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>>> All right. Well, Arthur, how about if you go ahead and start us off.

>> Okay. Thanks, Rick. Can everybody hear me? Great. Good evening everybody. Again, my name is Art Howell and I am the Team Manager for the Region 4 Special Project Organization. I want to emphasize that's Region 4 because there's also a NRR, Office of Nuclear Reactor Regulations Special Project Organization, as well that Dan is going to touch on. I had the opportunity to meet many of you at the last meting and also have had some one on one chats with some of you and some telephone conversations with some of you so I do appreciate the continuing interest and the fact that you all showed up tonight.

I think the number of people in this auditorium tonight speaks volumes to the level of interest there has been in the community regarding the safety of the San Onofre Nuclear Generating Station. And as we've indicated on numerous times, the S.O.N.G.S. steam generator tubes degradation issue is a safety issue and it has to be resolved. And to date the NRC has spent a large amount of effort to understand the tube degradation itself. And I thought I would just take a moment to review what some of those activities have been. You know we've met four times locally and once in head quarters in December and we've had a number of other interactions, one on ones and government to government interactions and each of those has had a particular focus.

I guess one of those meetings was also a category 3 meeting, which is a little wider discussion topics, but I thought I'd take a minute to just review some of the oversight activities that have occurred to date relative to the steam generator tube leak in Unit 3 And the licensee's response to

that. So to date we've conducted what the NRC calls an augmented inspection team and that consisted of personnel from both the region 4 office, region 2 office and also multiple offices in head quarters to ensure that we had the right folks on that inspection effort.

That exit meeting was conducted in a believe June time frame and the report was issued shortly there after. What you also might not know is we also conducted an independent assessment of the ARC's review activities and that report has not been issued yet, but we do plan to issue that. I think the current plan is to include that as an enclosure to the CAL inspection report which I'll talk about in a moment. We did hire an independent contractors to conduct that review for us, and so the idea there is that to get their input and then to address it as part of the CAL inspection report. We also conducted an AIT, or augmented follow inspection for the 10 unresolved items that were opened up during the IT inspection. And I believe 8 of those 10 unresolved items have been closed already.

Two of them, well, one involving the thermal hydraulic modeling has yet to be closed and we can provide a little bit of status for that particular model tonight as we go through the presentation. We also have as I mentioned the CAL inspection effort on going right now. It's not completed yet. That's one of the main reasons why we wanted to provide status is to let folks know where we're at with that inspection and equally important is technical evaluation review which is being conducted by experts in the office of nuclear reactor regulation. That process is the process that resulted in the issuing of these so called, Requests for Additional Information, or RAI, you've probably seen thrown about over the last couple of months. And I'll come back and touch on that process in a moment.

As I indicated already we did form two organizations, one in region 4 and one in the Office of Nuclear Reactor Regulations to provide sole oversight of the San Onofre Nuclear Generating Station

Facility. Those organizations are up and running. And along with that we formed an oversight panel which has one of the main charges of making a recommendation on restart, agency senior managers. I mentioned the 4 public meetings here locally and the one back at head quarters back in December 17th, or 18th on the Request for Additional Information and then Rick indicated that for sure we plan to have at least one more public meeting. Certainly an exit meeting between the NRC and the licensee on the CAL inspection and on the technical evaluation review. As Rick indicated, we believe the timing of that meeting is likely to be late April, it wouldn't be any earlier than that, but that's the current plan. And then we also plan to have another technical meeting in headquarters, I think principally to talk about some additional Requests for Additional Information that will be issued shortly.

In addition to that, we've had numerous briefings of members of the congressional staff and also to Senator Feinstein and Senator Boxer. And we've had many briefings obviously of NRC senior management over that period.

Mr. Dorman's going to talk some of the review activities associated with the so called 10CFR2206 petition process and also it was noted that there on going atomic safety and licensing board review activities. On September 28th, 2012 the NRC's office of investigation initiated on expansive investigation of the completeness and accuracy of information that Southern California Edison Company has provided to the NRC regarding the steam generator issues at San Onofre. And that review is on going and it was mentioned in a letter from chairman McFarland of the NRC to Senator Boxer and Congressman McCarthy. It was issued last Friday on the 8th of February.

Finally we have additional inspection and review activities that are being discussed and they're in the planning stages but the details have not been finalized and once those plans become finalized

the notifications for that, for those efforts will be made public. Either on the docket in writing or in subsequent meetings.

So that just gives you a sense the level of activity, high level of activity on the part of the NRC in response to this issue. Of course you've heard the company and earlier meetings talk about the activities that they have undertaken to support their CAL response which was submitted on October third, last year.

At this point I'd like to take just a moment to highlight some key technical items that I think you will find of interest. Anybody who's following some of the technical issues I wanted to provide a list, by no means a comprehensive list, but it is, it should give you a sense for some of the areas where we have, either more focus or some questions about, about the work that under pen these issues and may have obviously some bearing on any future decision we make on the licensees Confirmatory Action Letter submission.

So I'm just going to tick through these real quickly. I think Greg and Jim Anderson will be touching on some of these, as well as Dan Dorman and perhaps Ryan as well. So just really quickly. In the area of operational assessments, we have questions about the conservatism of the growth rate distribution used in traditional Operational Assessment analysis. Another area that we have questions is the lack of available information for the benchmarking of the Mitsubishi's industry model for calculating AVB contact forces and gaps and anti vibration bars.

We also have questions about the impact of manufacturing on contact forces and gaps calculated by Mitsubishi. And we have questions about uncertainties and the calculated probabilities of the instability and the impact of these uncertainties on integrity margins. Regarding thermal hydraulic models and vibration models we have questions about the applicability and use of the so

called squeeze film damping factors. And we also have questions, I think if you were here for the November 30th meeting, about the modification of the stability ratio calculations for the in plane. Regarding the so called Request for Additional Information I mentioned, there are 32 that have been issued to date. I believe there's five others that are ready to go, and then there's a number of others that are getting cued up behind those other five. I believe the licensee has responded to almost all of them, 28 out of 32. There is one RAI in particular that we're still waiting for the response on, and like I said since we don't have the licensee's response it's hard for us to tell you, impossible for us to tell you how they will respond, but that has to do with information that we requested from the licensee about the ability to demonstrate that the steam generator tube integrity can be assured during the operating period over the full range of operating conditions. And so that question is still outstanding and we should be getting the licensee's response in the not to distant future.

And then finally, at least for my remarks, there is one other question that was talked about, technical question that was talked about at the November 30th meeting and that has to do with the reliance of the anti vibration bars to provide in plane structural tube supports. And whether or not that constitutes a design change.

So with that, I just want to kind of summarize where we're at with the process and then turn it over to Mr. Lance. So during this presentation the NRC will discuss the stratus of both the Confirmatory Action Letter inspection and the technical evaluation review. There are a number of areas that Edison needs to provide additional information, as I just indicated, in order for us to complete our inspection and review activities including an evaluation of tube structural activity for up to 100% rated thermal power as I just alluded to, and various other aspects of the Operational Assessments.

Greg Warner will be discussing the CAL inspection activities and key Requests for Additional Information will be discussed later by Jim Anderson. We will take as much time as we need to make a restart decision and our decision will be based on safety. NRC must have reasonable assurance that the steam generator tube integrity program will maintained. Tonight's meeting is to inform those interested in S.O.N.G.S. about the current status, NRC's review and to answer questions related to the S.O.N.G.S. steam generators. We will shore up that conclusion and make that conclusion based on the information from those reviews and then try to answer any, or provide any information on any interim conclusions tonight, bearing in mind that the work is largely still in progress and there's still much work to be done.

So there's no decisions regarding restart at this time and that decision will not occur until at least the end of April, at the very earliest and with that we value your input and encourage you to ask questions and make comments during tonight's presentation.

So at this point I'd like to turn the meeting over to Mr. Lance.

>> All right. Thank you, Art. Can you hear me okay?

>> Yes.

>> All right. I get the honor of doing a little bit of back background and tell you what the CAL actually said. Where we think the status of that is, and folded in there will be some of Edison's actions that they've taken to address the CAL actions.

The NRC issued Southern California Edison a Confirmatory Action Letter which is called CAL on March 27, 2012. This CAL applied to both Units 2 and 3 with specific actions outlined for each unit. For Unit 2, the CAL confirmed actions that Edison committed to in its letter to the NRC on March 23 of 2012.

Now, those actions for Unit 2 are as follows - - first action, Southern California Edison will determine the causes of the tube to tube interactions that resulted in steam generator tube wear in Unit 3. This action is completed and the inspection results were made public by augmented inspection team that Art referred to and also the follow up reports. Tube to tube wear was caused by in plane fluid elastic instability due to an excessively adverse thermal hydraulic environment coupled with inadequate dampening of the forces which cause rapid tube vibration.

The second item in the CAL. Edison will implement actions to prevent loss of integrity due to these causes in the Unit 2 steam generator tubes. Edison has completed the plugging of steam generator tubes as required by their tube integrity program. I do want to note that no tube in Unit 2 failed to maintain tube integrity as defined by that program during the first full operating cycle even though significant wear was experienced. The actions that Edison has taken to prevent future loss of tube integrity are still being reviewed.

Edison will establish a protocol of inspections and operational limits for Unit 2, including plans for mid cycle shut down for further inspections.

Edison has submitted their plan to operate at 70% power, shut down after 150 days of operation and then perform inspections of 100% of in service tubes and also a sampling of the plugged tubes. The adequacy of those actions and other actions that are being taken are still currently being reviewed.

Prior to entry of Unit 2 into mode 2, and mode 2 is essentially where you begin to start up the reactor, where you actually pull the control rods and start the reactor. Prior to entry of Unit 2, prior to start up, Edison will submit to the NRC in writing several things. The results of their assessment of the Unit 2 steam generators protocol of inspections and operational limits, schedule dates for mid

cycle shut down for further inspections and most importantly, the basis for Edison's conclusion that Unit 2 can operate safely and as required by N RC regulations.

Edison provided their written response to the NRC as Art mentioned on October 3rd of 2012. Currently Edison is providing additional as requested by the NRC RAI s to establish the basis for SE's conclusion of safety to operate. The NRC is currently reviewing this basis and completing the assumptions and reliance on modeling and probabilistic methodologies. Can I get the next slide?

So just to briefly summarize a little bit of history. Edison was performing routine tube inspections on Unit 2 when the tube leak occurred on January 31st of 2012. Following tube inspections on Unit 3, Edison found additional inspections on Unit 2 these inspections on Unit 2 identified 6 tubes that exceeded their 35% technical specification required, plugging requirement and two other tubes at the anti vibration bars with wear less than 35%. They were also plugged, based on the Operational Assessment. In addition, for Unit 2, 570 additional tubes were plugged as a precautionary measure at the retainer bars and in those areas that were deemed to be most susceptible to fluid elastic instability, tube to tube wear, based on those Unit 3 inspections.

Only two tubes in Unit 2 were found with tube to tube wear, whereas Unit 3 had 318 tubes with tube to tube wear. A selected group of tubes were also staked, and that involved, you might have seen the model out in the hallway. It involves securing the steel cable on the inside of a tube that's been removed from service that's been plugged to alternate the natural frequency of that tube and inhibit excessive vibration of that tube.

In their CAL response for Unit 2 Edison performed 3 different Operational Assessments, and these are the forward looking assessments as to the ability of the plant to maintain operation during that cycle. Each of those assessments had different approaches to attempt to provide assurance of

those results. As Art mentioned, we are reviewing currently each of those assessments and you'll hear more details about that from Greg Warner and Jim Anderson as they talk about specifics of their inspection and technical evaluation activities. At this point I'd like to turn it back over to Rick.

>> Thank you, Ryan. This is where we're going to deviate from a little bit. Chip is going to be taking comments from our elected officials. When we come back we're going to be going back to Ryan. You can ask questions about what you heard him talk about. So 15 to 20 minutes, okay. Go ahead, Chip.

>> Okay. Thanks, Rick. Just please introduce yourself.

>> Okay. I'm Don Mosier. I'm a council member from the city of Del Mar and I'm also a scientist at Scripps Research Institute. I wasn't paying attention to this issue until last year. The example of Fukushima raised our concerns about public safety of nuclear reactors and our city's concern about safety of San Onofre was raised after failure. And the more we learned from the NRC's work, the more technical data we learned, the larger our concern became.

So, we were one of eight coastal cities to adopt a resolution asking for no restart until a full license amendment hearing. And our council reached that decision after hearing conflicting testimony from Southern California Edison people and from Dan Hirsch and Arnie Gunderson and other nuclear experts who had totally opposite opinions. Safety is very important for a public official and our council decided that a restart of San Onofre with our current level of knowledge is unsafe for our citizens. And we were recently joined by the San Onofre city school district who adopted a resolution was identical to ours.

I just want to close by saying a little something about modeling because in my day job as a scientist I use computer modeling. There was a computer model used in a design, the designed

failed. It was flawed, now we're using computer models to assess risk. No computer model is valid until it's been tested in a real life situation and the only way to test it is to run the reactor at full power and see if your computer model is verified. And the question I'm going to leave for answer later is can a restart at 70% predict safety when this reactor was designed to run at 100%. And must it the reactor be run at 100% to meet the licensing conditions. So I'd like to end my comments there.

>> Thank you. Thank you, Don.

>> Thank you for that. I'm here tonight representing San Diego mayor, Bob Filner and I'd like to read Mayor Filner's letter for the record.

Dear commissioners, I write this letter in regards to Southern California Edison's request for permission from the nuclear regulatory commission to restart Unit 2 nuclear reactor at San Onofre nuclear regenerating station for 5 months at 70% power to determine if the same problems that caused the failure of the steam generator in Unit 3 on January 31, 2012 will reoccur.

The NRC has previously determined that both Unit 2 and Unit 3 steam generators had similar, serious design flaws and errors in computer models used for the design. The restart of Unit 2, even at reduced power is a dangerous experiment that threatens the safety of 8.2 million Southern California, 8.2 million Southern California residents living within a 50 mile radius, including much of San Diego. Any decision on the potential restart of Unit 2 should be preceded by public transparent license amendment hearing before the NRC with sworn testimony by experts who support or oppose the restart so all impacted residents can understand the risks involved. The public utilities commission is investigating the customer rate charges associated with the year long shut down of S.O.N.G.S.

Any decision to restart Unit 2 should consider public safety first. But also, also the high costs

for consumers of reduced power generation of 700 megawatts versus 2200 megawatts when S.O.N.G.S. was fully operative. Attorney general Pamela harass is filed as an intervener in the CPUC hearing and any decision to restart S.O.N.G.S. at any level should consider the reliability and costs compared to a future based on alternatives, including efficiency, load management, demand response, renewable energy and energy storage. I urge you not to authorize the restart of S.O.N.G.S. until both a full license amendment hearing has been conducted by NRC and the CPUC finishes its investigation.

