UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

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BRIEFING ON EMERGENCY PREPAREDNESS PROGRAM INITIATIVES

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Nuclear Regulatory Commission One White Flint North Rockville, Maryland

> Tuesday December 14, 2004

The Commission met in open session, pursuant to notice. Chairman Nils Diaz, presiding.

COMMISSIONERS PRESENT:

NILS J. DIAZ, Chairman of the Commission EDWARD MC GAFFIGAN, JR., Member of the

Commission

JEFFREY MERRIFIELD, Member of the Commission

(The following transcript was produced from electronic caption media and audio and video media provided by the Nuclear Regulatory Commission.)

STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

Secretary

General Counsel

LUIS REYES, EDO

ERIC LEEDS, Director, Div. of Preparedness and Response

RICHARD WESSMAN, Director Incident Response Directorate

JAMES WIGGINS, Deputy Regional Administrator, Region I

NADER MAMISH, Director, Emergency Preparedness Directorate

PROCEEDINGS

CHAIRMAN DIAZ: Good afternoon again. I think we are going to need to discuss emergency preparedness. It is something that I believe is kind of timely for this year, being 25 years from TMI, a good way of finishing the year in looking at one of the issues that I believe is closer to our stakeholders and to the public.

So we appreciate the staff coming and briefing the Commission. I think that since 9-11, we have moved forward in many of these areas, both in the emergency preparedness and the incident response. The agency has reorganized twice this year to be able to better address the issues that deal with both the emergency preparedness and the relationships with all of the security issues.

I think, you know, this meeting has definitely an informational aspect that goes beyond what the Commission needs. And it is a fact that we need to keep our public well informed of how the agency is handling the issues of emergency preparedness.

We look forward to the staff presentation and wonder if my fellow Commissioners have anything. With that, Mr. Reyes.

MR. REYES: Thank you, Chairman, Commissioners. The staff is here today to brief you on the status of emergency preparedness and incident response.

In addition to the NRC staff at the table, I would like to recognize that we have some guests from the Federal Emergency Management Agency. Craig Conklin is here, and Vanessa Quinn is supposed to join us, they're key assets to the implementation of emergency preparedness off-site and have really contributed to our work in the field.

As you stated, after September 11th the NRC changed its organization to make sure that we have an objective of connecting safety, security and emergency preparedness. And I think we have reached that objective. And we have members of that new organization here with us to make the presentation.

Eric.

MR. LEEDS: Thank you. Good afternoon, Mr. Chairman, Commissioners.

I will now discuss our emergency preparedness and incident response programs. We know that things are different in the post 9-11 world and we are changing to meet these challenges.

We also know that despite these new challenges, the emergency preparedness basis remains valid.

Now, good planning leads to good response. So with that in mind, I will start this discussion with emergency planning or as I will often refer to it, EP. And then I will discuss our emergency or incident response.

The overall objective of the Commission's emergency

preparedness regulations is to minimize radiation exposure to the public through a combination of protective actions and licensee actions to mitigate the consequences of an accident or event. This has been and continues to be our primary objective.

The increased staff resources for emergency preparedness allowed us to establish five teams within the emergency preparedness directorate staffed with emergency preparedness specialists. These teams are focused on specific program areas: outreach, regulatory improvements, security interface, licensing and inspection.

These teams are examining all aspects of the agency's emergency preparedness program to ensure that the NRC and our licensees are prepared to respond to incidents in the challenging and changing post 9-11 world.

This is what we mean when we refer to emergency preparedness as a dynamic process. The plans, by design, are flexible and can be modified as necessary to meet new challenges and incorporate identified improvements and enhancements. It is a process of continuous improvement.

The spirit of continuous improvement guides each of our teams. I will discuss each team's activities starting first with the outreach team.

Effective outreach and communications play a vital role in ensuring strong emergency preparedness and response programs. We are aggressively enhancing our outreach efforts.

We developed an emergency planning and response website that resides on our NRC website. This website, readily available to our stakeholders, is another way for to us reach out. We have heard from many stakeholders about the usefulness of those websites in locating information about emergency preparedness.

We are reaching out to State and local officials. We will be meeting just two days from now with local government officials from the four counties surrounding the Indian Point Energy Center. The purpose of this meeting is to discuss security and emergency preparedness issues.

As you are aware, the Indian Point Energy Center committed to run a terrorist-based emergency preparedness exercise earlier this year. This was an exercise with an intentional large commercial aircraft crash into the facility. We supported this effort with many meetings with State and local officials and members of the public. We regularly spoke to members of the media. And on the day of the exercise, we staffed an emergency preparedness information facility to answer questions from the media, Congressional staff and other stakeholders.

We are also making concerted efforts to reach out to

State and local officials at specific regional workshops to discuss the National Response Plan and security emergency preparedness topics.

We have completed regional workshops in Chicago, Albany, and Dallas and have another scheduled in Orlando in January. We have received many positive comments from industry and other attendees at these meetings.

 We are planning a specific meeting with the public to provide our perspective on implementing the National Response Plan in February.

We have supported numerous public meetings where the agenda didn't specifically include emergency preparedness such as the power plant annual assessment meetings. We know that there is an increased interest in emergency preparedness since 9-11, and we need to be available to respond to the public's questions.

In addition, we worked with local governments and response organizations through table-top exercises, observation of force-on-force exercises and full participation exercises. We have participated in several emergency exercises that provide for a detailed demonstration and analysis of emergency preparedness and operations challenges involving off-site response organizations.

Recent examples include Nebraska and Missouri for the Cooper Nuclear Station, the State of Ohio and the Perry Nuclear Power Station, and the State of New York for the Indian Point Energy Center.

We also visited Lynn County, lowa, at the invitation of off-site emergency management officials to observe the enhancements to their off-site response program.

We are reaching out to the industry. We are dedicated to continued sharing of information between emergency management organizations and licensees to strengthen our response programs.

We have introduced our new organization, discussed the new challenges and NRC responses to those challenges at two Nuclear Energy Institute forums, the mid-year meeting of the American Nuclear Society and the National Radiological Emergency Preparedness Conference.

We also participate in open public meetings with individual licensees to discuss their emergency preparedness and response programs.

These efforts with industry and State and local officials have brought better understanding of the NRC's emergency preparedness expectations. Our programs and our licensees' programs have improved as a result.

Our cooperative efforts include other agencies within the Federal family. We work closely with the White House Homeland Security Council and the Department of Homeland Security on the

 development of the National Response Plan.

We supported Homeland Security Council efforts to develop national level guidance on radiological counter measures and protective action guidelines for radiological dispersion devices or dirty bombs.

We have been and continue to be an active participant on the 18-member agency Federal Radiological Preparedness Coordinating Committee chaired by Craig Conklin of the Federal Emergency Management Agency. The FRPCC meets quarterly and works on a variety of radiological issues.

We have also worked closely with the Departments of Health and Human Services and Homeland Security to develop guidelines to support the implementation of relevant sections of the Bio-Shield Act, specifically HHS's implementation of a distribution program for potassium iodide tablets.

Another of our teams is the inspection team. The inspection team supports the regional inspectors in implementing NRC regulations and the reactor oversight process. It has been four years since the NRC implemented its revised oversight process for reactors. Emergency preparedness is one of the cornerstones in this oversight program.

When key indicators were identified, we selected parameters that were significant in terms of protection of public health and safety such as emergency classifications, protective action recommendations and notification of off-site authorities and the public. These key indicators are regularly tested, evaluated and reported, providing an overall indication of the licensee's current emergency preparedness programs and readiness.

NRC regional inspectors routinely perform on-site emergency preparedness inspections. As a result, licensee emergency preparedness programs provide for the assurance of public health and safety.

Publicly available information notices have been issued to industry to alert them to potential problems that have been identified by the emergency preparedness reactor oversight program and to clarify NRC expectations.

For example, during the blackout of August 2003, at some plants backup power supplies to emergency response facilities did not operate as expected.

An information notice was issued to industry to alert them to potential problems seen with backup power supplies to emergency response facilities. We requested they review the information for applicability for their facilities and consider actions as needed to avoid similar problems.

As a result of this communication, licensees are aware of

these potential issues and correct site-specific problems at their facilities.

We have issued notices to address procedural improvements. For example, NRC inspectors identified a lack of consistency in the application of protective action recommendations. Some licenses did not include sheltering in their protective action recommendations. There are instances such as for inclement weather where sheltering may be the best protective measure.

To ensure that licensees were considering sheltering as part of their overall protective action recommendations scheme, we issued a Regulatory Information Summary alerting the power plants to this potential problem in clarifying the NRC's expectation of licensees when making protective action recommendations. Through the inspection process we will continue to review licensee protective action recommendation schemes to ensure that appropriate consideration is given to sheltering.

One of the five teams I spoke of earlier is focused on the emergency preparedness aspects of licensing reviews for both power and non-power reactors. Licensing reviews are a significant part of our work. Within the emergency preparedness technical area in the past year, the staff has completed 33 licensing activities. We anticipate working an additional 65 licensing activities during the next Fiscal Year.

Major EP licensing activities include reviews of significant emergency action level or EAL changes, proposed common emergency operational facilities, emergency response organization shift staffing and emergency plan reviews.

Additionally, we are in the process of reviewing the site capabilities for three early site permit applications for potential new nuclear power plants received by the NRC.

