

House Energy and Commerce Committee Hearing

**Subcommittee on Energy and Power
and
Subcommittee on Environment and the Economy**

July 24, 2012

**Follow-Up Questions for Written Submission for Chairman Macfarlane on Behalf of the
Commission**

The Honorable Fred Upton

QUESTION 1. Please summarize the inspections and other regulatory actions the NRC is taking with regard to the Palisades Nuclear Plant with regard to its status in Column 3 of the Reactor Oversight Process.

- a. Please provide a timeline for completion of these inspections and actions.
- b. Will the NRC make this information available to the public?
- c. How long will it be before the NRC will know whether Palisades' performance is actually improving or not?
- d. What is the earliest date that Palisades could be returned to Column 1 if Entergy works diligently to restore the plant to the NRC's high standards of safety?

ANSWER.

As a result of the Palisades Nuclear Plant's status in the Reactor Oversight Process (ROP), the NRC will conduct a supplemental inspection. The ROP Action Matrix specifies licensee actions based on the column in which the licensee's performance has been assessed. Palisades was assessed to be in column 3 of the Action Matrix as of the 4th quarter of 2011. The

supplemental inspection for a column 3 plant is intended to provide assurance that the root and contributing causes are understood, to assess conditions, and provide assurance that licensee corrective actions are sufficient to address the causes, and to prevent recurrence. The timelines below are current estimates. Should the conditions or information change, the staff will adjust these dates.

- a. The NRC will be conducting a supplemental inspection starting September 17, 2012 and continuing for 2 weeks.
- b. An inspection report will be made public within 45 days of completion of the supplemental inspection.
- c. The NRC conducts continual and periodic assessment of the site's performance. The NRC will be able to determine if Palisades' performance is improving by reviewing its performance through the supplemental inspection in September 2012, quarterly inspections, and the end of cycle assessment in February 2013.
- d. Palisades may return to column 1 when all issues are resolved, and assuming no new significant issues arise. The earliest this could occur based on the above assumptions would be in the October 2012 timeframe.

The Honorable John Shimkus

QUESTION 1. **Please provide the status of the NRC’s response to the recent court decision regarding the Waste Confidence rule including any direction to the staff.**

ANSWER.

On September 6, 2012, the Commission issued a Staff Requirements Memorandum (SRM) that directed the NRC staff to prepare an Environmental Impact Statement and revised Temporary Storage Rule within 24 months of the SRM. The Environmental Impact Statement and revised Rule would update the Commission’s analysis and conclusions from the 2010 Waste Confidence Decision and Temporary Storage Rule to address the deficiencies identified by the D.C. Circuit in *New York v. NRC*, 681 F.3d 471 (2012). The timeline adopted by the Commission will limit delay that might occur in the licensing or renewed licensing decisions of nuclear power plants. However, no currently operating reactors will shut down because of the court’s decision; for operating reactors seeking license renewal, the timely-renewal provision in the NRC’s regulations allows existing facilities to continue to operate while the NRC reviews a license renewal application.

On August 7, 2012, the Commission issued Order CLI-12-16, which responded to a number of petitions to suspend final licensing decisions in a number of NRC proceedings. In the Order, the Commission stated that it would not issue final licenses dependent upon the Waste Confidence Decision and Temporary Storage Rule until the court’s remand could be appropriately addressed. The Commission also noted that this decision applies only to final

license issuance and that all licensing reviews and proceedings would continue to move forward.

QUESTION 2. What is the cost to complete and publicly release the Yucca Mountain Safety Evaluation Report?

ANSWER.

The NRC staff estimates the cost of completing and issuing the Yucca Mountain Safety Evaluation Report (SER) to be approximately \$6.5 million. The staff notes that this estimate is for the completion and issuance of Volumes 2, 3, 4, and 5 (Volume 1 has previously been completed and released by the staff).

QUESTION 3. The NRC and the Federal Energy Regulatory Commission continue to coordinate efforts to identify and address potential gaps in cybersecurity protections at nuclear facilities that could impact the bulk electric system.

- a. Please provide a description and status of the coordinated effort. Is the NRC taking the necessary measures to ensure nuclear facilities are protected?**

ANSWER.

- a. In January 2008, the Federal Energy Regulatory Commission (FERC) issued Order No. 706, which specified Critical Infrastructure Protection Reliability Standards to safeguard critical cyber assets.

In March 2009, the NRC published a significant revision to its power reactor security regulations, including 10 CFR 73.54, "Protection of Digital Computer and Communication Systems and Networks." This regulation required nuclear power plant licensees and applicants for new nuclear power plant licenses, to implement a cyber security program to provide high assurance that safety, security, and emergency preparedness functions are protected from cyber attacks.

In August 2009, FERC and the NRC signed a Memorandum of Agreement to facilitate interactions on matters of mutual interest pertaining to the nation's electric power grid reliability and nuclear power plants, including but not limited to coordination of activities related to cyber security.

In December 2009, the NRC signed a Memorandum of Understanding with the North American Electric Reliability Corporation, which is overseen by FERC, that clarifies the regulatory roles and responsibilities of each organization, including inspection protocols and enforcement actions related to cyber security.

In October 2010, the NRC provided further clarity regarding the scope of digital assets included in 10 CFR 73.54, which assisted in defining the regulatory responsibilities of each agency related to cyber security.

NRC and FERC coordinate on a monthly basis on cyber security activities. Items discussed include cyber security program implementation, and threat assessment and other cyber-related vulnerability issues. Representatives from the Department of Homeland Security and the Federal Bureau of Investigation also participate in these meetings.

- b. All operating reactor licensees submitted cyber security plans to the NRC which have been reviewed and approved by the staff. Operating reactors are implementing their plans on schedules governed by specific requirements in their licenses. New reactor applicants submit their cyber security plans on a timeline that is consistent with their overall licensing application schedule.

