

EDO Principal Correspondence Control

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FINAL REPLY:

David A. Lochbaum
Union of Concerned Scientists

TO:

The Commission

FOR SIGNATURE OF :

** GRN **

CRC NO: 08-0058

Reyes, EDO

DESC:

ROUTING:

Fire Barrier Issues (EDATS: SECY-2008-0066)

Reyes
Virgilio
Mallett
Ash
Ordaz
Cyr/Burns
Adams, OEDO

DATE: 02/04/08

ASSIGNED TO:

CONTACT:

NRR

Dyer

SPECIAL INSTRUCTIONS OR REMARKS:

EDATS

Electronic Document and Action Tracking System

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Source: SECY

General Information

Assigned To: NRR

OEDO Due Date: 2/25/2008 5:00 PM

Other Assignees:

SECY Due Date: NONE

Subject: Fire Barrier Issues

Description:

CC Routing: NONE

ADAMS Accession Numbers - Incoming: NONE

Response/Package: NONE

Other Information

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AUTHOR: Mr. David Lochbaum
AFFILIATION: UCS
ADDRESSEE: CHRM Dale Klein
SUBJECT: Protecting people and the environment - from what? Apparently not from dreadful regulatory performance

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EDO --G20080078



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

February 1, 2008

Dr. Dale E. Klein, Chairman
Dr. Gregory B. Jaczko, Commissioner
Dr. Peter B. Lyons, Commissioner
US Nuclear Regulatory Commission
Washington, DC 20555-0001

**SUBJECT: "Protecting People and the Environment"
From What? Apparently Not from Dreadful Regulatory Performance**

Dear Mr. Chairman, Commissioner Jaczko, and Commissioner Lyons:

"PROTECTING PEOPLE AND THE ENVIRONMENT" certainly is a catchy phrase for the NRC to adopt last year. The tagline isn't specific about what the people and the environment are being protected from. It is our hope that the protection extends to dreadful regulatory performance. Two recent reports on fire protection problems illustrate to us why that protection is both needed and lacking.

On January 14th, the NRC announced it had ordered the San Onofre licensee to take steps in response to the discovery that an individual had falsified records between April 2001 and December 2006 to show hourly fire patrols had been conducted when they had not. According to documents in ADAMS, this individual – hereafter referred to as the San Onofre Slacker – was fired after an internal investigation and computerized door access logs showed that the fire patrols had not been made.

On January 25th, the NRC's Inspector General (IG) released its audit report on the NRC's handling of the Hemyc fire barrier issue. According to this IG report, then NRC Chairman Ivan Selin told the US Congress in early 1993 that the agency would evaluate fire barrier materials to determine the improvements needed to meet NRC requirements. The NRC had the National Institute of Standards and Technology (NIST) test a one-hour rated Hemyc configuration on September 17, 1993. The NIST test report to NRC dated March 31, 1994, stated that Hemyc failed to meet the one-hour duration. The IG report stated that the NRC's Executive Director for Operation (EDO) provided a fire protection status report dated February 13, 1995, to the Commissioners indicating that NIST had tested Hemyc and that NRC staff observations during the test had not revealed performance problems similar to those associated with Thermo-Lag. In November 1999, NRC Region II asked the NRC's Office of Nuclear Reactor Regulation (NRR) to review the vendor test reports for Hemyc provided by the Shearon Harris licensee. In August 2000, NRR responded to Region II that tests were "inconclusive to qualify" Hemyc as a one-hour or three-hour fire barrier. On March 25, 2005, Sandia National Laboratories tested a one-hour rated Hemyc configuration and found it failed in 13 to 42 minutes, depending on where the temperature was measured.

In the San Onofre case, an individual was fired and his company sanctioned because of falsified fire patrols. The purpose of the fire patrols is to protect against potential ignition sources, transient combustibles stored in unauthorized locations, blocked open or impaired fire doors, and other degraded

Washington Office: 1707 H Street NW Suite 600 • Washington DC 20006-3919 • 202-223-6133 • FAX: 202-223-6162
Cambridge Headquarters: Two Brattle Square • Cambridge MA 02238-9105 • 617-547-5552 • FAX: 617-864-9405
California Office: 2397 Shattuck Avenue Suite 203 • Berkeley CA 94704-1567 • 510-843-1872 • FAX: 510-843-3785

elements of the fire protection program. There is no evidence in the available documentation showing or even suggesting that the missed fire patrols allowed fire protection problems to remain undetected.

In the Hemyc case, no one at NRC was fired or sanctioned over the laissez-faire handling of Hemyc fire barrier information. NRC personnel observed the test conducted by NIST in September 1993 in which a one-hour configuration failed in 23 minutes. NRC personnel received the NIST report dated March 31, 1994, that documented the test failure. The EDO informed the Commission in writing in February 1995 that NRC staff observed the NIST test and saw no problems. NRR personnel concluded in August 2000 that the Hemyc tests did not demonstrate compliance with the one-hour and three-hour requirement in NRC's regulations. Those individuals – hereafter referred to as the Hemyc Handlers – go unsanctioned.

