

**From:** "Dave Lochbaum" <dlochbaum@ucsusa.org>  
**To:** <nrcprep@nrc.gov>  
**Date:** Mon, Aug 27, 2007 4:42 PM  
**Subject:** Comments on Draft Regulatory Guide DG-5019, Reporting of Safeguards Events

Good Day:

Attached please find the comments of the Union of Concerned Scientists on the draft regulatory guide for reporting of security-related events. If there are any questions, please contact me at (202) 331-5430.

Thanks,  
Dave Lochbaum  
Director, Nuclear Safety Project  
Union of Concerned Scientists

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**Subject:** Comments on Draft Regulatory Guide DG-5019, Reporting of Safeguards Events

**Creation Date** Mon, Aug 27, 2007 4:40 PM

**From:** "Dave Lochbaum" <[dlochbaum@ucsusa.org](mailto:dlochbaum@ucsusa.org)>

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# Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

August 27, 2007

Rulemaking, Directives, and Editing Branch  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Submitted electronically to [NRCREP@nrc.gov](mailto:NRCREP@nrc.gov)

**SUBJECT: COMMENTS ON DRAFT REGULATORY GUIDE DG-5019,  
REPORTING OF SAFEGUARDS EVENTS**

Good Day:

As noticed in the *Federal Register* (Vol. 72, No. 129, July 6, 2007, pp. 37058-37059), the Nuclear Regulatory Commission (NRC) issued the subject draft guide for public comment. On behalf of the Union of Concerned Scientists (UCS), I submit the enclosed comments.

The draft guide is intended to help NRC's licensees comply with the pending revision to regulation 10 CFR 73.71 governing what security-related events need be reported to NRC when. The draft guide defines five categories for power reactor licensees to handle security-related events: (1) report to NRC within 15 minutes, (2) report to NRC within 60 minutes, (3) report to NRC within 4 hours, (4) don't report to NRC but record in the security log, and (5) neither report nor log. A necessary companion piece for this draft guide is guidance for NRC's staff on what security-related event information needs to be reported to the American public when.

The NRC may respond to reports from power reactor licensees by dispatching an augmented inspection team (as it did twice last year for security problems at Turkey Point) or a special inspection team (as it did earlier this year for security problems at Indian Point). The NRC publicly announced the Turkey Point AITs<sup>1</sup> and the completion of the Indian Point special inspection.<sup>2</sup> From the proposed revision to 73.71 and the draft guide, the public understands that NRC AITs are far more likely to be examining category (1) events than category (4) events and that NRC special inspections are far more likely to be examining category (2) events than category (5) events. The category (1) and (2) events are not paperwork errors – they are genuine threats such as “shots being fired at the facility,” “detonation of an explosive device,” “observed malevolent actions,” “theft of SNM [special nuclear material],” and “significant physical damage to a power reactor.” The public understands that the NRC does not dispatch security-related AITs and special inspections to investigate missing buttons on security guard uniforms and other benign offenses.

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<sup>1</sup> Press Releases II-06-003 dated February 17, 2006 (ML060480487) and II-06-011 dated March 31, 2006 (ML060930040).

<sup>2</sup> Inspection Report 05000247/2006-401, 05000286/2006-401 dated February 1, 2007 (ML070330019).

The NRC informs the public of what kinds of security problems are afflicting which specific plant sites. The NRC must follow through by informing the public when those hazards have been resolved. The NRC cannot continue to publicly announce security threats and not sound the "all clears."

Sincerely,

A handwritten signature in black ink, appearing to read "David A. Lochbaum". The signature is written in a cursive, flowing style.

