Not so much as we want to have it, as much as is it the right thing to do? Is there a technical basis that we can provide for one, in order to develop a performance-based EP?

CHAIRMAN SIEBER: And the question is regardless of how well-founded technically and probabilistically that might be, will the public accept that?

MR. KAHLER: Or will we --

CHAIRMAN SIEBER: It's quite difficult to understand.

MR. KAHLER: But the other item is part of the study is to determine if the performance-based EP is to either replace the deterministic EP regulations we have now, or to be an option to them. So that hasn't even been determined.

CHAIRMAN SIEBER: It will be interesting.

MR. KAHLER: It's interesting. It's very interesting to see the results of the study, which we don't have. It's still baking, as Randy would say.

CHAIRMAN SIEBER: I think okay. That

will be interesting.

MR. KAHLER: If I can then?

CHAIRMAN SIEBER: Okay.

MR. KAHLER: If I can conclude, in closing I would like to take this opportunity to thank you for being able to provide our input on the draft final rule for you to make your recommendations to the full committee, which we look forward to on December the 2nd, just a short month away.

I would also like to thank our partners at FEMA for the collegial and collaborative effort throughout this challenging endeavor. It has been a quite monumental task, not only with the fact of the stakeholders we're involved with, the amount of public outreach we did, but actually the undertaking of all of the rulemaking topics and the guidance documents that went with it, and to make it align, such that they're all going out hopefully at the same time. That's our current plan.

We consider this interagency coordination to have been quite valuable, and we are committed to maintaining this collaborative effort with FEMA through the completion of this

process, and ultimately its implementation workshops and so forth.

So with that, I'd like to end the NRC staff presentation portion of the meeting, and I want to thank you again.

CHAIRMAN SIEBER: Thank you, and I will join you in congratulating FEMA for their cooperation and their work effort in this process, because without that, your task would have been much more difficult if not impossible.

At this point in time, what I'd like to do is ask if there are any public comments that anyone would like to make?

MS. PERKINS-GREW: No, but thank you.

CHAIRMAN SIEBER: Okay. If there are no public comments, again I thank the staff, but before we adjourn, I would like to go around the room and ask the members, since we will write a final report.

I tried to at least put the outline of that together before our next meeting in December, with the full committee. I would like to ask the members their impression and what they believe are issues that ought to be discussed and elaborated on in that final report, and John, I'm going to

ask you first if you have any comments. You may submit them in writing if they're too voluminous to state.

MEMBER STETKAR: No, no. I'll try to be brief here, so that the onus is on you.

CHAIRMAN SIEBER: Okay.

(Laughter.)

MEMBER STETKAR: I think my only comments are with regard to NUREG 7002.

CHAIRMAN SIEBER: Say that again?

MEMBER STETKAR: NUREG 7002, the evacuation time estimate NUREG. I guess I'm a little disappointed that that NUREG was issued final in May. I wish we had had the opportunity to look at it while it was still in progress.

MR. KAHLER: It's still draft.

MEMBER STETKAR: It's still draft?

MR. KAHLER: Still draft.

MEMBER STETKAR: Oh.

MR. KAHLER: It will not be issued until the final rule.

MEMBER STETKAR: It has a date -- ahh.

MR. KAHLER: It will be issued on the same date as the final rule.

MEMBER STETKAR: I'm less disappointed

than I was 30 seconds ago.

(Simultaneous discussion.)

MEMBER STETKAR: It had a date on it, and it didn't say "draft." So I was under the impression that it was already final.

CHAIRMAN SIEBER: If we review it, we have to review it in conjunction with the EP rule.

MEMBER STETKAR: Well, I mean --

CHAIRMAN SIEBER: We're not going to get it separately.

MEMBER STETKAR: Reading it, you know, without the background of the EP rule would have been a bit difficult. But anyway, thank you. I was just educated.

CHAIRMAN SIEBER: Okay.

MEMBER STETKAR: My only comments on that, and I made the this morning, so I won't belabor the details, are that I believe in terms of guidance, that with some relatively, in my opinion, minor changes, the completeness of that guidance, in other words, the -- as a guidance document on how to think about framing that problem, could be enhanced substantially, so that questions about perhaps arbitrary selection of scenarios might be ameliorated.

The other issue is its lack of any treatment of uncertainty at all in that process. I'm not necessarily advocating full integrated quantification of uncertainty, but uncertainty is basically not addressed at all.

As far as the other documents, the rule itself or the reg guide or the ISG, I don't have any more comments on this.

CHAIRMAN SIEBER: Okay. Mike?

MEMBER RYAN: I'd second John's points, but this last point about SOARCA, I guess I really haven't sorted it out where we stand from, you know, it's not available to the licensees. It's not available to us yet. It's somehow the foundation for, you know, what you're presenting. So that doesn't seem quite right to me.

You know, you're using it or getting insights from it or it's going to be used to get insights, and I'm trying to understand what's going be done with it, by whom and when, and how does that impact the schedule. So maybe that's a $60,000 question; maybe it's a $2 question.

I'm not looking for you to answer it today, because we're going to get back together at

the full committee meeting.

MR. KAHLER: Okay.

MEMBER RYAN: But I think that's potentially a comment for a lot of us, to try and understand how that's going to work, and does it have any negative impacts and what are the positive impacts of moving forward with it versus the burdens and the negative impacts, because there probably is trade-off there, I'm guessing. So that's what we're looking at understanding. Thank you.

CHAIRMAN SIEBER: Thank you. Harold?

MEMBER RAY: Well Jack, I'm like John. I guess I'm not thinking that uncertainty can be beneficially addressed here. I tend to think of emergency planning as having this huge audience of involved parties, and I'm not sure that they're -- that they would be able to make use of a discussion of uncertainty. So I would be disinclined to go there.

I tend to think of emergency planning, I guess, maybe in terms that are now becoming somewhat out of date, but I'm not sure. That's why I listened more than had anything to say, except at a couple of points along the way here.

But basically, I look to see if the relationships and the parties involved in dealing with an emergency are properly identified and exercised, rather than look to see if there are criteria that adequately envelop all of the possibilities that may arise, because I don't think that's possible.

I say all of that just as a preamble to, I guess, concluding that there isn't anything that I would offer, that I think would end up in comments from the committee, other than that we have reviewed what's been done here, and tried to see if there's anything that we can identify.

Personally, I couldn't offer any suggestion in terms of where something is, needs to be, needs to be modified. I'm sort of elaborating here on why I think that way. It's because I put emergency planning, I guess, in a category different than other things we often deal with.

I do think that the responsibility of the agency to insist that adequate participation by all of the entities involved in emergency planning should not be diluted.

In other words, I've always lived in a

world in which the NRC put the burden on licensees to make sure they got all the right support for their emergency plan, and it was up to them to do whatever they needed to, to see that that happened.

The responsibility of FEMA is something I'm still trying to better understand. I'm used to dealing with a state office of emergency services or county office of emergency services, that sort of thing, and they were always in the mode of okay, what do you need us to do and if we can do it, we'll certainly do it, and if we need so me help, we'll tell you.

You know, that's kind of the way I've looked at it. I understand there's another dimension now that I haven't had experience in trying to implement, which is specifically the threat. It's a long-winded way of saying I can't offer anything specific that I think needs to be addressed that hasn't been.

CHAIRMAN SIEBER: Thank you. Dennis?

MEMBER BLEY: Yes. I'd like to thank staff and industry for these presentations. I've learned a lot going through them. Indeed, it's been a broad and open rulemaking process. But

indeed, it should have been. There's a lot of organizations and interested parties to coordinate. This is a real tough area to make work smoothly.

There's a couple of things I'd suggest, and maybe you could give it a little thought before you come to the full committee. It seems as though there's a couple of areas where language is still not completely transparent to all parties, and maybe you can think about how that could get cleaned up and that might help, in areas that were discussed today.