If you have any questions, feel free to call me, that is Mayor Filner or Dr. Rob Wilder, my public advocate for energy and climate sustainability, at 619 236 6330. And that is signed, Sincerely, Bob Filner, Mayor of San Diego. Thank you.

>> Thank you for the information. Can you just tell us who you are?

>> I'm that fellow that he mentioned, Dr. Rob Wilder.

>> Thank you, Dr. Wilder. Yes, sir.

>> Ladies and gentlemen, good evening. NRC leaders, thank you for holding this meeting. I'm Dave Roberts and I'm a counter supervisor in the county of San Diego. I'm the first new elected supervisor in 18 years in San Diego. I'm also the father of five young children. This issue is critical to San Diego County. When I was elected I believe one of the main reasons I won my election to represent, not only the 640,000 people in my district, which includes, my district is 60% of the city of San Diego where Mayor Filner is mayor, plus I have four incorporated cities in my district, but I believe it's also my responsibility to speak on behalf of the 3.2 million people in the county of San Diego.

I'm here today to testify and ask that S.O.N.G.S. remain closed until every safety issue has

been resolved. Public safety and not money and not nuclear power must be our number one concern. I'm also extremely concerned about worker safety at this plant and I hope the workers recognize that fact. So the San Onofre reactors must not be restarted until the NRC's investigation is thoroughly completed and the public has been assured of the plant's safety. The NRC was created and I quote, "to ensure the safe use of radioactive materials while protecting the people and the environment".

There's over 7.4 million people that live within 50 miles of San Onofre, and many are in my district. And they deserve to have the peace of mind that these reactors are safe and pose no health risk to them or their families. The people of San Diego must be able the sleep at night knowing that this plant is safe.

It's critical that the NRC conduct its investigation at San Onofre in an open and transparent manner and that any and all corrective action be taken at the plant. It's also important that we cut through all of the rumors and innuendo and get right to the only question that matters and to answer that question. And that question is, is this plant safe. Until the answer and yes, I urge you not to restart San Onofre. Thank you very much.

>> Thank you very much. Yes, sir.

>> Good evening. My name is Mike Nichols and I'm the mayor of Solana Beach California. We are a small coastal community located about 30 miles down wind of San Onofre in San Diego County, obviously. Thank you, Mr. Roberts, for being here this evening and representing San Diego and our community.

We, in public safety to us is number one and I'm here tonight representing our city and our city council. And our city council unanimously voted to support the recommendations brought forth by

Senator Boxer and Senator Feinstein. With that we call for a full, thorough and transparent investigation regarding the operations, the design, and the engineering. The safety of not only the plant, but the safety of the workers, the emergency preparedness and evacuation of the effected areas in case of disaster and the geological issues including tsunamis and earthquakes. And how all of these relate to the facility that you're looking at today and this evening.

Now, I'm not a scientist and I don't think you really need to be a scientist to understand what it means to our region if there is a disaster and the effects to our economy, our environment, our community's health, and most of all our quality of life and our families. We are, we appreciate the fact that you are taking safety as your number 1 priority. With that we want to just let you know that, you're entrusted with our public safety and the 8 million individuals who live within the area surrounding S.O.N.G.S. We hope that you would conduct an adjudicated hearing with sworn testimony and a license amendment agreement process as outlined by Senator Boxer before allowing any of the units to restart. We appreciate your time and attention to this endeavor. Thank you very much.

>> Thank you very much.

>> Hi. I'm Lee Haydo, Deputy Mayor of Del Mar. I'm also been involved with this for, since last June. I've learned a lot about S.O.N.G.S. and all of the problems that we've had with the unit, with all of our units. Also we've learned a lot from the problem with Fukushima and that is one thing that we cannot ignore and they're still suffering there because of that. We do not want that to happen here. Every time we meet with some public officials we always ask, what is the exit route for all of us? We all know there's no evacuation route. So until we can be guaranteed that this plant is safe I do not want it to be re opened because, and I'm speaking for that because of a private citizen,

also as a city council member of Del Mar representing 4,000 people. I cannot say that they would be safe if it re opens without all of the right hearings that need to go forth. The other thing is, is that, with no evacuation route, it's a very hard to guarantee that we're going to be safe. Thank you.

>> Thank you.

>> Hi. I'm Andy Schrader representing Los Angeles City council member Paul Koretz who represents 250,000 people in the city of Los Angeles. I want to thank the NRC for holding this hearing tonight. Southern California Edison has long been a strong partner with LA's department of water and power in providing a safe reliable grid for all of us. My boss has had an excellent working relationship with Edison for many years and has a number of friends among their employees. He looks forward a continuing good relationship. I'm here tonight to talk about San Onofre.

Now, LA's nuclear generating station went through a licensing amendment process when it upgraded power and replaced its steam generators back in approximately 2003 and 2005. And it is not subsequently suffered any design flaws or operational problems. So, it seemed prudent and reasonable to request the same thorough review of San Onofre's replacement generators if that did not occur in the first place. Yet, when the council member introduced a resolution requesting such, quite a number of folks, let's say, showed great concern. That was little troubling to say the least. What is also troubling is the recent report from Mitsubishi having the industries which Senator Boxer disclosed last week in which the LA Times reported, and I'm quoting, "the report indicates that Edison and Mitsubishi were aware of serious problems with the design of San Onofre nuclear power plant's replacement steam generators before they were installed", end quote. And there's clearly more to it than that.

Also troubling is that you scheduled this meeting conveniently tonight during a big news cycle,

during the State of the Union which has been scheduled for months.

I have to tell you, you are not inspiring great confidant up north.

And frankly, that's what you most need to inspire when dealing with nuclear power, confidence, from elected and from the public. Any wrong decision will seriously impact the entire nuclear power industry at a time we desperately need to get off of coal.

Now, there is no stronger advocate for worker's rights and fair wage jobs than my boss. What you decide about San Onofre's steam generator seriously affects the lives and safety of all of these workers and of our neighbors here surrounding the plant, all of which are very important to my boss. I know there are serious financial considerations concerning San Onofre, I want to give you a few from where we sit in Los Angeles. The port of Los Angeles when it was closed a few week, a few months ago cost the US economy an estimated $1 billion a day. $1 billion. Anything goes wrong with San Onofre, it goes wrong with the busiest port in the country. And if anything goes wrong it also goes wrong with interstate 5, the major north/south commerce and tourism corridor of southern California. That's billions more dollars at stake for the California economy. And we've heard a lot about evacuation plans. I want to say it clearly evacuation is not an option for 10 million people.

So whatever decision the NRC and the ASLB makes about San Onofre, my boss, many other LA city council members are paying close attention because it affects us as well. Whatever Edison and Mitsubishi did initially regarding the replacement steam generators, license amendment or not, it didn't work and you need to do it, you need to, you must do it differently. This time you need to get it right. You need to get it right for the port of Los Angeles, for interstate 5, for the people of Los Angeles, for our neighbors surrounding the plant, and most importantly for all of the workers here tonight. Thank you.

>> Thank you. Let me put this in a little of context for you. We, the NRC did ask, heard from local government officials who wanted to talk about this issue tonight and we put them on in this slot. We didn't ask only local government officials who were concerned about San Onofre, there may be other local government officials who don't have the, those concerns and I don't know if anybody is here. Is there a local government official here while we have the local government represents here who wants to say anything else? Okay. All right. So are we ready to go for questions on Ryan?

>> We're ready to go. All right. As I mentioned earlier, after these folks spoke, we're going to take questions for Ryan Lance, having to do with the Confirmatory Action Letter. Mike, why don't you step to the aisle and I'll get to you.

>> I will respect your wishes, could I ask if they could bring the first slide that was up, back up on the screen? I'm not going to say that anything about the fact that all of the first rows are reserved for the SE people, or that there's absolutely no diversity up on the table up there, but could you bring the first, the first. Thank you.

The first slide. One more. If you wouldn't mind. No, one more, the one that has the CAL on it, the two CAL s. Keep going. There we go.

Now I want to point something out and then ask a question. In the CALs, you ask for SCE to determine the causes of the tube to tube interactions that resulted in steam generator tube wear in Unit 3 and you directed them to do that. However, with regard to Unit 2, if you drop down, you did not direct SCE to determine the causes of sustained wear in the Unit 2 steam generators. Will you agree, since you're thinking about starting up generator, the steam generator for unit number 2, will you agree to amend the CAL and direct that SCE report to you the causes of the wear that was sustained in the Unit 2 generators and will you agree to do that, to recommend that to the NRC?

Thank you.

>> Thanks, Mike.

>> Yes. I understand your question. You're asking why we didn't have the same language for.

>> No, I'm asking will you agree [inaudible]

>> Hold on just one second, Art, because I do respect you, and I want to believe in you, I really do. What I'm saying is, it's a very simple question, I've pointed out the disparity, I don't want you to spin the disparity, I'm asking you, will you amend the CAL do direct that Southern California Edison determine and report the causes of the sustained wear in generator number 2? That's the question. You can answer it yes or no if you want to, or with an explanation, but I would appreciate if you would answer that.

>> The NRC is considering amending the CAL if needed.

>> Along those lines?

>> If needed. We'll determine if it's needed.

>> No, no. I'm not asking.

>> Not only are we looking at amending the CAL, we're also looking at taking other regulatory action as needed.

>> All I'm just saying, is if needed, what I'm saying to you is that you're thinking about restarting generator the generators in 2, but you didn't direct Southern California Edison to do determine the cause of wear in the Unit 2 steam generators. I'm asking you, will you direct SCE to determine the causes instead taking the risk of just allowing a restart without having determined what the causes of the wear, sustained wear in generator 2.

>> They believe they have determined the causes and we're assessing their response. And then, we will take whatever regulatory action is needed based on our review.

>> Do we have some other questions on the presentation? And I think this is Seth. Introduce yourself to us please. And we are taking questions on Ryan's presentation.

>> Sure. Seth Egar, Seal Chamber of Commerce representing 350 member businesses and the residents of Seal Beach California and Orange County. Could you provide some background on the organization of the NRC, the roles that are being played by region 4, because I think you touched on that in the report, the NRR and the ASLB. Who ultimately is making the decision for the restart of the Unit 2?

>> Okay, a very, very good question. We have a presentation coming on that, Seth. And when you hear that presentation, if you still have a further question on organization issues, we'll go back to you. Promise. Okay?

>> All right.

>> Okay, let's go back to these people and then, Rick, we'll go back over to you after a couple of questions. You have Mr. Lemon.

>> Hi, I'm Richard gardener, I'm representing myself. Just, I think it would be good to try to put some of this in perspective. Could someone try to draw a picture of what the worst case scenario is on a single failure. Let's say multiple tube failure and what the maximum release of radio active material could be from the site. Now I didn't say a total. I didn't say any major fraud problem or main steam, guillotine break in the main reactor coolant pressure lines, I'm talking about this that we're dealing with now so that we can try to put thing in perspective as to what we're talking about.

>> I'll try to answer that question. I'm Greg Warner out of region 4. From an accident

analysis, 1 tube is considered a rupture v double ended guillotine rupture, multiple tube ruptures have been reviewed and are not a credible accident, so with one tube that ruptures, tube leak will vary 4 to 500 gallons per minute from what I recall. As far as the amount of accident dose that's released, I'm not, I'd have to go back and look at the data, but that's been reviewed and it's considered part of the licensing for any reactor.

>> Okay, anybody else on the panel want to?

>> Yes, the steam generator tube rupture that Greg described, that's a design basis accident, it's not a limiting design basis accident, which means when that accident occurs it does not, it is not the accident that is analyzed that will challenge the fuel leakage. If the fuel is challenged that's where you can result in a large release of the public. This particular tube accident, the steam generator tube accident does not challenge the fuel and the plant is designed to handle that without a significant release of radioactivity.

>> Rick, can I take one more here and then go to you?

>> Sure.

>> Okay.

>> Hi. My name is Gary Hedrick and I'm co founder Sacramento Green. And first off I just want to thank you so much for allowing elected people that represent us so well, and I'm also glad that there aren't a lot of elected officials out there that agree with Edison. I think that says a lot.

What's wonderful about everything they said is it's a lot of the same things I wanted to say, but I want to emphasize that the way they ask their questions and they give the general public like me confidence that they're really asking the right questions. And the idea that we have doubts if the NRC is doing their job is completely as we assume they are, and we hear things that was mentioned

already tonight about Boxer and McCarthy have a document in their possession that proves Edison intentionally went forward installing steam generators that had safety design flaws in them. So they were aware of that. And somehow they got past the NRC. And we're all human, we make mistakes but why is it that public is not allowed to see that document? I mean that, that under mines our credibility with you, or vice versa. I mean, we have a hard time as just common citizens understanding why the agency that's supposed to protect the public is withholding a document that shows there's serious wrongdoing. That gets you're guilty by association in that arrangement by doing that, and we want to have that document released and we also want to have the data so that independent experts can understand and help you solve this problem. Thank you.

>> Okay, and I, I think that's an appropriate question following that presentation. Ryan or Art, who would like to take that?

>> I will. I appreciate your point Gary. What I can tell you is that the chairman addressed that document in response back to Senator Boxer and Congressman McCarthy back on February the 8th that was made publically available and since it does pertain to a matter involving investigation I can't really say more then what's in the letter. And the letter speaks to itself. So I don't know if you've seen that letter, but we can certainly get you that letter for a start.

>> Thank you. Rick do you want to start?

>> Sure.

>> So my name is Tom Lemon, I'm the business manager of San Diego building and construction trade council. I appreciate the opportunity to come speak before you again. As you can tell we've brought a lot of construction folks here, and San Onofre is very important to us. But my question which will also have a comment is ability safety. And you know, I think history shows

that San Onofre has been a very safe plant. Over time our workers and we as union reps, that's what we do. We want to make sure that we have the safest places to work and the safest workforce and a lot of that has to do with faith in folks like you. People who are looking at the process, understanding the science behind what, what's going on at San Onofre and we really believe in the process. And we think that as you guys go through and look at this and understand the science that, at the end of the day we're going to be safe and our workers are going to be safe. And the plan that Edison is putting forward is to run the plant at the 70% makes sense. You get a chance to actually see if the idea of running at less and having less fluid flow actually stops the tube degradation and we're supportive of that. We want you guys to do your job, protect us as workers, protect the community and if there's a way to get the plant up and running, let's get it up running and let's do it expeditiously. Thank you.

>> Thank you.