The San Onofre case involved falsified fire patrols for two reactors across 5.6 years, or 11.2 reactor-years. The Hemyc case involved KNOWN fire barrier problems affecting 16 reactors across 14.2 years (and counting), or 227.3 reactor-years. If the San Onofre Slacker's antics warranted termination, how could the Hemyc Handlers' antics that are at least 16 times worse result in zero disciplinary actions? No wonder the NRC is such a great place to work; you can perform at levels far before that which would get you fired in private industry yet continue to pull down lucrative salaries and even bonuses.

Perhaps it is the falsification aspect of the San Onofre Slacker's work, or non-work, that explains the difference. After all, the San Onofre Slacker knew what he was not doing was wrong because, according to the NRC's Office of Investigations report, he took steps to make others think he was actually doing the fire patrols. Thus, his inactions warrant sanctions because of this deliberate misconduct component.

But there are also falsification aspects to the NRC's Hemyc handling. The EDO informed the Commission in writing in February 1995 that the NRC staff observed the Hemyc testing (conducted in September 1993) and saw no problems. In NIST's report on the test (which NRC staffed received in March 1994), NIST stated that Hemyc failed to meet the one-hour acceptance criterion and even put in bold-face type in their original report "**fire endurance period was 1390 seconds (23.2) minutes.**"

Did the EDO falsify the report to the Commission? Or, did the NRC staff falsify their report to the EDO? Somebody somewhere did something more serious than the San Onofre Slacker. Rather than fabricate records showing they performed fire tests that had not been conducted, a la the San Onofre Slacker, the Hemyc Handlers performed the tests and analyses that revealed problems and fabricated "all clear" status reports.

And that 1995 EDO report to the Commission isn't the only falsification aspect. Hemyc is used as a fire barrier at 16 US reactors. The Hemyc Handlers knew in March 1994 (or earlier) that tests it had performed showed the material did not meet the one-hour criterion. The Hemyc Handlers knew in August 2000 that the vendor tests for Hemyc did not demonstrate that the one-hour and three-hour requirements were met. Yet, the reactor oversight process (ROP) results for these 16 reactors since August 2000 (conveniently available online at <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/prevqtr.html>) show either no NRC inspection findings or Green NRC inspection findings for reasons other than Hemyc's known problems. There's not even asterisks explaining that everything is fine other than the Hemyc Handlers knowing (and apparently not caring) that Hemyc one-hour fire barriers fail in less than half that time.

The San Onofre Slacker got sanctioned because for leading people to believe that fire protection measures were satisfied when that was not the case. The Hemyc Handlers did not get sanctioned after leading people to believe that fire protection measures were satisfied when they knew that not to be the case.

When the NRC promulgated its fire protection regulations in the late 1970s and early 1980s, the final regulation became a contract between the agency, its licensees, and the American public. That contract established "x" as the safety standard. Per the contract, the NRC could not require more than "x" from its licensees because the contract defined "x" as the acceptable safety level. Per the contract, the NRC cannot accept less than "x" from its licensees, either, for the same reason. That contract required – not daringly desired, not strongly suggested, not cleverly clued, but REGULATORILY REQUIRED – that the American public be protected from harm caused by a nuclear plant fire through separation of cabling for safety systems by geometry (i.e., 20-foot horizontal separation with no intervening combustibles) or time (i.e., one-hour or three-hour rated fire barriers).

When the Hemyc Handlers established by test in 1993 and by determination in 2000 that the Hemyc fire barrier did not meet the requirements of the regulation, it egregiously breached its contract with the American public by essentially shrugging and say "close enough for government work." That kind of irresponsible attitude did not protect the shuttle astronauts aboard *Challenger* from NASA's dismissal of known o-ring problems, did not protect the people of New Orleans from the government's deferral of known levee problems before Katrina and from FEMA's ineffective response to Katrina, did not protect the shuttle astronauts aboard *Columbia* from NASA's dismissal of known problems from debris impacting tiles during launch,* and did not protect Americans from various warnings collected by the intelligence community before 9/11.

The Hemyc Handlers could have, and should have, either required Shearon Harris and the other plants with Hemyc fire barriers to comply with the regulations (honor the existing contract) or revised the regulations to accept something else (sign a new contract). The daze of ignoring contract breaches must cease.

While it is tempting, UCS is not asking that you sanction the Hemyc Handlers. Instead, we believe you should use this opportunity to clearly, loudly, and unequivocally communicate to your managers and staff that NRC's regulations are to be enforced – period – and that there will be accountability, both by NRC's licensees and by NRC's staff, when they are not enforced. The contract NRC makes via rulemaking with the American public and its licensees must be treated with equal respect and regard for shortages and for overages.

Sincerely,



David Lochbaum
Director, Nuclear Safety Project
Washington Office

* After reviews of launch tapes identified a major debris impact on *Columbia*'s wing, NASA fed the parameters into a computer model developed during the Apollo program. The output indicated the debris would penetrate the shuttle tile – the undesired answer. So, just as the NRC staff tossed aside the undesired results from the 1993 NIST test, NASA jettisoned the results from this analysis.