I, like John, think some discussion and consideration of uncertainty would have been useful. I'm not saying PRA, although I think eventually I'll be real interested in your looks at risk-informed EP. I think some very useful things might come of that.

But I've never seen an occurrence where people took the time to identify the sources of uncertainty and characterize them, that they didn't in the end say that was very useful and change the way I organize things or the way I pick things.

I've never worked with, and I've done

some, with first responders and local planning organizations, where I'm not talking about C&D total distributions, but having that characterization of uncertainty where the problems are, where they didn't appreciate having a better understanding of how these things could affect them and affect their planning.

So I think there are ways in which it could be addressed qualitatively, that would have been very helpful. Those are the main things, but overall I think it's been a heck of a job, and I'm real impressed with what was brought to us.

MEMBER RAY: Can I comment on what you said, Dennis? The concern I have with uncertainty is that all of this is done in such a, like I say, such a large group, such a public forum, that expressions of uncertainty become easy to misunderstand.

MEMBER BLEY: So are expressions without uncertainty.

MEMBER RAY: Well, I'm not so sure.

MEMBER STETKAR: Harold, a lot of the background of talking about uncertainty is in fundamental criteria for declaring emergency action levels. But a lot of the background

analyses, for example, those emergency -- the evacuation time estimates, you know, those are not performed in a public forum, where somebody comes in and argues that no, I sat at that stoplight and it took 27-1/2 seconds and you're characterizing it as 32.3 seconds.

There's a lot of detailed background analyses that feed into that whole emergency planning process, and that's the area that, you know, I'm talking about. It's transparent in the sense that it eventually gets translated into --

MEMBER RAY: Okay. Well, maybe I don't --

MEMBER STETKAR: --input to the decision process.

MEMBER RAY: Maybe I don't understand, then, what you guys are suggesting. So I'll leave it at that.

CHAIRMAN SIEBER: Yes, Sam.

MEMBER ARMIJO: Yes. Hearing the discussion, I came to the conclusion that maybe the staff and the industry aren't that far apart on the issue of the schedule for these hostile action exercises, that there is more flexibility than perhaps the industry thought.

But I think there's plenty of room for working out something that's not only timely, but reasonable. The reasonableness test should be applied. So I'm hoping that maybe you can sort that out in the next public meetings.

I do have a problem with not using the insights from SOARCA in the -- to make sure that this rulemaking doesn't have excessive requirements.

My limited exposure to SOARCA is that we've learned a lot, and that we do have a lot of conservatism, and we're not -- and so we ought to, you know, take advantage of that in all our new rules, and certainly we would not want to come back five years from now and say now that we've finally completed SOARCA, we really think that old rulemaking should be amended and we should go back.

Because once we make a rule, we tend not to ever relax it. I've never -- it just seems that's the nature of this, these rules. So that's a disappointment to me, and again, since this is an enhancement, I just don't see the urgency that's commenced, that there's a benefit that's big enough to just ignore whatever is in SOARCA.

Now we haven't had the chance to read it. You've had a lifetime of experience. I respect that. But we haven't. We've got to make up our own minds. So that's where I'm at.

CHAIRMAN SIEBER: Okay.

MEMBER BLEY: Could I make one more?

CHAIRMAN SIEBER: Sure.

MEMBER BLEY: I was going to mention SOARCA and I didn't. We've tried to look at SOARCA. We've had a couple of briefings here and there. It's been going on for years now. We've had meetings scheduled for the last year and a half that have been put off and put off.

There's a lot we haven't seen. I'm not at the point that I'm comfortable with saying we ought to be taking those things. There's technical information on which it's been based, that maybe you have taken into account.

But I think it's, from my point on the Committee, I think it's premature, since it has been delayed coming to us for many, many months. I wouldn't recommend jumping to it.

MEMBER RYAN: To put a little sharper point on all this, I mean to me, it's now at where we need it, to evaluate this activity that you're

here today about. We really need that information to get insights into what we're reviewing today.

MEMBER STETKAR: Let me try something here. This is kind of an open discussion. I brought up the issue of the 15 minutes this morning, and I raised SOARCA. I honestly can't see anything, reading the rule, reading the reg guide, reading the ISG, despite the ISG's use of that abbreviation, that indeed takes advantage of anything in SOARCA. Honestly, I can't.

So you know, people are saying well, you know, SOARCA has been used. I can't see it. I raised the question of did the rulemaking or the thought process behind the rulemaking take advantage of any of those insights, and we had some discussion about 15 minutes in timing.

The answer that I came away with is well, SOARCA's not published, so we basically didn't take any advantage of that. Whether we could have or not is a moot point, because it's an unpublished set of research at the moment.

(Simultaneous discussion.)

MEMBER RYAN: I didn't take away that clear of an answer.

MEMBER STETKAR: Well, it's not clear

to me where -- perhaps during the full committee meeting, if indeed the rule has benefitted or some of the guidance has benefitted from SOARCA. You might want to make it clear to the full committee where it has, and if it hasn't, at least state for the public record that it hasn't and why it hasn't.

MR. KAHLER: I think we, if I can, we have stated publicly that SOARCA has not been utilized in order to formulate the basis for the rulemaking, or the parts of the rulemaking.

MEMBER RYAN: Not directly.

MR. KAHLER: Pardon?

MEMBER RYAN: Not directly, not indirectly.

CHAIRMAN SIEBER: Right, either way.

MR. KAHLER: In other words, the 15 minute classification has no ties to SOARCA, okay. The backup ANS has no ties to SOARCA, and we're talking about those five other areas. The performance-based EOFs, no ties to SOARCA. I mean those items, the ETEs, no ties to SOARCA, and there's one left.

MEMBER STETKAR: Shift staffing.

MR. KAHLER: Well, that's part of the

50.54(Q) amendment process. No ties to SOARCA. So no, we didn't inform the rulemaking from SOARCA. Now Randy is aware of it. I don't have privy to the published document that I reviewed. So I don't see any influences of SOARCA into the rule.

If there is, I can't find anything that would jump out at me and say this is something that was in as a result of the SOARCA analysis.

MEMBER ARMIJO: No. My question is shouldn't it have been part of the input?

MR. KAHLER: It was determined through policy with the Commission, that SOARCA has not been published. It should not be used. We created this rulemaking effort back in the 2005 time frame it began, and moving along from the time of our public meetings and such, the opportunity to utilize what you now have in front of you today for SOARCA was not available to staff then.

So we believe that the rulemaking effort and those items that are non-hostile action, security-based type of rulemaking items, wouldn't benefit from the SOARCA study at this

time, to the point of whether it would be major changes in the rule.

And the hostile action portion of it is something, and the industry as we heard today agrees, that those enhancements are something that they can see moving ahead without delay.

CHAIRMAN SIEBER: My comment. In the early days of probabilistic risk assessment and what's appropriate, what people will accept and what they will not accept, there was a Ph.D. thesis paper written about 35 years ago at MIT, which those of you who are old enough to remember, Saul Levine. He was a professor there and a teacher, and I was his student.

That paper had to do with what people will accept and what they will not accept. In other words, what is the risk? How do people categorize risk?

They don't feel real bad about exceeding the speed limit by 10 or 15 or 20 miles an hour, and they're willing to take a risk that it's maybe 1 in 100 that they'll have an accident, or they smoke or drink or whatever it is they do, where they're willing to take risks when they are the perpetrator of the harm.

On the other hand, if somebody else is doing it to them, they don't want it to happen at all. So 10 to the minus 3 is not safe enough. 10 to the minus 4, we're getting there. But I'd like it never to happen. When you get involved in SOARCA-type arguments and PRA arguments, where the clear implication is that it affects impact on public like emergency planning does, I think it would be a good idea to read that paper and see how the public really thinks about the kinds of chances they're willing to take.