>> Hey Rick, just a quick comment and thank you for those comments. You mentioned that the NRC might allow the plant to operate at 70% power to gather data, that's completely untrue. I mean, if the plant is safe to operate at 70% power we actually decide it is safe to operate at 70% power it will not be allowed to start up to gather data to validate their results, or our results. We'll be confidant that they're safe before we allow them to start up.

>> All right.

>> My name is Val Poiset, Pulse Magazine, and first of all I want to thank you guys for holing this extremely informative meeting and for taking my question. In the publications suspended by the NRC there are a list of stakeholders from the public and media, licensee's federal agencies, and even trade unions as represented in the 4th year by Local 89. My question is, is the standing policy of the

NRC to dispense some information in greater detail to some of these stakeholders as opposed to others, or is it policy of the NRC to dispense all related information equally among the various different groups of stakeholders?

>> Record information related to decisions before the NRC to be made publically available in the agency's document management system called ADAMS, it's available through the NRC's website. That applies to any record information that is publically available. Reasons why it may not be publically available are if it was security related, as an example or if it was proprietary information if a licensee or vendor asserts a proprietary designation they're required by the commissions regulation to provide an affidavit as to the basis for that proprietary information and the staff will review that and make a determination whether that was a appropriately designated. If the staff as reason to challenge that, the process would require us to go back to the licensee, or the, origin of that information and give them the opportunity to either with draw it, or replace it with publically available information. So, but the short answer to your question is it's to make all of the information publically available through ADAMS.

>> Ladies and gentlemen in this segment. However your questions that are being asked, you can ask them later on. So we are going to get to you, hopefully, don't be alarmed if we don't get to you on this one presentation.

>> Yes. Ray Lutz with Citizens Oversight. In your presentation you said that you found the cause of the wear and so forth and the break and it was because of vibration of the tubes because of fluid elastic instability. That's like saying the train went off the tracks because the wheels were not made right. And we want to know why this happened. In other words, you have to go back and find what was it in the process that allowed this error to occur. Because there's no confidence in the

process right now. If Edison says now, we've come up with a new solution and it's going to be right, then what is the confidence a that new process that they're putting in place isn't the same one that broke to begin with? And without an open process, a hearing that we've all been talking about, how can that happen? So, the question is, how do we get a hearing to occur? What is it going to take to get the NRC to have a hearing?

>> Dan?

>> There, I'm going to get into some of this in my part of the presentation. There is a question currently before the licensing board regarding whether the Confirmatory Action Letter constituted a diffracting licensing amendment and I won't go into the details of a that proceeding because that is a proceeding that is on going so I can't go into that. But one outcome of that proceeding could be taking the license amendment. We have a Request for Additional Information that Jim will talk more about that, that is with the licensee right now to discuss compliance with their steam generator tube integrity tech specs, relative to their plan for operation of Unit 2 for, at 70% for 150 days. So, depending on how the licensee responds to that question, will inform where we go in the process following the commission's regulation. So I think there's a couple of paths that could go in that direction but I think it's early for me to speculate on where that will go.

>> [inaudible] why don't you just say we're to have a hearing [inaudible]

>> Do I have time for two more over here?

>> Ray, let him answer.

>> A that question was specifically brought to the commission and the commission referred it to a board. That's what the commission did with the request when it was brought to it last summer and we're going to let the board run its process.

>> Chip why don't you go with one question there and I'll take one over here then we need to move on to the next presentation. Again folks we're going to come back to all of you.

>> I'm Steve Crane, a concerned citizen of Del Point and I've listened to your computer modeling concerns. I will commend one think I heard tonight and that is demonstration of 100% capability prior to restarting the plant previously I heard there's going to be degraded capability. However, any time that you're designing a component, you do your computer modeling and your analytical analysis, however you also do durability testing, fatigue testing, especially with such a catastrophic potential of, of, well the result of failure would be so catastrophic that I would think that you would want to do, not only computer modeling in order to prove analytical case but also to do your durability, physical testing and, your fatigue life testing of the tubes and their degradation because they did have a premature failure. Infancy failure. Obviously it didn't work. I think they should, so my question to you is, are you doing durability and fatigue life testing on the tubes which previously failed?

>> Thank you, sir.

>> As part of the design the generators have to meet ASME requirements which include structural integrity which involve review for fatigue like as well as there's other testing for life due to wear rates.

>> Quick follow up.

>> Okay, as ASME spec requirements are clearly set forth. So therefore, you are doing the durability testing, the physical testing of the materials and also the fluid oscillation dynamics associated with those prior to re opening. Is that what I'm understanding? In order to meet with the ASME spec?

>> That was already done. The testing has been done as far as the durability testing and the fatigue testing that's part of the, again the initial ASME requirements.

>> I think we need to

>> [inaudible]

>> I think we need to move back over. Thank you for that question. Rick, do you have someone?

>> Yes, sir.

>> Hello. I'm Edward McCulla. I'm a former shift test engineer from Pearl Harbor Naval Shipyard. I was certified by the Shipyard by Betis, by Nova County Laboratory in nuclear reactors. I have a number of questions but I'm going to only ask one right now. In regard to the tubes, you've said that you have a number of tubes that have already been plugged, up to 500, what is that as the fraction of the total number of tubes and what is it going to do to the acoustic environment of the steam generator due the number of, and the pattern of the plugged tubes? Thank you.

>> Again, there's, each steam generator has about 10,000 tubes and the 500 tubes that were lugged, that's a, within, that's for both of the steam generators on Unit 2. So I guess you can do the math there, that's about 2.5% per generator, right. I'm sorry, I can't hear you.

>> He's asking about the acoustic environment of the steam generator.

>> That's probably. You might want to ask the other.

>> Actually that's done as part of the thermal hydraulic analysis and vibration analysis does look at the acoustic environment associated with the acoustic frequency of the tubes, depending on how many supports are active, or inactive. So that will change the acoustic environment for the tubes, so that's reviewed as part of that analysis.

>> All right.

>> I don't know if Edison wanted to add to that answer? No. Okay, thank you.

>> Right now we're going to go on to the next presentation, Greg Warner's going to talk about the inspection process and he's going to be followed up by Jim Anderson. I got it right.

>> Yes, not Joe.

>> Not Joe.

>> And once these two gentlemen are done with their presentation, we're going to go back to you folks with questions.

>> Hello again, I'm Greg Warner, I'm out of region 4. I'm the inspection assessment lead associated with the steam generators for S.O.N.G.S.. I think Art copied my notes. He took most of my talking points so I'm going to summarize. Again, I'm going to cover a number of items. The Confirmatory Action Letter inspection again started in December and consisted of looking at a number of items with a focus on Edison's Return to Service plan as well as looking at several items from the augmented inspection team report that Art mentioned in the unresolved items. For the inspection we actually developed an inspection plan to review and evaluate a number of items. I'm just going to briefly summarize what those were. We looked at the cause evaluations, looking at the differences between the units, the corrective actions and the defense and depth measures. We looked at the 3 different Operational Assessments focusing on the degradation assessments, growth rate calculations assumptions, adequacy of inspections as related to eddy current ultrasonic testing and visual inspections. We also looked at how the Unit 3 insights were applied to Unit 2. And we also looked at the mid cycle inspection scope. We looked at the current thermal hydraulic and vibration models, focusing on flow and vibration prediction model uncertainties, supporting technical

data and review of the modification of the stability ratio calculation that Art referred to earlier. We also looked at the 50 59 evaluations associated with the corrective actions contained in Edison's Return to Service plan. That was submitted to NRC again on October 3rd. We looked at the tube plugging, tube stabilization, changes in procedures and again the addition of new equipment that would be used for defense and depth measures. We also reviewed again those 2 unresolved items that were not closed during the AIT follow up inspection. That was thermal hydraulic modeling and the differences in dimensional controls between Unit 2 and Unit 3. In addition, as Art mentioned, the team looked questions from the independent assessment of the NRC AIT inspection. Again, during the exit AIT exit, Elmo Collins, regional administrator mentioned that we had two independent contractors reviewing the AIT inspection. And they were looking at the thoroughness of our inspection and as well as recommending additional areas for us to review or to consider. It's important to note that these individuals were not involved in any other inspection activity, they were simply looking at what we as the NRC did as part of the AIT inspection as well as our conclusions.

So that was just a brief description of what we were scoping as far as the corrective action letter inspection.

Now, the team for the inspection actually consisted of 7 individuals. We actually hired 2 additional independent contractors with specific experience in stream generator design and manufacturing and thermal hydraulic and vibration analysis. One of the contractors was a retired chief engineer of another vendor who's been designing steam generators and heat exchangers since the 1960's. And the other individual is a dean of engineering at UCLA. The inspection of the thermal hydraulic modeling unresolved item as Art mentioned is continuing. We still have a lot of work to do in that area. We really can't provide any conclusions because the inspection is on going,

but I will describe some of the additional inspection activities that remain. The team requested additional information to address questions involving the Operational Assessments. Again focusing on the conservatism used in the growth rate calculation, information supporting the contact force model and understanding of the various uncertainties in all of the various calculations. Again, we looked at the modeling, the use of the squeeze film dampening focusing on the assumption as well as looking at additional technical data. And then, in the 50 59s Return to Service plan, we had numerous questions regarding the surveillance, technical specifications surveillance items. So we're following up on those items.

Again the Confirmatory Action Letter inspection and technical evaluation are again, continuing on, to be on going. We have a number of people with expertise as we mentioned already in thermal hydraulic modeling and steam generator materials working on both the inspection of the detailed review of the technical information to ensure safety. That information will used to either approve or deny restart of Unit 2. And based on the estimated work remaining, we expect both of those activities to continue into March or April time frame. That concludes my remarks. I'm going to turn it over to Jim Anderson who will now discuss the technical evaluation review.

>> Thanks, Greg.

Again, my name is Jim Anderson, I'm a branch chief actually in NRR in Rockville but I've been serving as arch deputy team manager for the last several months on the S.O.N.G.S. oversight effort. As Art mentioned and I think he did steal some of my talking points as well. In addition to the inspection effort Greg just outlined, the NRC is technical experts at head quarters are also reviewing the October 3rd, 2012 Unit 2 CAL response. In late November and December of last year the staff issued 31 Requests for Additional Information, or RAI s to the licensee concerning the CAL response

and Return to Service report. On December 18th, 2012, the NRC held a public meeting with the licensee to ensure that the licensee understood what was being asked and to provide clarifying information if needed regarding the 31 RAI s. At the end of December the staff added an additional RAI related the Unit 2 technical specifications for a total of 32 RAI s. These RAI s included information on assumptions within the Operational Assessments Edison supplied and why different values were used on tube to tube wear rate models use in the Operational Assessments. And how the existing anti vibration bar wear will develop over the planned operating period. An operator action, if any primary to secondary leakage occurs and when the operators will take that action. And how reactors cooling flow uncertainty is affected by operation at 70% power. And how the existing emergency core cooling analysis accounts for changes to the steam generators. On the continued integrity of the nonstabilized preventable plugged tubes adjacent to the retainer bars. On the vibration and loose parts monitoring system as a defense in depth measure. Clarifications of a number of specific statements in the Operational Assessments. And clarification on how the information submitted demonstrates structural integrity over the full range of normal operating conditions, including start up, operation in the power range, stand by, cool down, and all anticipated transients or that the licensee provide an assessment that includes an evaluation of steam generator tube to tube wear for operation up to the current license power limit. As of the end of last week the licensee had submitted responses to roughly 28 of the 32 questions. The RAI s and the responses are publically available in ADAMS and on the NRC special S.O.N.G.S. website. The staff is in the process of issuing an additional 5 RAI s to the licensee which addresses some of the proprietary information in the licensee's October 3rd, 2012 submittal. These RAIs include information on specific values discussed and proprietary figures and for additional justifications for some of the

statements made. And on the sensitivity of the end result based on some of the assumptions made. The staff plans to make a redacted version of these questions available to the public as well. The staff continues to review the information by Edison in its October 3rd, 2012 submittal and may have additional RAI requests in the coming weeks. In additional, NRC review of the previous issued RAI s may generate additional questions. So in summary, the staff review of the licensee's CAL response for Unit 2 continues. It is important to note that the NRC will not make any restart decision until the licensee has addressed all of the staff's questions. The staff as reviewed all of the information provided and the staff reaches a decision regarding Unit 2 safety. And with that, I'll turn it back to, Rick. Wherever he is.

>> I'm right.

>> Thank you, Rick.

>> Thank you, Jim and Greg. Let's spoke for a moment to the folks in the overflow room. There are some papers and pencils in there in the middle aisle, I just put them there. If you want to write your questions down, we have a runner, somebody who will bring them over for us, and we'll try to get some of your questions answered. While that's happening, we're going to go through these two subjects, technical evaluation and the inspection process that these gentlemen spoke of and we're going to take some questions in here. So, Mr. Stone.

>> Hopefully, this will make sense but I actually have a question for the whole inspection team and Mr. Howell, on November 30th at the other meeting you made a comment that I found very disconcerting. And that you had, you admitted and you can watch the tape that you had not read the whole response to the CAL report from Southern California Edison, so I'm wondering first of all if anyone has read the complete report. I'm still wading through it I have to admit, I'm still reading it

and because of that I have this to say. NRC motto is protecting people and the environment. This is a great motto, but unfortunately it doesn't seem that the NRC's to be your goal. Your goal seems to be to protect and serve the nuclear industry and to keep it going no matter what. NRC your job is to protect people and the environment. And this is what we demand of you.

Now, we find out from Senator Boxer and congressman marquee that the NRC has been conducting a secret investigation as your new chairman talks about transparency. The NRC has lost the sacred trust of the, of the people here in California. And no government agency can function with any authority if you've lost the sacred trust of the peep. Okay, I'm going to speed this up. Okay, so to do that, I suggest you meet these 3 demands. Number 1, to give the public an adjudicated public hearing under oath here in Orange County as soon as possible. Only this will ensure the transparency and protection of the people and the environment as your motto states. Number 2, we demand that the NRC put on hold any decision for restart until these conditions are met. A, NRC secret investigation results are made public. B, completes the OII report while both NRC and the PDC agencies act independently, and that is important. It's time for you to work together for the good of the, of our economy, of our children and California. C, pardon me, 3. We demand that a federal court make a determination to see if there's been any criminal wrongdoing by the NRC, Edison, and Mitsubishi.

>> Thank you, Gene.

>> Okay, I'll go.

>> I understand the comment.

>> Thank you, Gene.

>> [inaudible]

>> Have you guys finished reading the report?

>> I've read the report. I believe my context for the statement at the time, Gene, was that I was merely assigned to this position and had not quite made it through the report yet. And since that time, more than two months as transpired so I've read it, yes.

>> And Torgen, can you introduce yourself please?

