UNITED STATES NUCLEAR REGULATORY COMMISSION

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BRIEFING ON STATUS OF EMERGENCY PLANNING ACTIVITIES

(AFTERNOON SESSION)

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TUESDAY, MAY 2, 2006

1:00 p.m.

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The Commission convened at 1:00 p.m., the Honorable Nils J. Diaz, Chairman, presiding.

NUCLEAR REGULATORY COMMISSION:

NILS J. DIAZ, CHAIRMAN

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GREGORY B. JACZKO, COMMISSIONER

PETER B. LYONS, COMMISSIONER

PRESENTERS:

AUBREY GODWIN, DIRECTOR
ARIZONA RADIATION REGULATORY AGENCY

MICHAEL ROSE, INTER-JURISDICTIONAL PLANNING
COMMITTEE FOR SONGS

PAUL GUNTER, NUCLEAR INFORMATION AND RESOURCE
SERVICES (NIRS)

DAVID CHRISTIAN, SR., VP
NUCLEAR DOMINION GENERATION

P-R-0-C-E-E-D-I-N-G-S

CHAIRMAN DIAZ: Good afternoon. Emergency Preparedness and Incident Response, Chapter 2. This afternoon, we are pleased to welcome a series of stakeholders from both the States, stakeholders' groups from the public interest groups, as well as the industry. We are very pleased that you were able to join us this afternoon.

The Commission has already spent some time this morning looking at different issues that both the staff and DHS are grappling with. Those are issues that, of course, the Commission takes very seriously. We continue to look at emergency preparedness and incident response as one of those obligations that touches the public, and we would very much like to hear your opinions on the subject. Do my fellow Commissioners have any comments?

COMMISSIONER MERRIFIELD: I actually have one that I didn't make this morning, but I've been reflecting on it at lunchtime. We were talking about some of the instances in which the benefit of the emergency planning that surrounds a nuclear power plant having an impact on other emergency activities. I think Mr. Rose, in his testimony, will probably touch on some of that. I did note, however, in a recent visit that I made to the Waterford Station, which is outside of New Orleans – I had an occasion to meet with the parish president and his staff, who were responsible for the emergency operations there. They use that facility extensively, as it was created for Waterford, but they have a number of chemical plants nearby.

They were also one of the best-prepared parishes in the New Orleans area for the hurricane, and did, despite the amount of devastation they undertook,

did very, very well. So I think, again, it does speak to the other benefits that these emergency-planning activities can have for the individuals who are involved in the non-nuclear activities.

CHAIRMAN DIAZ: Thank you, Commissioner Merrifield. It would be my pleasure now to introduce the members of the panel. I think we're going to start from the left. I'm going to introduce everybody, and then we'll go one, two, three.

Mr. Aubrey Godwin, the Director of the Arizona Radiation Regulatory Agency; Mr. Michael Rose, Emergency and Support Services Manager for the City of Dana Point in California; Mr. Paul Gunter, Reactor Watchdog Project, the Nuclear Information and Resource Service; and Mr. David Christian, Senior Vice President, Nuclear Dominion Generation.

With that, Mr. Godwin, please.

MR. GODWIN: Thank you, Mr. Chairman and Members of the Commission. I appreciate you all inviting me here to testify to you today. I bring you greetings from Arizona, where it broke 100 today, supposedly. I'd like to address the question, will the radiation emergency plan work, which seems to be something that's in people's minds nowadays.

The answer to that question depends on who is answering the question really, and when they're answering it, and what level of response they're expecting from the emergency plan.

State and local governments have been conducting these annual or biannual exercises since the late 70's around the nuclear power plants. The NRC evaluates the exercise at the plant, as you're well aware, and off-site – FEMA evaluates the off-site activities. In addition, and often forgotten by the public,

these same agencies conduct very real emergency response to a variety of hazards every year. This involves chemicals and other things that come up in the community that they have to respond to. Further, every jurisdiction conducts at least one non-radiation exercise each year, that being the jurisdiction where the nuclear plants are.

The emergency response agencies have an opportunity to be proficient in taking the necessary protective actions. Yet, things like Hurricane Katrina causes concern, both to the public and government officials, and it reflects a loss of confidence. I'm not to discuss really what all happened at Katrina, but I think there's some things that we can see in our plans that we need to be aware of, and hopefully the public is aware of, that could lead to a public impression of a failure. I think it is important that they understand that.

One of the issues could be a slow opening of the reception centers. For most events, this is not an issue because, as you all discussed this morning and at other times, the reactor accidents develop slowly enough that there's time to get the centers open and then the evacuations ordered, or if they're needed for some reason, you'll have time to get them there.

On the other hand, if you had a relatively quick opening event, you could have a center that is not manned at the time you've ordered an evacuation, and the public would arrive before the center is open. The public really needs to understand that this can happen. It is not really of much significance because even if they're contaminated, we have allowed in the planning process and assessed that it would not be a health problem for at least 12 hours. So it would give you an opportunity to get it open and get these people that are contaminated,

even with that delay for them arriving.

If you look at what many plans use for their contamination level, they use something around 300 counts per minute on GM probe. That's when you'd call someone contaminated. Less than that, they're not contaminated; above that, they are. In reading the National Council on Radiation Protection and Measurements, Commentary 19, it would imply that for weapons of mass destruction, you really ought to consider something in the neighborhood of 12,000 counts per minute on a similar type instrument as being something that's contaminated. So, you see, there is a considerable difference there.

Secondly, you may have a case where an individual has been surveyed, declared free from radioactive material, even at the 300-count level, and they would go, and someone else will survey them and, using a more sensitive instrument or taking longer in doing the survey, they will find something above background, in which case they will declare that they're contaminated, and, you know, this will lead to a crisis of confidence. And I think we need to recognize that as a possibility.

Thirdly, sheltering. You all discussed that a good bit this morning. There are circumstances, as explained this morning, where sheltering is appropriate. Basically, it involves a condition where, if you evacuate the people, you're essentially putting them in the middle of a cloud of radioactivity, and they follow the cloud out. In most cases, they're going out and away from the plant, and the cloud would be moving basically the same way, and they would be staying in the cloud as they moved out. And as a short release, they would have been better off to let the cloud get ahead of them than go out in front, and try not to

catch up to the cloud, really. In that case, you might not want them to evacuate quite as fast.

These circumstances, if you take sheltering into consideration, you do receive less dose than you would if you actually had placed them into the cloud. That's something that needs to be considered as part of your overall suite of activities that you might use as a protective action.

Well, let's get back to the basic question: Will the emergency plan work? Basically, I think that part of the problem is that the public doesn't understand what process the decision makers are going through. The decision makers are basically trying to prevent exposure and determine how much they can prevent as to when they take protective action. Protective action is not something that you allow the public to get and then you take it. It is what you try to prevent the public from getting. And the public doesn't really understand that this well, I'm afraid.

At Chernobyl, it's my impression that the Russians allowed their people to get up to 25 rem before they started trying to take a protective action. In that case, then they really had much more exposure in some cases.

Basically, this lack of knowledge by the public leads to a bit of a confidence problem in that they just don't know the basis. Also, we need to look at the plan -- such that it establishes a management group that will follow the accident and take actions appropriate to the accident; not necessarily what is detailed out in the plan. To that degree, a plan should be more of a policy than a prescriptive procedure. It doesn't mean you shouldn't have some procedures. Indeed, you should. But you should be very careful to understand that there's not

a single nuclear plant that I'm aware that has ever read an emergency plan. The people there have, but the accident itself and the plant itself haven't read the plan. And it's not going to necessarily follow the plan. The decision-makers need to be trained and competent enough to follow the accident and do what the accident requires them to do and not worry about procedures.

I think, if you look at the overall activities of emergency plans and how they work, you will find that if you expect them to follow exactly, in absolute detail, everything that might be there, probably none will actually make it. But if the criteria is more along the lines, did they protect the public health and safety, did they move people when they needed to be moved, or shelter them when they needed to be sheltered, or restrict food, or whatever the protective action is, did they take it in a timely manner to reduce the dose to the public, I think you'll find that they did that. To that degree, they certainly work. If you compare them to the International Atomic Energy Agency Safety Standards, in which it says an emergency plan should help people to regain control of the situation, to prevent or mitigate consequences at the scene, to prevent the occurrence of deterministic health effects in workers and the public, to render first aid and to manage the treatment of radiation injuries, to prevent and -- to the extent practical, the occurrence of stochastic health effects on individuals and among the population, to protect, to the extent practicable, property and the environment, and to prepare, to the extent practicable, for the resumption of normal social and economic activity, most of these plans, if not all, if needed, will protect the public.

Thank you, Mr. Chairman.

CHAIRMAN DIAZ: Thank you, Mr. Godwin. Mr. Rose?

MR. ROSE: Thank you, Mr. Chairman. Good afternoon, Commissioners. It is a pleasure to be here, and I appreciate the opportunity to be here and give a little introduction to the way we handle off-site emergency planning in Southern California.

Just by way of background, I am the Emergency and Support Services manager for the City of Dana Point. But, in addition to that, one of my primary roles in that capacity to act as the Chairman of the Inter-Jurisdictional Planning Committee for the San Onofre Nuclear Generating Station.

Before we really get going too far along, I just wanted to identify a couple of the acronyms that I might mention, just so we're clear.

SONGS is an acronym or a shortened version of San Onofre Nuclear Generating Station. And since the Inter-Jurisdictional Planning Committee tends to be a mouthful, we use IPC.

So I know Chairman Diaz, as well as Commissioner Lyons, have both had a short introduction to what the IPC is. You've both been out and visited San Onofre recently and gotten to hear a little bit about this.

