



# **Nuclear Energy Industry Perspective on Decommissioning**

**July 15, 2014**

**Ralph L. Andersen, CHP  
Senior Director – Radiation  
Safety & Environmental  
Protection**



**NEI**

NUCLEAR ENERGY INSTITUTE



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# Focus on Transition Issues

- **Regulatory framework has proven effective in assuring protection of health and safety throughout decommissioning**
- **Regulatory framework for transition from operation into decommissioning is *ad hoc***
  - **requires site-specific exemptions**
- **Substantial industry and regulatory experience to address transition issues on a risk-informed basis**

# Priorities

- 1. Short-Term: Engage stakeholders on developing an enhanced process for timely and efficient decision-making on shut down plant transition issues**
- 2. Mid-Term: Endorse interim industry guidance to address transition issues**
- 3. Long-Term: Promulgate integrated, risk-informed rulemaking for nuclear power plant decommissioning**

# Shutdown Plant Transition

- **The risk related to emergency or security events is reduced for permanently shutdown and defueled nuclear power plants**
- **Risk-informed exemptions are currently necessary to transition from plant shutdown into decommissioning**
- **Previous and current experience support risk-informed improvements to the transition-related regulatory processes**

# Interim Guidance

- **Decommissioning transition issues are being addressed on a licensee-specific basis**
- **Corresponding industry and agency functional groups are interacting on the generic regulatory and technical aspects of the issues**
- **NEI plans to develop and submit industry guidance for NRC endorsement to serve until rulemaking is accomplished**

# Integrated Rulemaking

- **SECY-00-0145 integrated rulemaking plan largely addresses the issues currently under consideration**
- **SRM returned the paper to staff without vote pending further developments:**
  - *“The staff should submit the revised paper to the Commission.”*
- **Further developments have not substantially changed the scope and merits of the integrated rulemaking recommended by the staff**

# In Conclusion

- **While the past experience base is large, the future need is much larger:**
  - **11 power reactor licenses terminated**
  - **17 in DECON or SAFSTOR**
  - **100+ in operation or being licensed**
- **The opportunities for near and long-term improvements are timely and readily available**
- **Future rulemakings affecting nuclear power reactors should also consider decommissioning on a risk-informed basis**

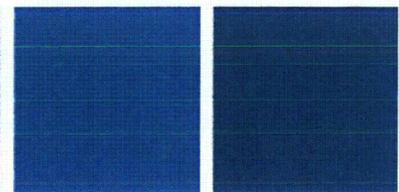


# Backup Slides



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# References

- **COMSECY-96-068, “Strategic Assessment Issue Paper: Decommissioning – Power Reactors (DSI 24)” and associated Staff Requirements Memorandum (SRM)**
- **SECY-98-075, “DSI-24 Implementation: Risk-Informed, Performance-Based Concepts Applied to Decommissioning,” and associated SRM**
- **SECY-98-258, “DSI-24 Implementation: Innovative Regulatory Approaches and Risk-Informed, Performance-Based Concepts Applied to Decommissioning” and associated SRM**
- **SECY-00-0145 “Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning” and associated SRM**

# **COMSECY-96-068 Staff Requirements Memorandum**

**“The Commission supports achieving finality in decommissioning requirements as soon as practicable. As the industry moves to a deregulated environment, decommissioning implementation costs must be understood and properly factored into planning decisions and/or rate recovery mechanisms. To this end, the Commission approves Option 2, pursue current direction and approaches more aggressively, for Decommissioning - Power Reactors (DSI 24) as the Final Commission View...”**

# **SECY-98-075 Staff Requirements Memorandum**

**“The Commission did not object to the staff's proposal to maintain the decommissioning inspection program in the regions and to maintain an on-going dialogue with the Nuclear Energy Institute and other stakeholders regarding innovative approaches to decommissioning. However, with respect to rulemaking and guidance development, the Commission believes that the schedule proposed in SECY-98-075 reflects insufficient priority attention to the agency's decommissioning program in general and to processing licensing actions, including exemptions, for those licensees in active decommissioning in particular.”**

# **SECY-98-258 Staff Requirements Memorandum**

**“The Commission expressed concern over the timeliness of addressing decommissioning licensing actions. The Commission also considered the issue of how quickly to reduce various requirements at a permanently shutdown plant to be central to various rulemakings planned or underway.”**

**“While the staff met its timeliness goals, the Commission encouraged the staff to continue its efforts to improve the timeliness of decommissioning licensing actions and rulemaking initiatives. While it is imperative that staff ensure that an acceptable level of safety is maintained at decommissioning facilities, licensing actions and rulemaking initiatives which reduce unnecessary regulatory burden should continue to receive high priority.”**

# SECY-00-0145

**“The attached rulemaking plan would amend regulations in the areas of EP, insurance, safeguards, staffing and training, and backfit for licensees who certified, pursuant to 10 CFR 50.82(a), that they have permanently ceased facility operation(s) and have permanently removed fuel from the reactor vessel.”**



# **Transition to Decommissioning Kewaunee Experience**

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**July 15, 2014**

**Daniel Stoddard**

**Senior Vice President - Nuclear Operations**

**Dominion**



# **Kewaunee Power Station**

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- **Two-Loop PWR**
- **Shutdown announced      October 2012**
- **Permanent shutdown      May 07, 2013**
- **Permanently defueled      May 14, 2013**
- **Spent fuel to ISFSI      December 2016**
- **Plant not in rate base**
- **Decommissioning Trust Fund is fully funded**

# **State of Decommissioning Regulation**

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- **Details of transition process largely undefined.**
- **Continued applicability of operations-oriented regulations is incongruous.**
- **Use of “dated” precedence problematic.**
- **Unnecessary regulatory burden to NRC Staff, Licensee, and Trust Fund.**
- **Need risk-informed regulatory framework for transition to decommissioning.**



## **Kewaunee Experience**

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**Regulations often do not clearly address decommissioning. Therefore, large numbers of exemption requests are necessary.**

- **Exemptions requested from > 60 EP regulations in §50.47 and Appendix E.**
- **Expect similar exemption requests from Security Regulations in §73.55.**
- **Use Trust Fund for spent fuel management, reduce minimum insurance coverage limits.**



## **Kewaunee Experience**

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**A well defined regulatory framework for plants in decommissioning would reduce or eliminate the need for exemption requests.**



# **Kewaunee Experience**

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## **Confusion regarding applicability of certain regulations:**

- **ERDS deactivation (Part 50, App. E)**
- **Cyber Security Rule applicability (§73.54)**
- **Mitigation Strategies Rule applicability (§50.54(hh)(3))**
- **EP change process (§50.54(q) as it relates to §50.82 certification)**



# **Kewaunee Experience**

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**Precedence from past decommissioning plants has been of limited value.**

- **Operator Licenses §50.54(m)**
- **Certified Fuel Handler Training Program**



# **Kewaunee Experience**

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- **Limited guidance and minimal recent precedence result in longer preparation and review time (for Licensee and NRC Staff) on LARs, EP and Security exemption requests.**
- **Significant interface, including travel, for NRC Staff and Licensee.**
- **Both Licensee and NRC Staff are on a learning curve.**

# Conclusions

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- **All nuclear facilities will eventually be decommissioned.**
- **The current regulatory processes for decommissioning are not well defined and burdensome to the NRC staff and licensees.**
- **Recommend integrated regulatory framework and guidance be developed based on reduced risk using previous rulemaking efforts as a starting point.**



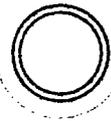
# Acronyms

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- **EP – Emergency Preparedness**
- **ERDS – Emergency Response Data System**
- **ISFSI - Independent Spent Fuel Storage Installation**
- **LARs – License Amendment Requests**
- **NRC – Nuclear Regulatory Commission**
- **PWR – Pressurized Water Reactor**

