



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

TESTIMONY SUBMITTED BY
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TO THE
SUBCOMMITTEE ON CLEAN AIR AND NUCLEAR SAFETY
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
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Mr. Chairman and members of the Subcommittee, on behalf of the Union of Concerned Scientists (UCS), I appreciate this opportunity to present our views on nuclear plant security.

My name is David Lochbaum. After obtaining a degree in nuclear engineering from The University of Tennessee in 1979, I worked more than 17 years in the nuclear power industry, mostly at operating reactors in Georgia, Alabama, Mississippi, Kansas, New Jersey, Pennsylvania, New York, Ohio and Connecticut. I joined UCS in October 1996 and am the Director of the Nuclear Safety Project. Since nearly its inception in May 1969, UCS has maintained an interest in nuclear power plant safety and security. UCS is neither an opponent nor a supporter of nuclear power – our perspective is that of a nuclear safety and security advocate.

The nuclear power industry and the Nuclear Regulatory Commission (NRC) have taken many steps since 9/11 to better protect nuclear power plants from internal and external sabotage threats. Last year's revelation that security guards were sleeping while on duty at the Peach Bottom nuclear plant indicate that additional steps are required:

1. The root causes for inadequate responses by the company and the NRC to allegations of security guards sleeping on duty must be identified and corrected.
2. NRC must restore responsible public communication about nuclear plant security
3. The over-reaction to security guards sleeping on duty by adopting zero tolerance policies must be stopped.

We are confident that this Subcommittee can make sure the NRC takes these steps.

1. ROOT CAUSES FOR INADEQUATE RESPONSES TO SECURITY ALLEGATIONS MUST BE CORRECTED

At least as early as March 27, 2007, (NRC), and April 2007 (Exelon and Wackenhut),* had received allegations that security guards were sleeping while on duty at Peach Bottom. The responses to those allegations were inadequate until media reports in September 2007 publicly exposed the problem. The NRC, Exelon, and Wackenhut were then able to substantiate facts that had been “elusive” before. It is impossible to determine which is more unacceptable and intolerable – sleeping on duty or ignoring security warnings from conscientious workers. Both behaviors allowed sleeping to continue until outside force was brought to bear on the matter.

The video of security guards sleeping on duty rendered the *status quo* untenable. Exelon fired Wackenhut; first at Peach Bottom and then from providing security at any Exelon’s nuclear power plant. This response misses the mark. Had Exelon employed in-house security guards, the video would likely have forced them to bring in security professionals, like Wackenhut, providing the pretense of a “clean slate” while the real problem remained unresolved.

The unalterable reality is that Exelon, Wackenhut, and NRC all knew about security problems at Peach Bottom, specifically including inattentiveness, and did next to nothing about them. For example, NRC’s documents report:

- “Security supervisors [e.g., Wackenhut] failed to properly address concerns involving inattentive SOs [security officers] and were not receptive to these concerns being brought forward.” Reference 1, page 4
- “The environmental conditions in the ‘ready room’ [where the security officers slept] were not conducive to attentiveness and station management [e.g., Exelon] failed to address these known adverse conditions. The ‘ready room’ had high background noise, was dimly lit, and was poorly ventilated.” Reference 1, page 4
- “Management [e.g., Exelon] failed to identify human factor issues related to 12-hour shifts spent, in part, at the ‘ready room’ post with low physical activity. For some SOs, a significant portion of the shift could be spent sitting in the ready room when not on patrol or performing other duties.” Reference 1, page 5
- “Management [e.g., Wackenhut] failed to provide adequate attentiveness stimuli to the SOs in the ‘ready room’.” Reference 1, page 5
- On March 27, 2007, “NRC receives concerns involving Peach Bottom SOs that are inattentive to duty at PBAPS.” Reference 1, page C-1
- “On the same day [April 30, 2007] that the allegation was provided to the licensee for investigation/evaluation, the NRC Region I Division of Reactor Safety (DRS) began a four-person, one week baseline security inspection at the Peach Bottom Station. ... In hindsight, in conjunction with forwarding the allegation concerns to the licensee for its investigation, the baseline inspection could have been used to follow-up on the allegation, providing additional independence and potentially more information to the agency’s review.” Reference 2, page 6
- On May 30, 2007, “NRC received Exelon’s response stating that the three referred concerns associated with inattentive SO behavior were not substantiated.” Reference 1, page C-1

* Reference 1, page C-1.