Just to identify who exactly we are, the IPC is made up of the off-site responding organizations around San Onofre within the emergency planning zone for San Onofre that are most responsible for the protection of the public's health and safety in the event of an accident at the facility. These off-site jurisdictions include both the counties of Orange and San Diego, the cities of San Clemente, Dana Point, and San Juan Capistrano, the California State Parks and Recreation Department, the Marine Corps Base, Camp Pendleton, and Southern California Edison as the operating utility for the facility.

In addition to these primary members, we have associate members who are our planning partners and our key resources in the event of a response to a nuclear power incident. Our associate members include the American Red Cross, who is a key partner for our reception center planning; California Highway Patrol; the Capistrano Unified School District, which is the only public school district in the emergency planning zone. We also have a school district with a few schools on the Marine Corps base, as well as some off-site private schools. But this is the only public school district in the EPZ. Mission Hospital, which is our primary emergency medical facility; the Orange County Fire Authority, and Oceanside Fire Department, as well as the California Governor's Office of Emergency Services, the California Department of Health Services, Federal Emergency Management Agency, now the Department of Homeland Security, as well as the NRC.

I've been asked a couple of times by NRC representatives, when I mention NRC participation as part of the IPC, typically we always are communicating with the resident inspectors at San Onofre. So we're copying them on all of our communications about IPC meetings. They're always invited and welcome to the meetings. We typically see them probably two to three times a year, and we always know that they're available if we have specific communication that we need with them, or if they need to get information to the IPC jurisdictions, that they're more than willing to attend our meetings.

The concept of operations for this group of public officials, basically – our mission that we work to accomplish is to promote emergency preparedness around the nuclear power plant and to integrate and coordinate our emergency

plans and response plans.

The objectives of this organization are to correct any outstanding areas requiring corrective action, or ARCA's, following any of our evaluated exercises; to coordinate as one unit our planning efforts for nuclear power plant emergencies; to purchase any additional equipment, such as portal monitors or anything like that that we may need that we may use in a coordinated fashion at reception centers; to conduct coordinated response training; and for all of us as one unit, again, to participate in exercises and drills.

We accomplish both our mission and meet our objectives through regular monthly meetings. This entire group of people comes together once a month for a regular meeting. In addition to that, we have active subcommittees which address more specific response concepts. Some of our subcommittees include a subcommittee for inter-jurisdictional policies, which are our basic guidelines for how this group plays well together. They guide our actions as a group. We have a subcommittee for emergency alert system messages; for evacuation planning; for addressing needs and issues relating to private schools and childcare facilities; reception center planning; emergency news center liaisons; public education and outreach; as well as offsite dose assessment.

I want to take just a quick note, a quick second, and mention the ODAC, or offsite dose assessment center. This is, perhaps, a unique organization that we have as part of the IPC, which is made up of the health officials and health physicists from both counties who come together. They meet at the EOF during an incident response and actually provide additional offsite dose assessments, independent of the utility's dose assessments, as well as they coordinate all of the

activities and deployment for field radiation monitoring teams. So this gives us, when we're responding in our EOC's and decision-makers have been given a part to deliberate, the ODAC is a key resource that we turn to, which gives us, like I said, a third-party opinion that either supports the PAR from the utility or gives us a foundation to make an appropriate decision and lead us to a PAD.

Why does the IPC work? Well, as you are probably aware, California is a home rule state, meaning that all jurisdictions are given the appropriate -- as much independent operating room as can be allowed. So what the IPC does is, it allows us to bring together seven completely independent entities, which are independently responsible for the protection of the public's health and safety, to plan and coordinate our response activities for a nuclear power incident.

This ultimately results in a coordinated response and decision-making capability. No one jurisdiction operates in a vacuum, so that when a PAR is issued, all of the jurisdictions are communicating together, asking the questions on an open line, discussing and carrying out discussions amongst themselves so that we are making a unified approach and unified decision-making for all the jurisdictions that are impacted in the emergency planning zone. This allows us to present a unified message to the public when we're addressing them.

The recent history of IPC activities just over the last year or so, couple of years: over the last 18 to 24 months, we have consolidated five separate offsite reception centers into one large reception center, allowing us to pool all of our reception center resources and provide a much more efficient and capable response, so that we're not splitting all of our resources from our health

department, our fire departments, and the American Red Cross. We have now pooled all of those resources into one large reception center at the fair grounds in Orange County, which, like I said, allows us to provide a much more capable response at that facility.

In 2005, our last biannual exercise, I put this down as a note to mention only that all the offsite jurisdictions successfully passed this exercise with no ARCA's whatsoever; really, no negative comments resulting from any of the evaluation points for any of the offsite jurisdictions. So we marked that one up as a pretty high successful note.

In 2005, the IPC was involved in beginning the Coordinated Law Enforcement Plan, which was then put into place. What this did was bring together all of the offsite law enforcement agencies to address specific concerns with security-based events at the nuclear power plant. Interestingly enough, the utility is a tenant of Federal property on the Marine Corps base itself. So, therefore, the lead law enforcement agency is the FBI. But they also have a delayed response time, as they're coming up from San Diego. So we have several law enforcement agencies which have a much faster response time to the facility. And this plan allows us to coordinate that response without losing sight of the resources required in the event that what they're responding to eventually becomes an actual nuclear power or radiological emergency. So having a Coordinated Law Enforcement Plan defines how the law enforcement response to a security-based event can take place, while at the same time, keeping enough resources either from mutual aid, follow-on resources, or from within the counties already, to allow us to handle an evacuation or to implement a PAD if the need

arose.

And then, also, towards the latter part of 2005, the IPC participated in the Comprehensive Review, which was mentioned earlier this morning. I believe that while we haven't seen any of the written report from that yet, I believe we're going to be very pleased with that. Many of the reviewers were very impressed with the IPC organization and what it does and what it allows us the capabilities to do. There was mention that, of all the sites that they had done to that point, the IPC represented what they considered an industry best practice in terms of coordinated offsite emergency planning.

Some of our current initiatives: We are actively working on an update of our evacuation time estimate. We do this every six years. This is just a – we're at that point in the cycle, where we're in the middle of updating that study, as well as undertaking an evaluation of our PAR structure. Right now, the emergency planning zone is really not broken up into any sub-areas. Any PAR that's issued for any portion of the EPZ affects the entire EPZ. So even if the wind is going directly – for example, if the wind were to be blowing directly out to sea, where we have no at-risk population, the PAR would lead to a recommended evacuation, for example, if there was a radiological emergency.

So we're evaluating the possibility of breaking the EPZ into sub-areas so that we can more appropriately determine PARs that affect the affected population, or apply to the affected population.

It's not all roses, necessarily. Just some of our challenges: Having multiple decision-makers in the emergency-planning zone represents a significant challenge, but that's the whole point of the IPC. It allows us the opportunity to

bring these people together, bring our decision-makers together, and focus their planning efforts. We have the ongoing challenge of the evacuation PAR versus the shelter-in-place PAR. I see my time is up, and I apologize. But we talked a little bit about that earlier. And then EAS's and effective public communication is key. That is, how do we script EAS messages such that they can be the most appropriate amount of information to the public to take appropriate action.

As a couple of Commissioners mentioned earlier this morning and leading into this portion of the meeting, one of the things I've been saying for a very long time, after being involved in this organization, is that being good at nuclear power plant emergency planning, because of the regulatory requirements that that brings to the table, does very, very much allow us the opportunity to be very good at our responses for the all-hazards program. They are not separate; they are tied together. An incident at a nuclear power plant is one of the things that we consider in an all-hazards plan. But because of the regulatory requirements established for nuclear power plant planning, it makes us that much better. It raises the bar and the standard for response for any other hazard that we have associated with our jurisdiction.

With that, I thank you for the time.

CHAIRMAN DIAZ: Thank you very much, Mr. Rose. Mr. Gunter?

MR. GUNTER: Thank you. First of all, I'd like to say, we really appreciate the opportunity to address the Commission with regard to public concerns on emergency planning around commercial nuclear power plants.

I think that there's broad awareness now that the lack of public confidence in government emergency planning infrastructure and response

capability is now particularly acute and, perhaps, at an all-time low.

The Washington Post reported last week on the conclusions of a recent Congressional report, “Hurricane Katrina: A Nation Still Unprepared,” which stated that “Hurricane Katrina exposed flaws in the Federal Emergency Management Agency and the Department of Homeland Security that are ‘too substantial to mend’ and FEMA should be dismantled and rebuilt inside the troubled department, according to the final report by Senate investigators.”

This unfortunately is today’s backdrop for public concerns with regard to the state of readiness for a radiological emergency. It appears that at least half of the emergency planning structure has been identified by Congress as in shambles.

My remarks today primarily focus on the lack of public confidence in prompt and effective emergency notification to communities around nuclear power stations.

I’d like to focus first on the issue of inoperable siren systems under certain conditions. Recurring electrical grid disturbances as the result of adverse weather, earthquakes, and mechanical failures have repeatedly caused widespread and local power failures to emergency notification systems – sirens and siren support systems. Force-on-force security evaluations assume that offsite power sources are among target sets for a terrorist attack on a nuclear power station.

NRC regulations define the minimum acceptable design objectives for coverage by the public notification system as (a) capability for providing both an alert signal and an informational or instructional message to the population on

an area-wide basis through the ten-mile emergency-planning zone within 15 minutes. Initial notification will assure direct coverage of essentially 100 percent of the population within the five miles of the site.

Special arrangements will be made to assure 100 percent coverage within 45 minutes of the population who may not have received the initial notification within the entire plume exposure EPZ, emergency planning zone.

I think that what this establishes, first of all, is a clear need for both integrated indoor and outdoor notification systems. It is, indeed, our concern that reasonable assurance cannot be provided that the public will have adequate notification without addressing the lack of emergency backup power for public notification systems, particularly outdoor systems.