# NRC Commission Meeting

## July 15, 2014

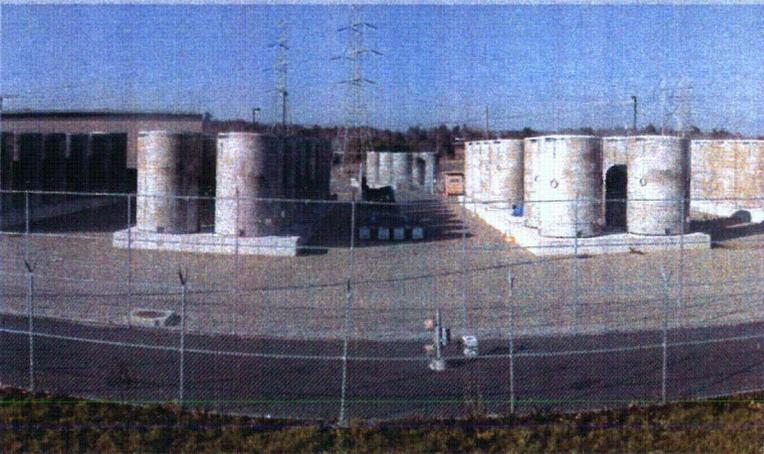
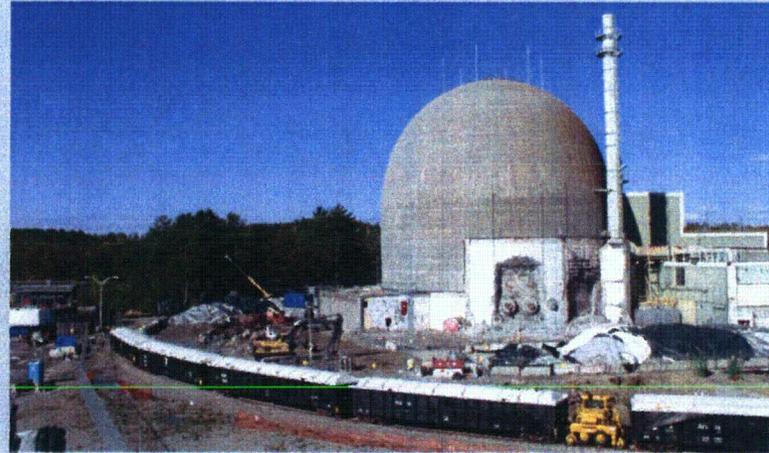


**“LESSONS LEARNED FROM PRIOR  
DECOMMISSIONING AND CURRENTLY  
DECOMMISSIONED PLANT ISSUES”**

**WAYNE NORTON**  
**PRESIDENT/CEO**  
**YANKEE ATOMIC AND CONNECTICUT YANKEE**  
**CNO MAINE YANKEE**  
**CHAIRMAN DECOMMISSIONING PLANT COALITION**

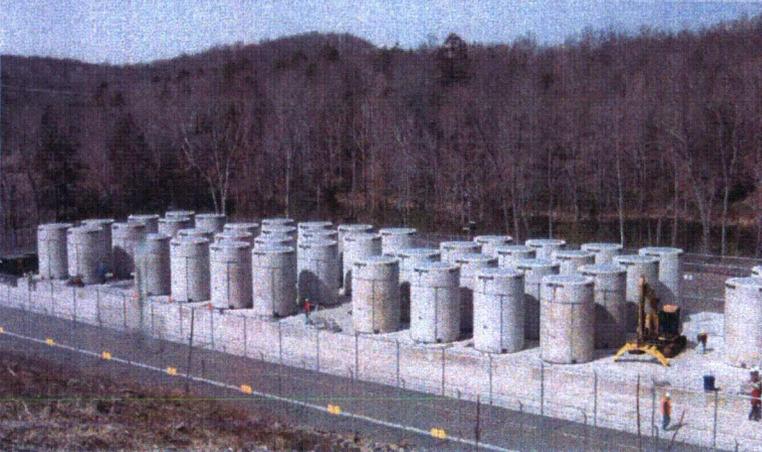
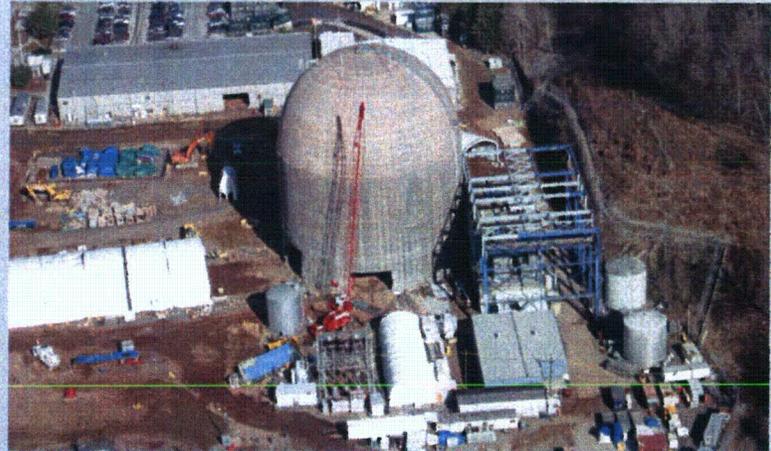
# Maine Yankee

2



# Connecticut Yankee

3



# Yankee Rowe

4



# Lessons Learned

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## Success Requires:

- Clear Vision: “Begin with the End in Mind”
- Stakeholder Acceptance
- Regulatory Alignment
- Effective Management of Risk and Change
- Strong Project Management and Ops Transition
- Effective management of Safety, ALARA, Compliance, Cost and Schedule

# Vision

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- Clearly define End State and Project Goals
- DECON or SAFSTOR?
- License Termination “pre” or “post” demolition?
- “Unrestricted release” for Radiological and Chemical contaminants; i.e. RCRA and Radiological closure?
- Used Fuel Storage strategy and approach?
- If you don't know where your going the path is rarely clear!

# Stakeholder Engagement

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- Stakeholder engagement needs to occur early and often (Reg. Agencies; Community; Public; Workers; Shareholders, etc.)
- Get early alignment and acceptance of Vision
- Stakeholder buy-in is a continuous process
- Create a community outreach process inclusive of an advisory panel (CAP)
- Include regulators in the outreach process to support public confidence (NRC, EPA, State, etc.)
- Make sure you don't overlook the Workforce while engaging everyone else!!

# Regulatory Alignment

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- Engage Regulators early in the process
- Gain alignment on “End State” and approach with all regulators as soon as possible.
- There are multiple regulators involved and the criteria for performance and end-state achievement are not always clear or consistent.
- RCRA closure (Chem. Remediation) is as challenging as License Termination (Rad. Remediation).
- Clarity and reliability in regulatory process is key to project success.
- Regulatory alignment with Plan and approach is fundamental to stakeholder confidence.

# Management of Risk and Change

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- Risks change immediately and throughout project.
- Regulatory requirements should necessarily change with risk to support decommissioning efficiency.
- Due to nature of the work, “unknowns” are often encountered and contingency planning is key to success.
- Work scope and process is foreign to utility workforce at large and it can create an environment of uncertainty and unease (H/R and SCWE management a priority).
- Lessons learned from prior decommissioning can help inform Licensee and Regulators to support management of risk and change.

# Strong Project Team

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- Utility must establish a strong “Project Management” team while maintaining priority on safety and nuclear principles during transition.
- Retain personnel in key functional areas and recruit proven talent for new roles and areas of weakness
- Contractor utilization in performance of the work is a necessary and logical strategy, but Licensee needs to be prepared “just in case”!
- Independent oversight is important ingredient for continuous improvement and lessons learned (e.g. IMAC at the Yankee Projects)

# Serving Many Interests

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- You can achieve schedule and cost goals while achieving a high level of health, safety and compliance!!
- Multiple regulatory agencies have a “piece of the pie”, but licensee is obligated to all stakeholder groups.
- Safety is always highest priority, but can't ignore cost and schedule obligations.
- Success has been proven!!