MEMBER BLEY: Just as a follow-on to that, there's been an awful lot of work in that area over the last 25 years. The National Academy has done a lot and so have other organizations. So read more than that 35 year-old paper.

CHAIRMAN SIEBER: Okay.

MR. LaVIE: Dr. Sieber? I might add a cautionary tale regarding SOARCA. I was in the industry at the time all the work was going on on the source term. We all heard about the wonderful things. Iodine is going away. We won't have to worry about this anymore.

When the final results of these analyses were finally documented and put into a

regulatory format, we all found that we were still dealing with 35 percent iodine release. So until the SOARCA report is finished and the Commission weighs in on not only the technical aspects of it, but the other aspects of the decision-making, it's really premature to do anything with it.

CHAIRMAN SIEBER: And that may be years away.

MR. LaVIE: It may be years away.

CHAIRMAN SIEBER: Right.

MR. LaVIE: You know, let's face it. I know we all realize it, the ten mile EPZ is largely not a technical issue. It's a political issue.

CHAIRMAN SIEBER: It's deterministic, yes. Okay. Is there any other comments from members or the staff or guests or the public?

(No response.)

CHAIRMAN SIEBER: If not, I want to thank everybody for first of all years of excellent work, and for excellent presentations today, and for putting up with us and all the questions that we asked, and this is a prelude for what comes a month from now, even though you'll have to talk faster because we won't have as much

time.

But again, thank you very much. This meeting is adjourned.

(Whereupon, at 5:12 p.m., the meeting was adjourned.)

United States Nuclear Regulatory Commission

Protecting People and the Environment

EP FINAL RULE AND GUIDANCE

NRC Staff Presentation
for ACRS Subcommittee on Plant Operations and Fire Protection

November 1, 2010

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TOPICS

- Emergency Preparedness Rule Background
- Emergency Preparedness Rule Topics
- Requests for Input
- Guidance Documents
- Resolution of Comments

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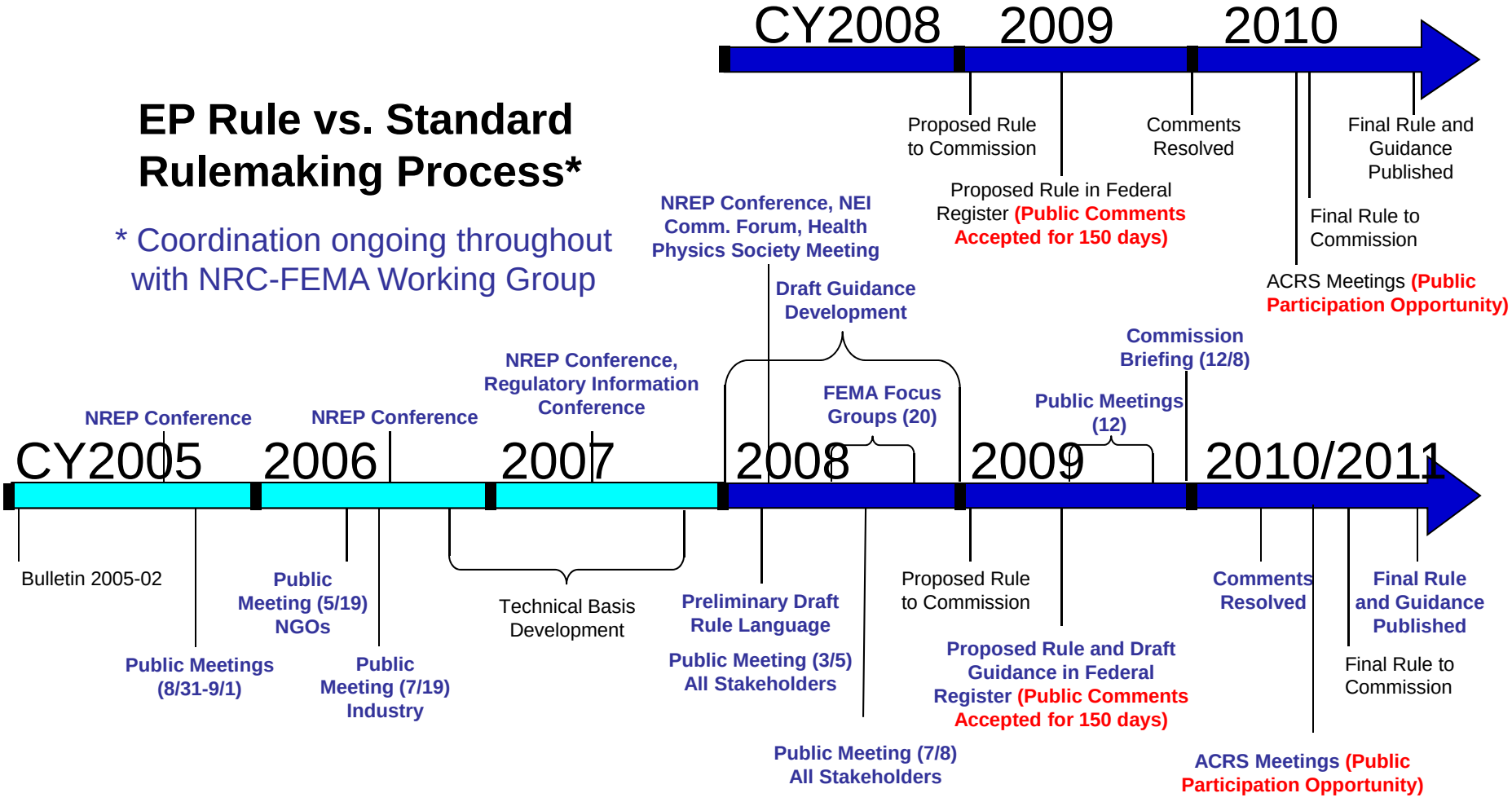
EP RULE BACKGROUND

EP Rule vs. Standard Rulemaking Process*

* Coordination ongoing throughout with NRC-FEMA Working Group



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EP RULE SUMMARY

#	RULEMAKING TOPIC	GUIDANCE
1	On-Shift Multiple Responsibilities	NSIR/DPR-ISG-01
2	Emergency Action Levels for Hostile Action	NEI 99-01, Rev. 5
3	Emergency Response Organization Augmentation and Alternative Facilities	NSIR/DPR-ISG-01
4	Licensee Coordination with Offsite Response Organizations	NSIR/DPR-ISG-01
5	Protection for Onsite Personnel	NSIR/DPR-ISG-01
6	Challenging Drills and Exercises	NSIR/DPR-ISG-01
7	Backup Means for Alert and Notification Systems	NSIR/DPR-ISG-01
8	Emergency Declaration Timeliness	NSIR/DPR-ISG-01
9	Emergency Operations Facility – Performance-Based Approach	NSIR/DPR-ISG-01
10	Evacuation Time Estimate Updating	NUREG/CR-7002
11	Amended Emergency Plan Change Process	Reg. Guide 1.219
12	Removal of Completed One-Time Requirements	N/A

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EP RULEMAKING TOPIC #1

- On-Shift Multiple Responsibilities
  - 10 CFR Part 50, Appendix E, Section IV.A.9 (new)
  - On-Shift Staffing Analysis
    - Adequate staffing
    - Multiple responsibilities
  - NSIR/DPR-ISG-01 Interim Staff Guidance

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EP RULEMAKING TOPIC #2

- Emergency Action Levels for Hostile Action
  - 10 CFR Part 50, Appendix E, Section IV.B
  - Incorporate Hostile Action Events
  - NRC Bulletin 2005-02
  - NEI 99-01, Revision 5

