

August 8, 2016

Victor McCree, Executive Director for Operations  
United States Nuclear Regulatory Commission  
Washington, DC 20555-0001

**SUBJECT: Request About Requests for Additional Information**

Dear Mr. McCree:

By letter dated July 14, 2016, I submitted a petition (ADAMS ML16196A294) on behalf of the Union of Concerned Scientists (UCS) under 10 CFR 2.206 requesting that the Nuclear Regulatory Commission (NRC) take enforcement action in the form of a Demand For Information to a licensee about a *prima facie* violation of requirement under 10 CFR 50.9 that submittals be complete and accurate in all material respects.

UCS took this step as a follow-up to “The NRC and Nuclear Power Plant Safety in 2012: Tolerating the Intolerable,” a report we issued in March 2013. Chapter 5 of our report contained a section titled “Incomplete and Inaccurate Statements” describing our concern with NRC’s Requests for Additional Information (RAIs) and applicable regulatory requirements under 10 CFR 50.9. Excerpts from this report are enclosed.

After that report was issued, I had discussions with several NRC staffers and managers about the process used by the NRC when issuing RAIs. Specifically, I sought to understand if the NRC formally determined whether a violation of 10 CFR 50.9 potentially contributed to the need for the RAIs. It is my understanding that the NRC conducts no formal, routine assessments when preparing RAIs to determine whether 50.9 violations may be involved. Instead, the NRC employs an informal “I know a candidate violation if and when I see one” approach. This casual approach does yield periodic sightings, as recent 50.9 violations issued to Browns Ferry (ADAMS ML14119A483), Exelon (ADAMS ML14105A338), and Wolf Creek (ADAMS ML16028A003) clearly demonstrate.

I then researched the history behind the NRC’s promulgation of 10 CFR 50.9 and learned that the operating license proceeding for North Anna (specifically relating to seismic information arising during that proceeding) factored significantly to the problem that 50.9 was adopted to solve. This record is very clear that 50.9 violations are not confined to cases of deliberate misconduct or willfulness. Instead, 50.9 recognized that the NRC does not fact-check the contents of submittals from its licensees and must rely on that material being complete and accurate in order to discharge its regulatory responsibilities.

Our recent 2.206 petition was the first in a lengthy series of planned steps intended to induce the NRC into adopting a more structured approach to determining when 50.9 violations may have occurred. The RAIs seemed a solid example of a process deficiency begging to be remedied.

Prior to the July 26, 2016, Commission meeting with external stakeholders, I had honestly but naively believed that virtually every RAI represented *prima facie* evidence of a possible 50.9 violation. After all

50.9 requires that submittals be complete and accurate in all material respects and the NRC staff would not be issuing RAIs for immaterial information. The transcript from that meeting (ADAMS ML16211A314) reveals several industry stakeholders bemoaning RAIs issued without just cause including Mr. Koehl (page 20, lines 11-14), Ms. Schlueter (page 57, lines 8-10), and Mr. Heacock (page 141, lines 6-10). During offline conversations with industry stakeholders that day, I heard recurring themes about new NRC reviewers asking questions that had been asked and answered long ago and other NRC staffers asking questions well outside the scope of the subject licensing action.

Whereas performance shortcomings on the part of licensees may create the need for RAIs, I heard that performance shortcomings on the part of the NRC staff may create RAIs that are unneeded. With the industry's Delivering the Nuclear Promise initiative and the NRC's Project AIM effort, there is ample incentive for "Goldilocks" RAIs; only those RAIs absent performance shortfalls by licensees and NRC staff.

To better inform pathways to "Goldilocks" RAIs, I recommend that the NRC audit all the RAIs issued over a two or three month period. That period would preferably be recent, but sufficiently in the past to permit the bulk of the final agency decisions on the subject licensing actions to be completed. Completion of the licensing actions will assist the audit determine whether RAIs factored into the agency's decision-making process or were outside its scope.

The results from this audit would likely define a small handful of primary causes for the RAIs. This awareness would shape decisions about resource allocations for optimal movement towards "Goldilocks" RAIs (e.g., generic communications about industry's responsibilities under 50.9, staff training on ways to research topics for past regulatory decisions, and/or procedure upgrades to better manage RAIs). The results will provide examples that can greatly aid the communications roll-out for any efforts.