# ISFSI Site Issues

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- **Ultimate Used Fuel and HLW disposition (Waste Confidence)**
- **Canister relicensing activities and process (NEI 14-03)**
- **Potential changes to ISFSI Security requirements (DG 5033); Changes need to be risk informed and credible.**



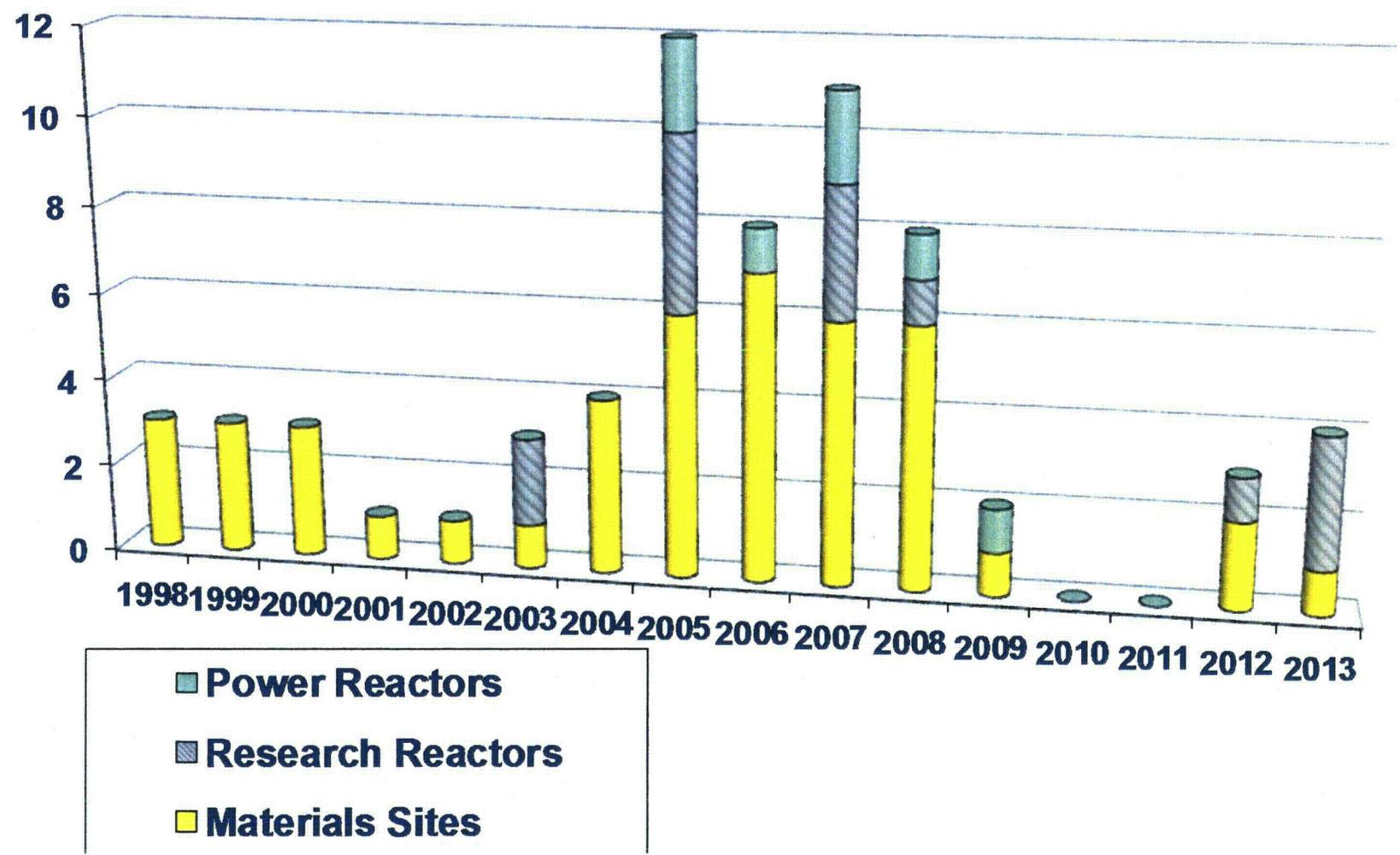
# **Commission Briefing on Nuclear Power Plant Decommissioning**

**July 15, 2014**

**Mark Satorius**

**Executive Director for Operations  
U.S. Nuclear Regulatory Commission**

# NRC Staff Has Significant Decommissioning Experience



# **Staff is Managing Increased Decommissioning Activity**

- **Consolidated decommissioning project management branch in NRR**
- **Multi-office decommissioning transition working group**
- **Review and inspection guidance changes for decommissioning**
- **Identifying issues for a future potential rulemaking activity**



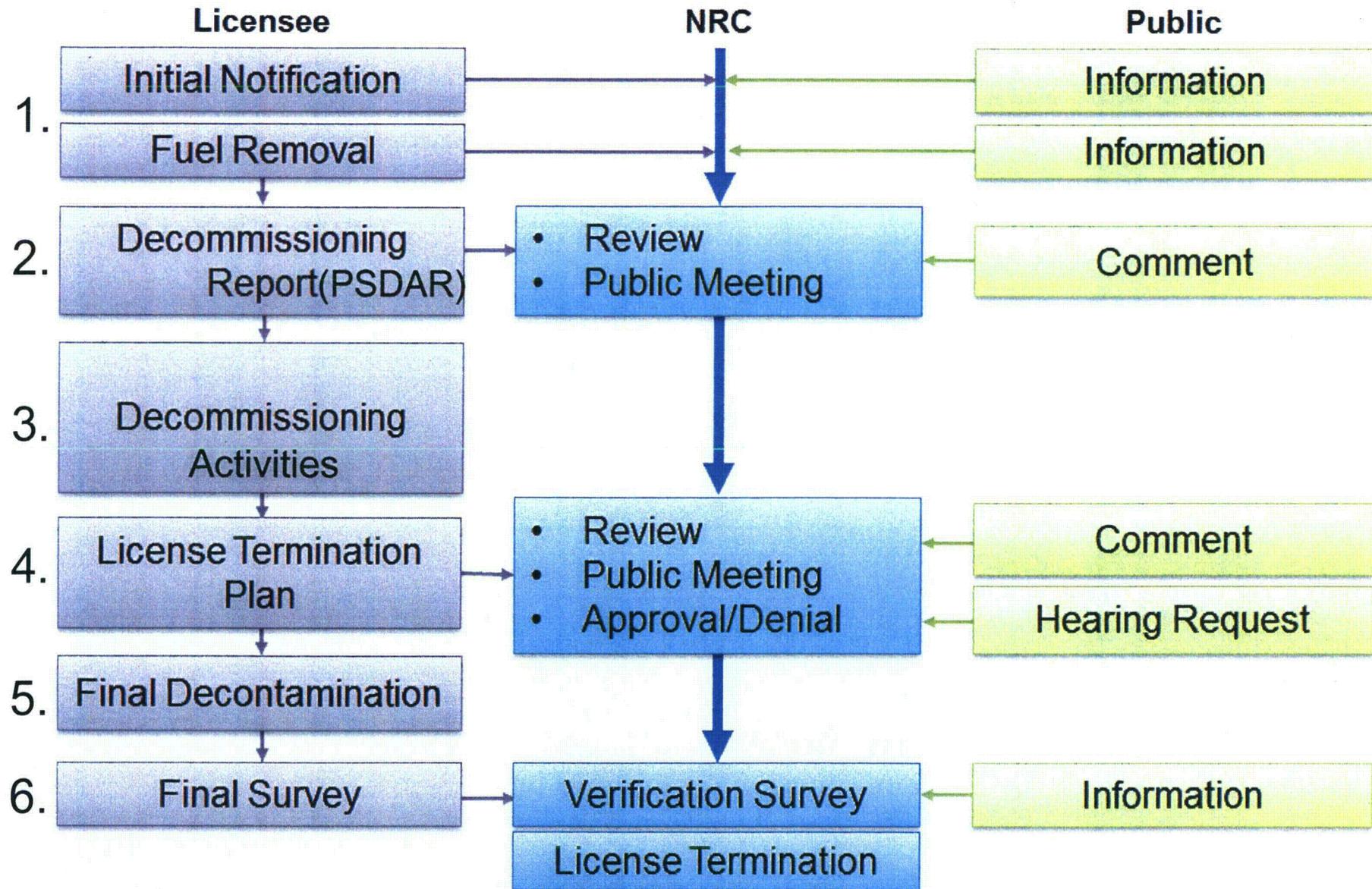
# **The Decommissioning Process and Improvements from Past Activities**