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EP RULEMAKING TOPIC #3

- Emergency Response Organization Augmentation and Alternative Facilities
  - 10 CFR Part 50, Appendix E, Section IV.E.8.d
  - ERO Augmentation During Hostile Action
  - Alternative Facility Characteristics
  - NSIR/DPR-ISG-01 Interim Staff Guidance

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EP RULEMAKING TOPIC #4

- Licensee Coordination with Offsite Response Organizations
  - 10 CFR Part 50, Appendix E, Section IV.A.7
  - Resource Needs During Hostile Action
  - Identification of Offsite Resources
  - NSIR/DPR-ISG-01 Interim Staff Guidance

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EP RULEMAKING TOPIC #5

- Protection for Onsite Personnel
  - 10 CFR Part 50, Appendix E, Section IV.I
  - Ability of Site Personnel to:
    - Perform reactor shutdown
    - Implement emergency plan
  - Provide Protection for Non-Responders
  - NSIR/DPR-ISG-01 Interim Staff Guidance

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EP RULEMAKING TOPIC #6

- Challenging Drills and Exercises
  - 10 CFR Part 50, Appendix E, Section IV.F.2
  - Hostile Action-Based Exercises
  - Predictability and Preconditioning
    - No Release/Minimal Release
    - Rapidly Escalating Scenarios
  - Submittal of Scenarios
  - Remedial Exercises
  - NSIR/DPR-ISG-01 Interim Staff Guidance

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EP RULEMAKING TOPIC #7

- Backup Means for Alert and Notification Systems
  - 10 CFR Part 50, Appendix E, Section IV.D.3
  - Alert and Notification Functions
  - Flexibility in Methods
  - NSIR/DPR-ISG-01 Interim Staff Guidance

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EP RULEMAKING TOPIC #8

- Emergency Declaration Timeliness
  - 10 CFR Part 50, Appendix E, Section IV.C.2 (new)
  - Capability to Declare an Emergency in 15 Minutes
  - Prompt Declaration
  - NSIR/DPR-ISG-01 Interim Staff Guidance

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EP RULEMAKING TOPIC #9

- Emergency Operations Facility – Performance-Based Approach
  - 10 CFR Part 50, Appendix E, Section IV.E.8
  - Distance from Plant Site
  - Performance Criteria
  - NSIR/DPR-ISG-01 Interim Staff Guidance

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EP RULEMAKING TOPIC #10

- Evacuation Time Estimate Updating
  - 10 CFR 50.47(b)(10)
    10 CFR Part 50, Appendix E, Section IV
  - Periodic Updates
  - Prior NRC Review and Confirmation
  - NUREG/CR-7002

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EP RULEMAKING TOPIC #11

- Amended Emergency Plan Change Process
  - 10 CFR 50.54(q)
  - Method for Determining Reduction in Effectiveness
  - License Amendment Process
  - Regulatory Guide 1.219

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EP RULEMAKING TOPIC #12

- Removal of Completed One-Time Requirements
  - 10 CFR 50.54(r)
  - 10 CFR 50.54(s)(1)
  - 10 CFR 50.54(s)(2)(i)
  - 10 CFR 50.54(u)

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REQUESTS FOR STAKEHOLDER INPUT

#	INPUT TOPIC	DISPOSITION
1	Inclusion of National Incident Management System (NIMS)/Incident Command System (ICS)	Not Incorporated
2	Shift Staffing and Augmentation	Not Incorporated
3	Effective Date for COL/ESP Applicants	Deferred Compliance
4	Implementation Dates	Dates Modified
5-7	Non-Power Reactor Licensees • staffing analysis • emergency declaration timeliness • hostile action emergency action levels	Not Incorporated

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BREAK

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BACKGROUND AND SUMMARY OF GUIDANCE DOCUMENTS

- NUREG/CR-7002, “Criteria for Development of Evacuation Time Estimate Studies”
- Regulatory Guide 1.219, “Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors”
- NSIR/DPR-ISG-01, “Interim Staff Guidance Emergency Planning for Nuclear Power Plants”

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GUIDANCE DOCUMENTS

- NUREG/CR-7002, “Criteria for Development of Evacuation Time Estimate Studies”
  - Development of Evacuation Time Estimate Studies
  - Evacuation Time Estimates for Staged Evacuation Protective Action
  - Evaluation Criteria for Reviewers

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GUIDANCE DOCUMENTS

- Regulatory Guide 1.219, “Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors”
  - Explanation of Definitions
  - Explanation of Emergency Planning Functions
  - Examples of Changes Requiring/Not Requiring Prior NRC Approval
  - Guidance on Change Submittals, Documentation, and Record Retention

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GUIDANCE DOCUMENTS

- NSIR/DPR-ISG-01, “Interim Staff Guidance Emergency Planning for Nuclear Power Plants”
  - Guidance on Remaining Topics
  - Integration of Offsite Response with Onsite EP Programs
  - Future Incorporation into NUREG-0654

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COMMENT RESOLUTION OVERVIEW

- Comment Resolution Process
- Emergency Preparedness Rulemaking Working Group
- NRC-FEMA Joint Comment Resolution Team

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RESOLUTION OF COMMENTS

- On-Shift Multiple Responsibilities
  - Types of Events to Be Analyzed
  - Time Period Covered by Analysis

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RESOLUTION OF COMMENTS

- Emergency Action Levels for Hostile Action
  - Use of Future Emergency Action Level Schemes

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RESOLUTION OF COMMENTS

- Emergency Response Organization Augmentation and Alternative Facilities
  - Reference to “Hostile Action”
  - Multiple Locations for Alternative Facilities
  - Event Classification Capability

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RESOLUTION OF COMMENTS

- Licensee Coordination with Offsite Response Organizations
  - Identification of Offsite Resources
  - Letters of Agreement/Memoranda of Understanding with Offsite Agencies

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RESOLUTION OF COMMENTS

- Protection for Onsite Personnel
  - Specification of Required Protective Actions
  - Use of Multiple Procedures for Hostile Action

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RESOLUTION OF COMMENTS

- Challenging Drills and Exercises
  - Length of Exercise Planning Cycle
  - Use of Minimal/No Radiological Release Scenarios
  - Frequency of Certain Scenario Elements

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RESOLUTION OF COMMENTS

- Backup Means for Alert and Notification Systems
  - Need for Backup ANS Design Specification
  - Use of Batteries in Lieu of Backup Means

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RESOLUTION OF COMMENTS

- Emergency Declaration Timeliness
  - Clarification of When Declaration Is Made
  - Start/Stop of Timeliness “Clock”
  - Reference to “Plant Operator”

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RESOLUTION OF COMMENTS

- Emergency Operations Facility (EOF) – Performance-Based Approach
  - Exemptions for Existing EOFs
  - EOF Consolidation

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RESOLUTION OF COMMENTS

- Evacuation Time Estimate (ETE) Updating
  - ETE Update Threshold
  - Completion of ETE Updates

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RESOLUTION OF COMMENTS

- Amended Emergency Plan Change Process
  - Changes to Final Rule Language
    - Definitions of “Change” & “Emergency Plan”
    - Timing of Required Reports of Changes
    - Summary of 50.54(q) Analyses
  - Use of License Amendment Process

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RESOLUTION OF COMMENTS

- Amended Emergency Plan Change Process
  - Changes to Regulatory Guide 1.219
    - Alignment with Final Rule
    - Consistent Application of Term “Change”
    - Changes That Are <u>Not</u> Reductions in Effectiveness
    - Guidance Regarding “Margin”
    - Implementation Guidance

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LUNCH

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BACKUP SLIDES

- [The following slides show the major changes between the proposed rule and draft final rule language, implementation dates, and overview of the regulatory analysis/backfit analysis. They are provided as backup slides and are not part of the handout.]