David Lochbaum  
Director, Nuclear Safety Project

Enclosure: as stated



# Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

## Comments on DG-5019 Reporting of Safeguards Events

Section	Comment
DG-5019 general	<p>The intent of the draft guide is admirable, but this version falls short of attaining that objective. The draft guide describes five categories for power reactor licensees to handle security-related events: (1) report to NRC within 15 minutes, (2) report to NRC within 60 minutes, (3) report to NRC within 4 hours, (4) don't report to NRC but record in the security log, and (5) neither report nor log. The draft guide relies on many examples to help licensees steer security-related events into the proper reporting categories. But the common thread among most of the comments below is that the examples are contradictory and/or confusing. For virtually every single example provided, the addition or subtraction of a single aspect not explicitly detailed in the example could easily move the example into a higher or lower reporting category. In other words, the examples are helpful only if future events exactly duplicate them in all material aspects – meaning, of course, that the examples will never be helpful.</p> <p>Perhaps a better way to provide the guidance would be to revise the explanatory text for each reporting category. The 15-minute, 60-minute, and 4-hour reporting categories are essentially events with actual or potential national security implications, with actual or potential site security implications, and with potential for escalating into events with national/site security implications. The draft guide text should better explain these three threat environments and why the NRC needs information within the stated times so as to fulfill its mission at both the national and site-specific levels.</p> <p>With better definition for the reporting categories, the examples could then reinforce those definitions by illustrating how aspects drive similar events into different categories. Item (2) under Section 2.2 says that a “detonation of an explosive device (e.g., a land or vehicle bomb) at or near the facility” must be reported within 15 minutes. But additional details about the detonation could easily move it from the 15-minute reporting category to another category. For example:</p> <ol style="list-style-type: none"><li>1. If the detonation was ascertained within 15 minutes to have been the gas tank exploding in a vehicle hitting a tree near, but not on, the owner controlled property with no damage to any plant equipment, the event might not even require entry into the security log.</li><li>2. If the detonation was planned and coordinated well in advance by the US Corps of Engineers to clear a water obstruction or the highway department for a nearby road construction project and involved some pre-deployment of security force personnel as a precaution in case security equipment became unexpectedly impaired, the event might only require entry into the security log.</li><li>3. If during the US Corps of Engineer or highway department detonation outlined in example (2) above, security force personnel observed persons</li></ol>

Section	Comment
	<p>outside the owner controlled area displaying an uncommon interest in how the nearby explosion affected site equipment, the event might be reported to the NRC within 4 hours.</p> <p>4. If an explosion of unknown origin occurred near the site but did not damage any plant equipment or require deployment of security force personnel, the event might be reported to the NRC within 60 minutes.</p> <p>Many of the examples in the draft guide lend themselves to comparable treatment. Shots fired, attempted vehicle entry, unauthorized personnel entry, and so on could wind up in any one of the five reporting categories depending on circumstances. It might be very helpful to take each type of event – like “shots fired” – and describing the elements or attributes that would direct it into the different reporting categories.</p>
DG-5019, Page 7	<p>Sections 2.2 and 2.3 on this page contain examples of security-related events to be reported to the NRC within 15 and 60 minutes respectively. UCS believes this guidance document should contain sufficient information so as to allow reasonable people to look at past security events and make correct calls about when NRC should be notified if such events were to recur. This draft guide falls short of that test. For example, there have been several past reports of security guards at nuclear power reactors being physically assaulted.<sup>3</sup> It's not clear in the draft guide how an assault on a security guard – absent other triggers like “shots being fired” – are to be reported. It would be a useful exercise to benchtest the draft guide against one or more of the annual Safeguards Summary Event Lists<sup>4</sup> to see if the guidance text and examples adequately cover past events.</p>
DG-5019, Page 7, Section 2.2 item (1)	<p>This example of a 15-minute report is “an actual or imminent assault ... that has characteristics or components of the Design Basis Threat (DBT) ...”. But this example covers items (3) and (4) under Section 2.3 (DG-5019, Page 8) and perhaps some of the other items as well of things to be reported to NRC within 60 minutes. The recently revised DBT retained the component of an insider acting alone or in conjunction with outside persons. Thus, tampering with reactor or security systems (item (3) on page 8) and unauthorized entry by an outsider (item (4) on page 8) appear to be covered by item (1) on the list of examples of events to be reported within 15 minutes even though they reside on the list of examples of events to be reported within 60 minutes. Discovery of equipment disabled by tampering or unauthorized entry might not constitute an imminent assault, but it clearly would represent an “actual” event with “characteristics or components of the Design Basis Threat.” The guidance is confusing.</p>