**Andrew Persinko**

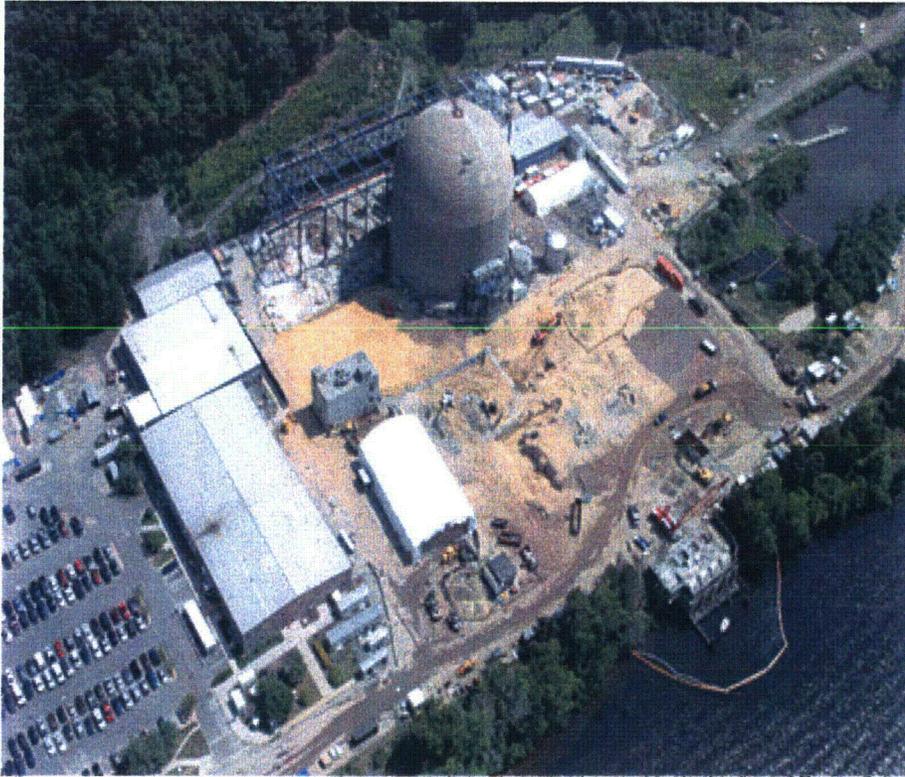
**Deputy Director, Division of Waste  
Management and Environmental  
Protection**

**Office of Federal and State Materials and  
Environmental Management Programs**

# Reactor Decommissioning Process



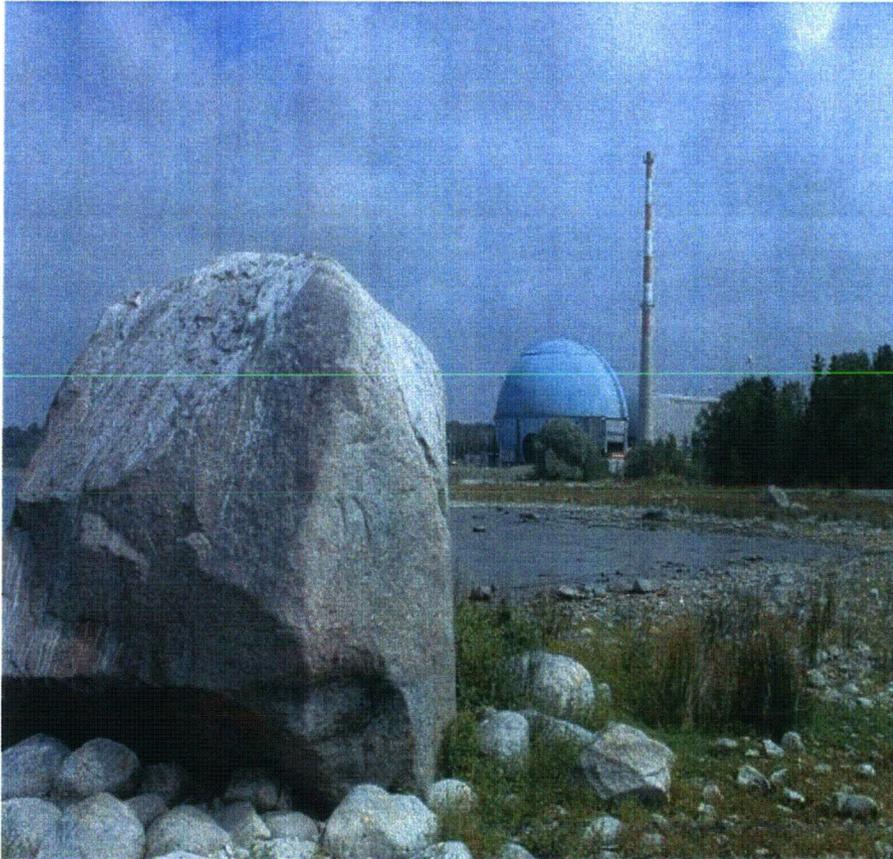
# Connecticut Yankee



# Maine Yankee



# Big Rock Point



# **Numerous Decommissioning Power Reactors Are Being Managed**

- **3 units in active decommissioning**
- **10 units in SAFSTOR, primarily at multi-unit operating sites**
- **4 units began the transition to decommissioning in 2013**
- **1 additional unit plans to shutdown by the end of 2014**

# **Process Improvements Based on Decommissioning Lessons Learned**

- **Captured in NUREG-1628, “Decommissioning FAQs”**
- **Implement guidance updates**
- **Maintain communications throughout decommissioning**
- **Encourage community involvement**

# **FSME Maintains a Role During the Transition from Operation to Decommissioning**

- **Interface with public and stakeholders**
  - ✓ **Public Meetings**
  - ✓ **Congressional Briefings**
  - ✓ **State and Local Governments**
- **Support NRR, NSIR, and other offices**



# **Transitioning Process**

**Louise Lund**

**Deputy Director, Division of Operating  
Reactor Licensing**

**Office of Nuclear Reactor Regulation**

# **Transitioning – A Well Traveled Path**

- **Kewaunee is first plant – focus on developing templates to maintain high quality safety evaluations**
- **Few automatic processes exist for license changes when a plant decides to shut down**
- **Staff applies transitioning process used for previously decommissioned plants, updating it for recent regulatory changes**

# **Normal Licensing Process Used**

- **Significant progress on licensing actions for first plant**
- **Licensing actions include: amendments, exemptions, order rescissions, etc.**
- **Specific exemptions – for emergency preparedness, part that is exempted “not necessary to achieve underlying purpose of rule”**