When Kerry Beal and other security guards raised concerns to Wackenhut, to Exelon, and to NRC in good faith, Newton's Third Law of Motion – *for every action, there is an equal and opposite reaction* – should have triggered good faith responses. But instead all three applied Newton's First Law – *an object at rest tends to stay at rest*. Neither Wackenhut nor Exelon nor NRC acted upon the security allegations to correct the problems. Removing Wackenhut from the picture provided a convenient scapegoat for the problems, but it did nothing about the co-conspirators, Exelon and NRC.

In the Peach Bottom case, the NRC referred the allegations it received in March 2007 back to Exelon for evaluation. It is typical for the NRC to make such referrals. UCS heard that the NRC refers about 80 percent of allegations back to plant owners and investigates the remainder itself. UCS also heard that the NRC is considering adjusting its referral thresholds with the objective of investigating more allegations – perhaps as high as 60 percent – itself.[†] Unless the referral rate increases to 100 percent or drops to 0 percent, the NRC will investigate some of the allegations and the plant owners will investigate the rest. Regardless of who investigates, the processes must achieve reliable results.

In this case, the NRC referred the allegations back to Exelon on April 30, 2007. Exelon informed NRC, by letter dated May 30, 2007, that its investigation did not substantiate the allegations. Exelon's investigation was incomplete and inadequate. Per the NRC, “none of the members of that shift [shown sleeping in the videotapes] were interviewed by Exelon because that shift was off duty at the time the interviews were conducted.”[‡] The incompleteness and inadequacy of Exelon's first evaluation is revealed by the following timeline:[§]

- September 10, 2007: NRC hears from a WCBS-TV reporter about a video showing security guards sleeping at Peach Bottom.
- September 10, 2007: NRC calls Exelon to inform them about the alleged video.
- September 10, 2007: NRC resident inspectors at Peach Bottom are directed to increase monitoring of security guards, including conducting checks of security guard attentiveness during evening and midnight shifts.
- September 12, 2007: NRC hears from the WCBS-TV reporter that the video is about 10 minutes and shows security guards sleeping in the ready room.
- September 12, 2007: NRC calls Exelon to update them about the alleged video.
- September 18, 2007: During a follow-up phone call, Exelon informs NRC that its interviews of security guards identified one security guard believed to have taken video clips of other security guards sleeping at Peach Bottom. When this individual was interviewed by Exelon and “confronted with this information, the security officer indicated he was terminating the interview and stated that he would not answer any questions without the NRC present.”
- September 19, 2007: The WCBS-TV reporter allowed NRC to view the video.

[†] The NRC's hints about investigating more allegations itself are analogous to Exelon's termination of Wackenhut. Both seek to absolve themselves of blame by assigning that blame to others. Exelon blames Wackenhut while NRC blames Exelon. The reality shows there is more than sufficient blame for all three to share equally.

[‡] Reference 2, page 7, footnote 9

[§] Reference 2, page 8

Without having seen the video but warned that one existed, Exelon's interviews quickly substantiated that it existed, that it showed security guards sleeping on duty, as well as the identity of the videographer. The underlying allegations – that security guards were sleeping at Peach Bottom – remained the same between Exelon's May 30th letter to NRC and Exelon's September 18th call to NRC. This is not the National Football League's (NFLs') instant replay booth. It should not take, and did not take, indisputable visual evidence for Exelon to substantiate allegations of multiple security guards sleeping on duty on multiple occasions. Hence, when NRC entrusted Exelon to conduct a complete and adequate investigation into the allegations referred on April 30, 2007, Exelon violated that trust with its improper response. The NRC must impose a significant civil penalty on Exelon for such shoddy work. The best protection against future cases like this one is for the NRC to remind this plant owner, and other plant owners, that they must investigate allegation referrals adequately or incur appropriate sanctions. People's lives are at stake. The stakes are too high to tolerate nonchalance, complacency, incompetence, or whatever explains Exelon's initial failure to get the job done properly.

By the same token, the NRC should not have waited for the video, either. The NRC received allegations about sleeping security guards in March 2007.** The NRC's resident inspectors and security inspectors (who visited Peach Bottom between April 30 and May 4, 2007) took no additional steps to address the allegations. The NRC received Exelon's "all-clear" response on May 30, 2007. The NRC's resident inspectors took no additional steps to verify the response.