>> My name is Torgen Johnson, I hold two graduate degrees from Harvard in urban planning and I'm listening to the technical evaluation and I realize that all of the evaluation eventually gets a judgment call. In other words, somebody's going to interpret this information and make a judgment call.

Now, based on what I've understood the wear is unprecedented in these stream generators, unprecedented in the industry. So by analogy, what we're really looking at is something akin to a hairline crack in the wing of a jumbo jet. An unprecedented crack.

Now, did Edison make blatantly false statements to the NRC about the steam generators early on? Because if they did, all of the technical evaluation that you're doing is really a moot issue because Edison already knows that the steam generators are defective. And I want to say I realize that Mr. Litzinger and Mr. Ted Craver, the CEOs, and president are sitting in the front row there. I'd like to say that the key stakeholders in the restart of this steam generator issue are in the room here. They're the workers at the power plant, and they're the public outside of the boundaries of the power plant, which the NRC doesn't consider in their evaluation and I hope that Edison considers that in share judgment call. And I just want to bring something up, and point something out here. I just did a quick analysis here of the emergency planning zone and I

>> We're going to have to [inaudible]

>> In a nutshell, what I'm going to say, within the emergency planning zone, three cities have $47.2 billion worth of homes that could be reduced to zero dollars in a matter of minutes if your judgment call is incorrect on the steam generators. And we know that know that engineering expertise has had bad judgment calls. We've seen that in American history with the space shuttle program. We've actually seen it twice and that's possibly the most highly engineered, most scrutinized engineering effort in the history of mankind and we saw two catastrophic failures. That should be a warning to you, as is the Fukushima disaster. So I would like to ask this question, and maybe it's a rhetorical question, but, is Mr. Litzinger and Mr. Craver, in their judgment call on whether to start or not restart this reactor considering the millions of children living down wind of this power plant and the hundreds of billions of dollars of property that could be reduced to zero value if that judgment call is wrong. I hope you are. Thank you.

>> Thank you.

>> Okay, we're going to go to, Dan. Do you have a question?

>> More of a comment. My name is Dan Dominguez, I'm the Chief Officer for the Utility Workers Union, Local 246. We represent the operators and technicians that operate the plant and repair and maintain it. And I've heard a lot of comments about the workers. I have been a worker at San Onofre for 30 years. I'm a licensed reactor operator, I've started that plant and shut that countless of times. I want to say that part of my training for 30 years, I've spent training incessantly on tube ruptures, tube leaks. My training is such, and it's not just my training, it's all of the other operators in that plant, it's as soon as there's a problem to shut that reactor down and shut it down safely. We've had our differences with Edison, we continue to have our differences with Edison, but I will tell you that my members, the rest of my co workers would not operate that plant if it was

unsafe. We've reviewed the data, as I said we've had our differences with Edison, but you know, as part of my training, I've been trained on the new steam generators, I've been trained on the problems, I've looked at the engineering analysis, I've read the Confirmatory Action Letter response, and I will tell you from an engineering, or mechanical fix we the workers do not have an issue with the plan that Edison has put forward. Thank you.

>> Thank you.

>> Thank you.

>> Can I do one?

>> Okay, we'll do one more over here. And please introduce yourself.

>> My name is [inaudible] and I'm from UC Irivine and I wanted to thank NRC for coming here, and hopefully, you will do a great job and make this plant safe because not having a nuclear safe plant we will lose our CO2 free power generation we are really not ready for renewable sources of energy. So I hope that you will do a great job, but my question to you is that Mitsubishi never delivered this type of steam generator to other companies? What were the results of their work because is this one of the first unit and second unit that came out? Because such a complicated engineering design, and with all of the modeling that they've done, I was wondering if this type of steam generator units and what they've done.

>> I'll answer that question. Mitsubishi has designed a number of pressurized water reactor steam generators. It is important to note that S.O.N.G.S. steam generators are the largest steam generators that Mitsubishi has ever designed. They have one other unit at fort Calhoun where they actually designed the steam generators that have been installed here in the United States. They have done extensive work overseas and in other countries.

>> Okay, thank you.

>> All right. We have Bruce Campwell. Bruce, go ahead.

>> Good evening. Is it true that San Onofre has taken more tubes out of service than the total for all other nuclear plants in the country combined and yet you are not requiring SE to find the root cause of the problem with Unit 2 steam generator tubes?

>> It was in the fair winds report.

>> Clearly S.O.N.G.S. got more steam generator tubes that are plugged than any other plant in the US. And going back to the requirement for the steam generator program is to ensure tube integrity, and that's part of the, what the program is designed for. So they're not allowed to restart again until they can show safety from a tube integrity standpoint.

>> And they do have a plug which they have to stay below, which they have at this point. So, yes the numbers are higher, much higher on the order of, in terms of tube wear indications, not plugged tubes, the order is 3 orders of magnitude higher, but it's not just an issue of wear indication, it's also an issue of the depth and the morphology, or the shape of the crack and where. And so that as to be taken into account when assessing safety. Work was done by Edison, and of course it's under review by us.

>> All right, thank you. We have a question. Val Masado.

>> Yes. My name is Val Masado. I'm the business manger of Laborers International Union of North America, Local 89 and I speak for the labors in this house. These brothers and sisters in orange I proudly represent and I'm here to ask you, members that have worked there, please raise your hand if you know it's safe. Everybody should be raising their hand because they know how safe this power plant is. Also we represent other contractors in different sectors of the industry, and

they have safe, but it doesn't even compare to what goes on at San Onofre power plant. This is the safest place that our members can work. My father's retired from there, my sisters have worked there for many years along with many other brothers and sisters that we represent. It is a safe environment. Please, please all of these numbers that are being thrown out today by different politicians, that's sounds great but who is here today? I ask you to please follow your process and let's start this plant up and respect these workers that work in a safe environment, and let's put them back to work. Thank you.

>> Okay.

>> All right, all right. Thank you. All right. Hang on gang. Cool it, okay. This isn't a union pep rally, but we appreciate your opinion. Val, thank you very much. Chip.

>> Okay, we have Matthew Murphy the II here, who may have a question and then we have this gentleman right here.

>> I'm an employee at southern California and been with them since 1985. I'd lake to hopefully, be there for a few more years, but my question is more for the members on the board and some of your colleagues nationwide. I have worked with you since the mid 80s. I have faith in you, some people have raised integrity issues with you 5 members and other members on the board. Do you feel this process, and everything you're going through across the country and all of your teams that are working on this, along with all of the other 101 power plants is safety first, for the public, for the employee, and for the environment?

>> Dan.

>> Yes.

>> Okay. And, Rick I'd like to take this gentleman and this woman.

>> Hi, my name is Steve Chapel. I'm the father of 3 so, and I live a little bit down wind. My question to each one of you is, do you have children yourselves and would you put yourself and your partners in a house whether its a million dollar house, or a less expensive house within a mile of this plant as it stands today.

>> Can I answer that one?

>> Sure.

>> Yes, I have a 7 year old and I yes I would. And that's because again the regulations that are associated with nuclear power plants are very rigorous. I actually left the nuclear industry for a couple of used and worked with petroleum refining industry and like one gentleman over here mentioned, they don't, they don't have nearly the requirements and safety records that nuclear power plants do. Again, we will make a decision based upon safety, period.

>> Okay. Thank you. And do you want to introduce yourself to us.

>> My name is Carlan Golio and I live in Marieta in Lucresta which is right behind Camp Pendleton. So as a bird flies, I'm 10 miles away from the nuclear power plant. I have, I'm a mom and I'm also a business woman of 30 years and my question to the nuclear panel here is to ask if you are aware of the Japanese government on September 14th of 2012 is proposing new technologies to be nuclear free by 2030. Did you know that? Or do you know anything of that?

>> I'm aware that the Japanese government is looking at options. There are a number of other countries that are looking at options following the Fukushima accident. I would just note that the NRC's job is to regulate safety of licensed activities in the United States. We don't make the policy decisions, that would be another department of the government.

>> Right. I just thought it might be nice to look into others and into what the Japanese, into

their technologies, into what they're doing. Just to be up with it. Thank you very much.

>> Thank you. Rick.

>> Okay, Vinnie has a question here.

>> My name is Vinnie Auroa and I'm a licensed professional mechanical engineer here in the state of California and this question relates to RAI 13 and I'm the assumption that Edison has made the right statement. Edison says that average length of the heated tubes have gone from 680 inches to 730 inches.

Now, this question is open for NRC, Edison, Westinghouse, AREVA, MHI, dean of UCLA engineering, or Dr. Pedagru. My question is, what is the correlation of this increased height and the secondary pressures in Unit 3 with the fluid elastic instability which happened and what this increased tube height do to the fluid elastic instability in Unit 2 at 100% power which the RAI 32, main steam line break? Thank you very much.

>> I'll go ahead and try to address that question. Of course when the length of the tube changes the natural frequency of the tube changes and that's taken into account in the vibration analysis. As far as 100% power main steam line rupture, of course the main steam line rupture. Again the FEI, or tube wear is a long, fairly long term degradation, the main steam line tube rupture would not cause a rapid tube degradation associated with tube to tube wear. It would, again as a long term wear mechanism, if tube to tube wear did, FEI was occurring in the steam generator.

>> That is not the question I'm asking.

>> What's your question Vinnie?

>> I am asking the question what is the correlation of this increased height of 5 feet average to bundle with the secondary pressures and the fluid elastic instability? That the question I'm asking.

So that the question NRC and everybody else needs to research and answer it. This is a very important question. You need to understand the gist of this question.

>> Thank you, Vinnie.

>> We'll take it back.

>> Vick, I have 3 quick questions over here.

>> Okay.

>> Let's go with you.

>> Thank you. My name Donia Moore. I'm a long term resident and business owner in San Clemente and, I, can I first say that I appreciate the tube wear, particularly the tube wear that results in a leak is a safety issue, however, I'm a little curious, for the record, what is the NRC's view of Southern California Edison's ability to safely ever, safely operate San Onofre? I understand that there's never been an event that plant that resulted in the need for public action. So if I could, if any of you would like to mention, do you think that Southern California Edison is, once they go through all of your RAI s and complete that process, are they actually capable of operating it safely?

>> I'll take this one.

>> I think its Ryan.

>> I think that's a, Edison if you, would you like to response to that question? We're not going to speculate on, we are certainly going to speculate on that. We believe Edison as operated the plant safely in the past. We're not going to let the plant, the NRC is not going to let the plant set up unless it cannot be safely started up and that will be part of the inspections. And Edison's continuing ability to operate the plant.

>> And I think the question was for the NRC.

>> It wasn't for us.

>> All right. Okay Rick, let me, I think there's a burning desire here.

>> It's going to be the last question before we get to the next presentation. Folks again if we haven't gotten to you to answer your questions you're going to have a chance as time wears on. I see you. Go ahead.

>> Thank you very much. Mr. Chairman and panel, it's my privilege to address this evening. My name is William Craycraft. I've served as mayor to the largest city in Orange County. I was in office for 17 years. I have spoken personally and I know personally a number of current elected officials through out South County, 8 cities in South County who all are supportive of a safe restart of the San Onofre Nuclear Power Plant. And my former elected colleagues from south, from the San Diego county, I certainly respect their view, but I certainly wanted to offer a counter that there are many elected officials here in south orange county that support the safe opening. I also know, I also know members of councils throughout Los Angeles.

>> Listen, let the man speak and then you can cheer.

>> Through out Southern California, up in the City of Los Angeles who are thankful today that they can look at the San Gabriel Mountains any day and it's not filled with nitrous oxide and San Onofre contributes more to keep this nitrous oxide out of the southern California air and every breath that every citizen in this south California area is thankful for the contribution that San Onofre makes to clean air.

>> And Rick, Rick I just want to note that we do have two people back here who have questions and I, you know. If we need to come back to them.

>> I'd like to come back to them, Chip.

>> Okay.

>> And folks again, I want to emphasize that if we don't get to you, your question right now, we're aware that you have questions, you're going to have a period of time after the break to ask a lot of questions. In the event that somehow through the, after the break that we don't get to you, I just want to remind you that out here in the hallway on the table all of the way to the right and against the wall there's an NRC public feedback form. You can ask your question on this. If you check the box that says you'd like a response the NRC will get back to you with a written response. So, there are a number of ways that you can get your question asked. So we're going to move on to the next presentation right now. Dan Dorman from head quarters is going to talk. Go ahead Dan.

>> Thank you, Rick. Ryan and Jim and Greg have discussed specific aspects of the staff's review of Southern California Edison's response to the March 27, 2012 Confirmatory Action Letter.

>> Hey, Dan. Hang on. We're just going to give these folks a minute to leave and then you can continue.

>> All right Dan, go ahead.

>> So hopefully, you've gotten some perspective that these activities involved several of our NRC processes like inspections and technical evaluations as well as diverse areas of technical expertise such as materials engineering, thermal hydraulic analysis, computational fluid dynamics, vibration analysis as well as vendor oversight and quality assurance and so on. And so to ensure that we're appropriately considering and integrating all of these processes and the technical considerations in our decision making on this issue the NRC established an oversight panel composed of represents from region 4, which has the primary responsibility for the inspection oversight of San Onofre and NRR and head quarters which has the primary responsibility for

ensuring the adequate justification of a safety case. As needed we draw on all of the various experts to inform the decision making. This includes technical experts from our office of nuclear regulatory research, our vendor oversight staff, which is in our new reactor's office in head quarters and we have legal support from our office of general council. Some of the key objectives of this oversight panel are meetings like this to ensure that we are communicating clearly to the public. Also our S.O.N.G.S. website to ensure that information like the request for additional information and the licensee's responses are posted in a timely manner and available to the public. We're also establishing a record of major regulatory and licensing actions associated with this, with this activity. And ultimately, one of the tasks of this panel is to provide a recommendation to NRC senior management regarding the question of Unit 2 restart. The recommendation to this panel will be provided to Eric Leads who is the Director of the Office of Nuclear Reactor Regulations, my boss. And to Elmo Collins who is the Regional Administrator of the region 4 office in Arlington, Texas, who is Art's boss. In addition to the inspection activities that Greg described and the technical evaluation activities that Jim described, I also want to briefly highlight two other activities related to the steam generators which are proceeding in parallel. Both of these stem from the commission's direction in November of 2012 in response to a June 2012 petition to intervene from Friends of the Earth. Among other things, that petition requested that the commission stay any decision on restart of S.O.N.G.S. and institute a discretionary hearing. In November the commission denied both the stay request and the distinct discretionary hearing request at that time, but left it open for the petitioner to renew those requests at an appropriate time. In addition the commission made two referrals of issues that were raised in the petition. The first referral was to the atomic safety and licensing board and I referred to this earlier in response to Mr. Lutz's question. The question before the board is

whether the CAL issued to the licensee by the NRC staff last March was a de facto license amendment. That proceeding is currently in the phase where each of the parties provide briefs to the board on specific questions that were asked by the board. The Friends of the Earth provided their brief on January 11th. There was an amicus brief that was filed by the Natural Resources Defense Council on January 18th and the staff provided its brief to the board on January 30th.