# **Future Reviews Build on Present Ones**

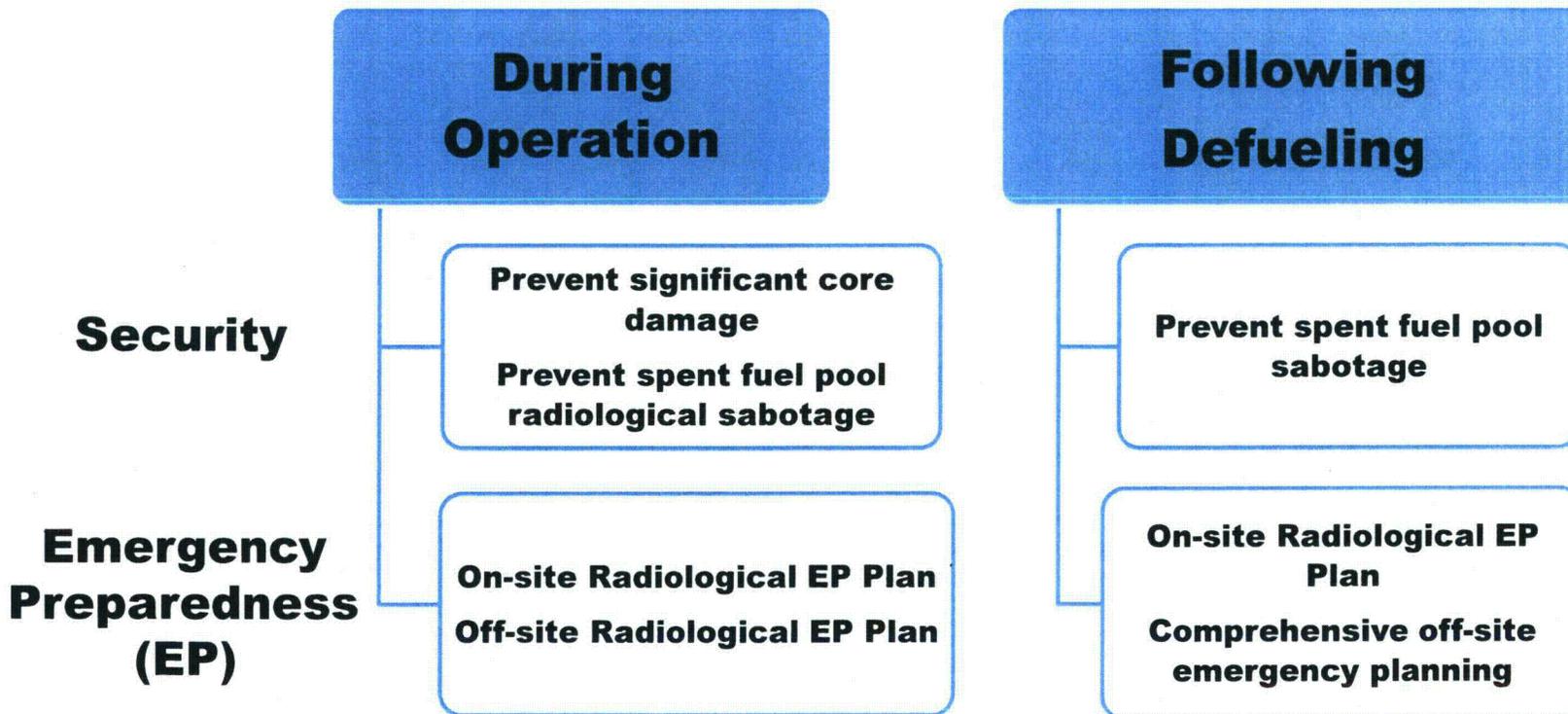
- **Current reviews used to develop guidance, templates, staff positions, lessons learned**
- **Integrated rulemaking proposed in 2000 – events of 9/11 led to withdrawal from list**
- **Staff has put placeholder on Common Prioritization of Rulemaking list – Medium Priority**



# **Security and Emergency Preparedness Issues During Decommissioning**

**Mark Thaggard**  
**Deputy Director, Division of Security  
Policy**  
**Office of Nuclear Security and  
Incident Response**

# Programs Reduced in Scope, Overall Effectiveness Maintained



# **Changes to Security Strategy Carefully Reviewed**

- **Staff reviews cover a range of issues**
- **Integrated assessment of overall security strategy is important**



# **Emergency Preparedness Requirements are Commensurate with Risk**

- **On-site EP program will be maintained**
- **Offsite coordination maintained**
- **Formal offsite EP plans not required**
- **Highest classification is an “ALERT”**
- **Effective security program is required to be maintained**

# **Staff Guidance Under Development Will Improve Future Reviews**

- **EP Interim Staff Guidance**
  - **Basis is current actions and past precedent**
  - **Significant public feedback**
- **Security Interim Staff Guidance**
  - **Early in development stage**
  - **Lack of precedent**



# **Decommissioning Inspection Discussion and Issues**

**Robert Orlikowski**

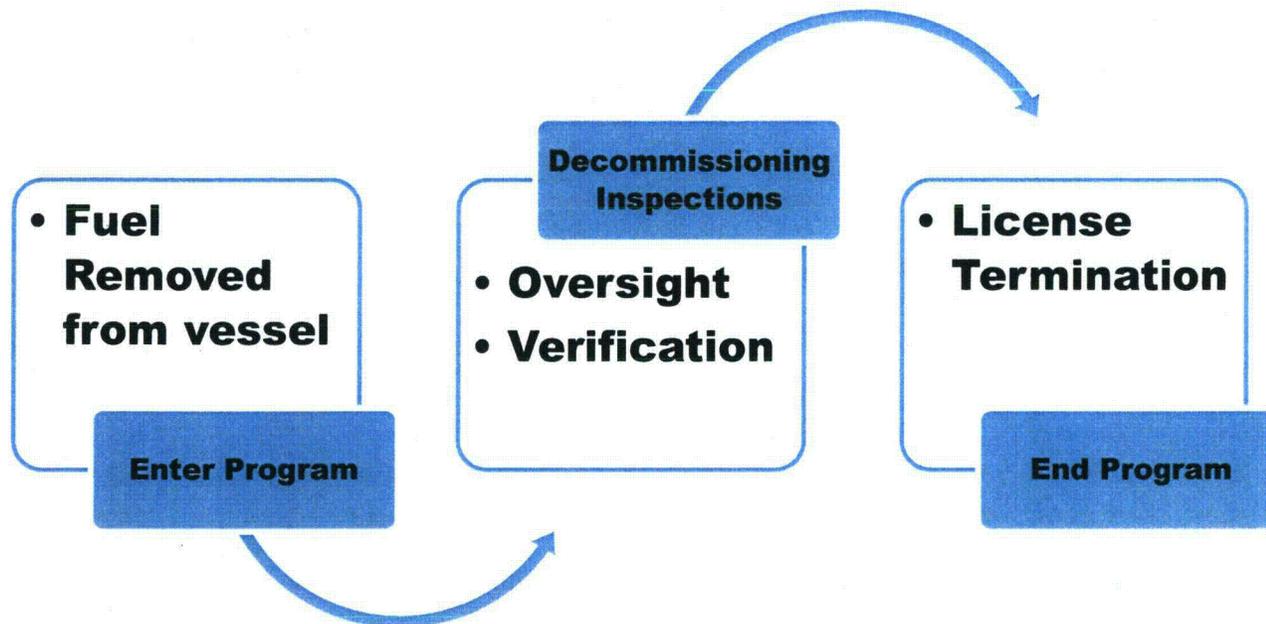
**Chief, Materials Control, ISFSI, and  
Decommissioning Branch**