In June 2012, the NRC published a “Cyber Security Roadmap,” which provides an update to the Commission on the status of the implementation of cyber security requirements for power reactor licensees and applicants for new nuclear power plant licenses. Additionally, the paper outlines the approach for evaluating the need for cyber security requirements for fuel cycle facilities, non-power reactors, independent spent fuel storage installations, and byproduct materials licensees.

The NRC recently piloted the inspection program for cyber security at two operating power reactor facilities. The results from the pilot program will be used to inform the inspection activities for all operating reactors which will begin in 2013 to verify that licensees are meeting the requirements of 10 CFR 73.54.

In addition to the regulatory requirements in place, the NRC formed a cyber assessment team (CAT) to provide a consistent process for evaluation and resolution of issues with potential cyber security-related implications for all NRC licensees. In accordance with the National Cyber Security Incident Response Plan, the NRC CAT coordinates and communicates with the DHS Industrial Control Systems Cyber Emergency Response Team and the United States-Computer Emergency Response Team on a regular basis.

QUESTION 4.

In July, the Japanese Diet released a report stating that cultural and organizational issues were the root cause of the Fukushima accident.

- a. How well do NRC requirements, for example corrective action and safety culture programs, address the kinds of cultural concerns raised in the Japanese Diet report?**
- b. Does the U.S. share any cultural or organizational weaknesses highlighted in the Diet report? If so, what legislation might be necessary to address them?**

ANSWER.

- a. The NRC staff has reviewed the Nuclear Accident Independent Investigation Commission (NAIIC) report, commonly referred to as the Diet report. The Diet report is one of several recently issued Japanese accident analysis reports; examples of others include the TEPCO Accident Analysis Report, the Prime Minister's Investigation Committee Report, and the Institute of Nuclear Power Operations (INPO) addendum to INPO 11-005, "Special Report on the Nuclear Accident at the Fukushima Daiichi Nuclear Power Station." The NRC evaluates these reports for potential lessons-learned, and conducts careful deliberation prior to drawing parallels to the United States. These deliberations are ongoing, and we will take appropriate action based on the result of those deliberations.

In 1989, the Commission first published a policy statement to make clear the Commission's emphasis on a "safety-first" focus with respect to the conduct of nuclear power plant operations. In June 2011, we issued a new Safety Culture Policy Statement

that applies more broadly to all users of radioactive materials. We also have regulations and programmatic incentives to encourage behaviors that are consistent with a positive safety culture. For example, the NRC demands that licensee and contract employees be free to raise safety concerns without fear of reprisal; encourages self-identification of violations; and assesses licensee performance to identify root causes of violations that may indicate weaknesses in safety culture. We have undertaken an extensive educational program to communicate to the licensees the Commission's vision regarding safety culture.

- b. The NRC's Reactor Oversight Process provides a robust program for overseeing a licensee's corrective action programs, and assessing the safety culture of licensee organizations. These activities are routinely assessed by our inspectors, and the NRC takes any needed regulatory actions when deficiencies are identified. The NRC's internal safety culture is also routinely assessed through such mechanisms as the NRC's Office of the Inspector General Safety Culture & Climate Survey. NRC management evaluates the results from these periodic evaluations and implements needed improvements.

Organizationally, by statute, the NRC has sufficient independence from both its licensees and from other government departments and agencies to avoid undue influences that would adversely affect the execution of its mission.

At this time, we have not identified the need for any legislative changes in this area.

QUESTION 5.

In addition to the Japanese Diet report, there have been other reports and articles critical of the Japanese government and nuclear industry for factors contributing to the Fukushima accident and citing differences with U.S. regulatory practices. In fact, several differences were cited by NRC Commissioners during this hearing.

- a. Has the NRC sought to assess the differences between U.S. and Japanese nuclear plant siting, design, training regimes, regulations, and emergency preparedness?**
- b. If not, why not?**
- c. Will the NRC conduct such an assessment prior to addressing Recommendation 1 of the Near Term Task Force Report?**

ANSWER.

- a. The NRC has not conducted a formal, comprehensive review of the differences between the U.S. and Japanese regulatory framework. The Near Term Task Force conducted a systematic review of the event and proposed recommendations to enhance nuclear safety in the United States within the context of the events that occurred in Japan. The NRC recognizes that considerations raised in the Diet report, such as safety culture programs, as well as the regulatory and oversight structure of the Japanese government, may shed additional light on the contributing causes of the Fukushima accident. Many of these lessons will, however, be specific to the facilities, regulations, government structures, and culture associated with the nuclear industry in Japan. The NRC is continuing to review all the various evaluations of the Fukushima accident and is participating in international evaluations and meetings sponsored by the International Atomic Energy Agency and other organizations.

The Commission has directed the NRC staff to compare U.S. and Japanese requirements in specific areas such as station blackout. In addition, on August 24, 2012, the Commission directed the NRC staff to compare practices for hydrogen control and practices for spent fuel transfer from pools to dry cask storage for plants in other countries with those of U.S. plants. The results of these comparisons will be provided to the Commission when the NRC staff provides their recommendations for resolving the Tier Three activities.

- b. While the NRC has not completed a formal, systematic review of the differences between the regulatory and oversight requirements in Japan and those in the U.S., we are generally aware of how the Japanese system dealt with issues such as seismic and flooding design and emergency preparedness, as compared to U.S. treatment of these issues. This, in part, influenced the results of the Near Term Task Force evaluation and the actions the NRC is requiring licensees to take. We continue to monitor the events at Fukushima Dai-ichi. We will also continue to monitor lessons-learned activities developed by domestic stakeholders and international counterparts.

- c. Near-Term Task Force Recommendation 1 focuses on possible improvements to the NRC's regulatory framework in light of technical evaluations of the Fukushima accident and existing NRC practices. The issues to be evaluated under Recommendation 1 are not strictly dependent upon any differences between U.S. and Japanese nuclear safety requirements. However, there is a nexus between the aspects of Recommendation 1 that relate to treatment of beyond-design-basis issues and the questions that the Japanese confronted prior to the event associated with seismic and flooding design.