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10 CFR 50.47(b)(10)

Draft Final Rule:

A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Evacuation time estimates and updates must be submitted to the NRC for review ~~and approval~~ **to confirm adequacy**. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

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10 CFR 50.54(q)

Draft Final Rule:

(1) Definitions for the purpose of this section:

(i) *Change* means an action that results in modification or addition to, or removal from, the licensee's emergency plan ~~**or the resources, capabilities, and methods identified in the plan**~~. All such changes are subject to the provisions of this section except where the applicable regulations establish specific criteria for accomplishing a particular change.

(ii) *Emergency plan* means the document(s), prepared and maintained by the licensee, that identify and describe the licensee's methods for maintaining ~~**and performing**~~ emergency ~~**planning functions**~~ **preparedness and responding to emergencies**. An emergency plan includes the plan~~**s**~~ as originally approved by the NRC and all subsequent changes made by the licensee with, and without, prior NRC review and approval under § 50.54(q).

(iii) *Emergency planning function* means a capability or resource necessary to prepare for and respond to a radiological emergency, as set forth in the elements of section IV. of appendix E to this part and, for nuclear power reactor~~**s**~~ **licensees**, the planning standards of § 50.47(b).

(iv) *Reduction in effectiveness* means a change in an emergency plan that results in reducing the licensee's capability to perform an emergency planning function in the event of a radiological emergency.

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10 CFR 50.54(q) (cont.)

Draft Final Rule (continued):

(2) A holder of a license under this part, or a combined license under part 52 of this chapter after the Commission makes the finding under § 52.103(g) of this chapter, shall follow and maintain the effectiveness of an emergency plan that meets the requirements in appendix E to this part and, for nuclear power reactor licensees, the planning standards of § 50.47(b).

(3) The licensee may make changes to its emergency plan without NRC approval only if the licensee ~~can demonstrate through~~ **performs and retains an** analysis **demonstrating** that the changes do not reduce the effectiveness of the plan and the plan, as changed, continues to meet the requirements in appendix E to this part and, for nuclear power reactor licensees, the planning standards of § 50.47(b).

(4) The changes to a licensee's emergency plan that reduce the effectiveness of the plan~~s~~ as defined in § 50.54(q)(1)(iv) may not be implemented without prior approval by the NRC. A licensee desiring to make such a change shall submit an application for an amendment to its license. In addition to the filing requirements of §§ 50.90 and 50.91, the request must include all emergency plan pages affected by that change and must be accompanied by a forwarding letter identifying the change, the reason for the change, and the basis for concluding that the licensee's emergency plan, as revised, will continue to meet the requirements in appendix E to this part and, for nuclear power reactor licensees, the planning standards of § 50.47(b).

10 CFR 50.54(q) (cont.)

Draft Final Rule (continued):

(5) The licensee shall retain a record of each change to the emergency plan made without prior NRC approval for a period of three years from the date of the change and shall submit, as specified in § 50.4, a report of each such change, including **a summary of** its analysis, within 30 days after the change is ~~made~~ **put into effect**.

(6) The nuclear power reactor licensee shall retain the emergency plan and each change for which prior NRC approval was obtained pursuant to § 50.54(q)(4) as a record until the Commission terminates the license for the nuclear power reactor.

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10 CFR PART 50, APPENDIX E, SECTION IV

Draft Final Rule:

3. Licensees shall use NRC approved evacuation time estimates (ETEs) and **NRC confirmed** updates to the ETEs ~~shall be used by licensees~~ in the formulation of protective action recommendations and ~~must be~~ **shall** provide~~d~~ **the ETEs and ETE updates** to State and local governmental authorities for use in developing protective action strategies.

Within ~~180~~ **365** days **of the later** of ~~issuance~~ **the availability** of the decennial census data ~~by~~ **from** the U.S. Census Bureau **or [INSERT EFFECTIVE DATE OF FINAL RULE]**, nuclear power reactor licensees ~~and license applicants~~ shall develop an ETE **analysis using this decennial data** and submit it **under § 50.4** to the NRC for review ~~and approval under § 50.4 to~~ **confirm adequacy**.

4. During the years between decennial censuses, licensees shall estimate **EPZ** permanent resident population changes ~~at least annually~~ **once a year, but no later than 365 days from the previous estimate,** using **the most recent** U. S. Census Bureau ~~data~~ **annual resident population estimate** and~~/or~~ State/local government population ~~estimates~~ **data, if available**. Licensees shall maintain these estimates so that they are available for NRC inspection during the period between **decennial** censuses and shall submit these estimates to the NRC with any updated ETE~~s~~ **analysis**.

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10 CFR PART 50, APPENDIX E, SECTION IV (cont.)

Draft Final Rule:

5. If at any time during the decennial period, the **EPZ permanent resident** population ~~**of either the EPZ or the most populous Emergency Response Planning Area**~~ increases ~~**or decreases by more than 10 percent from the population that formed the basis for**~~ **such that it causes the longest ETE value for the 2-mile zone or 5-mile zone, including all affected Emergency Response Planning Areas, or for the entire 10-mile EPZ to increase by 25 percent or 30 minutes, whichever is less, from** the licensee's currently approved **or confirmed** ETE, **the licensee shall update** the ETE **analysis** ~~**must be updated**~~ to reflect the impact of that population ~~**change**~~ **increase**. ~~**This**~~ **The licensee shall submit the** updated ETE **analysis** ~~**must be submitted**~~ to the NRC for review and ~~**approval**~~ **confirmation** under § 50.4 no later than ~~**180**~~ **365** days after the licensee's determination that ~~**a population change of more than 10 percent has occurred**~~ **the criteria for updating the ETE have been met**.

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10 CFR PART 50, APPENDIX E, SECTION IV (cont.)

Draft Final Rule:

6. After a license applicant receives its license, the licensee shall conduct at least one review of any changes in the population of its EPZ at least 365 days prior to its scheduled fuel load. The licensee shall estimate EPZ permanent resident population changes using the most recent U.S. Census Bureau annual resident population estimate and State/local government population data, if available. If the EPZ permanent resident population increases such that it causes the longest ETE value for the 2-mile zone or 5-mile zone, including all affected Emergency Response Planning Areas, or for the entire 10-mile EPZ, to increase by 25 percent or 30 minutes, whichever is less, from the licensee's currently approved ETE, the licensee shall update the ETE analysis to reflect the impact of that population increase. The licensee shall submit the updated ETE analysis to the NRC for review and confirmation under § 50.4 no later than 365 days before the licensee's scheduled fuel load.

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APPENDIX E, SECTION IV.A.7

Draft Final Rule:

Identification of, and **a description of the** assistance expected from, appropriate State, local, and Federal agencies with responsibilities for coping with emergencies**.~~ Nuclear power plant licensees shall ensure that offsite response organization resources (e.g., local law enforcement, firefighting, medical assistance) are available to respond to an emergency,~~ including ~~a~~ hostile action[3] ~~event~~ at the ~~nuclear power plant~~ site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force.**

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APPENDIX E, SECTION IV.A.9

Draft Final Rule:

Nuclear power ~~plant~~ **reactor** licensees ~~under this part and Part 52 must provide~~ **shall perform** a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned ~~any~~ responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan.

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APPENDIX E, SECTION IV.B.2

Draft Final Rule:

A **licensee's** revision to ~~an~~ **its** emergency action level scheme must be submitted as specified in § 50.4 for NRC approval before implementation if the licensee is changing ~~from an~~ **its entire** emergency action level scheme ~~based upon NUREG-0654~~ to ~~another~~ **the most current NRC-approved** emergency action level scheme ~~based upon NUMARC/NESP-007 or NEI 99-01~~ **applicable to the design of the licensee's reactor**. ~~The licensee~~ **Licensees** shall follow the change process in § 50.54(q) for all other emergency action level changes.