**Division of Nuclear Material Safety**

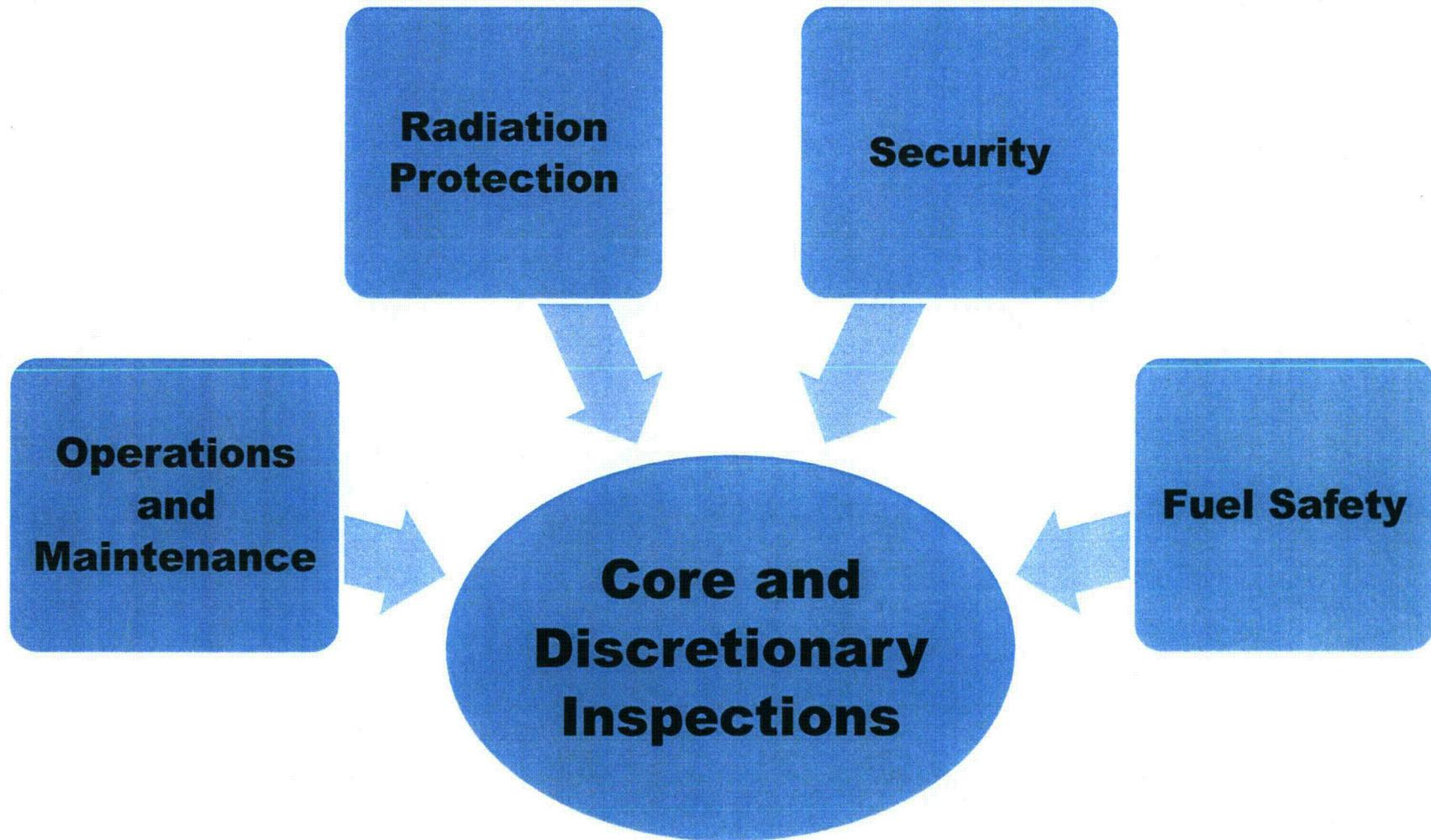
**Region III**

# Inspection Program: Well Defined and Consistent

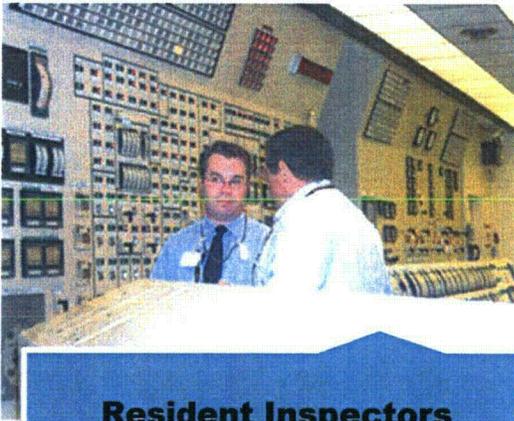
Process is outlined in Inspection Manual Chapter 2561



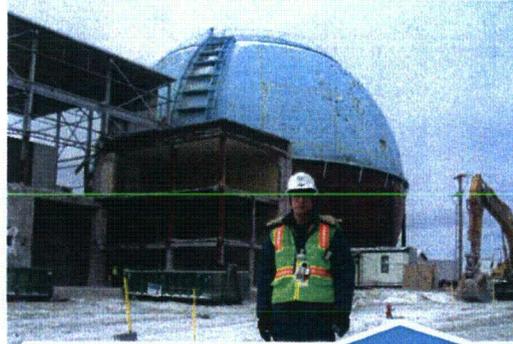
# Comprehensive Inspections



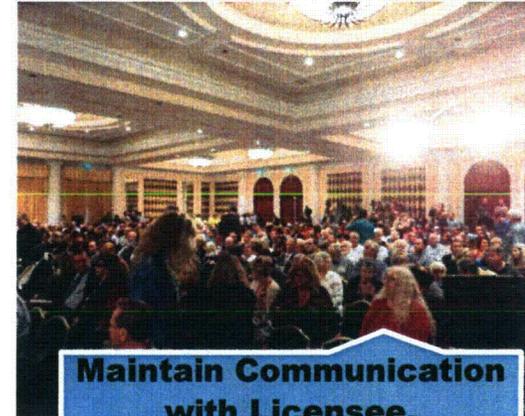
# Inspector ENGAGEMENT with Focus on SAFETY and SECURITY



**Resident Inspectors  
typically remain onsite for  
6 to 12 months**



**'Boots on the Ground'**



**Maintain Communication  
with Licensee,  
Government Officials,  
and Members of the  
Public**

# Acronyms

- **NRC – U.S. Nuclear Regulatory Commission**
- **NRR – Office of Nuclear Reactor Regulation**
- **PSDAR – Post Shutdown Decommissioning Activities Report**
- **NSIR – Office of Nuclear Security and Incident Response**
- **EP – Emergency Preparedness**

**Decommissioning at San Onofre:  
The Community Engagement Experience**

Testimony to the Nuclear Regulatory Commission

--by--

David G. Victor

Chairman, SONGS Community Engagement Panel  
Director, Laboratory on International Law & Regulation

July 15, 2014

Thank you for the invitation to testify to you on the process of nuclear decommissioning. I am Chairman of the Community Engagement Panel at the San Onofre Nuclear Generating Station (SONGS). More than a year ago the co-owners of SONGS decided to shut permanently units 2 and 3 of the facility. (Unit 1, much smaller, had already been decommissioned.) This decision marks closure of the largest civilian nuclear power plants in the United States. The plant, like many in the United States, has had an uneven relationship with the local communities. It has been a huge source of employment, investment, electricity and revenue for these communities. It has also attracted considerable opposition on diverse fronts. Thus in tandem with the decision to close, the co-owners also focused on how the communities might be engaged in that process. One result was the Community Engagement Panel (CEP).

I testify today as Chairman but not formally on behalf of the Panel. By design, the Panel is not a decision-making body. We don't take votes and we don't formally develop particular points of view. That limits what we can do, but it also makes it much easier for our Panel to focus on issues that matter for the community without the need to devote time and other resources to making and overseeing particular decisions.