<sup>3</sup> Examples include: (a) letter dated September 8, 1971, from G. L. Madsen, Reactor Inspector, Atomic Energy Commission, to James C. Keppler, Chief – Reactor Testing and Operations Branch, Atomic Energy Commission, titled “Vermont Yankee Nuclear Power Corporation Intrusion of Unknown Person and Assault on a Security Guard,” (b) licensee event report 92-023-01 dated December 21, 1992, from William J. Cahill Jr., Group Vice President – TU Electric, to Nuclear Regulatory Commission, titled “Physical Assault of Security Officer Results in Security Compromise,” (c) NRC Daily Event Report No. 34253, “Zion: Suspected Intrusion in Owner Controlled Area – Security Officer Wounded in Left Foot,” and (d) NRC Daily Event No. 12204, “Turkey Point: Assault Made on Site Security Guard.”

<sup>4</sup> NUREG-0525, various revisions.

Section	Comment
<p>DG5019, Page 7, Section 2.2 item (5)</p>	<p>This example of a 15-minute report is “shots being fired at the facility.” This may be confusing because it requires the determination that sounds of gunfire or observations of muzzle flashes be linked to a formal determination, within 15 minutes, that the facility was the target at the exclusion of all other options (e.g., firing into the air, firing at rodents in a nearby field, etc.). The example wording should be revised to something like “actual or apparent weapons discharge(s) prompting a security force response, unless the source has been determined within 15 minutes not to pose a threat to the facility.”</p>
<p>DG-5019, Page 8, Item (1)</p>	<p>This example of a 60-minute report involves “theft or diversion of SNM [special nuclear material].” It’s not clear if the NRC intends that the discovery of missing irradiated fuel rods or irradiated fuel rod segments be reported within 60 minutes or not. After all, despite practice at Millstone, Hatch, Humboldt Bay, Dresden, and – for several weeks at least – Vermont Yankee, special nuclear material in the form of spent fuel rod segments were determined to be missing. Theft or diversion could potentially have been a reason for this material being missing. The NRC has inspected this reality, with increasing regularity, and continually concluded: “the health impact would be minimal to both the present workers and future generations of the public.”<sup>5</sup></p> <p>In addition, DG-5019 page 8 item (1) identifies “theft or diversion of SNM” to require a 15 minute report. But DG-5019 page 10 item (1) third bullet identifies “actual or believed theft, diversion, or loss of SNM or spent fuel” to require a 60 minute report. There’s an inconsistency in the scope (SNM only in one case while SNM or spent fuel in the other) and in the response (15 minutes or 60 minutes) that must be resolved in the final guidance document to preclude confusion.</p>
<p>DG-5019, Page 8, Section 2.3 item (4) and DG-5019, Page 7, Section 2.2 item (4)</p>	<p>This example of a 60-minute report covers “actual or attempted entry of an unauthorized person into an area that the licensee is required to control.”</p> <p>This example of a 15-minute report covers “a vehicle that attempts to forcefully (a deliberate, malevolent act) gain access through site vehicle barriers.”</p> <p>It is illogical to require a 15-minute report when a person deliberately uses a vehicle to attempt to gain access but a 60-minute report when a person deliberately and successfully gains access to a controlled area without using a vehicle to do so. The criterion should not be the mode of entry but rather the plant status after 15 minutes. If someone attempts to get past a security control barrier, whether by foot or by Ford, and gets apprehended / restrained within 15 minutes and the motive reasonably known not to be part of some broader conspiracy, a 60-minute report seems most appropriate. If, however, someone attempts to get past a security control barrier, whether by foot or by Ford, and has not yet been apprehended by 15 minutes or has been apprehended but no determination as to motive has been made, a 15-minute report seems most appropriate.</p>

<sup>5</sup> NRC Information Notice 2004-12 dated June 25, 2004, “Spent Fuel Rod Accountability.”