Instead of backup power for siren systems, NRC currently allows operators to alternately rely upon mobile route alerting, which requires first responders – for example, fire and police – to go into neighborhoods within the EPZ with loud speakers and bullhorns to alert the population to the emergency.

In our view, there are significant uncertainties, including fast-breaking events, adverse weather, and emergency responder role abandonment that may present and should present every reason to require prescriptive action for backup power to all outdoor public notification systems.

In fact, Federal legislation now sets requirements for emergency backup power for emergency notification systems for nuclear power plants with a population of 15 million within 50 miles of the reactor site. As a result of this legislation, a precedent-setting Commission order now requires emergency backup power to be supplied to emergency notification sirens around the only

legislatively effective site in the country at Indian Point. We understand that Entergy plans to make this siren backup system, emergency backup system, effective by January 2007, and we applaud that effort and the Commission order.

It remains our concern, however, that for the majority of nuclear power stations in the United States, backup power systems are not available to all sirens, and a significant portion of sites have no backup power throughout the entire EPZ. NRC has jurisdiction to broaden its enforcement actions of the existing order to the entire industry in every emergency planning zone. It is unreasonable and irrational that some sites have backup power to all sirens, while the majority won't have fully operable notification systems under certain adverse circumstances.

NRC has issued the initial license to the power reactor operators. Federal regulations state it is the responsibility of each nuclear power station operator to maintain a radiological emergency plan and "demonstrate that administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway for transient and permanent populations." NUREG-0654 states, "It shall be the licensee's responsibility to demonstrate that such means exist, regardless of who implements this requirement. It shall be the responsibility of the State and local governments to activate such a system."

We have continually run up against the claim of a NRC versus FEMA jurisdictional issue over whose emergency planning responsibility it is to address recurring inoperability of emergency notification systems. NRC regulations recognize that "The NRC will base its finding on a review of the FEMA findings and

determinations as to whether State and local emergency plans are adequate and capable of being implemented, and on the NRC assessment as to whether the licensee's emergency plans are adequate and capable of being implemented. Nothing in this paragraph shall be construed as limiting the authority of the Commission to take action under any other regulation or authority of the Commission or at any time other than that specified in this paragraph."

After years of waiting on FEMA's glacial pace, the fact that DHS and FEMA's current viability has apparently collapsed is reason enough to prompt NRC to expand its current order and to require emergency backup power to all siren systems around all commercial nuclear power plants, which brings me to our second point of concern today: the lack of notification of unplanned and unmonitored radioactive releases to groundwater.

The Commission is familiar with the broad public and political concern that is created by unplanned and unmonitored radioactive releases, namely, of tritium and strontium contaminated water from nuclear power stations. At Braidwood Nuclear Power Station, it is now documented that the site recorded in the corrective action database 22 circulating water blowdown line leaks since 1996, occurring along the five-mile long discharge pipe to the Kankakee River.

It remains our concern that repeated unplanned and unmonitored spills be addressed through prompt enforcement action through reporting requirements. The tritium spills, at least at the Braidwood Nuclear Power Station, were reportable events under 10 CFR 50.73. Instead, it took a good neighbor to report these spills. It is of further concern that a Root Cause Report Review of the Braidwood spills determined that Exelon had a General Action Plan for Response

to Unmonitored Releases of Very Low Radioactivity Spills. It was there since October of 1990. Yet, the review found this procedure was never implemented.

No radiological mitigation of spills years old to the groundwater and no public notification do not build public confidence. While such spills may not be fast-breaking events – in fact, can take years, months, to migrate offsite -- they nonetheless prove to raise concern about the lack of operator warning and downplaying the risk of chronic low-dose radiation exposures through groundwater contamination.

As a result of these revelations at the Illinois sites, Senator Barack Obama has introduced legislation to require prompt notification, not only of the NRC, but State officials, along with public notification through media.

In closing, I'd like to recall the opening line to a recent story that appeared in the Harrisburg, Pennsylvania newspaper, the Patriot News. It read, "The Federal agency that licenses commercial nuclear reactors can't say for sure if pre-schoolchildren in daycare centers and nursery schools will be evacuated if another nuclear emergency occurs in Pennsylvania."

We find this particularly ironic, given that the only advisory for a U.S. evacuation following the Three-Mile Island nuclear accident in 1979, was issued solely for the special needs and concerns of pregnant women and pre-school children.

A broader public is recognizing a number of low levy areas around nuclear power stations in context of emergency planning. Public trust and confidence is continuing to erode. We call upon the agency to take action to assure that emergency planning is more than just ink on the paper granting an

operating license. Thank you again.

COMMISSIONER DIAZ: Thank you, Mr. Gunter. Mr. Christian?

MR. CHRISTIAN: Good afternoon. My name is David Christian, and I'm the Senior Vice President of Nuclear Operations and Chief Nuclear Officer for Dominion Generation. I know most of you all know, but for others in the room, Dominion operates seven reactors on four sites, so our experience in emergency preparedness is extensive and diverse, both geographically and demographically. In fact, these four sites are located in three different NRC regions, three different DHS regions, and three different EPA regions. And our emergency planning zones affect five different states. The Millstone Station is 98-and-a-half percent in one DHS region, and one-half percent in another DHS region. Occasionally, I do long for the OMB circular that had a standardized Federal regionalization. But I understand that in today's world, that that's not practicable.

I'm also here representing the Nuclear Energy Institutes' Emergency Preparedness Working Group. The Nuclear Energy Institute, at the urging of some of the chief nuclear officers in the industry, formed a working group to focus on EP in the years 2001 to 2003 because of a perceived lack of progress on the parts of some of our peers in the industry.

I'm happy to report that when I took that job, the state of emergency preparedness nationwide was good; perhaps not improving at a rate that we would find desirable. Today, I would say the state of emergency preparedness is better and improving. There are two hands on the baton now. I'm going to hand off leadership to Mr. Hefley from Constellation. We're expecting continued progress. I'm not saying this is a result of – to reflect on myself, but more so on Al Nelson at

NEI, Nadar Mamish and Eric Leeds of your organization, and a great many other participants on the NEI Working Group.

Sophisticated emergency preparedness plans have been part of the nuclear energy industry's commitment to public safety for more than 25 years, and the same is true in the communities in which our plants are located. The public/private partnership between nuclear power stations and the State and local communities reflects a commitment to public health and safety. And that commitment is further demonstrated through routine training and exercising of integrated response capability.

Since 9/11/01, this has been done along with strengthening the integrated emergency management and law enforcement programs supporting the overall safety and security of nuclear stations.

In 1980, Congress mandated that energy companies develop and periodically test comprehensive emergency response plans at each nuclear power station. That law strengthened and expanded the emergency preparedness requirements previously imposed on nuclear power plants.

I only mention that because I think it's important to note that the regulatory framework established in the early 80's has withstood the test of time. That is, while we've seen much change in regulatory oversight in the area of nuclear security since 9/11, the emergency planning regulations continue to demonstrate that, with appropriate guidance, they're designed to support a response to any form of emergency and to protect public health and safety. The onsite portion, as has been mentioned, is under the oversight of the NRC, while DHS, formerly FEMA, reviews the offsite portion of these integrated emergency

response plans, and ensures measures are in place to protect the public health.

It is under this well-established regulatory framework that the NRC and the industry are responding to a changing world view and a heightened need for seamless coordination of plant operations, emergency actions, and a security response. But I do believe it is accurate to say that nuclear power stations and the communities in which they reside have achieved a level of preparedness and a level of cooperation that is both unparalleled and unprecedented in the industrial sector.

Preparedness for the nuclear industry has become a model for the industrial sector altogether, and that was demonstrated, although there are lessons to be learned and applied and bettered, in Hurricane Katrina at the Waterford III Nuclear Power Station.

Today's discussion will give us an opportunity to review the regulatory framework and how, together, the Nuclear Regulatory Commission, the industry, and our communities are addressing new challenges. The search for ways to make meaningful enhancements in emergency preparedness is a continual process for our industry.

In the next few minutes, I will elaborate on the importance of the public/private partnership, discuss how the industry has stepped up and accepted ownership for preparedness aspects of today's perceived hostile action profile, and is moving forward to integrate security and emergency response drills.

Having already said that emergency preparedness and improvements thereto is an ongoing process, I may, along the way, stress what I believe should be the overarching themes to proposed changes going forward.

And that is, let science dictate.

Nuclear plants are continuing to enhance their emergency plans to address situations that may arise in the context of hostile actions. The events of 9/11/01 and the threat of terrorism have heightened security concerns. And while security has always been a part of emergency preparedness, today its role is greater than ever before. Indeed, the NRC emergency planning regulations have the necessary scope and flexibility to address this changing environment. For the past 25 years, the NRC has continued to take action with respect to improving emergency preparedness, largely by revising regulatory guidance that nuclear power station licensees use to ensure continued compliance with the regulations.

Emergency plans have broad reach, typically involving 200 or so employees at each nuclear power station. Participants also include the NRC, as well as State and local officials and numerous other authorities. Dominion has always believed in a strong public/private partnership with respect to emergency preparedness. You cannot build an integrated response capability without participating in an integrated planning effort.

What I mean by an integrated planning effort is the ability of licensees to work with local, State, and Federal emergency response organizations in a manner that ensures that everyone clearly understands their roles and responsibilities and that all parties are able to respond in a coordinated manner to protect the health and safety of the public.

The key to successful integrated emergency planning is an ongoing and open dialogue among all stakeholders to improve the level of emergency preparedness. This dialogue, coupled with frequent planning and training

activities, creates a partnership that promotes a high level of trust between the licensee and offsite response organizations.

