



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

July 13, 2001

Mr. Glenn Tracy, Chief
Operator Licensing, Human Performance and
Plant Support Branch - Mail Stop O-6 D17
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Mr. Tracy:

As usual, the public meeting on Wednesday, July 11, 2001, was extremely helpful to me. The policy discussion enabled me to put the SECY paper and SRM in context and to at least understand why certain actions were or were not taken.

Regarding my concern about the public availability of information to gauge success against the four stated acceptance criterion for the Safeguards Performance Assessment (SPA) pilot, I concur with your response that public meetings can provide that forum. The public meetings on physical protection have been very open and informational, and will undoubtedly continue to be so. However, the fact remains that their value is limited to those few who are able to attend them. To reach out to the majority of stakeholders, both internal and external, I urge the staff to develop non-safeguarded documentation for each NRC inspection during the SPA pilot. For example, the staff could use a template that quite literally compares what is done during the SPA versus what would have been done during the Operational Safeguards Response Evaluation (OSRE). Particulars about the defensive strategy employed and any weaknesses identified would, of course, not be contained in this template. But I think it would be useful, and not too labor-intensive, to develop and use a template that addresses elements such as:

- Frequency of drill/exercise
- Scope of drill/exercise
- Number of scenarios contained in the drill/exercise
- Who selected/defined the scenarios

A more comprehensive template completed for all of the NRC inspections during the SPA pilot would help stakeholders evaluate the various pluses and minuses of SPA versus OSRE. The information in the completed template could be discussed during the public meetings and it would also be available to people unable to attend the meetings.

Regarding my concern about reducing the number of OSREs from eight to six, I appreciate your response that the six OSREs supplemented by NRC inspections during the SPA pilot provides the staff with equal, perhaps greater, insights than those obtained during eight OSREs. But it is not the quantity of information that I challenged, it is the quality of that information. Your memo dated November 17, 2000, defined the three criteria to be used by the staff in selecting sites for OSREs:

1. Time since last OSRE
2. Security performance issues identified through recent inspections
3. Recent significant changes to security program

Although not explicitly stated in your memo, I presume that use of these selection criteria will target sites more likely to have security program weaknesses than a comparable number of sites selected at random. If that is the case, than substituting two or more SPAs for two OSREs does not provide the same level of public protection because the SPA sites may be less vulnerable. After all, the SPA sites are not selected using comparable criteria. Thus I remain unconvinced that the OSRE reduction does not also represent a reduction in safety. I know for an absolute fact that it represents a reduction in the confidence of at least one member of the public (me).

Regarding my concern that the force-on-force exercises are unrealistic because they are always conducted during evening and midnight shifts with the nuclear plant at power when the security responders can reasonably expect anyone they encounter to be an adversary, I concur with your response that this fact applies to both OSREs and SPAs. True enough, but a key objective of the SPA pilot is to obtain lessons learned to benefit the ongoing security rulemaking effort. Because the proposed rule states that reactor core damage and spent fuel sabotage must be prevented "in any mode of operation,"¹ the SPA pilots provide wonderful opportunities to "road test" force-on-force exercises conducted at other times, such as on dayshift during a refueling outage, and learn lessons that may impact the final rulemaking. If the staff waits until after the SPA pilot and after the security rulemaking is completed to urge licensees to conduct exercises at times other than dead of night during plant operation, the "backfit" card will be played and more realistic exercises delayed.

On a related note, paragraph 6.12.2(b) of Dominion Resources' SPA implementing procedure requires adversaries to wear red hard hats.² I had facetiously commented during Wednesday's meeting that running drills on backshifts is like making the adversaries wear cow bells around their necks because responders know that virtually anyone they encounter will be an adversary. I was not then aware that the industry has substituted red hard hats for cow bells. During an actual attack, the security responders would be delayed by first ascertaining the identity of people they encounter. They would not have the advantage of being able to freely fire upon the red hats, unless of course the intruders could be persuaded to always wear red hats also.

Regarding Mr. Rosanno's opposition to my usage of the 47% statistic for significant security weaknesses identified during OSREs, my source of information was not the *Los Angeles Times* as he implied. My source is the publicly-available Differing Professional Opinion dated February 3, 1999. Mr. Rosanno said that the statistic came from a single NRC staffer, yet this DPO stated that "Thomas W. Dexter, Senior Security Inspector Region IV, Dennis W. Schaefer, Security Inspector, Region IV, A. Bruce Earnest, Security Inspector, Region IV" read and supported the DPO prepared by Captain David N. Orrik. By my count, that's at least four staffers. Regardless of the staff count, the DPO explicitly described that the 47% statistic was derived from 40 exercises at 27 of the 57 sites (47%) evaluated under OSRE up to that time revealing a significant weakness. "Significant weakness" was defined as being when "a licensee fails to meet the four security sub-criteria," with the sub-criteria being "the ability of responding officers to arrive at suitable interdicting positions in timely fashion, in sufficient numbers, and appropriately armed and equipped." The DPO stated that the significant weaknesses identified at these 27 sites meant "that a real attack would have put the nuclear reactor in jeopardy with the potential for core damage and a radiological release." The DPO fully documented the basis for the 47% statistic and I don't believe that I used the statistic out of context.

¹ <http://www.nrc.gov/NRC/COMMISSION/SECYS/secy2001-0101/attachment1.pdf>

² Dominion Resources, Department General Order GO-004 Rev. 0, "Safeguards Performance Assessment Program," May 1, 2004 (appears as Tab 10 in the SPA Toolbox)

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Mr. Rosanno claimed that the agency does not endorse the 47% statistic. Quite frankly, I am at a loss to understand why not. I re-read the DPO dated February 3, 1999, to refresh my memory on the context of the statistic. I also re-read information on the interim physical protection significance determination process to refresh my memory on the agency's current position on "significant weakness" related to OSRE findings. A GREEN finding is defined as:

Green (very low safety significance) - A finding in which the licensee has failed to adequately perform a limited portion of the protective strategy or a protective strategy deficiency this is of very low safety significance. The performance failure could result in the loss of a single target set. The performance failure is isolated in nature, such as deficiencies associated with specific response actions, not associated with procedures or training deficiencies. This finding is not considered predictable and repeatable.³

WHITE, YELLOW, and RED findings obviously involve larger problems than those captured within this definition. "Significance" is currently defined by the agency to mean:

Significance. The quality of being important: As used in this Inspection Manual Chapter (IMC), it involves the consideration of (1) actual safety consequences; (2) potential safety consequences, including the consideration of risk information; (3) potential for impacting the NRC's ability to perform its regulatory function; and (4) any willful aspects of the violation.⁴

Thus, OSRE findings of significance—whether colored GREEN, WHITE, YELLOW or RED— would entail problems with actual or potential safety consequences. The significant weaknesses cited in the DPO would appear to be at least GREEN findings under the NRC evaluation criterion as applied today.

If the agency persists in rejecting/opposing references to the 47% statistic, it should formally document what it believes the accurate statistic to be. Absent that documentation, the agency should refrain from opposing a statistic that has a publicly documented derivation. In the vernacular, the agency must "put up or shut up," statistically speaking.

Sincerely,



David A. Lochbaum
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Washington Office

³ <http://www.nrc.gov/NRC/IM/0609e.html> as updated March 23, 2001.

⁴ <http://www.nrc.gov/NRC/IM/0610star.html> as updated February 27, 2001.