The NRC received additional allegations about sleeping security guards at Peach Bottom in September, now backed by an alleged video. The mere rumor of a video spurred the NRC into a different response. Within hours, the NRC resident inspectors at Peach Bottom were directed to investigate security guard attentiveness. The NRC dispatched an augmented inspection team to Peach Bottom about a week later. It's the NRC not the NFL: it must not take indisputable visual evidence for the NRC to take security allegations seriously.

In March 2007, the NRC received allegations about security guards sleeping at Peach Bottom from the plant's former security manager. The NRC took no action other than ask Exelon if the allegations was valid. In September 2007, the NRC received allegations about security guards sleeping at Peach Bottom from a TV reporter about to broadcast a video. The NRC immediately had its resident inspectors at Peach Bottom begin investigating and followed up by dispatching an augmented inspection team to the site. One the media's involvement threatened to hurt the NRC's image, the response that should have been launched nearly six months earlier finally happened. These disparate NRC reactions strongly suggest that the NRC is more interested in protecting its reputation than in protecting the American public. Such dismal regulatory performance provides neither with adequate protection. NRC does not stand for "Nielsen Ratings Commission," at least not in the federal laws that created and sustained the agency.

** It should be noted that the allegations the NRC received came from the former security manager for Wackenhut whose responsibilities included Peach Bottom. When that individual previously told Exelon and NRC that security was sound, his statements were accepted unquestioned and unchallenged as fact. But when that same individual told NRC about security problems, his statements were deemed fiction until confirmed by Exelon. Reference 2, page 1

2. RESPONSIBLE PUBLIC COMMUNICATIONS ABOUT NUCLEAR PLANT SECURITY MUST BE RESTORED

Wackenhut, Exelon, and NRC applied Newton's First Law of Motion – *an object at rest tends to stay at rest* – in response to the security allegations raised by Kerry Beal and others. The full statement of Newton's First Law explains their different reaction once the news media broadcast videos of the sleeping security guards last September: *an object at rest tends to stay at rest unless acted upon by an outside force*. The media broadcasts and ensuing public outcry roused Wackenhut, Exelon, and NRC from rest and compelled them to really investigate the allegations and address the underlying problems.

The broader lesson is that the NRC must restore responsible public communications about nuclear plant security issues. Shortly after 9/11, the NRC pulled the plug on its website. All documents and information were removed. As documents were reviewed for content that might aid our enemies attack nuclear facilities, the NRC added only cleared information back to its website. The information vetted and restored to the website included the safety and security components of the NRC's reactor oversight process (ROP). The security component information consisted of performance indicator data (e.g., availability of intrusion detection equipment and effectiveness of access authorization program) and findings from NRC's security-focused inspections. When the ROP was developed in 1999 and 2000, this information was determined to be appropriate for public consumption because it did not reveal anything about current uncompensated for vulnerabilities at nuclear reactors. When this information was re-evaluated after 9/11, it was confirmed that its public availability could not undermine national security.

But in August 2004, the NRC removed the security component information from its ROP website. The removal of this security information created a vacuum now being filled by rumor, supposition, innuendo, and occasional facts. For example, after the sleeping guards at Peach Bottom story broke last fall, the lack of context enabled people across the country to extrapolate from that single data point to whatever conclusion they wanted, from Peach Bottom being an isolated case to sleeping guards being merely the tip of the iceberg for a total nuclear plant security sham.

The NRC's public communications to response to two security problems illustrates that the agency could restore security component information to its website without compromising national security interests. On February 12, 2008, the NRC issued a press release^{††} and associated report regarding the issuance of a "white" finding (the NRC has a four-tiered color system for safety and security problems; green, white, yellow and red with red being most serious) for the sleeping security guards at Peach Bottom. On January 22, 2008, the NRC issued a press release^{‡‡} and associated report regarding a \$208,000 fine for problems involving security guards at the Turkey Point nuclear plant in Florida intentionally disabling their weapons. If the NRC can inform the public about these serious security problems, then the NRC can also inform the public about less significant and lack of security problems at other nuclear plants.

The NRC must immediately restore the security component information to its website that passed the 9/11 muster and was publicly available until August 2004. The responsible public

^{††} Reference 3.

^{‡‡} Reference 4.

communication of this security information will allow events like the sleeping guards to be viewed by the public in more accurate context.