Just five weeks ago, Dominion made a presentation at the National Radiological Emergency Preparedness Conference about our program at our Millstone power station for coordinating with State and local law enforcement and with Federal authorities, for security events in particular.

In addition to Dominion representatives on the panel, we're both members of local law enforcement; to be specific, a member of the Waterford Police Department and the local FBI office.

The post 9/11 environment has doubtless strengthened the public/private partnership for most, if not all, licensees. For us, some of the successes include the establishment of a multi-agency staging area that was used in TOPOFF III. I'll come back to that in just a minute. Better coordination with the Amtrak Police. As you all know, the Amtrak rails run through the Millstone site. More and better table top drills and security drills. Improved communications. And I don't just mean face-to-face relationship building; I mean hardware for emergency responders and plant responders are on the same radio frequency. The Department of Environmental Protection Boat Dock at Millstone, and the establishment of a Connecticut State regulation for State security area enforcement.

I want to come back briefly to the multi-agency staging area that was put in place at Millstone. This was as a result of a security-only drill that we ran in July of 2002; months after the 9/11/01 event. One of the lessons learned was, we had -- in addition to the Connecticut Department of Emergency Preparedness

showing up, we had the police, the State police, the State police bomb squad, the FBI, and the Coast Guard – excuse me; the National Guard – all responding. And we learned that we were going to need in the future a staging area for that type of response to a security-only type event.

When I was at a plant, operating a plant, I had pneumonically reduced the execution of emergency preparedness to classify, verify, notify, upsize, stabilize, and prepare for long-term actions. But what I've learned over the years is that what really makes these plans work is all the groundwork laid well ahead of time when it comes time to execute the plan.

We cannot model hostile-action related developments with the same precision as the response of plant equipment, where, for plant systems, we have 40 years of reactor operations, we have sophisticated PRA models, expert judgment we can combine, and we can predict plant response.

Nonetheless, Nuclear Plant Security has always been considered the possibility of intruders who have the help of inside detailed knowledge of the plant. However, the potential for a hostile threat is admittedly perceived to be increased in recent years. And the industry and the NRC are addressing this changing world environment.

As we have changed our security plans, the nuclear industry is enhancing its emergency plans to address these potential threats. It is only prudent that we do so. The NRC issued a bulletin in 2005 that addresses emergency preparedness in the context of hostile action, and the industry has responded. The industry has issued guidelines in support of this bulletin and are awaiting, I was encouraged to hear this morning, NRC endorsement of those

guidelines.

The industry recognized the need for emergency preparedness enhancement in five basic areas: security-based emergency action levels, NRC prompt notification, protective measures for onsite personnel, augmentation of ERO organizations, and an integrated emergency preparedness and security drill program.

With respect to the drill program, we have just completed a pilot for integrating security threat responses into selected drills. A security component will be included in off-year drills for the next three or four years. The experience from these drills will be incorporated industry-wide through lessons-learned workshops. Each site will complete at least one such drill. When we obtain NRC and DHS endorsement of industry guidance on an integrated drill program, each plant will include a security event in one of each six-year biennial compliance exercises.

These pilot programs, coupled with guidance that has been issued with NEI and a cooperative spirit of industry participation, NRC participation, and industry, has shown how we have taken ownership for emergency preparedness to address security in a changing environment at nuclear power stations.

Lastly, with respect to new plants, although my time is up, I see, I would just say again that if there are changes to be made, my encouragement would be, let science dictate.

In conclusion, nuclear power plants are safe and secure because of a defense in-depth approach in design and construction, redundant safety and security systems, a highly trained set of reactor operators. But on top of that we have emergency plans that are well developed, well tested, and they have

substantial involvement by State, local, and Federal authorities. These plans have proven effective in a wide range of situations not related to nuclear power operations, such as storms, floods, and chemical spills, and they represent an established public/private partnership between local communities and our industry at a level that is enjoyed by few other sectors.

Consistent with our industry philosophy of continuous improvement in these programs, we are committed to review the way we do things in EP and security, with, for the present, a greater emphasis on the possibility of hostile action. And as we do, again, we will urge that we let science dictate.

I commend the Office of Nuclear Security and Incident Response, and in particular the Division of Preparedness and Response. I must say that I think that all stakeholders, not just industry, but the public, other governmental agencies, the states, and many groups, are benefitted by the leadership displayed by Eric Leeds and Nadar Mamish in this area. And along with my colleagues today here, I look forward to an open and candid exchange of ideas and information about emergency preparedness. Thank you.

CHAIRMAN DIAZ: Thank you, Mr. Christian. We appreciate all our participants' input into the area of emergency preparedness and incident response. I might have one more burden for you since this Commission -– all Commissioners are included in this –- is well known for their questioning attitude. As we go to the questions, I would appreciate it if you will respond simply. If not, night will fall over here as we go through. And with that, Commissioner Jaczko.

COMMISSIONER JACZKO: Thank you, Mr. Chairman. Mr. Godwin, I thought I'd start with a question for you. I think you raised an interesting point in

your statement about –- you raised a question about –- the question being, will emergency plans work? It's a question I've asked, and asked rhetorically in public before. And the reason is fairly simple. I think there does exist some confusion, perhaps, in our regulations in terms of what emergency plans are supposed to do. We have, as you know, I'm sure, 16 planning standards in 50.47 of our regulations; we have Appendix E, Part 50, which provides some more detail about what those standards mean.

But we don't really have anywhere some very specific goals in our regulations for what these security plans should accomplish. We have a lot that says how we should -– we have a lot of requirements for how we should develop and maintain the plans, but we don't have a lot of very detailed requirements for what they should accomplish. I think that, to some extent, is the heart of your question about, will the plans work. I think that gets into an issue of, well, what exactly the plans are supposed to accomplish. And you gave two examples of some ideas to try and answer, what metrics to use to measure that or answer that question.

In the spirit of the Chairman's comment, perhaps I thought I would just make this an open question for each of you here. If you could briefly give an answer. If you had to succinctly describe what it would mean for you for emergency plans to work, what would that mean? We can start with Mr. Godwin.

MR. GODWIN: I think the first prime criteria is that they will protect the health and safety. I mean, that's –- you know, if they don't do that, no matter how fancy they are, they don't make it. And in doing that, they've got to have a management team put together, to look at what's going on and make those key

decisions to protect them and make them in a timely manner. I mean, you could get a fine scientific group together that would go into an endless debate, but that doesn't help you in emergency planning.

The question came up earlier about why we didn't call the Commission from the state level. The answer is pretty simple. When you're out there doing these exercises, which have a lot of artificiality in them, you have 15 minutes from the time you hear the plant's recommended protective action recommendation, to the point you've got to start implementing it. That doesn't leave a whole lot of debate time in there.

CHAIRMAN JACZKO: I want to hold you to that succinctly because I do want to hear from everyone else.

MR. GODWIN: And I'll wrap it up.

CHAIRMAN JACZKO: Thank you.

MR. GODWIN: On the other hand, you can't make decisions so quickly that they're willy-nilly and just run off at the mouth. But the basic criteria needs to be protecting public health and safety. That's it.

CHAIRMAN JACZKO: Thank you. Mr. Rose?

MR. ROSE: To be succinct, I agree.

(Laughter.)

CHAIRMAN JACZKO: Thank you.

MR. ROSE: No. I agree completely and wholeheartedly. In order for the plan to work and be effective, the end game is protecting the public's health and safety. And in order to do that, to accomplish that, to make the plan work, you have a plan which is your foundation, and that becomes a living plan. So as you

drill and you exercise, you have to continually work to modify that plan and learn from what you did –- learn from their mistakes, if you will, or learn from things that you did that you might do differently based on those drills and exercises, and constantly work those plans, and continue the training for the decision makers so that when they get into that real scenario, whether it's the worst case scenario that we're always exercising for, or something below that, less than that, the decisions that they're making are based on sound training, and the training they have gotten is based on sound planning practices. So, again, the end result, the end game, is protecting the public's health and safety. And that's what makes it effective.

CHAIRMAN JACZKO: Mr. Gunter?

MR. GUNTER: I think that you're going to find a consensus across the board here that it is protecting public health and safety. However, we would add the caveat that it needs to be considered in the full scope of a potential accident and not subject to politically arbitrary lines. It has long been a public concern that the current ten-mile EPZ, for example, is too small. So if we're going to talk about emergency planning, then I think that we need to look at –- and look for a consensus on what the scope of that disaster could entail and what it takes to really protect public health and safety. Thank you.

COMMISSIONER JACZKO: Mr. Christian?

MR. CHRISTIAN: I think the only thing I would add is that the plans have worked. If you just look at the last five years, we've probably had -– I'm just going to guess –- three or four dozen NOUE's, a dozen or so alerts, maybe one site area emergency. And the plans in every case have resulted in resources being brought to bear to deal with the emergency at hand. The right people have

been notified such that State, Federal, plant, and local authorities are at a quiescent mode, ready to escalate and deal with an event of even greater significance, should it occur. I'd say, look at the track record.

COMMISSIONER JACZKO: And I appreciate the comments. I think one of the interesting things that all of you have said is, protecting public health and safety. And I do think the Commission has done a good job of that when it comes to a lot of areas of our regulations. We know when – if we have a reactor, we have a good concept of what protecting the public health and safety means. We have very prescriptive regulations in Part 50 that lay out what that means. That means we need to have an emergency cooling system. It means we need to have a variety of systems, and these systems have to perform in very specific ways in order to meet what the Commission's goals are for adequate protection of public health and safety. And I appreciate the sentiment, I think, from all of you that, really, this concept of protecting public health and safety is what the plans need to do. And I'm not going to ask this question here, but I think ultimately, as a regulator, I think, looking at our regulations, we don't have a good standard right now for, in an EP stance setting, what protecting public health and safety means. And that may be an area where we need to continue. And I know the staff is looking at doing some things, so I think that's very helpful for me.