If you're not familiar with the licensing board or the NRC hearing process, the atomic energy act provides that the public receive for full and fair hearing on civil and nuclear matters and individuals who are directly affected by any licensing action involving a facility producing or utilizing nuclear materials can request or participate in a hearing before the board. The commission's regulations part 2 specifies various opportunities for a number of different types of hearings associated with the regulatory process, including issues referred by the Commission, such as this current issue and license amendment requests as another process that provides opportunity for hearing. The regulations also specify how members of the public can request or participate in a hearing before the ASOB. Because this is an on going proceeding we intend to notify the board and all of the parties involved in the proceeding when we are ready make a restart, or a decision regarding the potential restart of unit 2. And that would provide the opportunity for the petitioners to renew the request for stay and request for a discretionary hearing. The second issue which the Commission referred to the staff November was a request for enforcement action against Southern California Edison which we refer to as a 2.206 petition. The petition claims that the licensee did not perform an adequate evaluation of the replacement of the steam generators as required by the NRC's regulations when it replaced those steam generators. And it requests the NRC to take appropriate enforcement action against the licensee as a result. In January a petition review board

was established and held a public meeting to give the petitioner the opportunity to present any additional information for the board to consider which making it's recommendation on the petition. Last Friday the petitioner submitted additional information regarding the petition. The petition review board will now evaluate all of the information provided by the petitioner and will meet to develop its recommendation on the petitioner's request and then will inform the petitioner of its recommendation. The petition review board may also offer the petitioner additional opportunity to address the board, or to provide additional information. For anyone unfamiliar with the 2.206 process, this comes from section 2.206 of the commission's regulations and provides a mechanism for the public to request information for enforcement action by the NRC through a public process. Whereas the licensing board hearing process that I described earlier typically involves contested issues related to a pending licensing action this process permits anyone to petition the NRC to take enforcement action related to NRC licensees or licensed activities. Depending on the results of the board's evaluation the NRC could suspend, modify, or revoke an NRC issued license or take any other appropriate enforcement action to resolve an issue. The staff's guidance, the guidance for the staff on how to implement this process is available on the NRC's website in, what we call a Management Directive and it's specifically Management Directive 8.11.

Now I want to talk a little bit about the organizational changes. So if we go to the next slide. This was referred to a little bit earlier, and hopefully this will go to help answer the question from the gentleman from the chamber of commerce on the organization and the roles and responsibilities and the decision making. This is the chart for the dedicated S.O.N.G.S. organization in region 4, which is our Arlington, Texas office, which is, has the lead responsibility for the inspection and oversight of San Onofre Nuclear Generating Station. And typically in a regional office one branch in the

organization may be responsible for 3, 4, or 5 plants, depending on the workload. In region 4 we have now dedicated a S.O.N.G.S. special project organization. Art Howell who is normally the deputy regional administrator, the number 2 executive in that office is dedicated full time to San Onofre oversight at that point. Jim Anderson who you've also heard from tonight has been designated as the deputy team manager. And you can see that where we would normally see the branch chief with the resident inspector from several sites, instead what you have is the branch chief with the resident inspectors from the S.O.N.G.S. site plus several additional folks who are dedicated to the inspection activities that we need to go through to resolve the Confirmatory Action Letter and make the inspection inputs that we'll need to our safety determination regarding any potential restart decision. The next slide.

In head quarters, we normal have in our division of reactor operating licensing, again we would have a branch that would have one project manager for each plant in about half of a region. In this case we've dedicated a special projects branch under a gentleman named Doug Broadis and what you see under there is matrix. We have 3 divisions within the technical staff of the office of nuclear reactor regulations and in the lower right hand corner the office of nuclear regulatory research bringing in the code development and the thermal hydraulic analysis. That all of those are being integrated through the special projects branch. And where we would normally have one project manager assigned to, to an individual plant in this case we have 3 at this point. The, one of the questions I believe from the chamber of commerce was, who's making the decision? And for further direction the decision will be made by Eric Leads, the director of NRR and Elmo Collins the region 4 administrator. And say add some further direction because the licensing board that's under way could give direction to the staff on it's understanding of what has transpired with the

Confirmatory Action Letter, there is also the element of a discretionary hearing from the Commission. The Commission could insert itself into the process. So, but in the current state of the process, the decision rests with Eric Leads and Elmo Collins.

>> And Rick, can we see if that answers that question?

>> Sure.

>> Thank you, that was actually very illuminating. I guess as a taxpayer and as a citizen I'm glad we have a tremendous amount of oversight and personnel dedicated to this project. Clearly we have a lot of people and a lot of experts working on it. I guess I'm a little troubled and I would remind the NRC and ask a couple questions. There seems to be a lot of emotion clouding this issue. I understand that there are lots of different sides to this issue, but I'm more interested in facts, safety, security and reliable power. So I'm unclear about Senator Boxer's assertion letter. Is it relevant, disclosable? What's going on with it? Why is it being brought up? Is it being politicized on an issue that really should be about facts and core issues? We want to make sure that these vocal minorities or loud emotions don't cloud the issue. I'm really concerned that I don't know if my city officials were invited to this hearing? Clearly a lot of San Diego county officials were invited. I don't see anybody here really from Orange County, and I find that a little alarming. So was everybody equally invited to be here? Maybe they weren't interested but I don't know that I ever saw anything from my city about it. And finally, is there some reasonable point, or terminal point of this decision making process because it seems pretty laborious, so, when can we as a public expect that we're going to come some kind of conclusion, either yes or no?

>> Let me touch on a couple of things there, and I'll touch on a couple of other things that I've heard earlier. When Eric Leads talks to the NRR staff, the first slide is our focus is safety, safety,

safety. That's the staff's focus in this review. There were some comments made earlier, I jotted some of them down that were considering whether or not to allow the restart of Unit 2, quote, to determine if the problems in Unit 3 will reoccur. There was another comment that we could get a chance to see if we have the problem at lower power. NRR regulates more than 2 dozen research and test reactors in this country. San Onofre is not one of them. The safety determination that we will make is whether the plant can be safely operated and an occurrence such as what occurred in Unit 3 whether we will have confidence that will not occur under the plan that San Onofre has put forward. So our decision entirely focused on safety of the plant, the workers and the people in the surrounding communities.

>> There were a couple of elements to Jeff's question.

>> Yes. As far as to this meeting, this is a public meeting, it's noticed, everyone is free to attend this meeting. And we publicized it very well. We actually also have a state liaison officer who directly contacts state officials. So, you know, you're represents were certainly invited and were probably personally spoke to. So if you don't see any Orange County represents, you might talk to them about that.

>> I will, thank you.

>> All right, at this moment, Ryan lance, who was just speaking is going to talk about the path forward and then Art Howell is going to have some closing comments and then we're going to take a break. So, bear with us.

>> Thank you, Rick. Just very quickly if you the slide, of course we have received Edison's Confirmatory Action Letter and we are continuing our CAL inspection and technical evaluation. The next slide just talks about public meetings we're doing and one here tonight and as we have

discussed we expect to do another one when we complete the technical evaluation and the CAL response. Once those two inspection activities are completed we'll issue a report. That report will be publically available. Actually they'll be two separate reports. They'll be issued at the same time and they will be publically available. At that point as Dan discussed, Eric Leads and Elmo Collins, they'll get together and they'll make the decision as to whether or not the plant is safe to restart or not. And now, this process that I'm talking about is the inspection process and really the culmination of that inspection process will be that decision. As Dan mentioned, there are other processes that could come into play, but once that decision is made there will be a notification made to the parties that Dan talked to, the ASLB and the Commission and essentially will complete the inspection process for this part of the activity. Going forward from there, we'll see where we go. And I think that's all I have.

>> All right. Art.

>> I just wanted to add that we our main goal tonight was, in addition to hearing your comments and concerns was to try to give you a sense for where we've been in terms of our oversight and to describe to you the process that we're into review the licensee response to the Confirmatory Action Letter. If you take nothing away I think, I think you will take away that there is a lot of work yet to be done and we'll take the time to do that work and that's exactly what we plan to do. And once we do that we'll make a recommendation to our senior managers and a decision will be made. So thank you for your attention.

>> All right ladies and gentlemen we're going to take a 15 minute break at this point. Check your watches, we're going to start back up in 15 minutes.

>> All right folks. Ladies and gentlemen just ask you to take your seats so we can reconvene

here.

>> We're going to start in a minute.

>> All right folks, let's sit down. Take our seats. All of these more expensive seats in the front are now free so you can move up if you like. Yep.

>> All right. I'd like to go back to something I said earlier and try to correct myself a little bit. I may have misspoke. I'm not absolutely sure right now. I spoke about a technical meeting at head quarters the end of March, I think I said the week of March 25th. That was information I think I got but I have to go back and check. It may be the end of February. Whatever it is, a meeting notice will come out. It will be widely publicized like all of our public meeting so you will know about it. There's no intent to hide anything. If you want to blame somebody you can blame me. All right now we're going to move into the broader question period here. Just want to encourage you folks to talk about, comment on, ask questions about the things that were presented here tonight by these gentleman. The technical evaluation process, the Confirmatory Action Letter and its process. The inspection process. Any of these sorts of things, the steam generators. Any of those issues. This is probably not a good time to ask about nuclear waste, or things like that because the NRC does not have the right people here to address those types of questions. All right. Good.

Well, we're just going to jump right down here and take your question. Ma'am. What's your question?

>> Okay. Do I just talk? Okay. My name is Valerie Johnson. I live in Laguna Hills California and I'm not a scientist or a public policy expert but I spend time at San Onofre nearly everyday surfing. And every time I look down towards the plant I can't help but think of the people of Japan whose quality of life was forever ruined by the radiation leaks at Fukushima following the

earthquake and tsunami. Of course, before that happened they thought Fukushima was perfectly safe too. None of the technical details we've heard about tonight would keep us safe if I massive earthquake and subsequent tsunami cracked the plant wide open. Despite all of the assurances that we've heard that public safety is Edison's top priority I can't help but feel the financial pressures must have trumped it, otherwise the plant would already have been decommissioned. So let's put it in economic terms then. Let's go ahead, let's talk about the economy. Orange and San Diego counties have economies in which real estate, tourism and recreation play leading roles. The value of real estate alone dwarfs any investment Edison has in S.O.N.G.S.. If there were radiation leak the impossibility of evacuating about 8 million people effectively would be only the beginning of the disaster. If people could not return to their homes, not only would the human cost be staggering but the damage to the economies of Orange and San Diego counties would be irreparable. It's not like the BP disaster in the golf you can't just put booms out and mop it up.

>> Now do you have a question?

>> Yes I have a question. I'm getting to the end of the question, but even less than a lethal release of radiation could damage home values and the tourism and recreation industries by under mining consumer confidence. The mere perception of danger would be enough to damage the economies of orange and San Diego counties for decades. Every realtor or every chamber of commerce in the region should be demanding the complete shut down of S.O.N.G.S.. It's simply not worth the risk. S.O.N.G.S. has not been on line for or a year now and we have functioned just fine without it thank you. With no black outs. My question is, since the plant has already exceeded the end of its intended 40 year life span what's being done to look at these big issues? Are you looking at Manushay, or are you looking at the big picture? And by the way I want to say I'm a union

member myself I do care very much about the plant's workers and their economic situation. Why are they not being retained in clean energy jobs? Thank you Valerie.

>> Okay. Chip.

>> Well I understand the comment. Is it directed to Edison or is it directed to the nuclear regulatory committee?

>> Well everyone here, including my fellow participants [inaudible] because I think we need to start focusing on the economies [inaudible] what about real estate and tourism and recreation [inaudible]

>> It's a pretty broad though Val, right?

>> My question is has anything but the scientific [inaudible] been considered? [Inaudible]

>> Well I don't think the NRC's involved in making that type of evaluation.

>> Rick. Rick. The economics are not our charge, but, you raised other elements of safety considerations and there are a, you know, this is one issue that the NRC has on it's plate and we have an unusually large amount of resources dedicated to the issue steam generators, but I think the other issues that you mentioned are being addressed in other ways. There are reevaluations of seismic and flooding hazards at every plant in the country that are being undertaken as a result of the Fukushima accident. So, there will be more to come on those issues, you don't have the right people here to go into any detail on it.

>> Thank you, Dan. Chip.

>> Okay. We're going to grace and then we're going to go to Martha and some other people. And we know there's lots of questions and comments. I think we're mostly going to hear a lot of comments now.

>> Yes I do have some comments. Thank you. Your panels, your oversight regulators, Edison's and the global nuclear industry investigators, they're indicating the severity of the defective steam generator issues. At last week's tube degradation briefing multiple times they all said, these were unexpected. These were unprecedented, they were surprising phenomenon about San Onofre's tube wear. Issues that they had never seen in the industry before. And then Commissioner Magwood, he pressed Edison and he pressed the industry and he asked, how do we analyze internal thermo dynamics if there are changes. If the design is economic based he said. Economic based.

Well, he said that leads to lack of analytical basis for changing the design. We can't extrapolate Mr. Dietrich in the hearings, extrapolate, well, we just can't extrapolate what might happen to 8.4 million people. Our environment and our economy of California. We can't be used as an experiment. As you saw tonight all of those elected officials here with facts asking for facts, not emotion. Our coalition and the elected that are coming forward represent millions of people. In fact, there's so many people, it's actually more than money can buy. We're grateful for your vigilance, and we're grateful for the vigilance of all of the workers, but the designs and the steam generators are still defective. Who knew, what, when and where, about the steam generator design, there installation and if safety modifications were rejected to avert more rigorous safety review. We are asking for transparency and taking responsibility. In fact, can you even prosecute yourselves through those boards? Perhaps the State or Attorney Generals needs to pursue this. Again we are asking, we are asking and demanding a full transparent adjudicatory hearing, a license amendment process including evidentiary hearing with sworn testimony cross examination from independent experts with no financial stake at matter, like all of us. If it's safety first, let it be a capital S, not a

dollar sign.

>> Thank you grace.

>> There's a few people here we want to start talking to. Martha.