Also, the concerns captured in Recommendations 8, 9, and 10 regarding procedures, command and control, and equipment correlate to problems encountered by the Japanese during the event. The NRC staff will provide options and recommendations to the Commission for addressing long term Recommendation 1 in early 2013.

QUESTION 6. Reflecting on the NRC's lessons learned following the Three Mile Island accident, the Task Force cautioned "...some of the actions taken by the NRC after Three Mile Island were not subjected to a structured review and were subsequently not found to be of substantial safety benefit and were removed."

- a. What steps will the NRC take to ensure this mistake is not repeated as the agency considers further post-Fukushima regulatory changes?**
- b. Of the items compiled by the NRC for possible post-Fukushima regulatory actions, has the NRC eliminated any items from further consideration?**

ANSWER.

- a. The NRC established a steering committee comprised of senior NRC managers from a diverse spectrum of the agency's program offices to review and approve Fukushima-related recommendations, before they are proposed to the Commission for regulatory action. The steering committee will follow five guiding principles as it evaluates each issue: 1) ensure that focus will not be distracted from the safety of currently operating reactors; 2) maintain a disciplined screening and evaluation process that ensures any proposed regulatory changes have a clear nexus to the Fukushima accident; 3) ensure that implementation of recommendations do not displace other NRC work that may be of

greater safety benefit; 4) proceed promptly, but ensure that the “right” recommendations are implemented the first time; and 5) ensure that recommendations are based on sound engineering and science.

- b. Most of the items compiled by the NRC for possible post-Fukushima regulatory action were derived from the Near Term Task Force Report. The recommendations that came from that report were prioritized into three tiers by the NRC. To date, none of these recommendations have been eliminated from further consideration. The NRC has already initiated actions related to all of the highest priority (Tier 1) recommendations, and the Tier 2 and Tier 3 items continue to be evaluated for any needed regulatory actions. In July, the NRC issued its Tier 3 project plans, which are unique plans for each Tier 3 recommendation, intended to provide a roadmap for what actions or study the NRC should complete to be able to make an informed decision, for each item, to either pursue further regulatory action, or to conclude that the current regulatory approach is sufficient. Therefore, these recommendations are still under consideration. The need for regulatory action based on these recommendations will be well documented and, consistent with the steering committee’s guiding principles, be based on sound engineering and science. Furthermore, additional issues related to Fukushima that are raised and were not in the Task Force report go through a screening and prioritization process that evaluates the merits of pursuing further regulatory action.

QUESTION 7. **The NRC is often criticized for not having denied a license extension application. If that’s true, please explain.**

ANSWER.

It is true that NRC has not denied an application for license renewal. However, that fact should not be misconstrued to mean that NRC's review is superficial, or that NRC "rubber stamps" license renewal applications. Although the NRC can deny a request to renew a license if the applicant does not provide appropriate or adequate information in its initial application, the NRC has typically identified the deficiencies and allowed the applicant to resubmit the application or provide additional information. For example, during the acceptance review—the first phase of the review after the applicant submits the application to the NRC—the NRC has rejected one application (Beaver Valley), which was subsequently resubmitted and accepted; one application was found to be insufficient to start the review (Nine Mile Point), and was resubmitted and accepted; and other reviews, e.g., Palo Verde, required additional information before acceptance.

The NRC has clearly defined the requirements for license renewal; the NRC has published regulatory guidance, such as Regulatory Guide 1.188, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses;" and the nuclear industry has access to examples of previously successful license renewal applications. NRC staff also meets with potential applicants in pre-application review meetings to facilitate further understanding of license renewal application requirements. During these meetings, the NRC staff and the potential applicant can clarify process related requirements and can discuss emerging issues seen at plants currently undergoing review. They can also discuss any recently issued guidance.

If aspects of systems, structures, or components of a facility are identified during the license renewal review that do not meet NRC regulatory requirements, the applicant would be required

to make modifications to its proposed aging management program, or put in place an acceptable mitigation plan. If problems were identified with respect to existing maintenance, repair, or replacement of operational systems, structures, and components, the issue would be addressed immediately and any necessary changes would be made under the current operating license. The NRC will not accept an application, and will not issue a renewed license, if the licensee does not meet NRC renewal requirements and regulations.

QUESTION 8. What type of prioritization system is used at the NRC to assess, screen and prioritize emergent work and how is it evaluated against existing activities?

ANSWER.

The agency addresses the issue of emergent work through a process that evaluates new, unplanned/unbudgeted activities against existing budgeted work. The agency's process is aligned with the priorities in the Planning, Budgeting, and Performance Monitoring process used by the NRC to implement its budgeting and performance management activities.

The program, owner will consider a number of factors in determining how to deal with emergent activities. Key among those considerations are the connection of the emergent work to the agency's safety and security goals or other objectives in the strategic plan, and whether this is mandated by Congress or Executive Order, or required by Commission direction in a Staff Requirements Memorandum. Program owners also will consider whether other program budgets, or NRC Strategic Plan performance goals and measures could be adversely affected by a change in the agency's work program. Beyond this, other case-specific considerations, including resource and scheduling requirements, will be considered. Documentation of

decisions must be provided to the Executive Director for Operations and the Commission if significant staff or monetary resources are required to accomplish the new work.

QUESTION 9. **The Reorganization Act of 1980 reserves certain duties for the Chairman, including acting as spokesman for the Commission, certain emergency powers, and acting as “the principal executive officer of the Commission,” with respect to its executive and administrative functions.**

- a. Does the ultimate agency authority for interpreting and applying the statute reside with the Commission or with the Chairman?**
- b. In carrying out these roles, the statute states that the Chairman shall be governed by the general policies of the Commission. When implementing these policies, is it the Chairman’s or the Commission’s interpretation that govern how to follow them?**
- c. When there are disputes about interpretation, how should those disputes be resolved in a collegial body?**

ANSWER.