The staff has also performed emergency preparedness reviews for new power plant design applications including Westinghouse AP1000 recently approved by the Commission. This further demonstrates the role of emergency preparedness as an integral part of a nuclear power plant's safety and protection of the public.

Another of our teams is dedicated to the post 9-11 security emergency preparedness interface challenge. We are working to strengthen the security EP interface to reflect the latest developments from the intelligence community. We work with the Department of Homeland Security and Department of Defense, including NORTHCOM and NORAD to share information and to develop and implement nuclear and radiological security contingency plans that combined with the licensee's radiological emergency and security response provide for protection of the public.

We are an integral part of the security force-on-force

exercises. We evaluate the nuclear power plant operations and security staff's performance in required emergency preparedness actions and communications under the stressful and fast-moving conditions of a simulated terrorist attack.

Participation in these exercises is resulting in enhancement to licensee emergency plans. We issued communications to the industry on lessons learned from these exercises, noting areas where licensees may need to reinforce their programs.

My staff has participated in the integrated Federal table-top exercises run by the Department of Homeland Security to gain better insight into crisis management response. This has enabled us to further integrate crisis management and consequence management, which we believe will result in more effective emergency response to terrorist type events.

We also work closely with the Division of Nuclear Security to ensure that security enhancements consider the impacts on plants' emergency preparedness. In the past, commercial nuclear emergency preparedness was based on the actual or potential health effects from the release of radiation that could occur during an incident.

We anticipated a precipitating event that could escalate in a step-wise fashion based on equipment malfunctions, operator errors or other unintentional conditions. As part of our changing world, the post 9-11 environment has challenged us to consider acts of terrorism that have the intent of inflicting significant damage.

Let me take a few minutes to discuss the planning basis for emergency preparedness.

In the initial development of emergency preparedness, an entire spectrum of accidents was considered. This spectrum included beyond design basis, low probability, severe consequence accidents. No one specific type of accident sequence or sequences was selected to be the basis for emergency preparedness. Rather, it was decided that the basis would identify the bounds of the parameters for which planning is recommended based upon knowledge of the potential consequences, the timing, and the release characteristics of a spectrum of accidents.

Following the events of 9-11 the staff reassessed the existing planning basis for emergency preparedness in the commercial nuclear industry. A terrorist attack on a nuclear power plant was thought by some to be somehow different than our previously analyzed severe accidents.

Emergency preparedness staff has worked closely with staff from the Office of Research on their efforts to study these types of events on nuclear power plants. The studies examined such things as an intentional aircraft crash into a nuclear power plant.

National experts conducted detailed engineering studies using state-of-the-art structural and fire analyses and enhanced methodologies to predict realistic accident progression and radiological consequences. As you know, the specific details of these analyses and their results are classified.

However, I can speak to the general conclusions of the studies. The likelihood of both damaging the reactor core and releasing radioactivity that could affect public health and safety is low. There will be time beyond the minimum time frame used for the emergency planning bases to implement plant mitigating measures and off-site emergency plans.

We recognize, however, that the initiating events may occur more quickly and that response efforts may be different. But it is important for me to reiterate that even in the unlikely event of a radiological release due to terrorist usage of a large aircraft, NRC's emergency planning basis remains valid.

We have identified enhancements that we believe will strengthen overall emergency preparedness and response.

We are interacting with industry and other stakeholders on development of new emergency action level criteria that is based on terrorist events or threats. And these will supplement the current emergency action level criteria, not replace them.

We are also discussing further implementation of terrorist-based emergency preparedness drills. Such a drill was part of the biennial full participation exercise held at the Indian Point Energy Center earlier this year. In that exercise, there was a postulated deliberate large aircraft crash into the Indian Point site.

The time line and progression of events directly related to the postulated aircraft impact were realistic and this exercise helped to validate the emergency preparedness provisions at this facility.

In this exercise, the timing of events enabled off-site responders to understand that even with a large aircraft attack on the plant, there is time to initiate actions to protect public health and safety. Lessons learned from this drill are helping us inform our process going forward.

Many of the improvements we have identified are being brought to fruition by our regulatory improvements team, the last of the five teams.

This team develops emergency preparedness policies, regulations and guidelines, and coordinates as necessary with the Office of Nuclear Material Safety and Safeguards, Nuclear Regulatory Research and Nuclear Reactor Regulation.

Commercial nuclear emergency preparedness regulations were created in a step-wise fashion, with Appendix E approved in 1970 and the remainder of the regulations and guidance developed in the

late 1970's and the early 1980's due to lessons learned from the Three Mile Island accident.

Implementation of the regulations and guidance has uncovered areas for potential improvements and increased clarity that would benefit the NRC industry and off-site response organization. We have undertaken several studies designed to improve the state of knowledge in emergency preparedness. For example, we recently completed two studies related to evacuations. The first study updated existing NRC guidance on developing evacuation time estimates.

The evacuation time estimate is the estimated time to evacuate individuals from the emergency planning zone. Technologies have substantially changed since we initially issued guidance on the subject, and additional potential considerations have emerged.

Some of the elements specifically considered in the update include computer modeling, improved traffic management systems, trip generation times, demand estimation, and shadow evacuations, which describe the potential for members of the public that are not within the emergency planning zone to evacuate on their own initiative.

While this new study will provide more detailed guidance that should be considered in development or updating evacuation time estimates, it also affirmed that the foundation for developing the evacuation time estimates in our original guidance, NUREG-0654, remains valid.

COMMISSIONER MC GAFFIGAN: Mr. Chairman, I think I said this last year and Eric was not at the table then. But I have been involved in something in the order of 10 to 15 exercises in my full team exercises in my years here. And we have never in all of those exercises ever tried to evacuate the entire ten-mile EPZ. We always start with the two miles and then some keyhole off on the five mile direction.

And even with the creative writers who write up these scenarios, we don't ever need to evacuate the ten-mile EPZ. So in some sense, this is the wrong question.

I mean, I don't know whether there has ever been an exercise with other Commissioners where the entire ten-mile EPZ has said you got to go right now, it's so bad. But I have not heard of such exercises. And they would stretch the imagination of even the scenario writers.

So I worry about this definition. ETE is the time estimated to evaluate all individuals to outside the EPZ.

Well, you know, if in the history of this agency, which goes back almost 30 years now, we have not found that necessary, even in our exercises with creative writers writing the scenarios, shouldn't we be thinking about evacuation time estimates for what

normally gets done, how long does it take to get the two-mile zone completely evacuated, how long does it take for various keyholes, how long does it take to -- and I know some States -- I mean, one of the issues we have is that some States want to do all azimuth evacuations despite our judgment that that oftentimes would actually hinder the emergency planning efforts and adversely affect public health and safety in a real event.

So, as I say, these evacuation time estimates are used and misused a lot of the time because they lead to this thought in people's heads that you have to evacuate 314 square miles as absolutely rapidly as possible. And we don't have to evacuate 314 square miles as absolutely rapidly as possible. We almost never will.

In doing it, if the wind is blowing in that direction, focus on the people where the wind is blowing, and not the people where the wind isn't blowing, at least initially. That is what any public official would want to do, I think.

COMMISSIONER MERRIFIELD: Commissioner McGaffigan, to answer some of your question, I recollect, and this was an exercise I did that was associated with VY, Vermont Yankee, I don't know if it went out ten miles. But I do reflect in that circumstance it was a case where the State of Vermont -- you know, the evacuation went over a keyhole -- in that case the decision tree in that neck of the woods is if Vermont goes, then Massachusetts goes. And if Vermont and Massachusetts go, then New Hampshire goes too.

MR. MC GAFFIGAN: That's politics.

COMMISSIONER MERRIFIELD: There are other dynamics at play than some of the things you are talking about.

I thought I would add that to the record.

COMMISSIONER MC GAFFIGAN: It is something that I think is, in many respects, the wrong question. You know, how long should it take to evacuate 314 square miles of all individuals? That's the wrong question.

CHAIRMAN DIAZ: The staff needs to be able to answer the question. I think there are some very good practical aspects of your question.

I think the staff is always bound by the fact that when the planning basis was established, it needed to consider what those times were.

I think there is many good things in assessing. And you're right, we always do consider whether we do a smaller evacuation or a keyhole. I think Mr. Leeds was talking of the requirements of assessing what is the total time and if that time was adequate.

MR. LEEDS: Yes, sir. And also, Commissioner, certainly I don't disagree with anything that you said. That's all valid.

The study does provide for small segments so that you

can do evacuation time estimates in smaller increments, two miles, five miles as well as ten miles. There is more to the study than just a ten-mile emergency planning zone.

COMMISSIONER MC GAFFIGAN: Okay. Maybe those other numbers are more relevant.

MR. LEEDS: Yes, sir. And you make a good point. If I may, sir, I will --

COMMISSIONER MC GAFFIGAN: The question I asked, has there ever been in the history of the agency somebody who was passing a piece of paper, a case where the initial protective action recommendation and the exercise was to evacuate ten miles in all directions?

MR. LEEDS: Not that I'm aware of, sir.

 $\,$ MR. MAMISH: Not that I'm aware of. Unless there is -- the states simply –

COMMISSIONER MC GAFFIGAN: Here is somebody who may know the answer.

MR. BARSS: Dan Barss, team leader for the licensing team. And the evacuation time estimates that we have, that were done they asked for not only the total number but they asked that they break it down, the guidance documents tell them to break it down by the two mile, the file mile and by the different sectors, so they can do a keyhole prediction and say this is what this keyhole will take to evacuate.