I do want to ask one other question here briefly. Mr. Gunter, you talked a little bit about public confidence, and that's an issue that is important for me, as well. I think one of the ways I like to try to look at it is that when we make public health and safety decisions, we want to try and do those in a way that maximizes our ability to increase public confidence in the Commission.

You talked about alert notification systems and doing some things in that area as a way to increase public confidence. I'm wondering if there are other things that you think that have a direct impact on public health and safety that the Commission could be looking at that would also go a long way towards improving public confidence in emergency preparedness and other areas?

MR. GUNTER: Well, one key area that we're looking to see is better communications with the agency, particularly with regard to the issue of sheltering in place. I think that we're now at a very key point here in terms of what's broadly looked at as a paradigm shift by public interest communities. And, as such, there needs to -- I think the Commission has to be acutely aware that transparency is of utmost importance. And I think that -- as well as providing the dialogue so that we can make clear where the contradictions are that drive public confidence issues and find the forums to address these.

COMMISSIONER JACZKO: Thank you, Mr. Gunter.

CHAIRMAN DIAZ: Thank you. Commissioner Lyons?

COMMISSIONER LYONS: Let me start by thanking each member of the panel. I appreciate that you joined us today, and for the two of you who I've had the occasion to visit directly in your home territories, both Mike and Aubrey, I've certainly very much appreciated the very excellent preparations going on in your areas.

However, my first question, which, to some extent Mr. Gunter just answered, but I'm going to give each of you a chance to just address the question of, if you could make suggestions to the NRC or to Homeland Security from the standpoint of increasing our accessibility or our outreach relative to emergency

planning, would you have any advice for us of ways to improve? Aubrey, you're at this end of the table. If you want to start.

MR. GODWIN: Well, I think there's one point that I would address more to –- not to the Commission directly, but to the Federal Government. We have emergency planning around reactors, and now for weapons of mass destruction. If it's so important, why haven't, in 30 years, they adopted the PAG guidance as Federal guidance, instead of letting it linger as an EPA office guide? That's not even an agency guide. It's a little bit disturbing that I, as a decision maker, who is going to get sued for the decision most likely, is going to have to depend upon office guidance that, you know -– that's in the face of existing Federal guidance in the form of FRC 5 and 7. And it's contradictory, to some degree. And you all's regulations recommend that we use the EPA guidance. Well, actually, it's not EPA guidance; it's Air and Water Office guidance. It just looks like that – if it's so important, that would get put on the top burner and get adopted.

COMMISSIONER LYONS: Mike?

MR. ROSE: I would have a couple of comments in regard to that. I would say, as we move forward with the potential for changing or adding any type of regulatory guidance, that both NRC and DHS strive to work together and to pass that down to those of us who have to implement that; that we do so with, wherever possible, whenever possible, we do it with one voice of guidance so that we're not misinterpreting anything coming from DHS, or something else coming from NRC, or getting any kind of conflict between agencies, because as Mr. Christian mentioned, at the implementation level down, at the local jurisdictional

level, at the operating utility level, we do strive for a good public/private partnership and a working relationship. So the guidance that we get on both sides of that fence needs to coincide and work together, as well as we do in the field, so that we're not getting conflicting regulatory guidance. But I think that's what I'd like to say.

COMMISSIONER LYONS: Mr. Gunter?

MR. GUNTER: Yes, thank you. You know, I think that the agency, as the licensing bureau for nuclear power, you have the authority to revocate licenses where the emergency plans are either insufficient or just plain don't work. And I think that as part of building that public confidence issue, the public needs to see enforcement actions in certain circumstances where it is of great concern, both in terms of public health and safety and security, that the agency take appropriate actions under its enforcement authority.

COMMISSIONER LYONS: Mr. Christian?

MR. CHRISTIAN: I would just amplify a little bit on what Mike Rose said: being respective of the importance of the partnership that we've established if the NRC were to work -– try and implement through the industry only something on a timeline that would jeopardize the public partner relationship. So I would think about the timing for implementation of new requirements as they roll out.

But it has been alluded to earlier about the importance of communicating with the public. And that's a group "what." But I would like to offer a suggestion for how. And that would be jointly with first responders. The first responders in the community are looked upon with great esteem and respect. And if you could stand side by side with first responders of EMTs, fire truck drivers,

ambulance drivers, I think your message would go across very well. So I think the "what" of communicating with the public is an excellent idea. How? I would just say, yes, do it jointly with the emergency responders. I think it would bring out an instant sense of credibility, or a quicker sense of credibility.

COMMISSIONER LYONS: I appreciate those comments. I'll wait for another round.

CHAIRMAN DIAZ: All right, Commissioner Lyons. Can we go back to the line of questioning that Commissioner Jaczko started? –- because I think it requires further discussion. Of course, we are guided regarding the – all the framework of the regulation by Part 100. That essentially tells you what people should be able to look at as radiation doses to the public. Of course, it has its limitations. And the limitations might be what you were talking about: how do you know what to implement when? In other words, are we going to allow five rem as the boundary? How do you translate that when something is going dynamically? But before I get to that point, is that the issue: how do we make determinations that are still responsive to our Part 100, our Part 20 guidelines, if you go that far?

For years, there's been feedback coming to the Commission from practitioners of the art of emergency response that says, we really need to be concerned about the population in the two-mile zone, not beyond the ten-mile zone, because the two-mile zone is where we actually see that people could have more exposure. It is the population area that we would like to actually be more effective in either evacuating or sheltering. And each one of you is in a different place. But, number one, we do have regulations that are, I would call, at the very top and not directly connected with what is connected, but definitely guidelines.

Number two, we have a responsibility to protect public health and safety. Everybody agrees with that. Nobody disagrees with that. Is that responsibility directly proportional to the radiation exposure that people could have? If that is so, then the two-mile zone makes a lot of sense because you're now protecting the people that could actually get the larger exposure.

So let me stop there and quickly and succinctly see if there is a connection between these facts that I just put out. Mr. Godwin?

MR. GODWIN: As I recall Part 100, accidents and events, it's a very conservative type of calculation system, and it ends up that if you just take a realistic point of view, the dose is almost nothing. So it's very much lower.

Now, I think that –

CHAIRMAN DIAZ: I assumed it was not perfect.

(Laughter.)

MR. GODWIN: Right. I think the idea of protecting from key doses close in is something we need to make sure we're doing. To that extent, yes, that's something we do need to look at. Doses, from my personal point of view, that would project to exceed -- what the public could exceed, the PAG values of the EPA office, I think we ought to take some action to keep them from getting that. That will start -– Obviously, closer in is where you must move quickly.

CHAIRMAN DIAZ: All right. Mr. Rose?

MR. ROSE: As I mentioned briefly in my presentation, the Interjurisdictional Planning Committee is currently reevaluating our existing PAR structure in that one of the things we face as a challenge is the fact that we have sort of an all-or-nothing EPZ. So the way the PAR structure is currently,

irregardless of meteorological data in one direction or specific release information, if there is a radiological emergency, we will have one PAR that affects the entire EPZ. And so that when we implement that PAR, if we go to implement a protective action decision for evacuation, for example, or evacuating to the EPZ boundary, regardless of the situations or the exact conditions of that radiological release, what that does is, that lengthens, if you will -– it increases the dose for those closest to the plant.

So in reevaluating our PAR structure, that is very precisely one of the things that we're looking at -– is the ability to take more quick reaction for those closest to the plant and those most at risk, that most at-risk population -– the two-mile, as well as the one community or the small communities that are closest to the facility, and allow them the opportunity so that we can break our EPZ into multiple PARs to evacuate the closest-in area and sheltering place, for example, as one possibility, the farther out area, the farther –- the not-yet-affected population, thereby allowing that closest population to move more efficiently out of the EPZ.

CHAIRMAN DIAZ: We will call that risk-informed incident response. Mr. Gunter?

MR. GUNTER: Again, there's broad concern that the move to focus on a two-mile EPZ, frankly, is a concern that is a financial consideration of the industry and the agency. It is part of the transparency that is going to be needed. If you're going to –- for example, the Sandia study that you're producing to shelter populations in place, that has to be provided for independent review.

If that's going to be your justification for taking actions close in, particularly given that even the industry has verbally sided -– you know, broad uncertainties and the potential for continuous and rapidly-changing conditions -– this is a quote: "Continuous and rapidly-changing conditions, lack of inaccurate instrumentation, and uncertainty of the timeliness and effectiveness of mitigative actions make such a prediction -– and this is release rates and decision to shelter employees – makes such a decision inherently inaccurate. Moreover, choosing to shelter a population rather than evacuate, based on erroneous release duration estimations, can result in significant health effects on that population."

Now, that was a letter from NEI to NRC dated July 14, 2004. Now, again, this is –- you know, there are broad uncertainties here.

CHAIRMAN DIAZ: But, Mr. Gunter, the reality is that we are all, including you, exposed to many opinions, and we value yours, and we value everybody's. But I said something awhile ago, which is absolutely true. It's that the radiological protection practitioners around the country, people in the States and so forth, that actually point out that they have a preference for enhancing protection of public health and safety by targeting those populations that would be more exposed. It happens to be that everybody agrees that the two-mile zone is -- but I didn't want to interrupt –-

MR. GUNTER: You understand our concern –-

COMMISSIONER DIAZ: I understand.

MR. GUNTER: That BEIR VII report puts exposure, in terms of a relevance, as to whether you are in a gas chamber or whether you're exposed to a latent cancer.

COMMISSIONER DIAZ: Okay. Thank you, sir. Mr. Christian?