As the NRC contemplates whether to conduct an RAI audit or comparable measure, UCS will suspend the remainder the steps we had planned to follow-up on our 50.9/RAIs concern. We reserve the right to resume these planned steps, but earnestly hope that measures to be undertaken by the NRC staff will render them moot and achieve a superior outcome.

Sincerely,

A handwritten signature in blue ink that reads "David A. Lochbaum". The signature is fluid and cursive, with the first name being the most prominent.

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Enclosure: as stated

# The NRC and Nuclear Power Plant Safety in 2012: Tolerating the Intolerable

DAVID LOCHBAUM



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

*March 2013*

## CHAPTER 5. NEGATIVE OUTCOMES FROM NRC OVERSIGHT

This chapter describes situations where lack of effective oversight by the NRC led to negative outcomes. These outcomes are not necessarily the worst the NRC achieved last year. Rather, they shed light on practices and patterns that prevent the NRC from achieving the return it should from its oversight investment.

### Safety Culture

In 2011, the NRC issued a policy statement on safety culture that stated “The Commission expects the members of the regulated community to take the necessary steps to promote a positive safety culture by fostering the nine traits outlined in the policy statement as those traits apply to their specific activities” (NRC 2012w). The NRC stated:

*“Safety culture” refers to the core values and behaviors resulting from a collective commitment, by leaders and individuals, to emphasize safety over competing goals to ensure protection of people and the environment.*

The NRC identified nine traits—a trait being “a pattern of thinking, feeling, and behaving”—associated with a positive nuclear safety culture:

- **Leadership Safety Values and Actions**—Leaders demonstrate a commitment to safety in their decisions and behaviors.
- **Problem Identification and Resolution**—Issues potentially impacting safety are promptly identified, fully evaluated, and promptly addressed and corrected commensurate with their significance.

NRC documents about the hazard at Oconee and other nuclear plants were also inappropriately withheld from the public. And Senator Boxer certainly did not receive honest answers to her question during that Senate hearing on March 15, 2012, with the triple meltdown risk at Oconee known by the NRC but not yet resolved.

The NRC's credibility is jeopardized when it improperly withholds information<sup>11</sup> from the public and Congressional oversight committees. If explicit details about the Jocassee Dam's failure modes and associated vulnerabilities at Oconee warrant being withheld for national security considerations (i.e., not providing those who wish us harm the blueprints for conducting successful attacks), by all means do so. But a detail-lite version of the hazard could be made public to balance the public's right to know with the need to guard some information.

The NRC demonstrated achieving this balance in one area after 9/11. The NRC did not withhold all security information. Instead, it informed the public that it was taking steps to improve controls over access to nuclear plants and better protect against insiders and outsiders seeking to sabotage the plants. It quite properly withheld explicit information such as the height of security fences, locations of security cameras, and number of security force personnel at individual plants. But it publicly discussed the security threat and the general steps being taken to protect against it. And as described in Chapter 4, the NRC conducted an international conference on security that was open to the public, clearly demonstrating that it can discuss sensitive topics publicly while maintaining the proper balance of confidentiality.

Americans deserve comparable notification about flooding risks facing the nuclear plants.

## Incomplete and Inaccurate Statements

An NRC regulation, specifically §50.9 in Title 10 of the Code of Federal Regulations, requires that information submitted to the NRC by plant owners "be complete and accurate in all material respects" (NRC 1987).

When the NRC staff reviewing applications for licensing action (e.g., permission to operate reactors at higher power levels and requests to reduce the frequency and scope of safety tests) by plant owners identifies additional information it needs to complete its evaluations, the NRC sends a request for additional information (RAI). Each RAI contains one or more questions that the NRC staff needs answered.

A search of the NRC's record-keeping system (called ADAMS for Agencywide Documents Access and Management System) for documents containing the phrase "request for additional information" authored by the NRC and sent to nuclear plant owners returned over 1,000 records just in 2012 alone.

The huge volume of RAIs during 2012—a number typical of prior years—clearly shows that the NRC staff has a questioning attitude. They literally asked thousands of questions of plant owners last year.

<sup>11</sup> The NRC classified the Jocassee Dam materials as Official Use Only, a classification with no legal basis and employed only to keep documents from the public.

But they are apparently not asking one key question—did the owner violate §50.9 by failing in the first place to submit information that was complete and accurate in all material respects?