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APPENDIX E, SECTION IV.C.2

Draft Final Rule:

Nuclear power ~~**plant**~~ **reactor** licensees ~~**and applicants under this part and Part 52**~~ shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following ~~**a determination that an emergency action level has been exceeded**~~ **identification of the appropriate emergency classification level**. ~~**These criteria must not be construed**~~ **Licensees shall not construe these criteria** as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an ~~**EAL**~~ **emergency action level** that has been exceeded. ~~**These criteria must not be construed**~~ **Licensees shall not construe these criteria** as preventing implementation of response actions deemed by the licensee to be necessary to protect public health and safety provided that any delay in declaration does not deny the State and local authorities the opportunity to implement measures necessary to protect the public health and safety.

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APPENDIX E, SECTION IV.D.3

Draft Final Rule:

…The use of this alerting and notification capability will range from immediate alerting and notification of the public (within 15 minutes of the time that State and local officials are notified that a situation exists requiring urgent action) to the more likely events where there is substantial time available for the appropriate governmental authorities to make a judgment whether or not to activate the public alert and notification system. ~~**The licensee shall identify and demonstrate that the appropriate governmental authorities have both the**~~ **The alerting and notification capability shall additionally include** administrative and physical means for a backup method of public alerting and notification capable of being used in the event the primary method of alerting and notification is unavailable during an emergency to alert or notify all or portions of the plume exposure pathway EPZ population. The backup method shall have the capability to alert and notify the public within the plume exposure pathway EPZ, but does not need to meet the 15-minute design objective for the primary prompt public alert and notification system. When there is a decision to activate the alert and notification system, the appropriate governmental authorities will determine whether to activate the entire alert and notification system simultaneously or in a graduated or staged manner. The responsibility for activating such a public alert and notification system shall remain with the appropriate governmental authorities.

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APPENDIX E, SECTION IV.E.8.d

Draft Final Rule:

For nuclear power ~~plant~~ **reactor** licensees ~~and applicants under this part and Part 52~~, an alternative facility (or facilities) to function as a staging area for augmentation of emergency response staff **and collectively** having the following characteristics: accessibility even if the site is under threat **of a,** or **during an** actual ~~attack~~ **hostile action**; communication links with the emergency operations facility, control room, and plant security; the capability to perform offsite notifications; and the capability for engineering assessment activities, including damage control team planning and preparation, for use when onsite emergency facilities cannot be safely accessed during ~~a~~ hostile action ~~event~~. The alternative facility **(or facilities)** will also be equipped with general plant drawings and procedures, telephones, and computer links to the site;

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APPENDIX E, SECTION IV.F.2.b & d

Draft Final Rule:

b. Each licensee at each site shall conduct a subsequent exercise of its onsite emergency plan every 2 years. Nuclear power ~~plant~~ **reactor** licensees shall submit exercise scenarios under § 50.4 for prior NRC review and ~~approval~~ **verification**. The exercise may be included in the full participation biennial exercise required by paragraph 2.c. of this section. In addition, the licensee shall take actions necessary to ensure that adequate emergency response capabilities are maintained during the interval between biennial exercises by conducting drills, including at least one drill involving a combination of some of the principal functional areas of the licensee's onsite emergency response capabilities. The principal functional areas of emergency response include activities such as management and coordination of emergency response, accident assessment, event classification, notification of offsite authorities, assessment of the onsite and offsite impact of radiological releases, protective action recommendation development, protective action decision making, plant system repair and ~~corrective~~ **mitigative** action~~s~~ **implementation**…

d. A State should fully participate in the ingestion pathway portion of exercises at least once every ~~6 years~~ **exercise planning cycle**. In States with more than one site, the State should rotate this participation from site to site.

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APPENDIX E, SECTION IV.F.2.j

Draft Final Rule:

The exercises conducted under paragraph 2 of this section by nuclear power ~~plant~~ **reactor** licensees ~~under this part and Part 52~~ must provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to implement the principal functional areas of emergency response identified in paragraph 2.b of this section. Each exercise must provide the opportunity for the ERO to demonstrate key skills specific to emergency response duties in the control room, TSC, OSC, EOF, and joint information center. Additionally, in each ~~six~~ **eight** calendar year exercise planning cycle, nuclear power ~~plant~~ **reactor** licensees ~~under this part and Part 52~~ shall vary the content of scenarios during exercises conducted under paragraph 2 of this section to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to the following scenario elements: hostile action directed at the plant site ~~(at an exercise frequency of at least once every 8 years)~~, no radiological release or an unplanned minimal radiological release that does not require public protective actions, an initial classification of or rapid escalation to a Site Area Emergency or General Emergency, implementation of strategies, procedures, and guidance developed under § 50.54(hh), and integration of offsite resources with onsite response. The licensee shall maintain a record of exercises conducted during each ~~six~~ **eight**-year exercise planning cycle that documents the contents of scenarios used to comply with the requirements of this paragraph.

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APPENDIX E, SECTION IV.F.2.j (cont.)

A licensee shall begin its first eight year exercise planning cycle no later than the date of its first biennial exercise conducted after [INSERT DATE 395 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER], and that first biennial exercise must include a hostile action scenario.

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IMPLEMENTATION DATES

- Amended Emergency Plan Change Process
  - 30 days after final rule publication with no deferral
- Evacuation Time Estimate Update
  - 365 days after effective date of final rule or availability of decennial census data
- Licensee Coordination with OROs
  - 365 days after final rule publication
- On-Shift Staffing Analysis
  - 365 days after final rule publication

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IMPLEMENTATION DATES (cont.)

- Alert and Notification System Backup Means
  - First biennial exercise conducted more than 365 days after effective date of final rule
- New Drill and Exercise Requirements
  - First biennial exercise conducted more than 365 days after effective date of final rule
- Other Changes
  - 30 days after final rule publication with option to defer implementation until 180 days after publication

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REGULATORY ANALYSIS

- Costs/Benefits Evaluated Relative to Current Regulations, Orders, and Voluntary Actions
- Costs Are Site-Based Rather Than Reactor-Based
- Average Power Reactor Site Cost
  - One-Time = $485,000
  - Annual = $40,000
- Average Non-Power Reactor Site Cost
  - One-Time = $14,000
  - Annual = $0

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BACKFIT ANALYSIS

- Final Rule Requirements Qualify as Backfits
- Two Exceptions
  - Amended Emergency Plan Change Process
  - Performance-Based Emergency Operations Facility
- Backfits Substantially Increase Level of Emergency Preparedness
- Backfits Substantially Enhance Protection of Public

REP Program Manual/NUREG-0654, Supp. 4 Implementation

November 1, 2010

FEMA

Harry E. Sherwood
Branch Chief
Technological Hazards
FEMA Region IX

Public Comment Process

- Program Manual and Supplement 4 released May 18, 2009 for 150 day comment period
- FEMA received over 120 submissions containing over 2300 individual comments
- FEMA convened the Public Comment Adjudication Team (PCAT):
  - 10 FEMA Regional representatives
  - 5 FEMA Headquarters staff
- FEMA/NRC convened a Joint Comment Adjudication Team (JCAT)