MR. CHRISTIAN: It's an interesting subject, and it's one on which I'm inexpert. But I would just offer that it does raise intriguing possibilities. If the science would support it, it could be considered that a new plant with a 10 to the minus 8 CDF co-located on a Part 50 site may have, underneath the umbrella of a ten-mile EPZ, a smaller EPZ which would come into effect at the time that the existing plant were to be shut down as Part 50 license expires. It's an interesting concept to think about, but it's not one that I had given much thought to.

CHAIRMAN DIAZ: Thank you. Commissioner McGaffigan?

COMMISSIONER MCGAFFIGAN: Mr. Chairman, I join you in commenting on Mr. Gunter's point. There's absolutely no issue of financial consideration involved in dealing with two-mile EPZ's or five-mile key holes. We're trying to protect the public better. Most of the nation –- and I would encourage Mr. Rose and his colleagues in the IPC to move to where the rest of the nation is –- do envision two-mile sub-zone, five-mile key hole evacuations. And that is a -– I believe, a very conservative approach, and also a very protective –- more protective approach than trying to evacuate 314 square miles simultaneously. As Mr. Rose says, when the wind is blowing out onto the Pacific Ocean, then the most endangered species are dolphins. To be evacuating somebody ten miles east may not make a lot of sense, and maybe unprotective of those closest in. So that's what motivates us in any -– you always have to throw in that we're financially doing things, and that's just not true. So just for the record.

Back to Mr. Godwin. We talked about the scoring of exercises this morning, and you pointed out that you lost time, that it's hard when you have these 15-minute time zones. I would just respectfully suggest that at some point, that the States -– somebody like yourself observe a drill where a Commissioner is involved from this end. And I think Mr. Rose –- I mean, and perhaps we can get some of those FEMA scores, to observe an exercise from this end and see the sort of capability we have in that room over in the other -– the op center and in the back rooms, the sort of information we have at our fingertips. We could help you. The place where I most want to talk to a State official is before the licensee has made a PAR recommendation. I want you to know what we know about how we think that plant may be heading south or not, what the worst-case situation is, what we know from our information on atmospherics that we -– we have this IMAC, Interagency Modeling and Assessment Center at Lawrence Livermore National Laboratory that can –- they give us the meteorology, and we give them a source term. They can tell us exactly what the heck is going on. That's a capability they can exercise very quickly. So we have these enormous capabilities. We sit over here waiting for the state to consult with us prior to the licensee decision.

Sometimes in the North Anna exercise a few years ago, I remember sitting there saying, why in God's green earth aren't the State officials doing something? I've got to get on the line with something. Again, it's an artificiality of the exercise. But we knew a hell of a lot about what looked like was happening that day at the North Anna plant, and we knew that they needed to get with it. But I worry about these exercises. I worry about controllers and all

the artificialities. But the bottom line is, I think it would be very useful for us to routinely have people –- without committing to anything, I'd pay for it to get you guys to observe some of these exercises here at our end to see what capabilities we have to offer, and then see whether you wouldn't want to use them, particularly in the run-up period, to the -– not during the 15 minutes necessarily, although 15 minutes is arbitrary. If a Governor decides it's going to take more than 15 minutes because, by God, he's got to talk to the Chairman of the NRC, in a real event, I don't know who's going to write him up, you know?

(Laughter.)

COMMISSIONER MCGAFFIGAN: So, you know, I just -– anything that we can do to help us all do what the Chairman talked about -- command, control, communication -- if we all could see the ongoing event from the different places where we sit, I think we'd all do a better job of responding to it.

MR. GODWIN: Well, I did have the pleasure of being an evaluator during the Zion event that you all had here. It's one of the Federal exercises, and I was here. And I do recognize we also have access to the same system. So we get the same information.

COMMISSIONER MCGAFFIGAN: Do you have nuclear engineers and whatever –-

MR. GODWIN: As it turns out, in my state, no, I don't have a nuclear engineer. I do have some engineers, but not nuclear engineers. Some states do. Some have essentially none. So it varies across the board.

COMMISSIONER MCGAFFIGAN: We bring a whole new team of

people -–

MR. GODWIN: We would like to include you, but, like I said –-

COMMISSIONER MCGAFFIGAN: During the Palo Verde exercise, you played the Governor, and they had you trying to distract me some way or other. But I'm losing my time. I just would urge you to think about it, and I urge Mr. Rose –- I think you're exactly on the right –- you know, you'd be joining most of the rest of the nation if you'll reconsider the 314 square miles simultaneously issue.

Turning –- and I'll come back to you in the second round, Mr. Gunter. But turning to your testimony today, I took part of it to mean that you really didn't have much in the way of concerns, because you had to force in the tritium issue.

And the tritium issue, as best I could tell, from an actually exposed individual, might, if they drink two liters of water a day from one well, gets 16 microrems per year. And that's the maximum exposure we can calculate. If you really think we need to be addressing 16 microrem exposures in the emergency planning system, then my house is a problem, because I get 16 microrems in an hour there. The Capitol is a real problem. If you get 24 minutes in the Capitol, then you'll get 16 microrems. I don't know whether it's your institute's and your position that the Capitol should be abandoned and we should build a nice glass and steel structure somewhere nearby and move the Government out of the Capitol, and this or that, in order to be protective. But just tell me what your position is on whether the emergency planning system has to be geared toward 16 microrem per year exposures.

MR. GUNTER: My point is that we're talking about public notification.

COMMISSIONER MCGAFFIGAN: We're talking about emergency planning –-

MR. GUNTER: If I could finish. We're talking about public notification of unplanned and unmonitored release paths. It is not my position, Commissioner McGaffigan, necessarily that we're talking about here. It's apparent that there is broad public concern about chronic exposure to underground plumes, particularly when the operators -- and unfortunately, the Federal Government –- has trivialized chronic exposures. It's not so much about -–

COMMISSIONER MCGAFFIGAN: Do you trivialize the chronic exposure of all those Senators and Congressman working in the Capitol?

MR. GUNTER: It's more –

COMMISSIONER MCGAFFIGAN: Do you want them to get, in 24 minutes, what the maximally exposed individual in Illinois gets in a year if he drinks two liters of water a day from a particular well? I mean, are you -– is your position that we have to evacuate the Capitol?

MR. GUNTER: Our position is that the public has a right to know for unplanned and unmonitored releases of radioactivity and that they should be alerted to those.

COMMISSIONER MCGAFFIGAN: That's fine.

MR. GUNTER: And that's the part -–

COMMISSIONER MCGAFFIGAN: That means you have no

problems with our -–

MR. GUNTER: No, sir, it doesn't –-

COMMISSIONER MCGAFFIGAN: I think you're –-

MR. GUNTER: It means that there's an impasse in understanding that tritium can pass through the placenta.

CHAIRMAN DIAZ: Let me step in. I appreciate both of you having such strong opinions on the issue, and I think that is part of another meeting, which really is not in emergency response. Commissioner McGaffigan, thank you. Commissioner Merrifield?

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman. I want to follow up on an earlier part of Commissioner McGaffigan's comment. There have been a number of exercises where there's been a fair variation in the dialogue we've had between state participants and those represented by our agency. Recognizing that states are the first responders and have the best understanding about what needs to happen on the ground relative to evacuation, I agree with Commissioner McGaffigan: no State has a fraction of the capabilities we have for understanding what's actually going on in the plant itself. And I think taking advantage of the best of both is really where we ought to be.

The other thing I think we've always -– I've always found somewhat frustrating is the lead Federal agency for providing the State with Federal assistance, things like coordinating the FRMAC , the aircraft to come in and do monitoring if there was an offsite release.

I think we sense some of your frustration that if it looks like things are going in that direction, it's better to get those assets in the air and on the move. I

think we can do a better job of coordinating between the lead State and our agency to make sure we can provide that sooner rather than later. I think that's an area where certainly, hopefully collectively between our staff and the states, can perhaps make some further movement on that. I do think that's an area we need to explore some more.

MR. GODWIN: I think, from the State's point of view, the more Federal participation we can get, we'd be better off. The States want it. We want it. I would suspect that those -– the fact that you didn't get any calls at all is really disappointing. I understand why the 15 minutes came up, but to not get any –- if they understood you were playing. Sometimes that's a problem. We don't always know exactly when you all may or may not be playing. But if we know you're playing, we want -– and I think I can speak for every State – want your expertise and comments. There's no doubt of that. In a real event, you'll be hounded.

COMMISSIONER MERRIFIELD: I would expect so. And hopefully, like I said, I think we made improvement on that in a variety of areas. There are gaps we continue to have, and hopefully our staff, along with the States, can continue to work on that.

I want to –- There were a couple of statements that Mr. Gunter made in his opening statement that I want to have an opportunity for the States to comment on. And Mr. Gunter's statements aren't new. One of them actually arises out of a discussion we had this morning with the backup emergency power capability for sirens and a concern over reliance on first responders to do highway route notification to tell people what's going on. Combined with that, there was a concern raised in his statement regarding a concern that there might be

abandonment by some of those first responders because of a conflicting need.

I guess my question involves two things. Part of it is, I come from a small State, a small town in a small State. We always had mutual aid networks where you would call on other neighboring police and fire departments to come to the aid if you were overwhelmed within your own jurisdiction. The notion that folks would abandon their position as a policeman or a fireman –- I've heard that before. Is there any evidence you're aware of that would justify that –- those kinds of concerns. Can you discuss –- Maybe we'll start with you, Mr. Rose. And, Mr. Godwin, if you want to follow in.

MR. ROSE: Well, there's a couple of statements that were made that I would kind of take issue with. They were made sort of on a broad-based assumption. One of those is that first responder role abandonment has and will occur, and the other one is that there's a broad public concern over emergency planning around nuclear power plants. I think it, perhaps, can be isolated to a few isolated events, as opposed to applying it across the country and across the industry.