- a. The Commission, as a collegial body, has ultimate agency authority for interpreting Reorganization Plan No. 1 of 1980, in consultation with NRC’s General Counsel. The Reorganization Plan assigns various functions to the Commission, the Chairman, and other agency officials. The recipient of a particular function is responsible for carrying out that function, except in cases where the function has been delegated.

- b. Where the Commission establishes general policies through exercise of its statutory functions, the Commission also may determine how such policies shall be interpreted and implemented.
- c. Disputes can potentially be resolved either formally or informally. The approach that is most appropriate may depend on the nature of the dispute.

QUESTION 10. The Inspector General has previously observed that Commissioners can resolve their concerns about a chairman’s actions by issuing and voting on a COM, the formal way commissioners decide upon policy. As a practical matter, should the Commission always be forced to use a formal voting process to convey Commission direction to staff and the chairman, or are there sometimes more efficient ways to convey the will of the Commission?

ANSWER:

The Commission is not limited to a single level of decision-making formality for all matters, and may choose to resolve some matters without a formal vote. For example, the Commission’s internal procedures also allow for more informal polling of the Commission by the Office of the Secretary, which will then document the voting in an agency record. With the exception of matters where a vote is required by statute or regulation (for example, Commission adjudicatory decisions), the Commission has flexibility to determine the most efficient and effective means to resolve a particular issue.

QUESTION 11. Please describe any action the Commission is taking to more promptly, fairly, and decisively administer adjudicatory matters, such as petitions and appeals, that come before the Commission.

ANSWER.

The Commission has in place processes to ensure prompt and fair resolution of matters that come before it. As stated in its 1998 *Statement of Policy on Conduct of Adjudicatory Proceedings*, the Commission seeks to provide meaningful hearing opportunities to the public, while at the same time providing license applicants a prompt resolution of disputes concerning their applications. The time needed for the consideration and resolution of an adjudicatory matter will be informed by a number of factors, including the nature of the legal and/or factual issues that must be decided. These issues may vary in number, and in legal and technical complexity.

The Commission is committed to acting promptly in considering the various adjudicatory matters that come before it. For example, the Commission itself presides over the mandatory hearings associated with combined license (COL) applications. Last year, the Commission approved a process to facilitate timely, effective decisions in these cases. The Commission's goal is to issue a decision within four months of the completion of the Staff's safety and environmental review documents. The Commission conducted the first two hearings of this kind, for the Vogtle and Summer COL applications, last fall. The Commission issued its decision in Vogtle six months after issuance of the Staff documents, and seven months for Summer. Although issuance of these decisions exceeded the four-month goal, given the first-of-a-kind nature of these hearings, the Commission believes it acted promptly, particularly in view of significant late-breaking issues in both cases, principally involving the development of new post-Fukushima requirements applicable to nuclear power plants. Moreover, following these hearings, the

agency undertook a lessons learned review and made some changes to the mandatory hearing process. The Commission expects to gain efficiencies in future mandatory hearings based on lessons learned from the Vogtle and Summer experiences.

With respect to appeals or other petitions that may come before it for resolution, we note that the Commission recently promulgated revisions to its rules of practice, which were intended to, among other things, make changes to promote fairness, efficiency, and openness in NRC adjudications. To name just one example, the Commission modestly expanded filing times for certain petitions and appeals filed with the Commission. This modest expansion is expected to allow litigants to provide to the Commission higher-quality, well-considered appellate briefs, which ultimately will facilitate faster and better-reasoned decisions from the Commission.

Finally, we note that, since the beginning of 2012, the Commission has issued sixteen adjudicatory decisions, already surpassing the fifteen decisions issued in 2011. The Commission expects decisions to proceed apace going forward.

QUESTION 12. As documented extensively in the June 2012 Inspector General report, the previous Chairman’s conduct was not supportive of an open and collaborative work environment.

- a. How important is this type of environment to the NRC and why?**
- b. What steps are being taken to restore confidence that the NRC has an open and collaborative work environment?**

ANSWER

- a. An open and collaborative work environment is one of the pillars that support the way the NRC approaches its mission to protect the public health and safety. This can be

described as a workplace where critical thinking, collaborative problem solving, unbiased evaluations, honest feedback, and respect for differing views are encouraged, recognized, and valued. It is also an environment where our organizational values (integrity, service, openness, commitment, cooperation, excellence, and respect) guide the actions we take – from decisions on safety, security and environmental issues, to how we perform administrative tasks, to how we interact with our colleagues and our stakeholders. This climate improves regulatory decision-making. The agency’s decisions improve when alternative approaches and diverse views are considered, even when those diverse views may not ultimately be adopted. To that end, an open and collaborative work environment encourages all individuals at all levels of the organization and across all the job functions to speak up and share concerns and differing views without fear of negative consequences. Additionally, an open and collaborative work environment is an effective method of transferring 'know how' among employees, therefore making it a key tenet of Knowledge Management and critical to creating and sustaining excellence. Finally, an open and collaborative work environment helps the NRC continue to be a high-performing organization by encouraging innovation.

- b. Expectations for an open and collaborative work environment are routinely communicated by managers and supervisors in a variety of formats (e.g., staff meetings, newsletters, postings throughout agency buildings, and web pages) and are included in orientation and training activities for newer employees. In addition, these expectations are continually reinforced and were most recently a key focus area communicated in July and August of this year during all supervisor and manager meetings with the Executive Director for Operations. During these meetings the Executive Director for Operations emphasized that managers and supervisors need to demonstrate through their daily behaviors that they are “living the agency’s values” through their actions.