We do not have formal oversight authority in large part because there are many other bodies, including the Nuclear Regulatory Commission, that provide extensive oversight. Instead, the Panel is a two-way conduit designed to provide information to the communities about the decommissioning process and vice-versa. We have 18 members drawn broadly from the community—mayors, members of city and county councils, organized labor, the military (which owns the land under SONGS), police and state parks, environmentalists, activists, scientists and people who have worked in the industry. Everything we do is in the public eye. That includes posting full video of every meeting and workshop, transcripts from formal meetings, and every document circulated to the Panel.

When the co-owners established the Panel they were not following any particular model, but my sense is that they looked for inspiration in two areas. One was a similar panel that had helped with public engagement during the Maine Yankee decommissioning. A second was EPRI's best practice guidance for decommissioning, which calls for an explicit community engagement process. In addition, I think everyone knew that without the right community engagement that decommissioning could become stalled and more expensive—perhaps with even more layers of formal oversight that don't actually benefit the community.

The Panel was formally established in February 2014. We held our first meeting in March and are meeting quarterly. Each formal meeting is paired with a workshop to allow more in-depth discussion, especially of technical issues. We are moving very quickly because we want to be sure that there is adequate community input into a handful of crucial regulatory filings that the co-owners are drafting—the Spent Fuel Management Plan, the Decommissioning Cost Estimate, the Post-Shutdown Decommissioning Activities Report, emergency preparedness and the like. Already it is clear to me that if future plants use a CEP-like process that they should establish the CEP as early as possible so that, as at San Onofre, the communities are involved at the outset.

We are very young, just 6 months old, and thus a proper assessment of the Panel is highly premature. Nonetheless, let me share two broad perspectives on what we have done, with a special focus on issues that could affect how NRC interacts with decommissioned plants.

## **REMARKS RELATED TO DECOMMISSIONING**

Based on our work so far, I have five impressions about how the decommissioning process has unfolded.

First is the need to keep perspective on the broad portfolio of activities involved in decommissioning. While SONGS is at the early stages of decommissioning, it is already clear that the most vocal and organized public attention will focus on a handful of issues—in particular, storage of nuclear waste. I will talk more about that in a moment. However, I expect that the emphasis will shift as other topics, including job creation during dismantlement of the facility, noise, transport of debris and emergency preparedness, come into focus. As Chairman of the CEP I view one of my central tasks as keeping perspective on all the inter-related issues and not becoming overly focused just on spent fuel. It would be helpful for NRC and other regulators and stakeholders to reinforce that broader perspective as well.

Second, on the topic of nuclear waste storage and disposal, I am concerned that ongoing controversies might lead to unhelpful paralysis. For example, a particular focus of some CEP members and community members has been so-called

high burnup fuel (HBF). I do not know at this stage whether the presence of a large number of HBF fuel assemblies in the fuel ponds at SONGS will have a material impact on the decommissioning process and timing. My personal view—informed by a large number of conversations with experts and community members—is that HBF will be an important issue to track and, over time, it could lead to any number of changes in engineering and practice. It could affect the choice of casks, inspection procedures, and almost every other aspect of spent fuel storage and ultimate disposal.

It is really important that the important discussions on HBF not lead to paralysis—especially paralysis induced by regulatory uncertainty or delay. The May 2nd letter from Chairman Macfarlane to Priscilla Starr and other members of the Coalition Against Nukes (including one member of the SONGS CEP) was particularly helpful in clarifying NRC's perspective on these issues for me, and I have circulated that material to the full CEP. In my view, this is like many other regulatory issues where the facts are not all in—it is important to make decisions that don't lock the wrong processes into place and then evaluate those decisions along the way. The CEP, along with other forms of public oversight, can help make sure that evaluation and updating actually occurs. At the same time, it is important that we all learn the right lessons from history. There has been a massive amount of experience moving HBF around the world as part of the European reprocessing program—none of which, according to reliable testimony at one of our workshops, has led to adverse outcomes. Much more germane to the issues at San Onofre and other locations that will have long-term on-site storage is the ongoing research on aging of HBF assemblies—an area where legitimate concerns have been raised and where new empirical research will help to resolve those uncertainties. We also need to understand that other plants have “canned” HBF more out of regulatory uncertainty than fears that the fuel is unstable in long-term storage—that is my understanding of the logic behind the decision at Zion to can all that fuel.

It would be extremely helpful for NRC to give periodic guidance about the larger strategy it is following for fuel storage and how it views the tradeoffs. In my view, there are big tradeoffs between storing fuel in low assembly casks (possibly within cans) and in denser more modern cask designs. The former may allow for easier dissipation of heat; the latter can take advantage of modern designs to dissipate heat and also allow for a smaller spent fuel pad. Smaller is not just less expensive but less unsightly and easier to protect. I worry that all the talk about HBF has not allowed community members and regulators to focus on these fundamental tradeoffs. NRC could play a very helpful role in making the tradeoffs much clearer.

Third is the issue of long-term disposal of spent fuel. That topic looms large in the community, as it does, I am sure, in most communities. And it should. As a matter of national policy, it is insane for us to be accumulating fuel at many dozen sites scattered around the country rather than at a handful of centralized sites. The insanity of that policy has been known for a long time, but at decommissioned

plants the issues have become particularly stark. If it were possible to make a credible commitment to the local communities to remove the spent fuel from the site over some reasonable time period, I think that would make a tremendous contribution to relations with the communities. Of course, nobody can make such a commitment. In the 6 short months of our Panel's operations I have been struck by how many members of the community have learned that stark fact through the CEP process and are not happy with that reality.

Fixing this problem—which is not unlike many other large, difficult policy problems the nation faces—is not within the hands of any single agency or political body. That's one reason why it is hard to solve. Having studied this issue now in some detail, including through the work of the Blue Ribbon Commission on America's Nuclear Future—we had a member of the Commission testify at workshop in May—I am deeply pessimistic that long term repository options will be available any time soon. That reality puts a premium on consolidated interim storage—especially for decommissioned reactors. I do not know at this stage what NRC can do on this front and would welcome your advice on what we in the SONGS community can do. (We are planning to articulate a perspective on this matter, perhaps in the form of a white paper, and to convey that to our state and federal political leadership.) One obvious solution is to encourage private solutions with large payments to communities that host the fuel—exactly that was tried with Private Fuel Services (PFS) and the stalemate outcome was not encouraging. I am mindful that nobody is really “in charge” of this issue, but NRC could play a more conspicuous role perhaps in organizing some strategies.

Fourth, I have been concerned that there isn't a clear long-term regulatory strategy for decommissioned plants. As a person who has observed this process from the outside and now, suddenly, is thrust into the middle of the decommissioning process I have been struck that every plant seems to be feeling its way through the process. Issues arise and there isn't an obvious plan or set of expectations for how they would be resolved. Thus we have Spent Fuel Management Plans that are extremely broad and short while cost estimates are packed with details. We have efforts, such as recently by some Senators, to halt NRC's use of waivers for some emergency preparedness procedures at decommissioned plants for which there isn't an obvious standard procedure—a point that NRC, in that case, has helped to clarify with its June 26<sup>th</sup> letter to Senator Markey. It is my understanding that the NRC had sought to create an integrated decommissioning strategy with its June 2000 memo on rulemaking in this area (SECY-00-145) but that plan was eclipsed by other priorities. My view is that NRC should undertake a special effort to articulate a serious strategy that addresses every major front in decommissioning—fuel storage, shrinking of the licensed site, dismantling, emergency preparedness, and other key topics.

Fifth, and finally, after just 6 months I am concerned that nearly all the major topics in decommissioning—from casking to emergency preparedness—have the potential for large amounts of emotive language and amplified fears that do little but

make people agitated. We on the CEP, for example, have already fielded a large number of questions about the seismic integrity of the long-term storage site only to find that the seismic integrity of the cask systems is far greater than any plausible seismic activity in the area. Yet I continue to hear the same issues raised, including in public comment periods, even though substantial and serious attention has gone into examining them and making serious answers highly transparent to the public. All of us in this process have a larger responsibility to help people from diverse backgrounds—most of them not experts on nuclear matters—understand the real risks and tradeoffs. At the same time, all of us have a responsibility to focus on the areas of real risk and uncertainty and not on chimeras and red herrings. I have no illusion that this is easy, for it is one of the ongoing challenges in any democratic society that manages complex modern technologies.