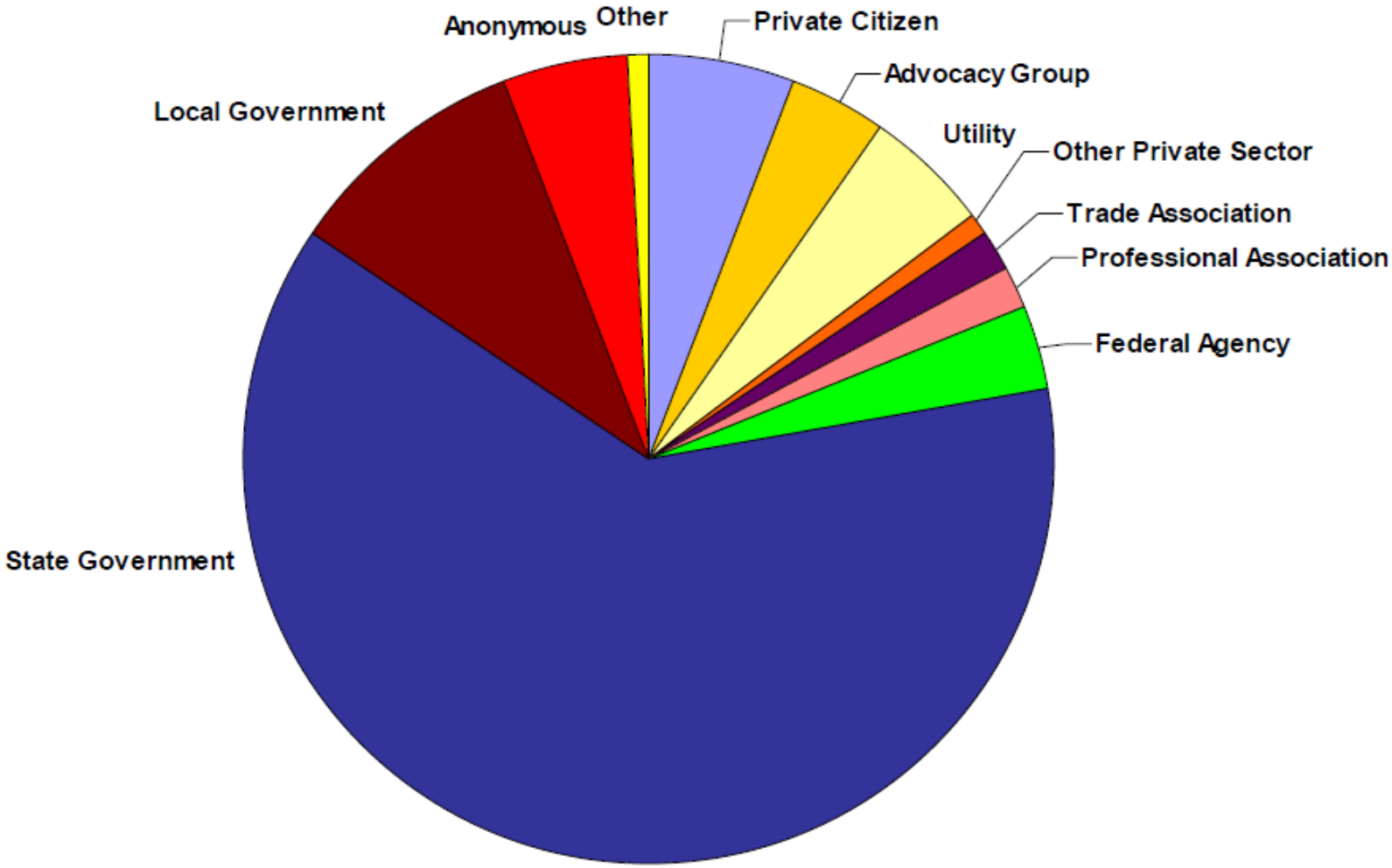
FEMA

RPM/Supp 4: Key Policy Changes

- Preparing for and responding to hostile action-based (HAB) events
- Aligning the REP Program with national preparedness systems and initiatives (e.g., NIMS/ICS and HSEEP)
- Ensuring more challenging drills and exercises to enhance exercise activities
- Ensuring backup means for Alert & Notification System