In an effort to strengthen the focus on the critical role that management plays in an open and collaborative work environment, a number of new initiatives have been undertaken. This includes the addition of topics to the Executive Leadership Seminar Series for NRC managers, which, in turn, have been adapted into courses taught at NRC's Professional Development Center and made accessible to all staff. These courses include "Difficult Conversations" (a skill-based approach to mastering difficult and challenging conversations in the workplace); "Maintaining Civility" (a series of interactive activities, self-reflective questions, and discussions that examine the foundation for maintaining a civil workplace that supports cooperation, team work and partnership); "Promoting Emotional Intelligence in the Workplace" (a skill-based approach to examining the importance of emotional intelligence in the workplace and how managing your emotions can enhance your career); "Strategies for a More Engaged Workforce" (a 4-part discussion of the various ways to develop a workforce that feels a strong connection to the NRC's mission statement and values); and "Understanding the Role of Leadership in Creating and Maintaining Safety Culture" (a discussion of the relationship of organizational culture, and its influence on, a positive safety culture). Formal seminars and classroom training are also offered. For example, "Safely Speaking" is offered for managers and staff to help create an environment where employees feel free to raise concerns. In addition, NRC leverages the knowledge, skills, and abilities of professionals to aid managers in building capacity within their organizations by offering coaching, team building, and other interventions through its organization development program.

Additionally, retaliation against individuals who engage in the agency's Open Door Policy, Non-Concurrence Process, and Differing Professional Opinions Programs is specifically prohibited as described in the NRC's Management Directives for those

processes. The agency also requires biennial training for all employees on the Notification and Federal Employee Anti-Discrimination and Retaliation Act of 2002 (No FEAR Act). This training explains the provisions of the No FEAR Act concerning Federal employees' rights, protections, and remedies under anti-discrimination and whistleblower protection laws.

Employees have a number of avenues available within the agency for bringing up issues regarding possible retaliation for raising concerns or differing views. Management has the responsibility to take necessary actions to address concerns raised once they are made aware of them, in accordance with the specific process that applies to the situation. Additionally, available data from recently completed surveys such as the 2012 OPM Federal Employee Viewpoint Survey is expected shortly and its results will be reviewed to inform management actions, as appropriate. The 2009 NRC Office of the Inspector General Safety Culture and Climate Survey showed improving trends in the willingness of staff to raise concerns and engage in differing views processes. This triennial survey is being conducted again in September 2012, and management will review the information it provides to see where trends indicate successes and challenges for the agency in this area.

QUESTION 13. **The former Chairman was found by the IG to engage in workplace behavior that created a chilled work environment at NRC. Currently, NRC regulations forbid such activity on the part of its licensees.**

Please answer the following questions:

- a. What does the Commission intend to do to preclude future instances of behavior that create a chilled work environment at the NRC?**

- b. Does the Commission intend to work with the IG to ensure that future IG findings of undesirable or illegal behavior on the part of a Chairman, Commissioner, or senior manager requires a response to the IG as to how the Commission intends to address and preclude future incidents?**

ANSWER

- a. The Commission recognizes the importance of maintaining and promoting an open, collaborative work environment. As described in our response to Question 12, the agency has recently taken steps to reemphasize the importance of our supervisors and managers consistently demonstrating the behaviors that support our values. A variety of communication paths (e.g. leadership meetings, training, executive seminars, and written communications addressing expectations) are used to address the agency's understanding that an open, collaborative work environment recognizing our support for, and respect given to, differing views and opinions makes us a more effective agency.

Senior leadership continues to ensure supervisors and managers have a heightened awareness of how their behaviors can influence the staff and has stressed the importance of holding the agency leadership accountable if they are not exhibiting the values of the agency. The Commission has actively demonstrated support for the agency's values, maintaining an open, collaborative work environment, and the initiatives underway to ensure a positive work atmosphere within the agency. The Commissioners have also indicated progress regarding their efforts to enhance the collaborative work atmosphere among themselves.

The Commission has had a long interest in continuously improving NRC's internal safety culture. For example, the Commission directed staff in 2008 to identify potential improvements to NRC's internal safety culture. In response, NRC staff established the Internal Safety Culture Task Force (October 2008 to May 2009). Based on the results from a range of data collection activities and the experience and knowledge of its members, the Task Force developed a set of recommendations with the goal of creating effective and lasting improvements for supporting a positive safety culture throughout the agency. Many of these recommendations have been implemented or are being implemented.

The agency recently established an Agency Culture Advisory Group, composed largely of mid-level managers, as an interoffice group chartered to address organizational and safety culture issues within the agency. The advisory group is following up on a number of the Internal Safety Culture Task Force recommendations. In addition, the group developed a "Comprehensive Plan for Agency-wide Review of Safety Culture" in response to a tasking memorandum from the Chairman. The Comprehensive Plan proposes an agency-wide approach consisting of many ongoing and planned initiatives that will be used to strengthen and sustain the NRC's organizational and safety culture, and assist in avoiding a chilled work environment.

In an effort to assess the impact of the agency's initiatives regarding its work environment, senior leadership also intends to use the results from the most recent Federal Employee Viewpoint Survey (expected shortly) and the Office of Inspector General's Safety Culture and Climate Survey (underway) to gain insights from the staff about their current views on the work climate at the NRC, and will use this information to address areas for improvement, as appropriate.

- b. There is currently no Commission procedure that requires the Commission to respond to the Inspector General as to how the Commission intends to address and preclude future findings of undesirable or illegal behavior by a Chairman, Commissioner, or senior managers. Because findings of such behavior by these officials are rare, it would seem advisable to address each instance, as appropriate, on a case-by-case basis as it may arise.

QUESTION 14. In the NRC response to Majority letter requesting information on the safety culture at the NRC, some information about safety culture and related assessments was provided with the request that the information should not be made public. Since such assessments rely on employee's offering frank and candid views, how might the value of these assessments be impacted if participating employees feared their views would be made public?

ANSWER.

The agency's expectations for an open, collaborative work environment, which encourages all employees and contractors to promptly speak up and share concerns and differing views without fear of negative consequences, are built on trust. Other mechanisms, such as anonymous employee email response systems and the NRC Office of Inspector General Safety Culture and Climate Survey (OIG Survey) and the Federal Employee Viewpoint Survey (FEVS) that promise to protect the individual's identity are also built on trust. When anonymity is promised, the agency must be conscientious in ensuring that employee trust is not violated. To accomplish this, the OIG Survey and the FEVS, for example, are constructed to protect employee identities. The historical participation rate for these surveys indicates that employees

feel they can trust those collecting the information to maintain their anonymity and that management will use the resulting information to improve the agency.