Now, it depends on who did the ETE and how they submitted it when it was done. They come in different forms. But generally speaking, you can pick out smaller segments of the population then the whole population by looking at those.

COMMISSIONER MC GAFFIGAN: I assume the answer is no.

MR. WESSMAN: But at least as far as my own experience in the last four years of exercises we have never seen the full ten that you talk about. We certainly see the two and five and sometimes an expansion of the two to maybe a semicircle of five. And that's about as large as it goes.

MR. BARSS: One comment being the State of Pennsylvania generally no matter what the licensee recommends, goes with the ten-mile evacuation in the entire ten-mile zone.

COMMISSIONER MC GAFFIGAN: And I would honestly urge the State of Pennsylvania to reconsider that if they are an outlier among the States in doing that. Okay.

CHAIRMAN DIAZ: All right.

MR. LEEDS: If I may, I will continue.

Our second evaluation study looked at 230 major evacuations that have occurred in the United States between January 1990 and June 2003. This study found that evacuations successfully

protect the public health and safety over a broad range of initiating circumstances and challenges, including technological hazards, natural disasters and a newly introduced category, malevolent acts.

There are several insights from the study I would like to briefly mention.

Relatively large public evacuations occur frequently in the United States, about once every three weeks.

COMMISSIONER MERRIFIELD: For purposes of the record, can you define "large"?

MR. LEEDS: Yes, sir. Large is a thousand or more.

Shadow evacuations have not impacted the effective implementation of adequate protective actions. Emergency workers do report to duty when asked.

Public education is an important contributor to efficient and effective evacuations. And route alerting is an effective and a significant contributor to efficient and effective evacuation.

Now, I also alluded to a top to bottom review of the emergency preparedness regulatory structure. Let me take a minute to discuss this.

A top to bottom review will identify if and where enhancements could be made to address some of the uniqueness associated with terrorist events. Such things could include, for example, changes to the planning standard for protective action recommendations and guidance on alternative emergency response facility capabilities.

So much of our work in emergency preparedness and response is focused on the "what if". As we know, good planning leads to good response.

Let me take a few minutes to discuss our role during real events such as severe weather --

COMMISSIONER MERRIFIELD: Mr. Chairman? Before Eric -- I normally, there is a lot here. There is an issue here I want to get to.

I think these are important observations that the study has identified in supporting our EP planning basis.

My own understanding is that we have had two instances that I'm aware of Three Mile Island and in the more recent evacuation activities associated with the event at Honeywell about a year ago where individuals were evacuated.

One of the things I think is somewhat different, particularly if you look at Three Mile Island, the need for evacuation, unlike chemical spills, which is the vast majority of these evacuations that are pointed to in the study, are not as immediate. When you have a chemical spill, the notion of an immediate evacuation is much, much more likely.

In our case, you are going to have a -- generally, you may have some period of time before a decision is made for evacuation. And in the case of Three Mile Island, I forget what the exact time period was, but we are talking in access of 48 hours.

One of the things we need to reflect on, particularly as it relates to the issue of shadow evacuations, is that the closer the evacuation is to the event, the less likely you are going to have shadow evacuation. The more time that goes on and the more possibility of some confusion amongst the public about what is the actual consequences of the event, the more likelihood you could have the possibility of shadow evacuation.

So I think your last bullet here on slide 48, "route alerting is important contributor to efficient and effective evacuations," that is exactly right. And I think as a general notion also, effective communications about what is going on at the site that is impacted and how that impacts the public is also a key factor, I think, in making sure that these very same outcomes would occur at the plants that we regulate vice most of which here in the study were chemical facilities.

COMMISSIONER MC GAFFIGAN: Or I think a lot of these are natural disasters. I mean, Florida, hundreds of thousands, if not millions, of people during the hurricane fiascos during September, early October.

I mean, the point -- I agree with Commissioner Merrifield, the study, because it does not focus on nuclear things, when you have an evacuation in Florida for hurricane purposes, you don't have the -- I don't know what is the equivalent -- the committee against hurricanes providing misinformation to the public at the same time.

And I think it was the Witt report pointed out -Riverkeeper, of course, said it was not us, but I would point the finger at
them -- that some of the information that gets put out by the public
interest groups is malicious. It complicates emergency actions. And
the longer the thing goes and you get these talking heads who are
standing up and saying all sorts of ridiculous things, it is different.

If that was committee against hurricanes --

COMMISSIONER MERRIFIELD: The Chairman is much more capable than I am in commenting on hurricanes, but I am sure there are some in Florida who would analyze or make an analogy with some of the weather reporters in their ability to identify the actual certainty of where the location will be landing as an analogous situation to the effects of the consequences of a plant we regulate.

But I leave the Chairman to --

CHAIRMAN DIAZ. I think the point is that the need for clear communications and really getting to the public early with the right facts about evacuation is key. And in the case of "radiation," it becomes even more urgent because people could receive the wrong

information or could decide to start taking the wrong options.

So I'm sure we will talk a little bit about communications and the importance of it.

Go ahead.

MR. LEEDS: If I can, I will bring us back to the real events, getting back into the real events.

As I was saying, emergency preparedness and response is the focus on "what if". But let's go over real events such as severe weather, specifically, hurricanes to show how good planning leads to good response.

This year, we had too many opportunities to exercise our hurricane response. When a hurricane is projected to impact an area where there is a nuclear power plant, the NRC Regional Response Center is activated, staff is dispatched to coordinate with the Federal Emergency Management Agency and the licensee, and the staff at the NRC Headquarters Response Center are put on notice.

In addition, this year we sent NRC liaisons to the Department of Homeland Security Operations Center.

The NRC staff tracks the storm and closely monitors the power plant preparations for the storm. Response to severe weather events is a real and active part of the emergency plans for nuclear power plants. Specific plants staff action such as plant shutdown, may be required under severe weather conditions.

After the storm has passed through the area and before the plant is allowed to restart, a thorough examination of off-site emergency response capabilities is undertaken by FEMA. As you know, FEMA has the responsibility for off-site emergency planning. It is only when FEMA and the NRC are confident that both the on-site and off-site emergency plans can be successfully implemented do we, the NRC, allow the plant to restart.

I'm pleased to say that our strong working relationship with FEMA staff paid handsome dividends as both agencies worked extremely well together this past hurricane season to ensure public health and safety as we monitored the impact of the storms on the nuclear power plants affected.

We have also had to respond to actual events at fuel cycle facilities. As Commissioner Merrifield noted, about a year ago we responded to an event involving a puff release of uranium hexafluoride at the Honeywell facility in Illinois.

Although no one was hurt or injured as a result of the release, some local residents were evacuated during the event. Certainly the event, which occurred in the very early hours on December 22nd, illustrated the agency's ability to respond to events around the clock and the need for our licensees to have viable emergency preparedness plans.

I would like to turn my focus to incident response, specifically the NRC's Incident Response Center and its operations. We continue to maintain a high degree of readiness to respond to emergencies.

Our operations center is staffed around the clock, 24 hours a day, 7 days a week by two operations officers. It is supported by sophisticated software and hardware. We have made upgrades to our systems as a result of advancements in technology and post 9-11 considerations, including improvements such as new display screens, smart boards, secure video teleconferencing and enhanced storage capabilities for safeguards and classified information.

But the enhancements are not limited only to equipment. We are developing an improved qualification and training program for our response staff. Our response staff is composed not only of the dedicated incident response directorate staff, but is supplemented by many of the technical professionals throughout the agency.

We are in the middle of a comprehensive review of the agency's incident response program. And the staff, as well as the Inspector General, has identified opportunities for enhancement.

These include enhancing facilities and information technology, developing an improved incident response staffing and augmentation plan, developing and implementing an incident response qualification program which will include assessment of response as well as lessons learned and corrective actions, and benchmarking of the headquarters operations center with those of other agencies.

We have established a dedicated team led by Susan Frant to critically examine the Emergency Response Program. Their goal is to consider recommendations made by senior NRC managers, the Inspector General and the staff to take a fresh look at the agency's preparedness and response program and to explore the best practices of other response organizations. Their efforts will bring more effective licensee and agency response to incidents.

As a result of Commission direction, we are developing specific response teams that will train together, drill together, and exercise together. There are three teams that will support reactor licensee events and two teams to support fuel cycle, facility and material licensee events.

Along with this initiative, we are making changes in activation and response strategies to establish more efficient facility operation.

We have also identified the need for improvements to ensure prompt support of simultaneous multiple licensee events and supportive events that go on for an extended time period requiring relief for the initial responders.

We have examined a number of facilities including the

Federal Aviation Administration's Dulles Operations Center, the Federal Emergency Management Agency's Emergency Operations Center and the Montgomery County, Maryland's Emergency Operations Center. We plan to visit other facilities to learn their best practices.

We are working with the NRC training staff to develop a training and tracking system. We have gathered together the leaders of our reactor safety teams and protective measures teams to identify the critical attributes of each team and what is required of each team position. We will also be engaging the Commissioners and the executive team members in a similar manner.

In addition, we are also working to incorporate the best practices identified by the NRC regional offices.

While we are working on the improvement plan, we are still actively engaged in our exercise program. Since we last briefed you—

COMMISSIONER MERRIFIELD Mr. Chairman, I just think it's worthy of noting at this point we all have commented on the unfortunate changes that have been forced on our country as a result of the unfortunate events of September 11th.