The large number of RAIs submitted by the NRC staff constitutes *prima facie* evidence that violations may have occurred. But the NRC's RAI process does not include even a screening to evaluate formally whether a §50.9 violation is the reason for (or contributed to) the incomplete and/or inaccurate submittal prompting the need for the RAI.

Not every RAI represents absolute evidence of a §50.9 violation. Yet it is foolhardy to assume that no RAI could ever be the result of a §50.9 violation. But that seems to be the basic assumption behind the NRC's RAI process.

I know from personal experience that assumption is flawed. I worked as a consultant in the licensing departments at the Grand Gulf Nuclear Station (in Port Gibson, MS) and Hope Creek Generating Station (Hancocks Bridge, NJ). At Grand Gulf, the process for preparing documents being submitted to the NRC included speculating about any questions the NRC's reviewers might raise. This exercise was conducted so as to revise the draft to answer those potential questions. The objective was to submit material to the NRC that yielded no, or very few, questions from the agency.

The process at Hope Creek was fundamentally different. There, the process was not to volunteer any information in material being submitted to the NRC. "Make them ask," was the phrase I heard over and over from licensing supervisors in explaining why they had lined through statements and paragraphs in draft documents.

Consequently, an RAI to Grand Gulf was less likely to be a §50.9 violation and more likely to a question that honestly was not anticipated. Conversely, an RAI to Hope Creek might very well address material information that the owner had anticipated would be required but forced the agency to request.<sup>12</sup>

The NRC must take §50.9 seriously. When it issues RAIs to plant owners, the NRC must formally determine whether the reason for the RAIs might be §50.9 violations. That over 1,000 sets of RAIs were sent to plant owners during 2012 strongly suggests that some §50.9 violations were overlooked.

The NRC sanction plant owners that deliberately seek to avoid compliance. Such behavior is part and parcel of a regulator's job.

## Observations on Ineffective NRC Oversight

It is laudable that the NRC wants plant owners to establish and maintain positive safety cultures at their nuclear plants. It is laughable that the NRC's own safety culture is so wanting.

The U.S. Congress played a key role in compelling the NRC to improve safety cultures at nuclear power plants. The 2002 discovery of severe reactor vessel head degradation at Davis-Besse was attributed to its owner placing production ahead of safety. The NRC appeared before an oversight subcommittee of the Senate's Environment and Public Works Committee

<sup>12</sup> I hasten to point out that I worked at Grand Gulf and Hope Creek years ago. Policies and practices could easily have changed at these plants since then. However, my more recent communications with colleagues working in licensing departments at U.S. reactors suggests that the "make them ask" approach is not yet extinct.

outlining the many steps it was taking in response to the Davis-Besse debacle. It did not propose doing anything directly about the stated root cause—namely, the owner having lost the proper safety focus. Senator George Voinovich, chair of the subcommittee and representing Ohio where Davis-Besse is located, gave the NRC an option: either address safety culture issues itself or the Senate would do so by legislation. It was an option having only one choice and the NRC made the right choice. The NRC revised its reactor oversight process to include safety culture elements.

It is imperative that the U.S. Congress compel the NRC to take steps to correct its safety culture problems and show marked improvement during the next work force survey in 2015.

The common thread among the remaining negative outcomes involves inadequate enforcement of federal regulations. In the Waste Confidence Decision example, the court vacated the NRC's 2010 Waste Confidence Decision after determining that the NRC failed to comply with provisions of the National Environmental Protection Act. The court's action provides assurance that the agency will comply. In the future, the NRC should comply on its own.

The NRC should emulate the court by making nuclear plant owners comply with federal regulations, too. Safety requirements prohibit reactors from operating for more than six hours with reactor coolant pressure boundary leaks; yet they do so again and again with NRC's tolerance. Federal regulations require plant owners to provide information to the NRC that is complete and accurate in all material respects. The NRC asked more than 1,000 sets of questions to plant owners just last year, strongly suggesting that the NRC is not getting complete and accurate information. Yet the NRC does not formally evaluate whether owners violated this federal regulation—and by not doing so, tolerates inadequate performance by plant owners.

The NRC's job is more than just establishing safety standards at appropriate levels. It also involves consistently enforcing them. From a public health perspective, the only thing worse than having safety standards set improperly is having them set properly but not followed. Setting safety standards properly means one knows what it takes to protect public health. Failing to enforce them means one really doesn't care if the public is protected or not. That is unacceptable.