- QUESTION 15.** **Please describe how allegations about a supervisor’s treatment of an employee or employee concerns are addressed within the NRC.**
- a. How are anonymous allegations addressed?**
 - b. Would the NRC make public the names of individuals who are the subject of anonymous allegations? W/If not, why not?**
 - c. What is NRC’s process for ensuring all employees are treated fairly when allegations are made about an individual?**

ANSWER.

The NRC organizational values of Integrity, Service, Openness, Commitment, Cooperation, Excellence and Respect (NRC values) guide our treatment of employees. These NRC values are continually reinforced and publicized to all supervisors and employees throughout their NRC tenure. Additionally, the NRC encourages an open and collaborative work environment that encourages all employees to promptly raise concerns and differing views without fear of reprisal. An open and collaborative work environment improves our regulatory decision-making as we recognize the value of considering alternative approaches and diverse views, even when the views may not be adopted.

We have interpreted this question as asking what action we would take when a supervisor treats an employee’s concerns in a manner that is not consistent with our values. In subpart (c) below, we discuss the various avenues available to employees that are the subject of harassment or other conduct not consistent with our values; however, there is no requirement that concerns about the treatment of an employee be raised through a formal process. At any

time, NRC management may take disciplinary action to address inappropriate conduct, such as retaliation against an employee for engaging in protected conduct. In addition, the most powerful tool is proactive management and leadership. We place a heavy emphasis on ensuring that our leadership and managerial staff have the skills and tools they need to perform at a high standard. To this end, the agency has established a defined leadership development program to provide supervisors with the training and development they need to be effective in that role. We also provide resources that enable managers and leaders throughout the agency to access professional organization development (OD) services, which includes individual leadership coaching and 360-degree assessments. These OD services can be used at the request of senior management to diagnose and address concerns regarding staff's ability to perform their job in an open collaborative work environment. Additionally, the agency requires biennial training to all employees on the Notification and Federal Employee Anti-Discrimination and Retaliation Act of 2002 (No FEAR Act). This training explains the provisions of the No FEAR Act concerning Federal employees' rights, protections, and remedies under anti-discrimination and whistleblower protection laws.

- a. Anonymous allegations provide potentially valuable information but are difficult for any regulatory agency to address. The competing needs of encouraging the articulation of employee concerns in any form must be balanced with the difficulty of pursuing allegations, often without all the requisite information and facts. This may be further complicated where there have been allegations of wrongdoing by an agency official, as that official is also entitled to fairness and certain due process rights.

Recognizing that information from anonymous complaints can be very important, the NRC's Differing Professional Opinion (DPO) Program accepts differing professional opinions confidentially, but not anonymously. If an employee wishes to submit a DPO

but also wants to protect his/her identity, that employee may file a DPO confidentially by submitting an unsigned DPO to an NRC manager or, if the employee prefers, to the DPO Program Manager, either of whom may agree to act as a surrogate submitter. However, the best person to fully present and answer any questions to the panel reviewing the DPO is the employee who submitted the concern. Finally, DPO procedures highlight that all employees involved in the process to evaluate DPOs exercise discretion and treat matters sensitively. Regardless of whether an employee submits a DPO confidentially, the employee's name is not to be used in discussions by managers and employees involved in the review of the DPO.

The NRC Allegation Program is a program for the general public and those working in NRC-regulated activities to raise concerns about NRC licensees and others subject to NRC authority. Under the Allegation Program, the identities of individuals who report nuclear safety concerns are protected, if resolution of a concern does not require disclosure of an individual's identity. However, allegers are expressly informed that disclosure may be necessary in furtherance of a wrongdoing investigation, including an investigation of discrimination for raising a safety concern. The NRC applies this same concept to our own employees.

Anyone may raise anonymous complaints to the NRC Office of the Inspector General (OIG). The OIG will investigate anonymous complaints when sufficient information is provided.

- b. No. Anonymous allegations are first and foremost allegations and we would not risk damage to the reputation of an employee based solely on an allegation. Allegations must be thoroughly reviewed and investigated before any findings can be released

publicly. Additionally, anonymous allegations can be inherently unreliable prior to investigation as the scope of access and knowledge of the alleged is unknown.

- c. All the NRC program processes are designed to ensure that employees, both the alleged and alleged (if applicable), are treated fairly. Retaliation against individuals who engage in the Open Door Policy, Non-Concurrence Process, and the Differing Professional Opinions Program is specifically prohibited by applicable laws and agency policy. In most cases, issues are raised and resolved directly and informally with the supervisor or other members of management. If not, there are NRC programs and initiatives to ensure that allegations about a supervisor's treatment of an employee or employee concerns are promptly and fairly addressed. As indicated, employees are encouraged to use the NRC open door program, which provides an employee access to the most senior management, up to and including the Executive Director for Operations. Alternatively, if an employee believes that he/she is the subject of harassment or discrimination, that employee may bring such concerns through the Equal Employment Opportunity Process, pursuant to 29 CFR §1614, or under our Policy and Procedures for Preventing and Eliminating Harassing Conduct in the Workplace. The latter is designed to prevent sexual harassment and other forms of harassing conduct based on race, color, religion, national origin or other protected classes. The program provides an expedited, fair, and impartial process for reviewing allegations of harassing conduct as defined in the policy.

Employees can also raise concerns through the collective bargaining grievance process with the National Treasury Employees Union if the employee is in the bargaining unit and the administrative grievance process if the employee is outside the bargaining unit. Employees and their representatives may also make allegations to the NRC Office of the

Inspector General. The above listed avenues are provided as examples and not intended to be a comprehensive listing. There may be other options available depending on the circumstances of the situation, including avenues outside of the agency, such as the U.S. Office of Special Counsel and the U.S. Department of Labor. The same whistleblower protections that apply to NRC licensee employees also apply to NRC employees and contractors. Section 629 of the Energy Policy Act of 2005 included NRC employees within the population of individuals covered under the Energy Reorganization Act (ERA) employee protection statute (Section 211). It is illegal for the NRC to discriminate against an NRC employee or contractor who raises safety issues or otherwise engages in protected activities covered under section 211 of the 1974 ERA, as amended.