### **SOME REMARKS RELATED TO THE COMMUNITY ENGAGEMENT PROCESS**

Mindful that the Panel is just 6 months old and any assessment is premature, I would like to suggest four observations about how our work has unfolded so far.

First, we were established voluntarily by the co-owners—not by the community. When a full assessment of the CEP experience is done I am sure that there will be debates over the best strategy for creating CEP-like mechanisms and how CEPs of the future can assure that they are truly independent. But one thing is already clear, which is that a process led by the co-owners allowed the CEP to be created and spun up quickly. That is of special importance if there is to be community engagement during crucial regulatory filings that are due quickly after a decision is made to close a plant.

Second, the membership of the CEP is a blend of public officials and selected members of the community. That blend is important for ensuring a diversity in viewpoints as well as skills. We have members of the CEP who can do technical calculations; others who are well linked to critical constituencies; still others have a special ability to anticipate how the public will react to key issues. Perhaps because I am not an elected official I have especially appreciated the participation of elected officials not least because their experience with the public comment and disclosure parts of our work.

Third, I have been struck that on many fronts essentially all the stakeholders have the same goal: a diligent and quick decommissioning that runs as rapidly as is safe. Part of our job, I think, is to remind all of us of that overlap. So far, however, we haven't yet faced any major barriers to swift action. My guess is that those barriers will come in the form of regulatory uncertainty. I look forward to working with NRC on that matter where we in the CEP can be helpful.

Fourth, one of my concerns about the evolution of the CEP is to ensure that we make tangible progress and have a real impact on the process. So far, we have

opened a conduit for information and that has been extremely useful. But to keep the attention and engagement of the extraordinarily impressive group of citizens who are CEP members, we need to make sure we keep moving to new topics and focus on where we can make a difference. I would welcome the insights from stakeholders at other plants on where their community engagement processes have mattered most. I suspect that some of the benefits are not visible—they take the form of more adversarial, formalized and perhaps less constructive oversight mechanisms that might be adopted if not for the presence of the CEP. Maybe that is enough; I suspect not. Vice Chairman Tim Brown (mayor of San Clemente) and I are in the midst of an effort to poll each CEP member individually for their views about the process; Secretary Dan Stetson (President of the Ocean Institute) is working with us to document every major issue that has arisen in our meetings and identify how we have handled each one. My overall impression is that the job of running a CEP effectively is a bigger one than I had originally managed—in part because success in this process requires clearly and transparently responding to comments on a huge number of issues, including issues that are far outside the scope of what the CEP was created to handle.

Related to the issue of tangible progress is community expectation. Many members of the community do not understand that the CEP is, by design, not a decision-making body. Our meetings have become focal points for many grievances that members of the community have with lots of other institutions. Other than repeatedly clarifying our real role I don't see a practical way of avoiding this problem, which is one that is intrinsic to many public institutions.



**FEMA**

July 14, 2014

**National Preparedness Directorate**  
**Acting Assistant Administrator Kathleen Fox's**  
**Statement to the Commission Regarding FEMA's Role in the Decommissioning Process**

Madam Chairwoman and members of the Commission, good morning and thank you for the invitation to today's meeting. My name is Katie Fox and I am the Acting Assistant Administrator for the National Preparedness Directorate at the Federal Emergency Management Agency. I am looking forward to a productive exchange of information. I appreciate the opportunity to speak here today regarding FEMA's role in the decommissioning process, which is to support offsite jurisdictions in their responsibilities to identify and prepare for the threats and hazards that pose the greatest risk to their communities. We look forward to working with the NRC and its licensees in supporting our State, local, and tribal partners throughout any upcoming decommissioning processes.

FEMA's Radiological Emergency Preparedness—or REP—Program has been developed with the goal of planning and preparing for a single risk: commercial nuclear power plant incidents. It is in support of this goal that FEMA's Technological Hazards Division provides oversight and guidance to offsite jurisdictions in their emergency preparedness responsibilities.

The historic partnership between FEMA and the NRC is built upon a memorandum of understanding that establishes a framework of cooperation and describes how FEMA provides findings on the adequacy of offsite emergency preparedness to the NRC, which is often referred to as reasonable assurance. In determining reasonable assurance that the health and safety of these communities will be maintained during and after an emergency, FEMA, along with its State, local, and tribal partners, employs a variety of methods. These methods can include biennial exercises, staff assistance visits, and the annual letter of certification process. NRC subsequently uses FEMA's determination to verify and maintain the emergency preparedness conditions under which the facility's license was issued.

For over 35 years, the partnership between FEMA and NRC has resulted in State, local, tribal, and industry stakeholders teaming in a collaborative and coordinated manner to provide for the

safety and security of citizens residing in the 10- and 50-mile emergency planning zones surrounding these plants. Together, we provide regulations, guidance, and policy that direct the planning, training, and exercising activities of the participants in this program. In sum, these joint activities have ensured that offsite jurisdictions have the capability and resources to prepare for the risk posed by a nuclear power plant.

Of course effective preparedness is not an end-state; it is a process. As threats and hazards evolve, so too must planning, capabilities, and resources.

In recent months, four nuclear power plants—Kewaunee, Vermont Yankee, Crystal River, and San Onofre—have indicated the intention to enter the decommissioning process and are currently at various stages of petitioning the NRC for exemptions. If granted, these exemptions could remove regulatory requirements and allow for changes in offsite radiological planning.

Decommissioning a power plant could impact the risk profile of a jurisdiction and, as such, might impact both offsite and onsite emergency preparedness programs. As a facility undergoes decommissioning, both FEMA and the NRC expect that surrounding jurisdictions will respond to any changing risk conditions with appropriate adjustments to their plans, capabilities, and resources. In order to do so, it is imperative that State, local, and tribal stakeholders be provided with timely and accurate information regarding the changing risk conditions at the facility. This type of information will then enable offsite jurisdictions to comprehensively analyze and understand the threats and associated risks they face. One methodology commonly employed is the Threat and Hazard Identification and Risk Assessment—or THIRA—process, which examines communities' threats and hazards of greatest concern, and identifies the capabilities required to address those risks. We will continue to support offsite organizations as they adjust their plans, capabilities, and resources to the changing radiological threat.

While a decision reached by the Commission regarding the Kewaunee Power Station exemption will be specific to that site, it may establish guidelines for upcoming exemption requests. Our goal is to continue our decades-long collaboration with the Commission and its licensees throughout any decommissioning process and ensure that careful attention is given to the effects on State, local, and tribal jurisdictions – effects that will likely include adjustments to emergency plans and resources prior to any potential exemption approvals taking effect.

Much has changed since decommissioning last occurred in the 1990s. In the years since, we have seen an evolution in the fundamental approach to emergency preparedness. In light of evolving emergency preparedness doctrine, FEMA stands ready to assist the NRC in the development of

decommissioning guidance that will allow for secure and resilient communities, prepared to protect against the full spectrum of threats – from natural to terrorist-based.

It is with a foundation in the mandate given to FEMA 35 years ago, the principles of the National Preparedness System, and the partnership between FEMA and the NRC, that we look forward to continuing to work closely with the NRC on decommissioning activities. We strongly encourage NRC and its licensees to work with State, local, and tribal communities in their determinations of risk, threat, and public safety. Continued and synchronized engagement among all parties throughout any decommissioning process is a logical extension of existing partnerships and is necessary to provide for the health and safety of all citizens.

Thank you again for the opportunity to engage on this issue and I look forward to discussion with the other participants in today's meeting.