Looking and trying to put a positive outcome on some of this, I think the increased focus that you, Mr. Chairman, and all of us on the Commission have made on the Incident Response Center, the significant achievements of our staff in enhancing the technological capabilities of that response center, and the enhancements in the overall capabilities of our personnel in responding to those emergency response activities has, I believe, significantly improved in the period since September 11th and is a real plus and a positive thing which has come out of that very unfortunate event.

I did want to note at this point because they have gone through a series of those slides specific to this, that that is something that we should reflect on and celebrate.

CHAIRMAN DIAZ: Thank you.

MR. LEEDS: While we are working on the improvement plan, we are still actively engaged in our exercise program. Since we last briefed you, we have successfully participated in radiological nuclear power plant exercises including Comanche Peak, Catawba, Cooper and Indian Point.

We engaged in a full continuity of operations exercise with the Perry plant in which we practiced our response assuming that the headquarters operations center was not available.

We have also successfully participated in inter-agency terrorist exercises including Unified Defense, Forward Challenge, Determined Promise and Amalgam Virgo.

These inter-agency exercises have led to a close working relationship with the Department of Defense and NORAD. They have

also enabled participation with DHS's homeland security operations center.

The close working relationships and the successes from these exercises enable a better response to events to ensure protection of public health and safety.

As you are aware, Homeland Security Presidential Directive 5 tasks the Secretary of Homeland Security to develop and submit the National Response Plan for review to the Homeland Security Council.

The National Response Plan which integrates Federal domestic prevention, preparedness, response and recovery plans into a single all discipline, all hazards plan was developed through a collaborative inter-agency process involving Federal departments and agencies and representatives from multiple State and local governments as well as the private sector.

The NRC staff was active in the development process and was part of the writing team for the nuclear radiological incident annex.

Additionally, headquarters and regional staff reviewed and commented on the drafts during the one-year development process. On behalf of the Commission, Chairman Diaz joined other departments and agencies and signed the National Response Plan this past November 29th.

In emergency planning we assume the improbable has already occurred and we implement our response plan to address the consequences. Whether events occur as a result of severe weather, terrorist acts or equipment malfunctions, emergency plans provide an effective framework for decision-making and response.

We have accomplished much but recognize that we have more to do. Emergency preparedness is a process of continuous improvement. But the foundations remain valid.

The NRC demonstrated a strong commitment to emergency preparedness before 9-11, and we will continue to meet the Commission's high expectations for effective emergency preparedness and response.

This conclude my remarks. Now, I will turn the presentation over to Jim Wiggins, the Region I Deputy Regional Administrator. Jim will provide some regional prospective on emergency preparedness and incident response.

MR. WIGGINS: Thank you, Eric.

I am happy to represent the four regions in this area and to discuss how the regions contribute to the agency programs in emergency preparedness and incident response.

As you know, the regions have a key role in both emergency preparedness and incident response. We routinely

evaluate licensees' emergency preparedness capabilities through our reactor oversight inspection program. Our baseline inspections cover both the basic program itself and an evaluation of the on-site part of license exercises.

In incident response, the regions are truly on the front lines. Our resident inspectors are typically the first to be notified by the control room operators of plant events. This initial contact with the residents routinely starts a chain of notifications among regional managers and subject experts.

For non-emergency events, the regional event response is often well underway even before the official headquarters operations officer notification occurs by the licensee.

Resident inspectors are also the NRC's first on-site responders for these events. Typically, also the regional incident centers staffed by our managers and technical experts are the first to be activated. Regional managers led by the Regional Administrator or the deputies lead the site teams as director of site operations during expanded activation role in the agency's response protocol. And the regions will continue to work closely with the headquarters counterparts in NSIR to assure a continued effective integrated NRC event response.

With that as a background, let me just discuss a couple of events of examples where the regions have demonstrated our incident response capabilities. The first one I will talk about will go back to August 14, 2003, the northeast blackout.

As you recall during that blackout, there were a total of nine reactors, some in Region I, some in Region III, that were affected. Both Regions I and III activated their instant response centers and monitored plant status and recovery efforts simultaneously for the nine shutdown reactors.

During this event, the regions and the headquarters ops center shared information through a common linked telecommunications bridge for management decision-making.

This was also, by the way, the first significant event where the NRC through the ops center here in headquarters interfaced closely with the Department of Homeland Security.

We have heard some already in the presentation about the hurricanes. The hurricanes this year and the hurricane season was especially heavy as it has been stated.

Regions II and IV demonstrated outstanding performance, in my opinion, in their response to these hurricanes this season. Hurricane incident response required close coordination between those two regions as some of the storms crossed regional boundaries.

The regions dispatched additional inspectors to the

affected sites and supported State response activities. And as you heard, NRC works closely with FEMA to assess the impact of emergency response capabilities prior to plant restart. Routinely, the individuals doing that are regional individuals.

The regions, led by Region II, completed an incident response best practices review this summer. And all of us are using the insights from this effort to enhance our incident response programs.

Examples of changes include conducting additional exercises, improved processes that track the training of our responders and enhancement of our severe weather procedures.

The regions have also developed protocol for ensuring continuity of incident response if emergency response capabilities are lost in the headquarters or even among the regional offices. We back one another up.

This capability was recently put to a test, not a significant test, but a test nonetheless, when in our region we had a power failure in the building that actually affected our telecommunications capabilities.

I was able to get on through a bridge that -- on a phone that we were able to get working through the ops center. And my counterpart in Region II, Loren Plisco, and I discussed how we would handle events. And we had a solid plan going forward that continued from about 3 o'clock in the afternoon when the problem started, to about 8 o'clock at night.

Fortunately, they were not any plant events to handle. But we were in a position to handle the events from the full spectrum of a monitoring approach through expanded activation.

And lastly, the regional offices will continue to want to sustain our high level of response capabilities and we look forward to working with NSIR's team to better our incident response capabilities.

Eric.

MR. LEEDS: Thank you.

MR. REYES: Mr. Chairman, that concludes our formal presentation. Before I turn over the discussion to the Commission, I wanted to recognize somebody here at the table.

Dick Wessman, this will be his last formal Commission presentation. Dick has had a distinguished government career but especially in the NRC in quite a few roles but the last role was with the Incident Response Center.

I just want to acknowledge all the contributions to the agency and the fact that it has been a pleasure and an honor working with Dick.

MR. WESSMAN: Thank, Luis.

CHAIRMAN DIAZ: We join the staff in celebrating your career and to take this opportunity to thank you for your many

contributions.

I know we have been across the table a few times and as always with some pains when we are dealing with incidents, but always have been fruitful.

COMMISSIONER MC GAFFIGAN: I agree.

COMMISSIONER MERRIFIELD: Ditto.

CHAIRMAN DIAZ: All right. Now, let's go forward here. I am going to forget that you are going to retire.

(Laughter)

CHAIRMAN DIAZ: Let me just take a minute here, because there is a tremendous amount of information. And the reality is that I don't remember that we ever had a meeting that dealt with emergency preparedness. And there are many good reasons. Specifically, because we are always dealing with it in some different form.

And I think the Commission wanted to make sure that we were kept informed of all the work you are doing, but also want to make sure that the stakeholders realize that significant changes have taken place.

In that regard, let me just backtrack and go back 25 years, and then go in between and go to now.

There is no doubt that we probably -- by any assessment, we were not very, very ready to deal with Three Mile Island. And we were not ready in the way that the Commission functions. We were not ready in the way we communicated. The issues -- we were shocked.

And at that time, tremendous changes took place. But we didn't have either the technology nor did we have the information that we have today.

I think that the Commission changed. We reorganized in 1981. The President proposed and the Congress enacted a change to make sure that command and control was established inside the agency. So, the emergency powers were assigned to the Chairman, and the Chairman can delegate to any one of the Commissioners or to the EDO. Much has happened since then.

But, you know, the reality is that although that was the accident in the nuclear power plant that really required the mobilization of the nation's resources, since TMI there has been hundreds of times in which there has been an incident where a source got lost, where an alarm was sounded, where the steam generator leaked.

So we have continued to improve systematically, slowly but surely incorporating both technical and personnel improvements into the way we respond and at the same time, the way that emergency preparedness gets handled, because these two things in many ways they should support each other.

I think 9-11, in many ways, is the other side of TMI in

which although nothing happened at a nuclear power plant, it happened to the nation in a manner that we have to reassess how we dealt with incident response and emergency preparedness.

And as a result of that, the Commission has been bringing cohesion to the organization, has been bringing parts that were sometimes separated because they occur naturally that were in the reactor or here or there. And now we have put them together in the regions. We have actually increased our focus on how we responded, how tight the personnel and the licensees work together.

Right now we are at a point in which we all realize that emergency preparedness incident response are tied in not only to the way our licensees function but to the way that the nation functions. And so, we are now working in a different environment in which practically before the NRC was almost by itself having -- or, one of the few agencies that had really an ongoing practicing forward emergency response outside of FEMA.

It brings me then to the question that somebody that is not really familiar with all of the things will ask, and that is in between these two events, let's call it, the TMI and what happened in 9-11, the question always comes up how, do we deal with an accident that happens and develops slowly in a reactor in a manner that is -- not that it is controlled but is a manner that is evolving and we have indications. And how do we deal with a terrorist event in which the incident develops -- the incident itself is fast, is more unpredictable, and we are making assurance to the public that we can deal with both of those things.