The NRC has the responsibility to take necessary actions to address concerns raised by its employees, in accordance with the specific process that applies to the situation. The workplace environment and the avenues available for raising concerns are areas of continued focus, vigilance, and commitment by the agency.

**Continuation of Follow-Up Questions for Written Submission for Chairman Macfarlane
from Honorable John Shimkus (Page 5 of Incoming Document)**

**QUESTION 11. What has been the impact of the NRC’s post-Fukushima reviews on
fuel cycle facilities in the United States other than Metropolis?**

ANSWER.

On September 30, 2011, the staff issued temporary instruction (TI) 2600/015, “Evaluation of Licensee Strategies for the Prevention and/or Mitigation of Emergencies at Fuel Facilities” (ADAMS Accession No. ML111030453). From December 2011 through May 2012, the staff conducted inspection activities in accordance with the TI at seven operating fuel cycle facilities licensed under 10 CFR Part 70, “Domestic Licensing of Special Nuclear Material,” 10 CFR Part 40, “Domestic Licensing of Source Material,” and 10 CFR Part 76, “Certification of Gaseous Diffusion Plants.” As a result of the TI inspection activities, the staff identified unresolved items related to the current Part 70 requirements and the current licensing basis of the facilities. These unresolved items need further evaluation by the staff and licensees to determine whether licensees are in compliance with regulatory requirements regarding accident sequences as a result of tornado and seismic natural phenomena events. Fuel cycle facility licensees are considering approaches and actions, both generic and facility-specific, to resolve the open issues associated with the TI-related inspections. The staff is also currently evaluating the TI results to determine appropriate NRC regulatory actions.

**QUESTION 12. Does the Commission commit to reviewing the current situation at
Metropolis against the current licensing and design basis, and to do
so in a timely and predictable manner?**

ANSWER.

The NRC will evaluate Honeywell's corrective actions in a timely and predictable manner using existing enforcement policy and focusing on those areas where Honeywell is not in compliance with the current regulatory requirements. NRC oversight of Honeywell's corrective actions will include inspection and assessment of the actions as they are planned, implemented, and completed. Honeywell has agreed to inform the NRC of the schedule for corrective actions and associated implementation such that NRC has sufficient time to inspect the adequacy of the corrective actions.

**QUESTION 13. What process is the NRC using to evaluate the restart of the
Metropolis facility?**

ANSWER.

The NRC issued Honeywell a Confirmatory Action Letter (CAL) on July 13, 2012, confirming commitments made by Honeywell to resolve safety concerns prior to restarting licensed operations at the Metropolis facility. These commitments include obtaining written consent from the NRC prior to the resumption of licensed operations. NRC oversight of Honeywell's corrective actions will include inspection and assessment of Honeywell's completed actions to ensure that the Emergency Response Plan is consistent with the design and operational limitations of the Metropolis Works facility. The NRC will provide the results of its assessments and basis for authorizing restart, if appropriate, in a letter to Honeywell. These assessments will be based on reviews by NRC staff, which will be documented in inspection reports and other written reports.

QUESTION 14. **The Commission has indicated that its post-Fukushima reviews are ongoing. Are there any other ongoing Commission initiatives that could lead to changes in the design or licensing basis for Part 40 facilities, such as Metropolis? How will the NRC take into account the effects of these initiatives on the licensing/design basis for Part 40 licensees?**

ANSWER.

Since 2007, the NRC has been developing a new rule for Part 40 facilities that are authorized to possess 2000 kg or more of uranium hexafluoride source material. If approved by the Commission, the staff expects this rule will require that facilities, such as Honeywell in Metropolis, IL and the proposed International Isotopes Fluoride Products Inc. in Lea County, NM, develop and implement an Integrated Safety Analysis (ISA).

Under the proposed requirements, licensees and applicants would have to evaluate licensed activities and identify all accident sequences; rank them based upon their potential safety significance as low, intermediate, or high consequence; and then implement engineered and administrative controls to mitigate or prevent the accidents. In addition, the ISA would establish baseline design criteria for new facilities based on local natural hazards, require establishment of a formalized quality assurance program, and ensure that key safety systems are maintained over time.

Licensees would be required to update the ISA as changes occur at the facility and requires that annual updates be provided to the NRC. Maintaining the safety basis as the facility changes and in response to new information (e.g., updates in seismic risk estimates) allows the licensee and the NRC staff to identify potential problems early, before they result in safety issues.

QUESTION 15. **What are the Commission's policies relating to finality and regulatory stability, once a license is issued? What findings must the NRC make before imposing new/different requirements on existing Part 40 licensees?**

ANSWER.

Prior to proceeding with a rulemaking, the NRC performs a technical assessment of the rulemaking issue that identifies the problem or issue to be resolved, considers option(s) for resolving the identified issue, discusses whether a technical basis exists for undertaking the proposed option(s) and whether the proposed option(s) is within the NRC's statutory jurisdiction, and considers whether the rulemaking will be necessary to ensure adequate protection from radiological hazards and be cost-effective. Although compliance with existing regulations ensures safety, security and protection of the environment, from time to time the evolving nature of the nuclear industry, new advances in technology, emerging security threats, natural disasters, and other developments reveal a need to update existing regulations. The deliberative nature of the rulemaking process supports regulatory stability.

Before finalizing a rulemaking under Part 40 of Title 10 of the *Code of Federal Regulations* (10 CFR Part 40), the NRC must establish whether the rule would be protective of the public health and safety, and promote the common defense and security. Rulemaking is generally a multi-year process that involves significant public and industry participation and Commission oversight.