Equally important, public communication of this security information serves as the *outside force* needed to avoid objects being at rest when they should be in motion. Plant owners falling short of NRC's security requirements should be publicly identified, providing ample incentive for them to correct the shortfalls expeditiously. Today, NRC's refusal to responsibly report security information enables poor performers to remain at rest.

3. ZERO TOLERANCE POLICIES MUST BE ELIMINATED

UCS has heard that some plant owners responded to news about Peach Bottom by instituting zero tolerance policies with respect to security guards sleeping while on duty. Policies that unfairly target security guards do more harm than good and must be eliminated.

It is clearly wrong for security guards to sleep on duty. Being asleep impairs a guard's ability to perform the job. But slipping on ice during an outside patrol and breaking an arm or coming down with a stomach virus at work also impairs a guard's ability and these are not grounds for immediate termination.

It could be argued that zero tolerance policies are not applied to impairment resulting from slipping on ice or a stomach virus because these are not deliberate acts. Yet zero tolerance policies applied to sleeping on duty assumes that every incident is deliberate. That's simply wrong. Sometimes people unintentionally fall asleep due to boredom and/or fatigue.

It is unfair to hold security guards to a higher standard than other nuclear plant workers, especially when the pay scales for security officers relative to other plant workers do not correspond to this higher level of responsibility. Control room operators licensed by the NRC have been found to be under the influence of alcohol or unauthorized drugs while on duty without being terminated. For example, an NRC-licensed control room operator at the Fort Calhoun nuclear power reactor in Nebraska tested positive for alcohol in fitness-for-duty tests reported on August 25, 2005, and again on February 23, 2006.^{§§} And an NRC-licensed control room operator at Exelon's Three Mile Island nuclear plant in Pennsylvania tested positive for alcohol or drugs in March 2006.^{***} These individuals were given second, and third, chances for intentional actions that impaired their abilities to perform important jobs.

Mistakes by other nuclear plant workers are also tolerated. It is standard practice in the nuclear industry to, whenever possible, have a second operator verify equipment lineups conducted by an operator and to have a second engineer verify the calculations and assessments performed by an engineer. When a mispositioned valve or mathematical error is found, it is corrected without a zero tolerance policy that sends the offending operator or engineer out the door.

When a security guard is found asleep on duty or wakes up on a post and realizes having dozed off, the proper response is to enter that incident into the plant's corrective action program, the same program that handles reports of equipment problems, operator mispositioning events, and engineer ciphering mistakes. The corrective action program is designed to identify causes of

^{§§} Reference 5

^{***} Reference 6

human and equipment performance problems and correct them. The corrective action program also identifies emerging adverse trends.

When the corrective action program determines that an individual – regardless of job function – deliberately took steps to sleep on duty (e.g., rigging up a hammock behind locked doors), the appropriate action is very likely termination. When the corrective action program identifies a number of security guards accidentally dozing off, the appropriate action might involve shorter working hours, more frequent post rotations, more frequent radio checks, and more challenging work to offset the tedium. A zero tolerance policy is a “one size fits all” solution that often fails to solve the true causes. An effective corrective action program, on the other hand, seeks to first identify the causes of problems and then apply appropriate solutions.

Had Wackenhut and Exelon responded properly last spring when Kerry Beal reported that security guards were sleeping on duty, those reports would have been entered into the corrective action program. The series of reports would have quickly established the location (‘ready room’) and identify (Security Team No. 1) of the problem, increasingly the likelihood that the problems would have been corrected absent intervention by the media.

If a zero tolerance policy is implemented, it should apply to circumventions of the corrective action program rather than to security guards sleeping on duty.

CONCLUSION

The silver lining about the security problems that surfaced at Peach Bottom last year is the opportunity to learn from them so as to be better prepared tomorrow. It is shame on all of us if we fail to take advantage of this opportunity by acting upon the lessons. Adequate nuclear plant security is like adequate car insurance, protecting against an event one hopes never occurs. Inadequate nuclear plant security is like inadequate car insurance; finding out that day in that way adds insult to injury.

Adequate nuclear plant security requires plant owners and NRC to provide timely and effective responses to security allegations.

The American public has a right to know that the nuclear plants in their communities have adequate security. The NRC needs to restore responsible public communications about security to satisfy that right.

Security guards, like other nuclear plant workers, have a solemn responsibility to perform their important jobs properly. Security guards must not be held to higher standards than other nuclear plant workers, especially with zero tolerance policies that cause more harm than good.

We thank the Subcommittee for holding this hearing and placing a spotlight on the issue.

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