Section	Comment
	<p>Consider the February 1993 intruder event at Three Mile Island Unit 1.<sup>6</sup> In that event, someone drove a vehicle through the protected area fence, through the turbine building roll-up door, and into the turbine building. The individual abandoned the vehicle and remained undetected for more than two hours.</p> <p>Under the current draft guide, this event would be reported to the NRC within 15 minutes because of the forced entry using a vehicle.</p> <p>But what if this same individual had halted the vehicle just outside the protected area fence and instead climbed over the fence. The example most closely matching this scenario seems to be Item (4) on page 8, one of the 60-minute reporting criteria. If so, the licensee would make the call at or before 60 minutes post-entry not knowing the identity, capability, location, or intent of the individual.</p> <p>The key factor between a 15-minute and a 60-minute notification cannot be whether the intruder arrived by foot or by vehicle. The key factor is whether the event has national security implications or not. If sufficient information exists within 15 minutes to reasonably conclude the event lacks national security implications (such as the individual having been apprehended and determined to be suffering from 'excessive celebration'), then the NRC should not be notified via a 15-minute report. Conversely, if that conclusion cannot be made within 15 minutes, then the NRC should be notified via a 15-minute report.</p>
DG-5019, Page 13, Section 2.6	<p>This section covers security events to be reported to NRC within 4 hours. In general, these events involve activities that may be indicative of a person or persons attempting to acquire information that might be used to plan an attack on the nuclear facility. This draft guide is not clear in conveying the NRC's expectations regarding activities in this category occurring offsite in corporate and contractor offices. The information technology revolution enables very broad communications today. Section 2.6, Item (1), bullet (8) covers "unauthorized attempts to probe or gain access to business secrets or other licensee-sensitive information." In years past, such attempts might have been manifested by suspicious persons entering the Document Control room or Technical Library at a site. Today, those suspicious persons can hack into computer infrastructures, tap phone lines for daily status conference calls, tape videoconferences of upcoming refueling outage plans, etc. The "business secret or other licensee-sensitive information" is readily available from computer terminals in corporate and contractor offices miles distant from the sites.</p> <p>Corporate and contractor offices have historically been "out of sight, out of mind" from NRC's regulatory position. As a result, the NRC always plays catch-up.<sup>7</sup></p>

<sup>6</sup> NRC Information Notice 93-94 dated December 9, 1993, "Unauthorized Forced Entry into the Protected Area at Three Mile Island Unit 1 on February 7, 1993."

<sup>7</sup> Some of many examples include: (a) NRC Information Notice 2000-11 dated August 7, 2000, "Licensee Responsibility for Quality Assurance Oversight of Contractor Activities Regarding Fabrication and Use of Spent Fuel Storage Cask Systems," (b) NRC Information Notice 89-75 dated November 20, 1989, "Falsification of Welder Qualifications for Contractor Employees," (c) NRC Information Notice 80-26 dated June 10, 1980, "Evaluation of Contractor QA Programs," (d) NRC Information Notice 91-59, "Problems with Access Authorization Programs," (e) NRC Information Notice 87-07 dated February 3, 1987, "Quality Control of Onsite Dewatering/Solidification Operations by Outside Contractors," (f) NRC Information Notice 94-13 Supplement 2 dated November 28, 1995,



Section	Comment
	<p>Corporate and contractor offices are large portals to “business secret or other licensee-sensitive information.” If the NRC expects that its licensees’ contractors will be on the lookout for suspicious behavior and notify licensees of such behavior so that the licensees can, in turn, make informed decisions about whether to report it to the NRC, this draft guide should explicitly state those expectations. Otherwise, the NRC can issue this draft guide without these expectations and backfill later with Information Notice(s) as in the cited examples.</p>
<p>DG-5019, Page 17, 3<sup>rd</sup> bullet</p>	<p>The 3<sup>rd</sup> bullet requires an “unsubstantiated bomb or extortion threat” to be entered on the security log. But the last bullet on page 14 requires “a stated threat against the facility” to be reported to the NRC within 4 hours. During the public meeting conducted by the NRC on July 26, 2007, on this draft guide, someone specifically asked if NRC meant “a stated threat” to be limited to only credible or substantiated threats. The NRC’s response was no, they intended “a stated threat” to encompass all threats. It’s unclear to UCS what could possibly constitute an “unsubstantiated bomb or extortion threat” that would not also be “a stated threat against the facility.”</p>
<p>DG-5019, Page 18, Items (8) and (12)</p>	<p>These items are among the list of examples of events not expected to be entered on the security log. Both items cover “infrequent and nonrecurring” failures. Infrequent means failures that do not occur very often. Nonrecurring means failures that happen but once. NRC should vote on which descriptor it likes best and only use it for these two items.</p>