Mr. Leeds, will you take a minute and tell us how do we deal with these two different things in a manner that as you stated, the emergency planning basis remain valid and we are protecting the public heath and safety?

MR. LEEDS: Mr. Chairman, the difference and how do we handle two different types of events, what we originally anticipated, as you said, the slowly developing event, an event that would progress in a step-wise function as opposed to a terrorist event, where an event could occur and you could see something that would cause as much destruction as possible in a short period of time.

Basically, in both of these events we found that from an emergency preparedness perspective, you have enough time, there's enough time for the control room operators, for the staff at the licensee to alert the off-site response organizations, make a protective action recommendation, get the folks who need to know the information such that they can respond.

In a slowly developing event, of course, it's going to progress in a much slower fashion over the course of hours, as we talked about with Three Mile Island.

In a terrorist event, although activity needs to take place in a quicker manner, we found that the probability of a release, the idea of something impacting the public still can't progress faster than the system that we have in place. We have a system in place such that the physics of the reactor are not going to change. We still can get what we need to do done to protect public health and safety.

So the difference -- and I hope I'm answering your question. The difference is that the scheme is there and will work for both events. For terrorist event, the biggest change for us and for the off-site responders is that we need the licensees to react quickly, get us the information both to the off-site responders and to the agency so that we can take appropriate actions.

MR. REYES: I think in a short summary, the key elements that we have, serve for both. In other words, the emergency action level initiation, whether it's a mechanical event that goes slowly or fast event that's from a terrorist act, and those classifications, that concept works for both. The communications to notify agencies off-site is the same for both.

So the infrastructure that we have, both the licensee and the regulatory bodies, local governments, is the same. It has to be handled slightly different but the backbone of making sure the response is there is very similar. Each one of them has to be handled different, though.

CHAIRMAN DIAZ: I do agree that from the standpoint of a radiological releases, we have good reason to believe that they will be bounded. However, the manner to deal with -- and I'm going to use now, one of Commissioner McGaffigan's favorite postulate which is you might not have the operators in there.

What redundancies do we have in the systems to be able to deal with the proper notifications? How do we actually go about, in simple terms, to notify the proper authorities to get the proper infrastructure activated?

MR. MAMISH: Through our work with the Division of Nuclear Security and licensees, the force on force exercises, we observed all of these exercises that took place. And did note that things are slightly different in the beginning and at the end of a potential terrorist attack.

And what we have seen is that there may be some communication challenges between the control room that are affected. And we have worked with the industry, we have communicated some of these issues to the industry, we issued a RIS, a Regulatory Information Summary, that articulated to the licensees, not only the need to make an immediate notification to the NRC so that we can get the word out in the event that we have a coordinated attack, but we have also communicated some of these challenges like backup procedures,

notification procedures, like the need to have local law enforcement agencies from close by jurisdictions to have mutual agreements, aid agreements.

We are also engaged with the industry to develop terrorist-based drills. The industry -- we have met with industry several times. The industry has recently sent us a letter indicating that they are interested in doing the same, although they have their own exercises in-house.

They are interested in doing a pilot program with us. And so, we are looking at sometime next year to begin this pilot program with the industry where we would actually go out to half dozen sites, observe these drills and then reassess whether licensees have all the procedures that are needed that you discussed, backup procedures for notifications, security, operations, EP interfaces.

MR. WESSMAN: Chairman, I would like to supplement also some of the work that the staff has done to improve NRC's capability to respond to a faster moving situation.

For example, we now have the satellite telephone capability if the existing land-based phones are not working. Of course, most everyone has cell phones and things of this nature. Selected individuals have secure telephones for the classified communications that might come as part of a terrorist type of event.

And finally, we have the capability in our operations center to do what we called a blast dial. And that means we can contact large groups of licensees simultaneously to alert them in the case of a single terrorist event being part of a coordinated terrorist attack at multiple facilities.

So I think our response capabilities have improved and we are looking further down the road in some of our information technology to improve the notification and call-out capability for the technical staff that might help respond to an event.

CHAIRMAN DIAZ: But in the -- like quoting Commissioner McGaffigan, in the -- have we now established procedures and systems that are able to cope with the time demands that could occur in the low probability of terrorist attack, are we there? How much more do we -- I know we have plants. How much more do we have to go? Where are we in the communications?

COMMISSIONER MC GAFFIGAN: Mr. Chairman, I can sense some discomfort in the staff. We are going to have a closed meeting next month and to talk about some of the stuff.

CHAIRMAN DIAZ: But this is without getting into sensitive information. I think the staff should be able to say, yes, we have improved or we are in the planning process. Where are we?

MR. LEEDS: Mr. Chairman, I will take that one for a

moment.

I think we have made tremendous progress. I think we have more progress to make.

You have mentioned what if the operators are not available in the control room. Well, we have alerted the industry to think about that type of a contingency. We have learned a lot from our force-on-forces.

We said, all right, if the operators can't, then the security force needs to be able to alert the off-site response organizations. What contingency plans have you made? That's the beauty of the emergency plans, the flexibility, the ability to adjust as we learn more.

As I said, we are learning an awful lot from the force-onforce exercises. There's a very strong security operations EP interface there. And because of those, we get lessons learned.

We fed a number of those back to the industry in our Regulatory Information Summary that I know you are all aware of.

But as we do more of those, we expect to learn more. And as we learn lessons, we will get that out, communicate it in a number of forums, will communicate it, as I said, through our generic communications.

We also communicate to the industry through working groups that we have. We have an emergency preparedness working group with NEI. And as I have mentioned in my discussion, we are really putting a lot of emphasis with outreach. We have been attending meetings with the licensees and State and local officials and FEMA.

We are all getting together with all the affected parties and discussing some of these issues.

I hope that responds to your question, sir. CHAIRMAN DIAZ: We are getting close.

We have talked about this top to bottom review that you are going to be finished by next year. Again, the issue comes that of course, we do consider a terrorist event to be a low probability event. And when you do the top to bottom review, you are going to have to consider the spectrum of events from the TMI type event to all of the other events that we are dealing with.

And in doing so, you are going to have to provide some balance that deals with the more probable type of event that we have seen through the years. TMI was a unique one, luckily, the only one. But we are going to have to be able to be responding to this events in a manner that we also establish the public confidence that we are capable of handling those things.

You talk about communications with the industry and local authorities. We also obviously need to do some communications with the public.

Now, in this top to bottom plan, when do you believe that that will be available and what can we expect from it?

MR. MAMISH: Chairman, we are going to be looking at the 16 planning standards to look at enhancements. We are not looking at any overhaul of those standards. As Eric pointed out earlier, the emergency preparedness basis does remain valid.

So we are looking at enhancements in the standards.

We are looking at reconsidering sheltering as an option in some of the terrorist based scenarios.

We are also looking at the 50.54Q process which is the equivalent of 50.59 changes that is a requirement in the regulations that allow licensees to make changes to their emergency plans without coming to the NRC as long as the effectiveness of their emergency plan is not impacted.

So there are a number of issues that we are going to be reexamining for potential enhancement.

As far as timing, Chairman, I don't believe it's going to be my time in the next couple of months. It will be sometime next year.

MR. REYES: Let us give you the schedule but it is next year. We don't have it with us. We have to give you the schedule on the progress we have but it will be 2005.

CHAIRMAN DIAZ: Are you considering including analyzing the recommendations of the Inspector General regarding emergency response?

MR. MAMISH: Within the 16 planning centers, we certainly would consider that, Chairman. But I believe that --

MR. WESSMAN: If I may comment on the IG activities.

You recall, of course, that the IG did an audit that took over six months and concluded with a report in September of this year and they gave us 17 recommendations. Actually, they gave us 16 and one of them was our own.

I think we had a very good working relationship with the IG auditors as they looked at the incident response activities both here in headquarters and in the four regions.

We then developed our reply and commitments to the IG on how we expected to go forward dealing with the 17 recommendations, all of which we agreed with, and many of which were things that we had identified that we knew we needed to work on, where the regions had made suggestions to us as part of their regional best practices activity.

Many of these are unfolding as part of the task group effort led by Susan Frant to help improve our overall effectiveness of emergency response.

A couple of the highest priority ones that we are focusing on are those that are associated with the development of the NUREG-0728 and the management directive dealing with the incident response planning and the incident response program itself. And these are necessary to meet Federal commitments in support of the National Response Plan.

But they are all tracked. They have been assigned to either individuals or teams. We are looking at them on a prioritization process with consideration of resources and recognizing that some of them will be captured as part of Susan Frant's effort.

Some of them, we have actually done work on already. For example, one of the findings concerned feedback to incident response individuals or a self-assessment process. And we did a little pilot work in that area on the Cooper exercise and will continue that process.

So, seeking to move well on those IG findings. CHAIRMAN DIAZ: I think Susan --

MS. FRANT: I don't have much to add, Chairman -- Susan Frant – to what Dick Wessman has said, except to say that we have a crosswalk from the IG, the 17 recommendations in our improvement initiatives. And we have made sure that we have captured every one with a schedule, and as Dick said, it has either been assigned to somebody or it is assigned within a category of the improvement initiative.

So we are making sure that every one of them is addressed. And by the time we finish all of the ten categories of initiatives, we will have responded to all of them and then some.