QUESTION 16. **Has the NRC been in contact with the Department of Energy and the National Security Council to discuss the impact of temporary**

shutdown of Metropolis on U.S. policy, including US defense capabilities and national security?

ANSWER.

Preliminary discussions concerning the shutdown of the Metropolis facility have taken place between the NRC and DOE staffs. Further interagency discussions will be held, as necessary. NRC's focus is on ensuring safety and security of its licensed facilities but is committed to open communication and cooperation with our Federal partners.

The Honorable John D. Dingell

QUESTION 1. Does the NRC have the funding to move forward and continue to evaluate and license the Yucca Mountain facility?

ANSWER.

NRC must finance its participation in the Yucca Mountain proceeding solely with funds appropriated from the Nuclear Waste Fund. Congress appropriated no funding from the Nuclear Waste Fund for NRC in FY 2012. NRC currently has approximately \$10.4 million available in unobligated carryover funds appropriated in prior years from the Waste Fund. This amount is insufficient for NRC to complete both the technical review and the proceeding, both of which are necessary to reach a final licensing decision.

QUESTION 2. The NRC presently has before it an application that involves Autoliv, Inc., an employer in Michigan, which has submitted documentation in support of its petition to transfer its license to operate Aerotest Operations, Inc., to Nuclear Labyrinth, LLC. This transfer represents an opportunity to preserve a long-term domestic base capability to effectively test critical lifesaving devices and pyrotechnic materials relied upon by the men and women of the U.S. military. Because it is not expected that the Aerotest facility will return to operation and resume the services that are important to our military unless and until this transfer is approved, I would ask that the NRC provide me with the status and a timeline for its expected evaluation of the application.

ANSWER.

On May 20, 2012, and supplemented on July 19, 2012, Aerotest Operations, Inc., and Nuclear Labyrinth, LLC, (the “applicants”) submitted an indirect license transfer application to NRC. On August 14, 2012, the NRC completed an acceptance review to determine the sufficiency of the application, and began evaluating the transfer application.

NRC plans to issue a request for additional information by September 14, 2012 - this information is needed to complete the detailed financial and technical evaluation. The applicants will have 30 days to provide a response to the request. NRC plans to issue a *Federal Register* Notice of receipt of the application and provide an opportunity for “interested persons, including the existing licensee” to request a hearing within 20 days after issuance of the Notice and/or provide written comments within 30 days of issuance of the Notice.

Once a complete and acceptable application is received, and if no hearing is requested, NRC expects to complete the safety evaluation of the transfer application and either deny or approve the application in six to eight months. If NRC approves the application, then the licensee will have three to six months to complete the transfer.

The Honorable G.K. Butterfield

QUESTION 1. **Your testimony says that NRC has issued three orders to licensees to implement the Fukushima lessons learned. Licensees are required to submit their plans for implementing these requirements to the NRC by February 28, 2013.**

What happens if the licensee doesn't submit a plan by that date?

What are the consequences?

ANSWER.

The February 28, 2013, deadline to submit an integrated plan for implementation of the orders is a requirement contained within the orders themselves. Therefore, failure on the part of a licensee to submit its plan by that date, or receive an NRC-approved extension of the deadline, would be a violation of the orders and subject to the NRC's enforcement policy. In accordance with this policy, such a failure to comply could result in civil penalty fines or even suspension or revocation of the license. The NRC has observed industry efforts to implement these orders in a timely manner. The NRC has conducted significant public and industry outreach throughout this process and expects that licensees will meet the deadlines outlined in the orders.

QUESTION 2. **What will NRC do to ensure that these plans are thorough and adequate to implement each order?**

ANSWER.

On August 29, 2012, the NRC issued final implementation guidance for all three orders. These guidance documents lay out the details of what the NRC staff deems to be an acceptable way to meet the requirements of the orders. The NRC staff will review each licensee's site-specific implementation plan for each order, and write a safety evaluation that documents the NRC's conclusions about the adequacy of the licensee's plan. Implementation of the orders is also subject to NRC inspection.

QUESTION 3. What happens if the licensee doesn't complete implementation by that date? What are the consequences?

ANSWER.

The deadline of the earliest of two refueling cycles after submittal of a plan or December 31, 2016, is a requirement contained within the orders themselves. Therefore, failure on the part of a licensee to complete implementation by that date (without an NRC-approved extension) would be a violation of the orders and subject to NRC's enforcement policy. In accordance with this policy, such a failure to comply could result in civil penalty fines or even suspension or revocation of the license. At this time, we have been encouraged by the positive, collaborative effort put forth by the industry to implement these orders in a timely manner. We have conducted significant public and industry outreach throughout this process and fully expect that licensees will meet the deadlines outlined in the orders.

QUESTION 4. What will you do to ensure that new reactors implement all relevant post-Fukushima safety requirements before they begin operation?

ANSWER.

For applications still under review, the Office of New Reactors (NRO) is addressing all relevant Fukushima requirements through requests for additional information to each applicant. For combined licenses (COLs) that are already issued, NRO issued orders or information requests as necessary. The NRC staff is addressing all design-related issues as part of the design certification process and will assure resolution of those issues prior to certification. For the COL application reviews, the NRC staff will address post-Fukushima requirements as part of the standard review and will condition licenses and develop inspections, tests, analyses and acceptance criteria, where necessary.

QUESTION 5. You mentioned in your testimony that a review of external hazards will begin after flood hazard assessments. Has the NRC reviewed dangers posed by hurricanes?

ANSWER.

As part of the Near-Term Task Force Report Recommendation 2.1 regarding flood hazard reevaluations, licensees will be reevaluating all flood hazard mechanisms at each nuclear power plant site. This includes hurricane-induced flood effects, such as locally-intense rainfall, storm surge, and river flooding. This is a Tier 1 activity and is currently underway. Other hazards, including wind loads on structures from hurricanes will be reevaluated as part of the Tier 2 activities, for which the NRC staff has developed plans but not yet issued requests for information or action to licensees.