As far as first responder role abandonment is concerned, I think, from a sociological perspective, we in the IPC and our local jurisdictions have been in contact with a professional sociologist in terms of –- to discuss these very things. And there's no data that that happens. It doesn't happen. September 11 is, perhaps, a perfect example. You have more first responders than those who were even on duty, flooding themselves into the area of concern, as opposed to running away. The mark or what makes a first responder is a first responder is the need, the desire, the instincts to run towards an emergency, not away from it.

That's what marks this group of people as first responders for what they do. And irregardless of the nature of the emergency, that's going to be the case.

COMMISSIONER MERRIFIELD: Mr. Godwin?

MR. GODWIN: From my experience, they show up. We hadn't had too many events in radiation to compare. But looking at floods and other things, the people show up. We don't see them leaving.

MR. GUNTER: Commissioner, could I –

COMMISSIONER MERRIFIELD: Yes, sure.

MR. CHRISTIAN: I think I'd like an opportunity, as well.

COMMISSIONER MERRIFIELD: Okay, yes.

MR. GUNTER: Go ahead.

MR. CHRISTIAN: No, you go first.

MR. GUNTER: Well, you know, we draw this upon work that was done by Professor Donald Zeigler in looking at the Three-Mile Island event, where there were some first responders that, even all the way out to emergency rooms 25 miles away from Three-Mile Island, there were significant no-shows following the accident. If you want to dispute the study, that's one thing. But the other thing is that I think there was some evidence following the Katrina event. The police departments –- a significant proportion of the New Orleans Police Department, if not abandoned, delayed, in order to look to their families first. I think this is not a -– I'm not casting a bad light on first responders. I'm talking about human behavior.

The 9/11 events were localized. It was a terrible event, but it was localized. I think that there –- what the Zeigler studies point out is that a radiological event and the broad reach, potentially, in such an event casts a

different pall over human behavior.

MR. CHRISTIAN: I'm confronted with one question. With your permission, I'd like to answer two. It was asked earlier in the day, and it came up actually in the earlier session with the regard to the potential for negative training. If it's acceptable, I'd like to maybe perhaps sometime today address that. I would agree –

COMMISSIONER JACZKO: I'm not trying to stop you. I just wanted to know what the question was.

MR. CHRISTIAN: Okay. I'd like to agree with Michael Rose. Not only does it not happen; actually the tendency would be toward the contrary. The tendency would be toward –- I think this was first studied in great detail prior to World War II, when sociologists were concerned with urbanization and the reliance on large central systems of water systems and power systems. There was a great concern that the fabric could be ruined by –- during wartime and that society would fall apart. And, in fact, during the bombings of London, the exact opposite occurred. The fabric of society works exactly the opposite. It's much stronger than most people believe it to be.

COMMISSIONER MERRIFIELD: Well, Mr. Chairman, we'll go to the next round. I would just say in my own personal closing comment, I'm not aware of the Zeigler study and certainly would be happy to take a look at it, Mr. Gunter. Intuitively, as you can imagine, I'm somewhat more inclined to agree with some of the other folks on your side of the table: that folks will respond. I think nothing better epitomizes that than the reaction of the firefighters and policemen who responded on 9/11. Hopefully, we'll never have to determine who's right on that,

but I'd like to think that that's the case. Mr. Chairman?

CHAIRMAN DIAZ: Thank you. Commissioner Jaczko, the second round?

COMMISSIONER JACZKO: Mr. Rose, I have a question for you. One of the issues that the Commission has been dealing with is an issue in Pennsylvania dealing with daycare facilities and special needs populations. One of the specific issues that's come up there of some concern is an issue of contracting for transportation services for the special needs population. In fact, Mr. Godwin, you can address this, too. But I'm wondering specifically what you would do in your area if you had any of those special needs populations to deal – How do you deal specifically with the transportation issues? Do you contract out for that, or how does that work?

MR. ROSE: The Interjurisdictional Planning Committee takes a tact that, well, for one, we're not a regulatory agency, so we cannot enforce or impose any guidance on private entities. Private schools and childcare facilities are private businesses, for lack of a better description. They are independent entities that operate just like Home Depot or anybody else. The fact of the matter is that they are responsible for the care of a particularly crucial portion of the population for a small percentage of the day.

The way that we approach private school and childcare facility planning is that the IPC has a model emergency plan, okay? All of these facilities are required -- as a condition of their licensing by the State of California, are required to have an established emergency plan in place to protect their charges. Part of that emergency plan, which is required, is the ability to effectively evacuate

their group of students or kids. The IPC takes a guidance perspective in that we, once a year, prior to our annual siren notification, or prior to the test, we issue, send out to all these facilities that we have licensed in the emergency planning zone –- we send out our model plan, just as a reminder, hey, if you need to update your emergency plan, this is a good time to take it out and look at it to retrain your teachers -– if I can finish real quick.

COMMISSIONER JACZKO: Yes.

MR. ROSE: And then once a year, we also provide them the opportunity to come to us and talk to us as the IPC. And as the county warrants, we bring them to the operational area, the emergency operations center, and give them an orientation to the way we handle things from the emergency response side and –

COMMISSIONER JACZKO: If you can just address this: Do the model guidelines include specifically something about transportation contracting? Is that something specifically in it? Just kind of yes or no.

MR. ROSE: I do believe the plan –- I don't have it in front of me, but I believe the plan provides some recommendations or some suggestions on how they might implement that, but we don't provide guidance for how they should.

COMMISSIONER JACZKO: Mr. Godwin, maybe you could just briefly comment if you have anything to add –-

MR. GODWIN: Well, we have some public schools, and they have, of course, school buses. Since it's a relatively rural area, they have them there, and they use those to get them out. They're specifically addressed in the school plan. We have a total of four schools to be concerned about, and they have a

transportation plan specifically for them.

COMMISSIONER JACZKO: Thank you.

CHAIRMAN DIAZ: Commissioner Lyons?

COMMISSIONER LYONS: There was some discussion this morning, and I think some this afternoon, on the general point that emergency planning done for a nuclear power plant provides benefits to the population from the perspective of being able to respond to other emergencies. I'm just curious, particularly from Mr. Godwin or Mr. Rose, if you can point to cases in your jurisdictions where the emergency planning that you have done for the power plant has been used in some other emergency, or if there haven't been other emergencies. I'm just wondering if there's any examples here.

MR. ROSE: I have an easy one right off the top of my head. As an example not only of how emergency planning for nuclear power plants makes us better in the all-hazards approach, but it also highlights the public/private partnership. If you're familiar at all with the National Oceanic and Atmospheric Administration, the National Weather Service, Storm Ready and Tsunami Ready Programs, which are certification programs that provide recognition for local jurisdictions who go above and beyond in terms of planning for extreme weather conditions and, in the case of coastal communities, for Tsunami planning, if you look at the State of California, two of the only three Tsunami-ready communities in the State of California are in the emergency planning zone around San Onofre. Those are both relatively recent. That's the City of Dana Point and the City of San Clemente.

What that means is, that represents a significant public/private

partnership which allows us to be recognized at a higher level of emergency preparedness because of what is already in place in the infrastructure for emergency and disaster preparedness that's already in place due to the resources available to us for being within the emergency planning zone.

One of those key factors is an outdoor warning system, which is inherent to emergency planning for the nuclear power plant. But with a recently upgraded digital siren system, it also gives us the ability to communicate either live or prerecorded messages to the most at-risk population for something other than a nuclear power plant. If we are given five hours' notification of an impending Tsunami, for example, we can communicate a voice message via our coastal sirens to that population as a method of communicating that hazard to the people who are on the beach. That is an immense capability and an amazing resource that is provided to us and maintained by a nuclear power plant. It makes us that much more prepared and capable of responding to something other than that emergency.

COMMISSIONER LYONS: That's a great example. Mr. Godwin, do you have anything in your –-

MR. GODWIN: I don't know that I can point to anything specifically, but when you go to see them operate during any emergency, you see a lot of the same equipment being used. That proficiency is clearly enhanced by having practiced with the nuclear power plants. So they're utilizing the same equipment the same way. That extra practice just helps.

COMMISSIONER LYONS: Thank you.

CHAIRMAN DIAZ: Thank you, Commissioner Lyons. I'm going to

go back to something that I said this morning. Being a simple man, I have to focus on simple principles. And I said, the issue is command, control, and communications. Could we quickly go, and if each one of you would say, from your perspective, how can we improve command, control, and communications? What is one of the things that we could do to actually improve that? I'll start over here. He knows the answer. Mr. Christian?

MR. CHRISTIAN: Well, I think, to continue to exercise the plans. But I think I'll take that opening to say that we do need, from time to time, to not always exercise the plans in the same way. I will cite a couple of real-world examples where the potential, I guess –- where the theoretical potential existed to lose command and control functions in emergency scenarios.

One was an actual notification of an unusual event that occurred in our North Anna Power Station for a small reactor cooling system leakage. About an hour into it, the Louisa County plant was going to isolate and shut down. But Louisa County, about an hour into it, began to activate their EOC. And we asked them why, and they said, well, because an hour after an NOUE, we normally go to an alert. So we've got to -–

(Laughter.)

MR. GODWIN: The second example was the ten-whisker trip at Millstone, the ten-whisker event at Millstone last year, which resulted in, perhaps, an overcall, but an alert declaration. The local communities there began to make preparations for the next phase, perhaps -– because after an alert comes what? You know, they've –- and the word is conditioning. We must be careful not to condition public response so that it's programmatic in a way that actually results in

a misunderstanding or a misapplication of the plans. So that's an important element.