>> Good evening and I apologize I just came from my farms, orange farms. My name is Martha Montoya, I'm a business owner in Orange County. I am here representing over 200,000 small business owners from California, sit on the Board of Commerce. My Alma Mater was the Orange County chamber of commerce. What where want to understand is, as a small business owner with all of the increases of expenses that we have, and with many states taking us away because they have incentives, I want to understand, I know the overwhelming regulations that we have, I really have a very specific question. Very straight forward. Have you calculated the impact on small business under the SPA that this will cause by not turning this on? Because we need to make sure that this is turned on so we will not, or we don't have to pay more for our electricity and for the fact that it is not on. So have any of you calculated that? And maybe that would be an answer for all of us as small business owners as diverse as us.

>> Thanks, Martha.

>> Thank you, Martha.

>> It's, we understand the concern Martha, but as we indicated in previous answers to other questions, our focus is on plant safety, nuclear safety and that's what we make the decisions based on and not on the economic considerations.

>> Let's go to Clay.

>> Yes. My name is Clay Sandech. I'm a entrepreneur in the renewable energy space but I'm here tonight speaking on behalf of future ports where a community based business organization

in the San Pedro Bay ports of LA and Long Beach. We represent over 130,000 taxpayers in this state.

We are very, very concerned about the reliability of energy delivery to the ports of Long Beach and LA. S.O.N.G.S. is a very reliable source of that energy and those electrons that we are very reliant on to move the goods and the cargo in and out of our ports. Looking at the long term costs associated with transmission increasing the electrons to our ports, looking at the long term costs and the regulatory frame work to generate wind or solar, or other renewable sources is an issue. My question is, and by the way, we are here in absolute support of SO CAL Edison and NRC. We don't question the integrity of what you guys are doing, we respect that you are intelligent enough to deliver a safe reliable restart of generator 2 and my question is, there's a lot of chatter going on about the radius of the evacuation, is it 10 miles or 50 miles, or somewhere in between?

>> Can we answer that fairly simple question?

>> Just very briefly, there's two concepts involved here. One is the emergency planning zone which there are two planning zones for different aspects one is 10 miles, one is 50 miles. Evacuation is a question that's determined during an accident based on the conditions at the plant and the potential for release of radioactive material and the potential for the impact to the public. The staff has an action in its Fukushima action plan to evaluate whether there are changes needed to the current emergency planning zones. To the planning zones. And so that's an action that's, if you go to our website and look at Japan Lessons Learned you can see all of those actions there.

>> And I just wanted to add to that, that the 10 mile area that Dan mentioned, that's an area that there's been preplanned actions. They're drilled every 2 years in a very, you know thorough drill. FEMA participates in that drill and makes that evaluation of the ability to conduct evacuations.

Now, that's not to say evacuations couldn't be done outside of 10 miles. The licensee also has to be able to make evacuations wherever the dose assessment shows an evacuation is a necessary action.

>> Okay.

>> Not the licensee.

>> Right.

>> Bill just reminded me. The licensee doesn't make the decision to evacuate, they make a recommendation, and that recommendation is taken by state officials to actually invoke.

>> Local officials.

>> Local. State.

>> That was clear.

>> All right, thank you. Richard McPherson.

>> Thank you, sir. How many people in this room would be afraid to go to Fukushima Daiichi and wander around on site. Would you please raise your hands.

>> All right.

>> Okay, thank you very much. Some of you have heard me before I'm a resident of this area, I've been in nuclear power since 1963. I have had people that, friends of mine that have worked at S.O.N.G.S. and qualified under me that became senior reactor operators at S.O.N.G.S.. Last week I was at Fukushima Daiichi where I got close and I didn't die. There are

>> Folks, folks listen. Let's be considerate and let him finish, okay.

>> Like the workers at San Onofre, the workers there are working to restore their plants in their areas. Have all of the faith in the world in the workers at San Onofre. Why don't you ask

yourselves, why do they go to work everyday? Do they go to work everyday because they're trying to make a problem for them and their families? No. They're trying to make a living like anybody else and they have a safe plant. The plant has always been operated safely and it's been shut down as it should have been when it had the leak. As has every other plant in the United States. If you take the NRC coupled with the industry in the United States, we have the safest safety record in the world, bar none. I come from naval reactors where I spent 20 years before I went on the commercial side and then I went international and we are the gold standard so I know what it take to operate and maintain plants safely. And I used to laugh, I used to laugh at what laugh at what you anti nuclear people would say. I used to think it was funny. But it's tragic. Because you're hurting millions of people. In the San Diego, pardon me? In the San Diego and LA area there are perhaps 50,000 people that have a lifeline allowance that depend on electricity to live and they don't have any

>> Hey folks, could you just let him finish and not yell at him. Just let him finish. It doesn't have to be a question.

>> Just the let man finish okay.

>> And Richard if you could wrap up for us please.

>> Some of those people they depend on having electricity within 2 hours. So why don't you step back for a minute and think about all of the people at the NRC thank you very much.

>> Let's let him finish.

>> Hey folks, you know, I'll tell you what.

>> Okay, Rick.

>> Go ahead.

>> Folks we're having this meeting for all of you, okay. Not just for a couple. Just please try

to be considered. Excuse me. Please be considerate and let people finish. Certainly when you all stand up and talk you don't want people heckling you and we're happy to hear what you have to say when we get to you. Just be patient but don't be harassing other people when they're trying to talk. Okay.

>> And Rick I have some IOUs back there. But, this young lady is going to say something.

>> Hi. My name is Karla Higgens. I am 10. I am worried about the dangers a radiation leak can cause if the San Onofre power plant is re opened. Children are more sensitive to a radiation leak disaster than adults. We absorb things differently and we are closer to the ground where radiation leaks full out. Where radiation fall outs settle. This gives a greater exposure to radiation and a greater chance of developing cancer. Radiation is dangerous for us because radiation stays in our body and doesn't leave. We carry this radiation in us forever and it will stay in us for a longer time than adults since we are younger. This causes cancer. If the San Onofre power plant is re opened it has a great chance of leaking radiation since it is so old. These leaks cause health risks to millions of people. Also our land is special and we do not have a lot of land to live on so we need to take care of the land we have and protect it.

>> Is it Kayla? Thank you Kayla. I have an IOU here and yes.

>> Thank you very much. Good evening. My name is Susan Sing, I'm the President and CEO of the Rancho Sana Margarita Chamber of Commerce. I work with the 1100 plus businesses win our community. I have followed this issue very closely and have been to several of these meetings. I am very appreciative, especially to you, that I have the opportunity to participate tonight. Thank you for holding this forum and listening to the public. Assuming that the SCE satisfies all of the additional Requests for Additional Information and Unit 2 at San Onofre is able to take on a safe

restart and run at 70% for the 5 months, what are the steps that would take place after the 5 month operating period?

>> Dan?

>> Yes, with all of those assumptions, at the end of that 5 months, the licensee would open up the steam generators in Unit 2 and inspect every tube and they would, based on the conditions that they found in those tubes, under their steam generator tube integrity program, they would conduct further Operational Assessments to justify, presumably, further cycle of operation for, at a power level and a time frame that would be consistent with the various mechanisms of degradation of tubes that were indicated. So basically it would be another cycle of Operational Assessments that they would perform to justify further operation.

>> Okay. I have someone right here.

>> Thank you, Chip. I'm Glenn Pascal from the Sierra Club. I come from a family of engineers. I have a lot of respect for the professionalism and effort that those on the panel tonight have put into this issue and I have a lot of respect for the passion and conviction from everyone, from all sides. Environmentalist, laborers citizens, we're all here with sincere convictions and since we're supposed to ask questions instead of make statements, I'm going to put my statement in the form of a question which is, does tonight perhaps suggest that the cattle have left the corral? That this issue has assumed dimensions of concern and uncertainty and conflict that a dialog among even the most highly qualified technical people cannot accommodate. And that if a restart decision emerged from that, the level of public out cry would be unmanageable and would create damage for the credibility for the NRC that the new chair, Allyson McFarland, absolutely does not want because she's committed to an open process. So my question is perhaps in fact is tonight exhibit A that something

like the adjudicated license agreement process is really now inevitable. Thank you.

>> Okay.

>> Thank you. Thank you, glen.

>> I understand your comment. Let's go.

>> Hi my name is Cesar [inaudible].

>> Go ahead.

>> We, I think, we tried to explain a couple of different ways that an adjudicatory hearing could be held. We don't have the authority here to make that decision. If we can talk about those processes more.

>> So we take the comment.

>> [inaudible]

>> It depends on what process we're in. So we can, like I said, it could be the Commission, it could be the ASLB, some of the decisions they make and the action that would be taken as a result of that.

>> [inaudible]

>> The ASLB is an independent body, yes.

>> But who's making decisions, who [inaudible] if it's not you guys, who?

>> The process that we're in right now is the process, as we thought we try to explain.

>> Excuse me, we're going to have to

>> [inaudible] the process to hold the hearing.

>> We're going to

>> We're in another process.

>> We're going to get to people as they raise their hands. Go ahead, Chip.

>> Thank you. My name is Cesar, I'm the director of southeast community Development Corporation. We are from the southeast Los Angeles County and represent the business community there in southeast. Our concern is the reliability of electricity to our businesses, our small businesses are struggling through out the southeast area and we need reliable electricity. So my question is, I've been hearing about solar and wind and all of those other alternative sources and my question is, can that produce as much energy that the S.O.N.G.S. generator can produce?

>> Is that question for us?

>> That's not really something that's in our mission or area of expertise to answer. Unless Edison wants to.

>> But I think your point was getting across. Let's go to this gentleman and then we'll take Betty Jo.

>> Sure.

>> My name is Ruben Franko. I'm the president and CEO of the Orange County Hispanic chamber of commerce. We represent over 30,000 businesses here in Orange County which employs over 250,000 workers, including some of the workers here today. My question is, I've been here, not question, comment, I've been here a few times. I appreciate how professional the NRC is in allowing these public hearings and my only comment is that I hope that some of the political theater we've seen and some of the political theater we've heard from Washington isn't what determines what clean and safe energy we need here. We need it for our businesses, for jobs and we appreciate what you're doing. We need political leadership not theater that we've seen. So that's all for my comment. Thank you.

>> Thank you.

>> Betty Jo.

>> Thank you. Betty Jo Takoli. I'm president of California Small Business Association and I want to thank the panel for being professional, the fact that you do due diligence and your patient this evening. And I have two questions for you. One, have you considered having an objective task force or advisory council that would represent the different stakeholders to maybe get a little faster process of feed in? And the second question that I have for you is, do you think that by expediting the decisions so we can get on with our businesses would weaken the end result?

>> Betty Jo, relative to your first question, I think that's something we'd like to have some more dialog with you about, I'm not sure I fully understand what you have in mind but certainly would like to talk more about it, and then, as we tried to indicate, relative to the second question is that we need to be professional and work and do our job and get the information we need to make a decision and it should be based on safety once we have all of the information that we need we feel to make that decision. And that's the process that I believe we're in and that we need to stay in.

>> I guess small business would just ask you to add reliability, that's also critical to us. Thank you so much for your time and efforts.

>> Thank you.

>> Chip.

>> Hi. My name is Tom English I live in Hollywood and I'm down here because I'm in the blow zone too. My question is, we have all of the situation where you gentleman are doing an amazing job, you're reading all of this material, you're studying it, you're pondering it, you're doing your best, and all of the people and Edison are assumedly, they're doing their best, when all is said

and done however, we do have, you know the last two years to answer this gentleman's question, one of the main businesses that's been booming in southern California is solar power. So my question is, is there any reason, and if we took some of the money we spent on this and put it into solar power it would be that much quicker. So is there any reason, other than profit to put up with all of this horrible nightmare just to make profit. Is there some reason other than that?

>> I mean, I think that's really a question that I would ask the company to answer, if they'd care to. But it's really an economic question. We look at safety and we don't look at the economics. I understand your point.

>> The point was taken so can we move on? Rick. Do you have someone?

>> Yep.

>> Hi. My name is Karl Aldinger. I'm from Fallbrook 14 miles from the plant. I think that one thing that we, we that are still left at this meeting came to know after Fukushima is that nuclear power plants, particularly ours not being very much different than Fukushima, they do not have a simple off switch. The reason why I'm bringing that up is the steam generators, it's my understanding are part of that off switch. If we have a catastrophe we need to rely on the steam generators to help provide cooling because they're scrubbing the plant. So can you guys please speak to the idea that aside from the emissions that we might have with broken tubes if two years from now we're in a much different situation where you're trying to decide when to shut down the plant to inspect the tubes again and you realize that we're at 20% degradation, at what point do we decide, wait a second, we can't even have reliability in our steam generators to handle a catastrophe where if something catastrophic happens, one of the steam generators is not working, the other one, we're relying on that steam generator to keep that whole reactor quiet.

>> Thank you, Karl.

>> And Rick I have

>> Hang on.

>> We're going to have something from the panel.

>> Yes.

>> Well of course again, going back on steam generator tubes integrity program, that's one thing it looks at to verify that the unit can be operated safely, and it be available to provide emergency cooling in the case of an event or an accident. So yes. Again, based upon our reviews going forward and again, these technical specifications that are put out there to ensure safety that will give assurance of the ability to respond to an event.

>> Thank you, Greg. Back to you, Chip.

>> Rick I have three people right here.

>> Sure, go ahead.

>> They've been waiting. And let's go to this gentleman first.

>> Thank you very much. I'm from San Clemente. I live a couple of miles from the plant and the, I know that this is peripheral but relevant, the southern California earthquake center, the United States and California geological surveys forecast that there is a 37% probability that in the next 30 years an earthquake will occur in southern California of a much greater magnitude than what San Onofre was designed to resist 30 years ago. If the plant on all of it's 30 year old vital support and safety systems, or the on site storage of thousands of tons of radioactive nuclear waste are not adequate to withstand an earthquake of that magnitude, or the magnitude predicted, wouldn't all of the studies, tests, analysis, repairs of the steam generators be irrelevant and a waste of critical time

and of millions of dollars. Why don't we conduct, in a sense of priorities, why don't we conduct a seismic safety evaluation first. Thank you.

>> Okay, and I think as we've said is that, the staff that are here are the experts on steam generators and I'm not sure they're going to be able to address the seismic question, but they've heard your idea. Does anybody, Art, anybody want to add anything to this?

>> Other than what we've already indicated, that there is a seismic review that's on going as its own process.

>> All right. Thank you, sir.