CHAIRMAN DIAZ: All right. Very good.

Last question, you talk about training and upgrading the training and qualifications of our staff to be able to deal with emergencies. Can you elaborate a little bit on what do you mean by enhanced training, what are we doing? You talk about different teams, how will they enhance our capabilities?

MR. LEEDS: Yes sir. Susan.

MS. FRANT: Well, this is one of the major initiatives in our improvement initiative. And let me say that is no small chore, because we are looking at all the response teams including the regional response teams.

We started with the reactor safety team, the protective measures team and the executive team. And we are looking at what the essential functions are. Then we are taking that and looking at whether we have the right people at the table in the room to do those functions and then how we would qualify those people.

We have made a great deal of progress, I think, on the reactor safety team and the protective measures team. We still have a lot to do with the other teams.

We are working with the ERC's emergency regional coordinators. They are looking at the regional teams, both the base teams and site teams. The whole essence of our effort is that we will

have it all phased in, and I think by next time this year, we will have qualified all the teams that we are talking about, region and headquarters.

MR. REYES: I wanted to add that we have always had a training program for our emergency responders. And we have always had qualified people whether it was reactor, safety, security, health physics, chemistry.

But we are now taking a real review to make sure the process we have is really structured. That, in fact, for the duties of each individual that we have the right skills and therefore, the right training in every position.

So what Susan is doing is a very detailed review. Something that supplements what we already have.

CHAIRMAN DIAZ: All right. Very good.

Commissioner McGaffigan.

COMMISSIONER MC GAFFIGAN: Well, why don't I stay

with this.

I do think that this is important, but let me ask a couple of questions. I think the Commission has talked about this. I talked about this with some regional administrators sometime ago. And this is very much driven by the Commission, not by the IG.

But as you think about these teams, are you thinking about -- and I'm assuming that we have gotten ourselves in what Secretary Ridge would call an incident of national significance, probably not much has happened yet but could happen.

Who goes to the Homeland Security Council to the Sit Room to aid the deputy's committee as it sits and does things? The deputy's committee, I'm told, ran the NASA shuttle re-entry sometime back and the President was on the phone with Governors of various States rapidly. And who goes to the Homeland Security operations center to augment them? What tools do they have to bring with them, depending on the type of reactor?

Do they have -- you send the person down with what's in their head but visuals are sort of important. Do you have visuals for them to take with them to HHSC and to Homeland Security to the Sit Room so that they can, you know, properly inform various senior government officials?

MS. FRANT: Let me speak a little to it and then Dick.

One of the things we have done is we have gone to a lot of other ops centers including Homeland Security, FAA, military installations and looked at how they handle it. We have been working with Homeland Security to decide who needs to be there.

You know they have an inter-agency incident management group. Who would go there.

We have pre-stocked, if you will, the Homeland Security

operations center with a lot of pieces of information. We do have things on disks that are in a go kit. So we have looked at that short term.

Longer term, we have to look at the executive team, its function, and how the executive team director, the Chairman or one of the Commissioners would delegate who would go and where they would go to, because now we have many more players including Homeland Security. So we have the White House that was always there, but we now have Homeland Security Council and Homeland Security.

COMMISSIONER MC GAFFIGAN: White House and Homeland Security Council are the same, but the Homeland Security operations center and this incident management team –

MS. FRANT: And we have a duty roster, and we have SES managers trained to go to the inter-agency management groups. So we have looked at the short term.

Longer term, we have do more work on the executive team's operations.

COMMISSIONER MC GAFFIGAN: I think you need to think about this stuff and we need to continue to play at it in exercises. Because clearly, the executive team, we have done good things. I mean, we can absolutely sock the executive team with more information than they can possibly handle given all the telecommunications.

COMMISSIONER MERRIFIELD: Well, I don't know about that. Speaking on behalf of the Chairman, I don't think that's --

COMMISSIONER MC GAFFIGAN: I think we are at a capability than any human being whoever has lived, including Albert Einstein and Richard Feynman, could deal with in very short periods of time. And so, we do have to think it through, but there is an expectation, and it permeates a lot of these government planning documents, that Secretary Ridge and Ms. Townsend are going to be involved very rapidly and need to be very well informed.

And I think the Indian Point exercise was the closest we ever came to having very senior officials of HSC playing in our exercise. I think FEMA has always been good about having senior officials play. But I don't believe to this day that we have ever had the Homeland Security Council or its predecessors play in a exercise in the realistic way that they do play.

And getting all that to work is -- I think we have to think about it in advance because nobody else will. And we are an institution that has a fly wheel, because we don't change as frequently as the other agencies do in terms of our personnel.

So we can build up institutional memory and we can help educate them in a crisis as to this is what we think the procedure is.

And we will get you somebody. We will have somebody down there in 20 minutes.

But I think we have to think it through, because everywhere else we have people rotating fairly rapidly and not a lot of institutional memory has happened.

I mean, I will play, if you want, in one of these darn exercises so long as the other Commissioners do. I will pretend to be Fran Townsend. And wait until you see how I expect information for my President and I need to get a press release out and all this.

I want to say, we do better than any other agency in terms of having very senior officials think about these things, go through the things, learn lessons. All of us have been through a lot of these exercises. But as the Chairman says, they still don't capture the inter-agency fog of war, especially with the new actors that we have happening.

The good thing is we built these plants so well that we will have time. And a lot of this is going to be to try to slow down, we are okay, that yes, this is situation. And we are staffing up. You have time to staff up. You don't have to make an announcement in the next five minutes.

But we need to practice that.

MR. WESSMAN: Commissioner, if I could supplement a little bit. We have made some progress in this area and there is more to be done.

Commissioner Merrifield may recall in TOPOFF 2 that we had Secretary Ridge, I believe, participating. And I think that was a first for DHS. And that stimulated all the federal agencies.

COMMISSIONER MC GAFFIGAN: I think that was excellent.

MR. WESSMAN: Yes, it was. It was very precedential. MR. MCGAFFIGAN: That was the most realistic exercise

that we have ever been involved in because it did involve top officials.

Too many of our exercises, both with the States -- we are dealing with radiation protection officials and with other agencies. We are dealing with folks -- I mean, in my most recent exercise -- I think it was my most recent --

COMMISSIONER MERRIFIELD: Can I add one thing?
We also -- I think there has been a little bit more practice.
We had the TOPOFF. We have actually had two TOPOFFs so far.
The second one was obviously much more involved than the first. We did have the transition to the Y2K, which was significant inter-agency Federal involvement.

And I would note about a year and a half ago, we did have the events of August 14th, the blackout, that did involve a coordinated phone call under the auspices of the Homeland Security Council. And that was headed by some folks downtown. And I was on the phone, there were cabinet level folks on the phone.

So there has been, I think, perhaps a slight bit more of that than we sort of sit down and think through. We have had a bit of it.

COMMISSIONER MC GAFFIGAN: A lot of it are artificialities because the event that I'm thinking of was in the southeast. And some of the radiation protection officials got their noses out of joint because we assumed the Governor might want to know whether the NRC concurred in the protective action recommendations or not.

It strikes me that the only event we ever had Governor Thornburgh was very interested in NRC's protective action recommendations and whether the two staffs were aligned and all of that. There was, in that exercise, we are sitting there in the executive team and we discovered some low-level USDA official had gotten way ahead of the States in terms of dealing with food stuffs.

We didn't even have any radiation coming out of the plant yet. And we were scratching our heads saying how does that work. And I don't know whether that's every been solved, whether you all every found out -- but it strikes me that -- you know, when I show up at an exercise, the first thing I want to know is what is the standard operating procedure at that site.

It isn't rocket science. It's 63 sites, 2 CAT One facilities and some major fuel site facilities. We are talking less than 70 sites,

And it just strikes me we should know what the standard operating procedures are. Pennsylvania, somebody mentioned earlier; Vermont Yankee, I have done one there as well as Commissioner Merrifield. And you discover that at --

MR. WESSMAN: At the alert level they will do school evacuations.

COMMISSIONER MC GAFFIGAN: Schools -- parks, yes. Long before there is an emergency. The same was true at Nine Mile.

And we discovered that they were doing all sorts of stuff at a very early stage. And that was their standard operating procedure. We just have to understand it.

I do think that there is work that could be done to try to standardize. We are a Federal system and the States are closest to the people and all that. But I think we can standardize some of these standard operating procedures around the nation to the extent that it would be easier on folks.

I mean, you're sending high-level officials off to various places. And they are going to have to explain the politics of that State to the decision makers at HHSC or DHS -- or HSC. Hopefully, you can do that.

But I'm not sure how many folks have that information in their heads. Why are we dealing with the judge here in Texas. Well,

sir, that's the -- so I think there's more to be done. There are 60-odd sites. We can really do -- have an expert about all of this for each site or expert system, if it isn't a simple expert.

MR. WESSMAN: Well, if I can add one other comment.

I think we are making progress in this direction. For example, Region III recently in the move of their building and the development of their regional incident response center has acquired on compact disk all the licensee plans and State and county plans. So now these are effective to use on electronic bases and can be moved around.

We are working with that same example to reach towards the other regions and towards our own organization here, so we are not bound by paper copies and things that may be old.

We have been reaching out, both Roy and myself, towards DHS to have a cell or a small group of players, if that's all we can get them to commit to, to participate in some of our exercises.

We did a little of that at Indian Point, as was mentioned. We sought to do that for the Cooper exercise, and we had to supply our own cell because of other resource demands that they had.