CHAIRMAN DIAZ: You think that's a scenario that we should continue to work on?

MR. GODWIN: Yes.

COMMISSIONER DIAZ: Thank you, Mr. Godwin. Mr. Gunter?

MR. GUNTER: I'm going to pass.

COMMISSIONER DIAZ: Mr. Rose?

MR. ROSE: I think one of the things that we can look at in terms of improving at least one of those c's –- I think there's definitely room for improvement in terms of communications. Not only the systems that are in place, but improving the existing infrastructure. Current technology is available to provide us the ability, with much more reliable communications than relying solely on the analog single-pair phone line that we get through the regular phone company. I think that the use of either voice-over IP technologies or something like that, which would provide the emergency operations centers, both onsite and offsite, State and the Federal government, I think there's a much more hardened infrastructure that we may be able to take advantage of than just standard telephone lines or relying on, oh, we have cell phones; that's a backup communication. Well, it's really not. So I think, really understanding and looking at and reviewing the communications aspect from a response standpoint.

CHAIRMAN DIAZ: Thank you.

MR. GODWIN: I find it interesting that the description about the alert matches one that occurred 20 years ago at Brown's Ferry. Essentially the same

thing. There's several things that we need to do in our scenarios that would really help us overall, one of which is that I'm afraid we're training a lot of our decision makers to believe that the numbers we're going to see in the field are the ones that we've actually calculated on the computers. Those numbers are not going to be the same. They'll be varied by factors of three or more. And the decision maker who is not confident in understanding that, he can really be misled to bad decisions. And we really need to look on the scenario development to get more variety in several ways.

CHAIRMAN DIAZ: I appreciate your point. The Commission has been for some time now pressing for measuring whatever point you can get in some measure because that is invaluable. Thank you. Commissioner McGaffigan?

COMMISSIONER MCGAFFIGAN: Okay, Mr. Gunter. We're coming back to you. I'm going to stay off the point of the purpose of the meeting because you went off the point. But your last remark in my last round was to get to, tritium passes through the placenta, which I honestly think you specialize in factoids and irrelevant facts. Potassium 40 passes through the placenta. So, again, I ask you a rhetorical question. And it isn't meant to be rhetorical because I guess I'm just trying to understand how extreme your organization is. Do we tell women who are pregnant to give up Brazil nuts and bananas for fear of -– because potassium 40 is going to end up in their baby, in their fetus, in a far higher dose than anything that they'd ever get from drinking tritiated water. I mean, factors of 100 higher. So tell me, two millirem a year is what a woman gets from eating a banana a day. Is NIRS' position that we give up bananas?

MR. GUNTER: Commissioner McGaffigan, again, our concern is unplanned and unmonitored release paths –-

COMMISSIONER MCGAFFIGAN: You're not answering the question.

MR. GUNTER: What I'm saying is that we're talking about regulatory practices governing unmonitored and unplanned release paths –-

COMMISSIONER MCGAFFIGAN: Okay.

MR. GUNTER: And the right of the public to be alerted to such events. That's the –-

COMMISSIONER MCGAFFIGAN: Then you go to Illinois and you use factoids or made-up facts or irrelevant facts in order to try to condition the public to –- and to spur fear in the public. You yourself have done that. I mean, you yourself go and do this placenta thing, and you –-

MR. GUNTER: It was actually Dr. Arjun Makhajani who made that –-

COMMISSIONER MCGAFFIGAN: He's another –

MR. GUNTER: And also –-

COMMISSIONER MCGAFFIGAN: He's another person who doesn't know anything about radiation.

MR. GUNTER: And also an obstetrician made that statement. It wasn't me. I repeated it.

COMMISSIONER MCGAFFIGAN: Yes, well, you'll repeat anything that serves to spur –-

COMMISSIONER JACZKO: Mr. Chairman, I –

COMMISSIONER MCGAFFIGAN: I have a right to use my time as I

see fit, Mr. Jaczko.

So I honestly think that you should – if the Nuclear Disinformation Resource Service wants to produce disinformation, you should, as a matter of consistency, tell pregnant women to avoid air travel, to obviously avoid the Capitol, to avoid bananas, to avoid Brazil nuts, and to do all sorts of other stupid things.

But to go to your other point –-

MR. GUNTER: Can I answer that before you move on?

COMMISSIONER MCGAFFIGAN: Well, I don't have any time left, so you can answer that afterwards however you want.

On the purpose of this meeting, you talk about the politically arbitrary lines, and you attacked the ten-mile EPZ at one point during your discussion. Is it your position that the Carter Administration's EPA and NRC was in -– without the benefit of 25 years of research that points out that they were extremely conservative in choosing a ten-mile EPZ; that they were somehow politically corrupt, like all governments have been forever?

Is it your position that Europeans, who use six kilometer EPZ's, the French and German Governments have had socialists and green members and governments in recent memory, that they have abandoned public health and safety because they didn't expand EPZs to much larger numbers while they had control of the government? What is your position?

MR. GUNTER: The position is that we need more transparency with regard to dose calculations from source term and how it can impact populations within a particular EPZ.

I think that, well, first of all, you know, to answer your first question

with regard to bananas and Brazil nuts, there are food restrictions in place as a result of the Chernobyl accident. Governments that have put those food restrictions in place have done so wisely. If it were reflected that there were public health threats from increased doses to the food chain, then it is appropriate for such declaration to be made and are being made today and maintained in effect from 1986.

But, to answer your question with regard to a ten-mile EPZ and a 50-mile planning zone: You know, I think that we probably both read the last National Geographic that featured the Chernobyl accident. What I thought was startling in that article was that the planning zone has grown around Chernobyl, that evacuations have actually expanded since the accident. And I think that what we are going to be looking for and what we have requested of staff is a transparency with regard to the studies that were used, the evaluations that were made, to draw that line where it is today.

CHAIRMAN DIAZ: Thank you, Mr. Gunter. Commissioner McGaffigan, do you want to –-

COMMISSIONER MCGAFFIGAN: There's plenty of transparency in NRC. I think we are a very transparent agency. We provide very good information to the public. We compete on a daily basis with people like Mr. Gunter, who wake up trying to sow unnecessary public fear as their first, second, third and fourth priority.

CHAIRMAN DIAZ: Thank you, Commissioner McGaffigan. Commissioner Merrifield?

COMMISSIONER MERRIFIELD: I'm not going to get into the detail

of the last conversation, except to say that for the record, you mentioned Chernobyl. I had occasion to go there last September, and it was reported in Newsweek -- in National Geographic that were areas where it has been expanded.

There are also areas in Ukraine, having had detailed conversations with the regulator, where they believe the background levels are such that those areas can be opened up. And for a variety of reasons we need not go into here, the decision so far has not been made to do so. But there are a number of -- there is a fairly decent-sized area where it is now, at least in the views of the regulators, safe for human habitation. So that does go both ways in that regard.

I guess the one thing I wanted to focus on, again, going back to the last conversation and last panel -– not last panel, but last round we had, this goes to the notion of sheltering. And I understand the concern that you've raised, Mr. Gunter, about what might be intended.

I would say, speaking from this side of the table and from my own position, although I don't think it's any different than my two fellow members who were here when we went down this road, and that was the decision to look into sheltering in no way, in my own view, was motivated by a benefit to utilities or an issue of, would that be something that would less costly for everyone.

I think my personal motivation -- and I will let them speak for themselves. My personal motivation in looking to the notion of sheltering was based on the notion that it would, in fact, be overall better for the public health and safety of the people surrounding the units, and that there were examples that we seem to have identified where -- for the long-term health benefit of individuals who were involved, it would be better for them to stay at home than to risk themselves

by following the plume that has been described earlier today.

Now, as we move forward, I'm looking at those options and getting additional information from the national labs. You've noted a desire to have more transparency on where we're intending to go on that, and I think the Commission -- we are an open Commission. We have been an open Commission for well before I got here in terms of trying to keep that information open. So from my standpoint, I think that is certainly an area our staff would be, when we get the right information in hand, happy to engage on.

I hope we can do so in an environment in which you and your counterparts, not only within yours but within the environmental community, can look at that hopefully with some fresh eyes and give us the benefit of the doubt that what we are intending here is not some sop to anyone, but is, in fact, part of our mission to try to help craft emergency evacuation plans that have the flexibility built into them to provide the professionals that we have all across the table the tools necessary to protect people to the maximum extent possible.

So I would leave that as a going-out message and certainly hope that you and your counterparts can embrace that spirit as we go forward in attempting to look at this issue.

CHAIRMAN DIAZ: Thank you, Commissioner Merrifield. I think, in many ways, that sums up what was I was going to say in my closing comments: that whatever differences or opinions or agreements of opinions, the reality is that this Commission has always, in my almost ten years in here, been focused on public health and safety. And I agree that at times, we do need to do a better job on defining what that is and communicating what that is. In fact, my first speech

that I gave when I was a Commissioner of the NRC precisely touched on that subject.

I want to thank every member of the panel for being here. I think we do value the differences of opinions, positions, and points of view. It enriches the Commission. It makes our deliberations better. We hope to continue to have the benefit of your input, and if my fellow Commissioners –

COMMISSIONER JACZKO: I just want to make a brief comment. I just want to thank -- I think it has been a very good day of meetings, both what we heard from the staff this morning and what we heard this afternoon. I also want to thank you for being here. I would just say, I think it's nice sometimes -- we don't always have an opportunity to hear from people outside of the staff, and I think it really helps in this area in particular because it gives us a really fresh perspective on a lot of these issues. So I thank you all for being here, and I thank again the Chairman and the Commission for the activities in this area.

CHAIRMAN DIAZ: If nothing else, we are adjourned.

(Whereupon, at 3:00 P.m., the meeting was adjourned.)