>> Good evening, my name is Jennifer Massey I've been a resident of San Clemente for 33 years. I live about 5 miles from San Onofre and it's very nice you can assure us you won't allow a restart unless you determine to be operated safely. The NRC and Edison always tell us safety is their number concern. We content that there are other critical considerations. That precludes the possibility of the safety of millions of people. San Onofre is designed to withstand no more than a 7.0 earthquake its possibility we could sustain one greater than 7.0. The tsunami wall is 14 feet at high tide. The wall of water at Fukushima ranged between 45 to 65 feet high. There is a possibility of fire, terrorist attacks, human failure. On top of all of those circumstances we all know evacuation is impossible. There is bound to be damage to the I-5, to some of the bridges, closing of the roads. There are almost 20,000 children in K through 12 in just the Capistrano Unified School District alone. The buses, the school buses that are supposed to evacuate those children to the Orange County fairgrounds to meet their parents can handle less than 5,000. So that means 1 out of 4 kids gets to be on a bus, that's if the buses can get through. To top all of this are the thousands of tons of nuclear waste with no safe permanent repository and a restart will only add to that liability. It's not

just the fact we can't get insurance for our equities which represent most people's nest eggs, it's also the fact that a radioactive plume could destroy California's agriculture and the supply of much of the nation's food. So, my question to you is can you honestly say this plant which sits on 3 earthquake faults can be operated safely. Thank you.

>> Okay, I think we've answered this in one form or another. Can you take it, Art?

>> Well I was just going to say that it won't be operated unless it can be operated safely. And it's our job to make that judgment.

>> Okay. We have a perspective from Vermont here, from another area that I think we want to hear. If you could introduce yourself to us.

>> I'm Howard Shaffer, nuclear engineer, retired coordinator for the grass roots project American Nuclear Society in Vermont although I live in New Hampshire. I'm here serendipitously. We had scheduled a family visit many months ago and this meeting happened to be taking place so I'm glad to be here and for a little column public hearing than the ones we've had in Vermont.

>> It's all relative.

>> As in Vermont and here, this is for you to Take back, consider bringing somebody to explain the underlying basis for radiation safety and why those of us who work in the field safe enough working with radiation and what we know about it and what we know of the precautions that are taken to protect our health and what the underlying science is. This may not change anybody else's fears, but it may explain why we are not afraid ourselves. This is underlying all of these other questions. And just a remark to the question of using steam generator for shut down, my understanding of the plant design and the PWRs is the steam generators can be used for shut down cooling, but in a design base accident, it's the residual heat removal heat exchangers that do it. Steam generators

are out of the picture.

>> [inaudible]

>> No. This is the PWR. I've worked on those too. Thank you.

>> Okay. Thank you, sir.

>> Thank you for your comment.

>> We're going to go right here, quickly.

>> Thank you. So first, I'm from Los Angeles and talking about Los angelus air and nuclear power has the highest carbon footprint of any non fossil fuel energy source and also the population, if you go out like 65, 70 miles away, the population of 8.4 within 50 miles, it also increases greatly beyond the 50 miles. So first, specifically for the NRC, when did the NRC receive the Mitsubishi Heavy Industries' report regarding the anti vibration bar team's recommendation and whatever else is in that report? And did anyone with the NRC attend any such meeting of the anti vibration bar design team?

>> I'm sorry. I'm not sure exactly what report you're referring to. If you're referring to the report that was in the chairman's February 8th letter, as I indicated, I can't really say any more to it than what's in that letter. And in terms of NRC participation and the design team meetings, back when the generators were designed, no, we did not participate in those meetings.

>> And then, and then for, I understand that Edison is here and you can relay the question to Edison and they can decide whether to answer it or not. These are probably more Edison questions. When was anti vibration bar design team formed? When did it first meet? Did all of the members of anti vibration bar design team have similar voting powers, or did SCE have veto power over conclusions and recommendations of the team? Who made the decision to not pursue

recommendations made by that team to improve the steam generator situation since it would have triggered a license amendment process? Please direct that to SCE and by the way the more the people's voices are suppressed the more we should focus in on this issue.

>> Thank you. Thank you very much.

>> It doesn't appear

>> It's a, it's a lot of detailed questions there.

>> It doesn't appear that they want a comment. So.

>> [inaudible]

>> Okay. All right.

>> They might talk to you after the meeting, or do you want to say something?

>> Okay, here we go. Pete Teacher.

>> Thanks, for the question. We continue to study the situation. There is a volume of information that we are going through. I want to be very careful here tonight because I understand that this is the subject of an investigation. That the NRC is leading. We intend to fully cooperate just as we have up to this point and we will continue to do so to make all of our records and information available to this team and to any member of the Nuclear Regulatory Commission to seek, to study our records. So I appreciate the question. We continue our causal analysis and it will take some time to work through this.

>> Okay if, if people from Edison want to talk to you after the meeting about this, that's their prerogative, but thank you for the question, thank you for the answer.

>> All right we're going to move on to the next few people who want to ask questions.

>> All right. Go ahead Ted.

>> My name is Ted Quinn. I'm a Data Point resident, nuclear engineer for 36 years, I've taught a course at MIT since 1993 in nuclear safety so I'd like to ask the NRC if you would consider a little different forum perhaps for some of the public that's here. I believe nuclear safety was brought up by our political representatives here tonight, by the public in many cases, related to many millions of people and I'd like to answer simply, Ryan I think you did it pretty quickly early in the session. But it was about the protective features that the plant has and has it been in place since the initial license up to now and includes this event that we're discussing and addressing in deep detail tonight. That the protective features that are main steam stop valves and the reactor automatic trip functions actually protect the public and we could describe that and do this in process. Could you do that, could you go through that a little bit?

>> Could I do that?

>> Before we do that, can we get a process check? Where are we at?

>> We're probably going to go another 15, 20 minutes and we're going to get to your questions, so Ryan go ahead.

>> Greg if you want to jump in, great.

>> I won't specifically address from a reactor trip standpoint but what we're looking at from a steam generator tube integrity standpoint, there's various equipment in the plant, the air ejector condenser, rad monitors, in association with the 70% power return to service plan, they've installed N16 rad line monitors that they didn't before. As well as they have process monitors on the blow down from the steam generators that generally they are operating continuously during blow down. So those are activities that they monitor continuously. They can identify a tube leak and again, as documented in the AIT inspection report, the operators appropriately identified the tube leak and

rapidly isolated it and shut down the unit as was required by their procedures. And one of the individuals made a statement earlier, they routinely train on tube leak and tube rupture procedures as well as other event and emergency operating procedures so they can respond to those issues when they arise.

>> And Rick I have someone who's been waiting patiently over here. If you, do you have someone over there?

>> Honestly Chip I can't tell where in the heck you are.

>> I'm over here. I'm hiding. Over here. I'm hiding.

>> Over where?

>> Right here.

>> Okay, get tall there buddy.

>> Hi, my name is Ted Stout, I'm a resident of San Clemente and I live about 4 miles from the nuclear power plant. In the attempt to keep things specified to the NRC, thank you very much for coming this evening and taking the time to speak to us. I'm a pretty simple guy and I have a pretty simple question. Given that Southern California Edison asserted that the steam generator replacement was a like for like replacement and the number of tubes in these generators are different, the alloys used in the generators are different, the length of the tubes is different, the matrix used to damp down vibration is different, to me that tells me it's not a like for like replacement. If it's not a like for like replacement and the second we discovered that I don't think the NRC knew about that in advance, I'm not sure who knew about it when, but we know now that they're not the same. Why didn't that automatically trigger a re licensing and a review? All of these things that we've been asking for this evening?

>> Well they, the NRC has a number of those changes. The 50 59 process spelled out what has to be done as far as an evaluation and each licensee have to go through those and we do review evaluations that are done. And the AIT inspection and follow up did review that, and based upon the changes, they did not require a license amendment. That's documented in the reports. We did identify a minor violation associated with the 50 59 review, but nothing that required a license amendment.

Now, we do know the design was faulty as evidence by the component issues that are happening, that's part of what we're looking at.

>> All right.

>> Okay I think Pete Dietrich might want to offer something on that.

>> Absolutely.

>> Yes, Pete Dietrich. I failed to introduce myself when I stood up just a minute ago. Pete Dietrich the Chief Nuclear Officer for Southern California Edison and San Onofre. And I would just like to remind folks to recall some of the discussion from previous meetings. You know the question keeps coming up, why was there not a license amendment process used and I'd just like to remind folks, there were two license amendments that Southern California Edison filed for as part of the stream generator replacement process. One of them addressed very specifically the changes in the tube composition and adjustments in our licensing basis document for what the plugging limits are for our tubes. There other one addressed one of the issues with our safety design in our containment structure. So, there were two license amendments submitted by Southern California Edison to the Nuclear Regulatory Commission where there was opportunity for the public to become involved, the intervene and seek hearings and that was not done. Thank you.

>> Okay.

>> Thank you. I am a computational physicist from Chaplain University. I would like to thank the NRC for being here and the open process. I have full faith in your process and in fact you ask and you get to the bottom issues associated with safety and the, I just like to make a couple of comments. Many people have just made comments tonight, but we've heard a lot about the parallels between Fukushima and San Onofre. There's really no parallels. There's no parallels. Excuse me. There's no parallels in terms of tsunami. If there was a massive earthquake in California it would be land earthquake, not water earthquake. There is, all is of course a chance of a tsunami if there was a measurable earthquake in the ocean, but in terms of, to the NRC itself, the process that was followed in Japan was not transparent at all and that actually, the golden standard that was mentioned before, that is true. This country has a high gold standard because of the NRC and I would say that Southern California Edison in being dialog and etc., etc., it's a long process. From my perspective, since we do work on earthquakes and climate change, you have to also look at, and I understand this is not really your job, our you're here, but we have to take into consideration the alternatives and certainly and having to pollute the atmosphere like Beijing does or many mega cities have, it's not an alternative. Nuclear energy is a clean alternative as long as the precautions are taken for safety. And I full faith that the NRC will do that.

>> Thank you for your comments.

>> Thank you.

>> We have a question here from Sarah.

>> I'm Sarah Freddy of San Clemente and I've been here since the very beginning of seeing San Clemente's nuclear difficulties. I personally live there. I've been there, I look at the beach and

I see the overwhelming power that the nuclear facility has. As soon as I saw the Fukushima incident I decided that nuclear was not the way to go and now, I'm looking towards Japan, but mainly I've changed my focus from looking towards Japan to looking at Germany. Now my question to you is kind of simple, now that Germany is eliminated nuclear power and is seeking alternatives, and is the nuclear the economic power house of Europe, which of course we do follow as a nation of the United States, but, my question to you is kind of simple. If there was a change in how people generate money like you do, have the notoriety, have the 14 people be presidentially appointed to do a nuclear NRC panel, Nuclear Regulatory Commission panel, if you had that notoriety, but in a different field, say solar, wind, or whatever would you take those jobs and leave yours now?

>> I think that probably this time of the night they might be interested, but I'll let them speak for themselves.

>> I have nothing.

>> I don't have any comments.

>> No comment.

>> No comment.

>> Okay, so you folks don't have any response, right? Okay. That's All right. Stand up. Chip.

>> Hey, can we get a process check. We advertised the meeting from 6 to 9 and many people still have questions and if we can tell folks where we're at in that process, that would be helpful.

>> Folks we're going to try to go to 20 after, okay and we're going to, we're trying to get over there. You know, there are a lot of hands up here too. So we're going to try to get over there and

then I'll talk about the questions that may not get answered tonight. Go ahead.

>> Hi. My name is Bill Hahngon. I live in Laguna Hills and I'm a practicing emergency room physician, board certified in my specialty and I appreciate that you all are specialists in yours. From the perspective, I think we're dealing with a crisis of confidence. The public is not confidant in decisions that are made such that huge financial interests are involved. I know for a fact the gentleman who identified himself here earlier, Mr. Craycraft as a former public elected official seemed to always be on the side of big development rather than on the side of what many of us thought was good for the community. So my question and comment to you is that I appreciate your courage to seek out the position that you will not allow the generator to reactive if it's deemed to be not safe. And I would say that Fukushima, you know, I would love to go back to your website and read what the lessons of Fukushima were, but I would say from one specialist to another that your criteria for evaluating that certainly must have changed based on these recent events and catastrophes and I can just tell you from my point of view, the citizens here are quite right. There's no way to deal with a nuclear catastrophe on this level. I know that in my setting and disaster planning, we would be lucky to deal with 2 or 3 workers at a nuclear plant who happened to get contaminated. 2 or 3. I just said. Not 20 or 30,000, not millions of peep who would be displaced from their homes forever. So I want to thank you again for your courage. And those public officials as well and the public who spoke out. Thank you.

>> Thank you for your comments.

>> And Rick, I think we do. We do have some other public officials here that do want to, to get to and you probably need to take care of those people over there.

>> And maybe we can go, I've, I would hope that we could go later than 20 after.

>> Let's go to 9:30.

>> Okay.

>> You're not doing anything tonight, Art, are you?

>> No.

>> I don't know how long we have the room.

>> Rick I'm going to get to these two.

>> Hi. My name is Raule Alvures. I'm a resident of Seal Beach and I'm wondering if the NRC decides that San Onofre not be restarted I wonder if you or any other regulators have assessed what might replace the power that is lost as a result. And if replacement of that power assuming that includes building some new plants, what's the effect on greenhouse gas emissions, on air quality, on public health and how long would putting those on line take?

>> I understand the question, but no we're not involved in such assessments as they're outside the scope of our regulatory authority.

>> Okay. Thank you. Yes.

>> Good evening. Thank you. My name is Diane Thompson. I'm the chairman of the board of the Huntington Beach Chamber of Commerce I have one quick comment and a question. Recently the Huntington Beach city council had the resolution about S.O.N.G.S. on its agenda and it voted not to do anything, it voted not to sign it. We decided it was best to let the PEC and the NRC do it's job without inter politicizing. To my question. I understand that the NRC's sole mission is safety, not cost or reliability of the electrical system, just safety. My concern is turning an established regulatory process into a circus like we have tonight. In the interest of safety, Californians cannot allow anti nuclear activists to hijack the thorough rigorous process that is founded in safety. What is

the NRC doing to ensure the integrity of its own regulatory process? Thank you.

>> Okay. Thank you.

>> I appreciate the point of view. As we've stated at other meetings that we've held here before, the idea is to share information about our oversight activities and also get input from the people in the community. And hopefully, we're doing that tonight.

>> And I understand your point. Believe me I do.

>> Can I go and can we go to Mr. Kramer.

>> Hi my name is Larry Kramer and I a city official. But I wasn't invited to sit down here with the people from San Diego County. I'm, I'm on the city council of San Juan Capistrano. We're well within the 10 mile radius. I'm a believer in nuclear power for reasons I'm not going to go into tonight. And I support this plant coming back up when you all determine it can be done safely. I have a lot of faith in the NRC. I've been associated with nuclear power for about 30 years and various aspects of it, so I'm not completely ignorant of it. The one thing I would ask and I think you've been emphasizing too much is that you want to bring the plant back up to 70% power. And I think whenever we had a problem in nuclear power there was always something physically changed to bring it up, whether it, and I assume and I don't think you have said it often enough, I think Edison has said it, but they should say it louder. What is actually being done on Unit 2 to make sure that it's safe to bring up and could operate probably at 100% power? I'd like to have you answer that question again. What physically is being done to Unit 2 so, it can be brought back up to power? Thank you.