So, the initiative is there. We certainly hear your message, sir, and are trying to keep working forward on these concepts.

COMMISSIONER MC GAFFIGAN: As I say, I think you have to work it out with these other agencies.

MR. WESSMAN: Sure.

COMMISSIONER MC GAFFIGAN: Something

happened -- when was the Tokai event? Was that late '98.

MS. FRANT '99.

COMMISSIONER MC GAFFIGAN: And I remember I was acting that day. It was a Friday -- I think it was a Friday. And as the day went on, we were trying to communicate with the White House. And we were choosing OSTP.

We were not in charge under the plan. EPA was in charge but the fellow was off that day, because it was a Friday. And, you know, Secretary Richardson who was off in Moscow -- issued some statement because his ops center at -- wherever they are, decided they were in charge even though they weren't in charge. And we had a one voice initiative after that. We sort of all gently tried to say let's figure out what the rules are here.

The Japanese turned down the sort of gratuitous offer that came from the two energy secretaries sitting in Moscow. But it was not government at its best.

I was on the phone to EPA asking them to please be in charge. You are supposed to be in charge. We are ready to help. We are getting a lot of calls. And let's figure out what, if anything, we need

to do here.

That would not happen today because we have a Homeland Security Council. That would absolutely not happen. It didn't happen in the NASA shuttle disaster because we had Homeland Security Council by that time.

But I do worry about people making up rules as they go along. That happens a lot.

MR. ZIMMERMAN: Roy Zimmerman. Good afternoon, Chairman, Commissioners. I think you are on a very important point. I just want to supplement what has been stated. We are all about continuous improvement and that's really what we are talking about. We want to be doing more state outreach.

We recognize from the exercises that we have conducted that more can be done in that area. And as you have heard, that is what our plan is, additional state outreach, so that we better understand the individual makeup of the states and what is special or different about that state, so that we can learn it; they understand more about us.

The Department of Homeland Security being a relatively new organization, we have outreached to them, we have held table tops with them to understand in this type of event, whether it's radiological -- we went down two different paths, radiological and security. How would you see yourselves, what would your role be in this? So that we made sure that our role was clear, and their role was clear. We did it both for a straight safety radiological event and then for a security initiated one.

COMMISSIONER MC GAFFIGAN: How high level? Because Secretaries have a way of making up their own rules.

MR. ZIMMERMAN: It went into the Secretary's office. Bob Stephen was in the Secretary's office at the time. So that was very, very beneficial for us to be able to do that. FEMA was there at that activity as well.

Setting up the cells with DHS is something we don't want to go back from. We want to continue doing more, make these as realistic as possible. So we try to work with DHS far in advance of when our exercise is planned to let them know months ahead of time, we have a full participation exercise coming up. We really would like to see several cells set up in different areas. We would like you to play aggressively with us. So we bring as much realism as possible to what we would expect in a real event.

We are going to continue doing that. We want to, again, be moving forward with the State, Federal partners and drive this to as great a realism as possible.

NORAD is another area. The Chairman asked earlier about procedures that are in place.

We have required licensees to put procedures in place for dealing with imminent attacks, whether they be by land, by water, by air. And we have been practicing with NORAD with the licensees and having phone calls with NORAD, NRC on the phone and with the licensee on the phone; the operators are being in control room. How quickly something can occur so that the operators get familiar with NORAD's terminology and are able to implement those procedures that we require be put in place a couple of years ago.

COMMISSIONER MC GAFFIGAN: Can I ask, do you all have a time line for call out? I know the Chairman can be there in five minutes. So you have two operators and the Chairman in the ops center. But at night time, what is your standard for the people showing up?

MR. WESSMAN: There is a difference between showing up and having them there by phone. The nominal expectation for showing up could be as much as an hour from the time that we put out the call.

On the other hand, we expect to be able to put senior decision makers on the phone within a couple of minutes. One of the things we are working on in the improved notification system would be a capability blast dial, a collection of senior decision makers, blast dial the right regional people and this sort of thing.

So we are talking minutes from a telephone communications. But people have to come from wherever they are on Saturday afternoon to come into the center. That could take an hour or so.

COMMISSIONER MERRIFIELD: Dick has used this term "blast dial." In putting on my plain speaking hat, I will help explain what that means.

I happened to be on an exercise in which this new feature was tested. You may have been as well. But this feature was automatic dialing. I remember sitting there, I was having dinner with my family. And every phone in my house, including my cell phone, went off all at the same time, a somewhat horrifying experience. Fortunately, I had swallowed the food when it all went off quite quickly.

And very quickly after that, there was an assembled on the bridge. I was the ET leader for the purposes of that particular one. There was a large number of people on the phone, very, very quickly.

COMMISSIONER MC GAFFIGAN: One of the problems is figuring how many people you need on the phone. Chairman and I were on the phone call one Sunday. I was at Comp USA dealing with a computer issue and you were wherever you were and that was one we learned from. There were more people there talking about more things than we needed.

MR. REYES: One of the things we need to remember in

terms of reporting to the ops center, you don't need every position filled to start working. So we have identified critical positions.

COMMISSIONER MC GAFFIGAN: Given NSIR work hours you probably --

MR. REYES: We always have people here in the building seems like. So we can activate pretty quickly.

MR. ZIMMERMAN: If I can add an item. We do periodically do call outs to make sure that we can reach people and also ask those individuals how much time before they would actually be able to show up in the operations center. And many of us are able to arrive in 15 or 20 minutes.

So we do have folks that live further away. I'm thinking that Mr. Wessman may be one of those people in the right lane when I am in the left lane that I look at as I drive by in terms of how quickly we can get here.

COMMISSIONER MC GAFFIGAN: You mentioned 50.54 and I thought about 50.54X. And 50.54X is a very powerful provision that allows the licensee to take reasonable action that departs from a licensed condition or technical specification, contained in the license, et cetera in order to protect public health and safety. Then 50.54Y says "licensee action permitted by paragraph X of this section shall be approved at a minimum by a licensed senior operator or the nuclear power reactor facility for which" -- that is if it is already shut.

But do you envision 50.54X actions in emergencies? MR. REYES: Perfect example, when Hurricane Andrew went over Turkey Point, they had no choice but to use 50.54X to deal with some of the unexpected situations. And we dealt with that very -- it was not a problem. We were in communications. They tell us the situation. They assess what the safety --

COMMISSIONER MC GAFFIGAN: What does, at a minimum, senior reactor operator mean, if you were in one of these abort situations where possibly, at least the crew that's there has not -- isn't functioning at the moment? Could it be an off-site licensing operator? Or could it be somebody who is in a different building who is maybe once was a senior reactor operator, now is the VP for operations? What do those words mean?

MR. REYES: We have not been faced with that situation. But I think the regulations refer to knowledge, know where physically they are located.

What you are getting into is you have an unexpected situation not envisioned by either the tech specs or their procedures and you have to deviate for good safety reasons. You want to make sure there is a decision.

All the ones that I'm aware of not only do they make the decision, we were also informing parallel as they were doing it. They

said we have this situation, we are planning to do this. We think it is a safer thing to do. Do you have an objection or a concern?

We were on the line. We had our own experts. We all agree and moved forward.

As far as I know, typically, we have dealt with those in natural events such as hurricanes.

COMMISSIONER MC GAFFIGAN: You may want to think about 50.54X in security-induced events as well and make sure people understand what authority they have.

It sounds like it is well understood. That at least in places where hurricane induced-events occur, people understand that they really do have a flexibility to do the right thing. That there is this provision that's been there since -- it's a very old provision that -- it's post TMI?

SPEAKER: Yes.

CHAIRMAN MC GAFFIGAN: Well, it's a good provision. It's a good provision.

MR. REYES: One of the things that has been done recently in the upgraded security plan is that as a result of the feedback of this situation with hurricanes and security equipment, there are provisions now in the new security plans to deal with that, too, if are you talking about security

COMMISSIONER MC GAFFIGAN: Okay. Thank, Mr.

Chairman.

CHAIRMAN DIAZ: Commissioner Merrifield. COMMISSIONER MERRIFIELD: Thank you, Mr.

Chairman.

We did have -- the Chairman and I had an opportunity last week to go down to the Incident Response Center. And we had a very good presentation from the staff about some of the new technological capabilities available to us as well as some of the enhancements to the reactor safety team, protective measure teams and their ability to advise the executive team on how these incidents should be managed. And I have got two questions coming out of that.

I think this comes from Roy's comment about the desire to have continuous improvement.

It strikes me that dating on the time when I first got here, much of the equipment and our efforts in the Incident Response Center did date back to the big effort that was made post TMI that enhanced our capabilities. Because of 9-11 and some monies that we had available, we made, I think, an enormous jump in terms of that capability from where we were.

And so, based on that, I'm wondering if we have got a plan to build in that continuous improvement so that we are looking at that down the road, not on a once every ten year, fifteen year basis, but

really looking at it on a yearly basis to say, are there areas where we can make improvements? I would trust it has been talked about in the visits that Susan Frant and others are making. But have we locked in a process to make sure that that is built into our reviews?

MR. LEEDS: Commissioner, we talked about that. We have not locked it in yet. We need to do that. We thought about it. We need to make it part of our yearly op plan and -- we need to do it, sir.