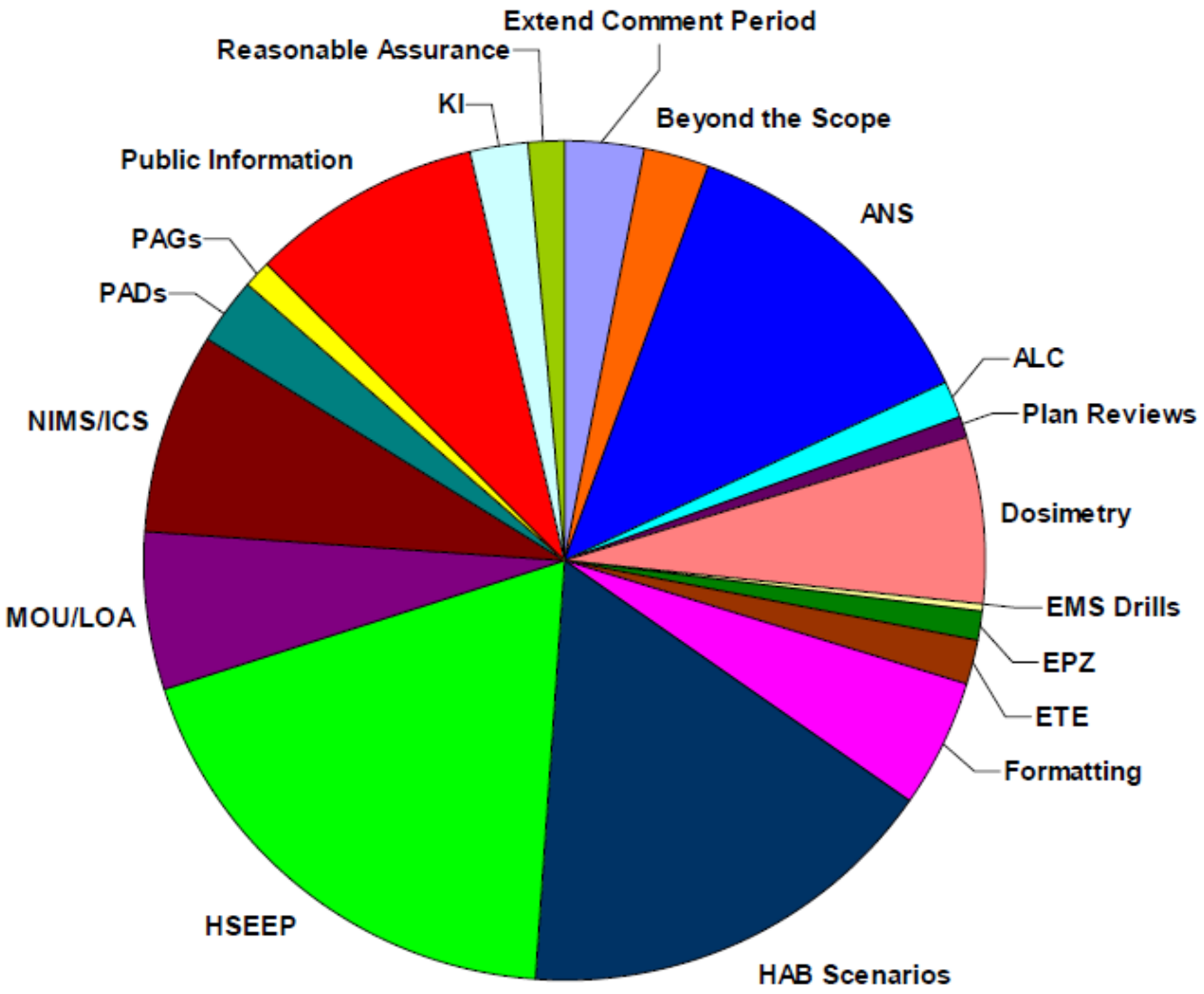
FEMA

Stakeholder Comments



FEMA

Public Comment Summary



FEMA

EP RULE/GUIDANCE
INTEGRATED TRANSITION & IMPLEMENTATION PLAN

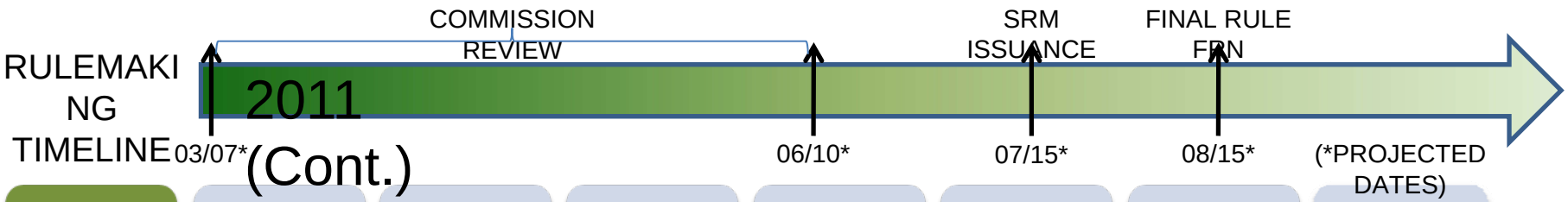
RULEMAKING TIMELINE

2010 | 2011

- ACRS SUBMITTAL 10/04
- ACRS SUB-COMMITTEE 11/01
- ACRS FULL COMMITTEE 12/02
- SUBMITTAL OEDO 02/11
- SECY 02/28

CATEGORY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY
RULEMAKING	RULE/GUIDANCE CONCURRENCE	RULE/GUIDANCE CONCURRENCE	ACRS SUBMITTAL	ACRS REVIEW	ACRS REVIEW	ACRS COMMENTS	OEDO/SECY SUBMITTAL
FEMA DOCUMENTS			FEMA CONCURRENCE	FEMA CONCURRENCE	FEMA CONCURRENCE	DHS CONCURRENCE	DHS CONCURRENCE
SUPPORTING DOCUMENTS	IMPACT PAPERS	IMPACT PAPERS	IMPACT PAPERS				
STAKEHOLDER OUTREACH	FEMA RAC/FPC MTG. (08/16)	FRPCC MTG. (09/28)	NY POWER POOL (10/13) PUBLIC MTG. (10/14) FEMA VII RAC MTG. (10/20)	FEMA V SCHED. CONF. (11/03-11/05) NRC I SLO CONF. (11/08-11/09) NRC PUBLIC MTG. (11/15)		NRC IV SCHED. CONF. (01/24-01/27)	NRC I SCHED. CONF. (TBD) IPR MEETING (TBD)
NRC STAFF TRAINING							
FEMA STAFF TRAINING			REGIONAL PRESENTERS (10/13-10/14)				

EP RULE/GUIDANCE
INTEGRATED TRANSITION & IMPLEMENTATION PLAN



CATEGORY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
RULEMAKING	COMMISSION REVIEW	COMMISSION REVIEW	COMMISSION REVIEW	COMMISSION REVIEW	SRM ISSUANCE	EP RULE PUBLICATION	
FEMA DOCUMENTS	DHS CONCURRENCE	OMB CONCURRENCE	OMB CONCURRENCE	OMB CONCURRENCE		NUREG-0654, SUPP. 4 REPP MANUAL	
SUPPORTING DOCUMENTS	INSPECTION PROCEDURES		NEI 10-05, R0			INTERIM STAFF GUIDE. RG 1.219 NUREG/CR-7002 NUREG-0654, SUPP. 3 NEI 06-04, R2	
STAKEHOLDER OUTREACH	RIC (03/08-03/10)	NREP CONF. (04/19-04/22)	CRCPD CONF. (05/16-05/20)	NEI EP FORUM		EP RULE WORKSHOPS	EP RULE WORKSHOPS
NRC STAFF TRAINING	EP COUNTERPART WORKSHOP						
FEMA STAFF TRAINING							

FEMA/NRC Cooperation

- Joint NRC/FEMA Integrated Transition and Implementation Plan (ITIP) Working Group
- Determines:
  - *Scope*
  - *Milestones*
  - *Schedule for an integrated FEMA-NRC transition/implementation plan*

FEMA

Impact Papers

- Joint NRC/FEMA Integrated Transition and Implementation Plan (ITIP) Working Group
- Summary documents intended to highlight key areas important to the implementation process
- Topics which have the most significant changes and impact to the stakeholders

FEMA

Impact Paper Topics

- Scenario Variations
- Eight-Year Exercise Cycle
- Plan/Procedure Updates for HAB/No Release and Rapid Escalation
- Back-up Alert Notification System (ANS)
- National Incident Management System/Incident Command System
- Homeland Security Exercise Evaluation Program
- Interpretation of the Terms Should & Shall

FEMA

Scenario Variations

- The initiating event of a REP Program exercise scenario will now be varied to bring more of an all-hazards perspective to the overall exercise cycle
- Three enhanced scenario variations:
  - *Hostile Action*
  - *Rapidly escalating event or initial classification of Site Area Emergency (SAE) or General Emergency*
  - *No/Minimal release resulting in at least a SAE*
- Historically, the exercise scenarios were based on the plume exercises and ingestion pathway exercises. These ingestion pathway guidelines have also been enhanced

FEMA

Exercise Cycle

- Six-year Exercise Cycle has been changed to an Eight –year Cycle
- Exercise Cycle begins with a hostile action based (HAB) exercise in 2014

FEMA

Plan/Procedures Updating

- Updates include:
  - *HAB incident, no-release, rapid-escalating*
  - *Must be incorporated into REP Program plans/procedures six-months prior to first scheduled exercise*
  - *HSEEP*

FEMA

Back-up Alert and Notification

- FEMA has clarified the time requirement for back-up:
  - *Reasonable time and timely manner (recommended goal of 45 minutes*
  - *New systems need to be submitted to FEMA for technical review and compliance with design objectives*
  - *Implementation periods of up to three years will be considered*

FEMA

NIMS/ICS

- NIMS provides:
  - Consistency
  - Facilitates integration of response elements/resources during an incident
- ORO and licensees are encouraged to align and coordinate Incident Response plans with one another.

FEMA

Homeland Security Exercise Evaluation Program (HSEEP)

- The integration of HSEEP into current planning and preparedness will not alter requirements or replace existing REP Program Demonstration Criteria
- REP Program exercises will follow HSEEP principles
  - Objectives based exercise planning
  - Integrated planning activities that incorporate all stakeholders
  - Documented outcomes through after action process
  - Follow up through improvement planning and corrective actions

FEMA

Steps Forward

- *2,300+ comments have been adjudicated by PCAT*
- Initial FEMA HQ & Regional/NRC Management Review
- Final FEMA/NRC Management Review **
- DHS Review
- Office of Management and Budget (OMB) Review
- Target Date for Publication & Issuance: Maintaining alignment with the NRC Rulemaking

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U.S. DEPARTMENT OF HOMELAND SECURITY

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Nuclear Energy Institute Remarks Emergency Preparedness Rulemaking

Advisory Committee on Reactor Safeguards Plant Operations and Fire Protection Subcommittee Meeting

November 1, 2010

Susan Perkins-Grew

Director, Emergency Preparedness

NEI

Introduction

NEI agrees with the NRC's conclusion that the existing basis for emergency preparedness remains valid including scope and timing issues.

NEI

NEI Topical Remarks

- Proposed Rule Implementation Process
- Cumulative Impact on Licensees and Offsite Response Organizations
- Consideration of the State of the Art Reactor Consequence Analysis (SOARCA)

NEI

Recommendations

- Consider holistic impacts to licensees concerning implementation schedule based on:
  - Other rulemaking impacting licensees
  - ISG language ambiguity

- Consider SOARCA findings in ACRS review
  - If "greater use of quantitative data" should be considered, then associated guidance and rules should be deferred

NEI