>> Right now we're evaluating the licensee's reviews, Operational Assessments as they're called that theta believe make the case to operate the units at 70% power. We have asked them

related questions, RAI 32 does deal with that partly, so that would really be a question for Edison to answer if they believed that they could be operated at 100% power and then for us to review once they've done so. And we haven't been given that information yet. So --

>> Can I?

>> So unfortunately, I can't answer your question tonight.

>> Hang on Chip. This is Joe from Mission he has a question.

>> This goes over some of the stuff that Greg Warner talked about and he was talking about the inspection process, the adequacy of the inspection, the mid cycle inspection scope. The model inconsistencies etc., and you said that you brought in a number of independent entities to go over and review the data, correct?

>> Yes.

>> And included in that were people who designed different, similar types of units, generators, etc., correct?

>> I'm sorry, ask me that question again.

>> Did you bring in other entities that designed generators?

>> Yes. One of the individuals as an indicated is a retired chief designer for another vendor of steam generators and heat exchangers so he's very experienced in design and manufacturing of steam generators.

>> Excellent. So there's nothing proprietary any more, right?

>> That's not a true statement. There is proprietary information.

>> Wait a minute. If a number of people know this, it's not proprietary any more and that's what the people are just a minute Greg, that's what the people are asking for, reveal this information

and make it public and if I have to go and go to the request for freedom of information act to get this I will and I'll do it in such a manner that you will have to answer. Number 2, I think, and I talked this over with Greg earlier. We have a DNA problem in Edison. You know this is about the 10th different hearing, I mean 10th year that I've come to these hearings and my notes are on the back of a couple of documents, one of them is called The Chilling Effect. A letter that you people issued. Another document is, and this has to do with Edison's latest fiasco, Consumer Protection and Safety Investigation of Southern California Edison Company Outages, November 30th, on and on and on. Now, Mr. Mc Phearson said we need reliable energy.

Well, the power pole in Pasadena collapsed because they were overloaded and they were decaying from the inside and then Edison quickly removed those and destroyed those power poles. I got documents in here that talk about customer satisfaction surveys that were falsified. Health and safety records that were falsified, and we go on and on. So it's a DNA problem with Edison . Now, I wonder if John Breesen, who is a lawyer who fired the engineers, and now, we've got banker running the company have destroyed a technical company. And Edison's a technical company and should not be run by anything but engineers. Thank you.

>> All right.

>> Rick, can I just.

>> Go ahead, Chip.

>> Hi. My name is Carolyn Cavetchi. I'm from the City of Orange, actually a former elected from Orange County, directly elected mayor. I served on the council for 12 years. I think the reason you may not have a lot of elected from Orange County is because since our population is really the city's closest to S.O.N.G.S. we're briefed unbelievably up in Orange County. I just have to tell you

that. It's a regular basis for us. So I wanted to let you know that's why you may not see people from Orange County here as elected officials. I currently serve as the president and CEO of the Orange County Taxpayers Association and I'm here today specifically, I want to thank you, it's become very obvious sitting here for these few hours that this panel is very just focused on the technical aspects and the safety. And I think it's very important, before San Onofre starts up again that it gets a complete clean bill of health and it's completely safe and we very much appreciate your efforts on that. I'm very much concerned about the economy here. I know you're aware that in California building now plants to produce power is not a very easy thing to do. It doesn't happen in California any more. Not only can we not build new plants, we can't even build transmission lines to deliver energy to where the population and the economy is, so my question to you specifically, and if Edison seems to be wanting to stand up and answer it, that's great too. If this plant doesn't go back on line, how long will it take for the company, for Edison to be able to provide it's customers with service from an alternative energy source and are they going to be able to do that before the summer of 2013?

>> Thank you, and thank you for the question. We do continue to study grid reliability and we do have plans for the summer to account for the fact that San Onofre may not be allowed to restart. I would just offer that I think with the way the process is layed out, that if we follow the process as it's established, we should be able to reach a decision before the summertime. Nonetheless, we are prepared to be able to deal with grid reliability concerns, particularly in Orange County this summer. Thank you.

>> Thank you Pete, and go ahead Rick. And I have three over here waiting.

>> Go ahead.

>> Hi. My name is Uma. I have no qualifications other than my white hair and length of time I've been on this earth. Excuse me. I've heard everything everyone has said tonight and I appreciate the interest and care. And I appreciate you gentleman coming and subjecting yourselves to this. But I want to state that you are all engineers, you're all embedded as it were in the nuclear power industry, so I'm going to ask you to step back from that place as human being and if you can, look at nuclear energy from a practical standpoint, that is an energy source that is so dangerous, that we have to build walls, we have to have extra ordinary precautions. We have to have lots of people worrying about it, and yet I'm going to ask a question like a gentleman did over there about Fukushima. Who here has never made a mistake? I want you to raise your hand please. I want to see that person. Okay. So, there is no such person. We are dealing with a powerful energy source that we really can't contain. We don't even know what to do with the waste products. I mean. It's, if you can stand back a minute gentleman, this is unreasonable even to consider, but weave done it , we've gotten ourselves this far, I want to say that it's time to just get out. There's no way with the technical knowledge and the brain power that we have now that we can handle this stuff safely. We can't handle the disposal, we can't dispose of the product, we can't assure that someone in the those power plants, no matter how well trained and I'm sure that they're very, very careful, is not going to make a mistake. They made mistakes with computer modeling and that was not even in the power plant. That was on the computer that every 3 year old is using these days. We can't do it. And I want you to just consider that in your heart somehow. Can we do this? I don't think so. I don't have that much faith in us as a society.

>> Thank you. And, Rick, Rick I have 3 people who have been waiting and I'm going to ask them to be quick because we are getting down to the end here. So I would ask everybody to be

quick. Yes. Okay. Go ahead sir.

>> Yes. I've been thinking about you. You don't have an easy job. I don't know where you go from here and where you came from but this isn't the only audience you've had to face. One of the things I'm concerned about is all of these lights that are on here are billed and in that billing there's an amount that goes to nuclear decommissioning. Every place you go to buy a product and part of the cost of that product is nuclear decommissioning. Go home and look at your own electric bill, there's an item on there for nuclear decommissioning. That pot is very large. But this isn't the only meeting you go to and there are going to be a lot of places because this is a very old technology, a very old system across the country and you can probably tell us horrible stories about other places. The point is, here we have this pot of money that we have all contributed to. When are you going to use it and start decommissioning.

>> Thank you.

>> I'm going to go here. And then I'm going to come back to you. Yes. Please introduce yourself.

>> Hi. My name is Nicky Bay. I'm living in [inaudible] and I'm a mother of two and I'm also from Japan, sorry for my English, English is my second language. Safety, safety, safety first. Nuclear power is a future energy, that's what we heard from Japanese government. And after 3/11, almost 2 years ago, I was betrayed by Japanese government And NRC. Last summer I, I had a chance to spend 9 families from Fukushima, that city, the mom and children. They cannot play outside. That's why they came to evacuate to my hometown. I spent 1 week with them and when we went to the ocean, one of the children asked the mom, mom can I pick up this stone because in Fukushima children cannot play outside. They can't pick up the flowers. They can't, they have to

wear the dose meter going to school everyday. My question is very simple, is that happening here again? Because I, I was so devastated by Japanese government and so my question is, I don't want to see Fukushima happening here. Do you, promise from your heart that's going, not going to happen in here. In United States.

>> And we're going to hear from, thank you, thank you very much for that.

>> I want to thank you for that comment and the question. I went to Japan on March 19th of 2011. I saw the challenges during those early days of the accident. I think I can say with confidence for everybody here at the table that we are committed to avoiding that ever happening here.

>> Thank you Chip, thank you gentleman for staying so late and everyone here. I want to say that I have good news tonight. President Obama in his State of the Union Speech this evening announced that he wants the entire country to reduce its energy use by 50% by using strictly energy efficiency methods. Okay. All right. That's going to reduce the need for coal plants, it's going to reduce the need for expensive and risky nuclear plants. It's going to help create jobs which our friends and the city councils here and the Chamber of Commerce are concerned about. It's going to create a lot of jobs and that's a great thing. Let's applaud this. This is a big pain in the neck for us all to be constantly here and talking about this. And my dad was an engineer so I feel for you guys. I know what you're going through. I just want to say this, nuclear power, it seems to need a perfect world to exist and sadly I don't know if we can ever deliver that. So thank you and, thank you, Chip.

>> Thank you.

>> Thank you for that question. We only have time for two more questions. We're only going to take two more questions folks. So I'm going to go to people who have not spoken yet and

who have not asked any questions and we're going to call it a night at 9:30.

>> I'm Steve Weatherby from San Clemente. This may seem like a strange place to make this announcement but I'm one month pregnant. I'm sheltering at home in San Clemente after one of those one in 1,000 year earthquakes that seem to happen once every year and a half these days that caused the tsunami that breached the sea wall and caused the melt down at S.O.N.G.S.. My husband has our car at trailhead up by Independence of highway 395. He'll be hiking the Pacific crest trail for a week. He's out of contact. I don't know what he'll do when he finds out. I don't know what I'll do if I live through this, except this, I'll abort my daughter. I can't take the chance of bringing her into this world to face the inevitable cancers and probable deformities. Here's what else I know. I wish Edison and the NRC had cared enough about my daughter and the grandchildren I was looking forward to meeting someday to shut that plant down in 2013 when they had the chance. My question is this, when you, each of you for NRC and Edison are home with your family, your nametag off, standing over the toilet at 2:00 a.m. because you can't sleep, am I, my daughter, my grandchildren and the safety of your own family really your top priorities?

>> Thank you.

>> That's a question, guys.

>> I understand the question, I really don't have an answer.

>> Well I think the answer is you talked about safety all night and there's not a whole lot more to add to it, but thank you for your question.

>> I'm Charles Griffin. I'm an old guy. 83 years old and worked on atomic bombs at Anawaytoc and in the 50s and built airplanes to deliver the bombs and rockets to deliver to defend against the Russia tanks in Germany and Russia bombers coming to California. And built DC8,

DC9, DC10, DC17 that carried Osama Bin Laden to his death and burial at sea. And then 21B2 stealth bombers, so I, and also all of those electrical power plants on all of those airplanes, those are all my babies. But now, what my question is, we need to find another solution. And that solution I feel President Obama started when he signed the stimulate plan and gave $10 million to the navy to develop a new source of power from the fusion of hydrogen and boron, simulating what happens in every thunderstorm. Where hydrogen is attracted to a ball of electrons from a lightening, 3,000 volts forming into a ball which pulls those ions together and fuses into helium and that goes spiraling off around the earth's magnetic flux into the atmosphere. Of course, [inaudible] was hoping to bring that power from the atmosphere with radio energy, radio signals to the earth in Colorado, but in the meantime we can very easily fuse hydrogen and boron together to a nuclear ball, to a hydrogen, to an electron ball and fuse it into helium. Because it fuses into carbon, which breaks up into helium. It's just like a cue ball hitting a stack of bigger balls and that helium ion can be, thus focused around, with a magnetic field into a coil like a transformer and be the primary of the transformer and have a secondary to distribute the electrical power to our, to our local communities. And right now, that's being developed from that stimulus plan. And the navy in China Lake today, in the last year shown that is going to work and they're building a proto type for the nuclear submarines. I had to work with a, with a, a commander of a nuclear submarine who after doing that, recommissioned the battleship Missouri to work in Iraq. And then worked on the B2 with me and he died of a radiation leak in the nuclear plant in the submarine. And he died and I took over and finished the job. But the question is, why can't you please look into this hydrogen and boron fusion? Please. Very simple. The reactors of about the size of a bathroom. Can be put in various local sub stations and in the meantime we've got plenty of natural gas and that can be utilized easily now.

>> Rick, Rick, Rick.

>> Yes, Chip.

>> Pete Dietrich wanted to say something in observation, or in answer to the gentleman who started off with the one month pregnant.

>> Thank you. I understood your question to be, is it our first priority? The safety of you and the people that live in these communities? And I will tell you at 2:00 in the morning, at 2:00 in the afternoon it absolutely is. And it's the top priority of the 1900 employees of the San Onofre, the reactor operators and the nuclear operators that are on watch at that plant 24 hours a day. The security officers, the radiation protection technicians, the chemistry technicians, the engineers. We view the health and safety of the public as our utmost priorities. And the Nuclear Regulatory Commission is obligated and I think does a fine job of ensuring that we maintain that as our priority. So I thank you for your question and it is our number 1 priority.

>> Hey, folks.

>> Okay. We're going to take one more and then we're going back to art howl to close the meeting out.

>> Hi. My name is Kendra Olerich. I'm with Friends of the Earth as you are all aware we currently have two proceedings before the NRC both before the atomic safety and licensing board to evaluate whether the CAL process, not just the letter itself, but the process it engendered is in fact a license amendment process as well as whether Edison should have been required to obtain amendment when they initially replaced the steam generators.

Now, I'm not going to speak to any of the technical arguments there those need to be made before NRC staff and before the panel of judges. What I wanted to respond to was some of the

comments Mr. Dietrich made earlier regarding the license amendments that they had applied for initially as well as where this stands and Greg, you had spoken to this as well. This is not a closed and done deal. This is something that's being considered by N RC staff currently, that consideration, that contention that friends of the earth brought to the NRC was not something that the commissioners dismissed out of hand, regardless of what the AIT inspection team concluded with the specific things they evaluated. These are open questions and these are open questions that the NRC Commissioners recognized and referred to NRC staff. As far as the license amendments that Mr. Dietrich referred to, these were very to, these were very minor license amendments, these were not ones that addressed the substance of changes that were made to the steam generator design. So by putting that out there, that's really a red herring that's sent out there to distract us from, you know what the substance changes were. So what I've been hearing loud and clear, which it's been so wonderful to hear from everybody is that everybody is on the same page. That this process and this meeting tonight is not a replacement for an adjudicated public hearing on the substantive changes that were made to these steam generators to ensure that the public has full transparency, has an activity and meaningful role and we have a right to know that it is actually safe. Thank you.

>> Thank you for your comments and I do want to say that you make a good point, that there are still open questions here that have to be dispositioned. Thank you.

>> Ladies and gentlemen, it's the end of the evening. We really appreciate you coming out so that the NRC can hear your questions. After some of your questions here, your comments. And just want to encourage you that if there are still questions, and I think there still are, please use these NRC feedback forms on the table outside. It's the table way to the right. Thank you very much and have a safe trip home. Good night.

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