MR. WESSMAN: We are headed in that direction. One of the IG findings concerned a self-assessment process and are we going to assess the regions. Well, in turn, should the regions assess us? Well, yes, of course. We need to always share our best thinking.

So we know we are headed in that direction.

COMMISSIONER MERRIFIELD: I appreciate that.

I guess I heard a little bit today -- and I appreciate Susan leading a team to go out and take a look at what some of our Federal and State counterparts do in emergency planning in their incident response.

It strikes me that like utilities, I think, we need to look beyond our typical framework, recognizing that we oversee -- while we oversee 103 operating power plants, there are in excess of 330 outside of the United States that we don't.

I'm wondering, are we aware of any efforts either under the auspices of the Nuclear Energy Agency or the International Atomic Energy Agency to identify best practices among regulators for specific capabilities of incident response centers?

MS. FRANT: I don't know that this completely answers your question, Commissioner, but Malcolm Crick at IAEA has been leading an effort to look at how incident response is done in other countries. Mostly his effort is aimed at looking at doing assist visits and raising up some of the less developed programs to the standards of the more developed programs.

But in talking to him, a lot of the things that we are doing are advanced in terms of other countries. But there are bits and pieces and we have talked to the Japanese and to the French and to the United Kingdom. And we are going up to see the Canadian -- just for many reasons partially because they have just totally overhauled their Incident Response Center and also because we have agreements with them to share information about plants on the border.

CHAIRMAN DIAZ: But the answer is yes, both IAEA and NEA have a program specifically designed to look at how to improve emergency preparedness.

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.

I guess would editorialize here under the auspices of the

utilities that we regulate, the Institute for Nuclear Power Operations celebrates utilities that have elements which are considered the best of the best.

And while we should be very good in hopefully most everything, I clearly think that from my personal standpoint, incident response and our efforts in this area should -- our goal really should be and our vision should be to be the best of the best.

I want to go back to slide number 29 regarding emergency preparedness licensing efforts.

Eric, in your slide, you talked a little bit about the activities underway in the early site permitting relative to the review of the Dominion/North Anna site, Exelon/Clinton site and the -- there is a typo here -- the Entergy/Grand Gulf site. That focuses on reactors and sites at which there are currently emergency response plans. So the framework for the review activities of your staff has a greater degree of boundaries.

How have we prepared or alternatively, how are we preparing to conduct our review of emergency response plans if we were to receive an application for a greenfield site? And how would our approach to that be different? And how are we ready to grapple with that?

MR. LEEDS: Commissioner, when we first established a framework to review any new reactor license applications, we anticipated greenfield. And that's the way we initially wrote the regulations and the guidance was for greenfield, not for what we actually received, because as you said, these new applications are collocated at existing sites.

So, the applications that are in now and that we are reviewing, we are getting a lot of lessons learned, even though the initial write-up or the initial framework was for greenfield, we are finding with once you try to implement anything, you are going to learn from the activity.

And I think what we are learning in the review of the Dominion, the Exelon, the different applications, we are going to need to go back and supplement and update some of the original guidance that we originally created to reflect what we have learned in this current review.

COMMISSIONER MERRIFIELD: Recognizing the end product is going to be the same and the philosophy we are going to use is going to be the same, are there any -- is there anything we would need to do -- and this is sort of thinking as a Commissioner and wanting to plan -- is there anything we need to do differently in terms of staffing, in terms of any other lessons we have learned from our views thus far that would engender some additional involvement of the Commission in making any policy decisions in this area?

Mr. LEEDS: We will need to come to the Commission because we are going to need to adjust some of the regulations that we have and provide additional guidance to licensees. So we are going to need to come to you. We have learned a lot.

MR. REYES: If you go back to when we did this in the late '70's and '80's, I was involved with that, I still remember, we are going to have to have resources and skills to be able to do that. Because although the elements are the same, off-site response, off-site notification, emergency operating facilities, procedures, et cetera, et cetera, you are really starting from scratch in that area.

You are talking greenfield. There is no agreement beforehand with local law enforcement. There is no agreement with the counties. There is no agreement with radio stations, et cetera, et cetera.

So we have those procedures from the '80's time frame. But we need to update them and then research loaded if we were to get a greenfield application to bring it up the date.

COMMISSIONER MERRIFIELD: Well, I think it is worthwhile now to really be thinking and working those issues, because as I said, we have been focused on these three sites for which we already have reactors. And I think it is well within the reason of plausibility that we may be confronted not too far down the road with consideration of a site for which there is no reactor currently present.

MR. REYES: Yes. We have a point -- as we have done it in the past. But we need to bring it to today's reality.

COMMISSIONER MERRIFIELD: Well, I think one of the things that in general we have tried to do is work through different elements of our licensing process to update those so that we don't have -- so we can do our -- meet our full obligation and do appropriate reviews for public health, safety and the environment. At the same time, meet our strategic goal, which is effective, efficient, transparent and timely.

And to the extent that some of these things we have not brushed off in a while, we may be confronted with, we need to make sure we are focused on those so that some of those other things we have not focused on as much as some of the others, we can make it happen.

The last question I had was relative to the interface or as the Chairman might say, connectivity between our efforts associated with security and emergency preparedness. Now, obviously, it is an under the auspices of the same organization, two elements of the organization and historically a different reflection and somewhat of a different mission.

Given all of the changes that we have made in plant security lately, how do we make sure that there is that connectivity

between what we are doing in security such that it does not encumber at all the enhancements that we wish the make on emergency preparedness?

MR. LEEDS: Yes, sir. Glenn Tracy and I talk about that often. We have done a number of things with our staffs to make sure that we get that connectivity.

We make sure -- one of the five teams that I talked about was the security emergency preparedness interface team. Well, we have that team leader who is directly connected with DNS, attends the DNS meetings when they are talking about security items, join very closely to Allen Madison, who is doing the vulnerability assessments, we have created work lists of products that each organization has in various stages of progress which we exchange so that we know what the other is working on.

Of course, Roy when he runs his meeting, Glenn and I are always looking for areas where there is interplay between the two organizations. When we do our outreaches, when we talk with utility groups and industry groups, State, public, when we get things that are worthwhile feeding back, we look for things each other.

So we have got a number of different processes that we have implemented to make sure that the communication is happening and that we are working together as a team.

CHAIRMAN DIAZ: I understand that several utilities are now integrated or merging their security and emergency preparedness organizations.

MR. REYES: I was going to say two things. We are looking into the organizations to try to improve the connectivity. And the licensees are doing that by themselves because they realize they have to develop the connectivity.

So you see it in all three places.

COMMISSIONER MERRIFIELD: I have no problem with that. I mean, I think it is a natural extension.

I would say, and again, this is a personal editorial comment, we have had the fortunate circumstance in the 26, 27 years that this agency -- or plus that at this point -- this agency has existed, -- 30, boy, time flies, doesn't it -- that we have not had a -- absent one issue at Three Mile Island -- we have not had a serious security action at plants that we oversee.

We have had an emergency in which our incident response activities have been called into play. We created as we needed to an organization called Nuclear Security and Incident Response. And the principal focus of that entity, as it should be over the last two years, has been on the security aspects of what we do as an agency.

But it is the incident response that we are going to call

upon more often and for individuals who live around, work in or work near a nuclear power plant, that's the part that's going to be critically called on more frequently in the activities we conduct as a regulatory body.

So I just -- I think it is worth noting not to diminish at all the importance of security, but to underscore the importance of incident response in the organization and to make sure that those critical efforts that we do on emergency preparedness don't get a short shrift, as I know the Chairman is very much supportive of, in our efforts to make sure we also do the right thing on security.

And that is all -- I would make one last little quick comment.

I was reflecting on that when we had the discussion of all the exercises that we all have been involved with over the years. I have been, as have all three of us, members of Commissions that comprise three, four and five members.

And as a result of some recent announcements, we will be, it appears, receiving two new members after the first of the year. People ask me all the time the positives and negatives of various sizes of the Commission.

The one positive thing I would certainly say by having five Commissioners, we will be able to spread the pleasure of some of these exercises among a larger group of people because I know speaking for myself and I know it's not any different for the other two members on this side of the table, it does add more burden for us when there are few members.

CHAIRMAN DIAZ: But we are better trained.
MR. MERRIFIELD: We are very, very well trained.
CHAIRMAN DIAZ: Thank you, Commissioner Merrifield.
I just have one comment, I think, to summarize.

The meeting, the existence of the emergency preparedness and incident response organization is really a direct consequence of the interest that the Commission has in making sure that in this particular thing, which is where the rubber really meets the road or the agency's radiological protection function meets the public, that every effort is made to have the best possible organization, as Commissioner Merrifield said. I know that the regions always claim to be worthy of the rubber meets the road. I think the real rubber meets the road is in this area.

And that not only do we have to be good about it, but we have to communicate it. We have to make sure that the communities know that we have the proper tools, the resources, the proper emphasis.

So I will continue to look forward to receiving the proper feedback from the staff that efforts are being made in making the

organization better, having the resources that you need to make sure 1 we can do it good and to communicate it to the public so our role is 2 clear. 3 We are here to protect the American people, and we are 4 going to do that. And in this particular case, this is an activity that is of 5 tremendous importance and it occupies, it always has but now probably 6 more than ever, a special place in the agency. 7 With that, Commissioner McGaffigan and Commissioner 8 Merrifield, we are adjourned. 9 (Whereupon, the meeting was adjourned.) 10 11