From: Kevin Kamps <kevin@beyondnuclear.org>
Sent: Saturday, June 27, 2020 4:11 PM
To: Holtec-CISFEIS Resource
Subject: [External_Sender] Beyond Nuclear public comments #6, re: NRC's Holtec/ELEA CISF DEIS, Docket ID NRC-2018-0052

Dear NRC Staff,

Whistleblowers -- namely Oscar Shirani at Commonwealth Edison/Exelon, and Dr. Ross Landsman at NRC -- first revealed widespread quality assurance violations by Holtec in the design and fabrication of its containers in the early 2000s.

Here is a summary of Shirani and Landsman's allegations, contained within brackets below, which I wrote on July 22, 2004 (as posted online here: <https://web.archive.org/web/20160130044911/http://www.nirs.org/radwaste/atreactorstorage/shiranialleg04.htm>:

[Summary of Oscar Shirani's Allegations of Quality Assurance Violations Against Holtec Storage/Transport Casks

Holtec storage/transport casks are the first dual purpose container for irradiated nuclear fuel certified by the U.S. Nuclear Regulatory Commission (NRC). According to Holtec International's website (http://www.holtecinternational.com), Holtec casks are already deployed at 33 U.S. nuclear power plants. Up to 4,000 rail-sized Holtec storage/transport casks would also be used at the proposed Private Fuel Storage interim storage facility in Utah. Given the U.S. Department of Energy's (DOE) recent decision to use "mostly rail" transport to the proposed Yucca Mountain repository, Holtec casks could very well become among the most used shipping containers for highly radioactive waste.

Exelon, the largest nuclear utility in U.S., uses Holtec casks for irradiated fuel storage at its reactor sites. In 1999 and 2000, Oscar Shirani, as a lead quality assurance (QA) auditor for Exelon, identified numerous "major design and fabrication issues" during a QA inspection of Holtec International (the cask designer), Omni Fabrication, and U.S. Tool & Die (the subcontractors responsible for manufacturing the casks). In fact, he identified a "major breakdown" in the QA program itself. The problems were so severe that Shirani sought a Stop Work Order against the manufacturer of the casks until the problems were addressed. Instead, he was run out of Exelon. According to Shirani, these design and manufacturing flaws mean that the structural integrity of the Holtec casks is indeterminate and unreliable, especially under heat-related stress such as during a severe transportation accident.

Although NRC has dismissed Shirani's concerns, NRC Region III (Chicago office) dry cask inspector Ross Landsman refused to sign and approve the NRC's resolution of Shirani's concerns, concluding that this same kind of thinking led to NASA's Space Shuttle disasters.[1] He stated in September 2003, "Holtec, as far as I'm concerned, has a non-effective QA program, and U.S. Tool & Die has no QA program whatsoever."[2] Landsman added that NRC's Nuclear

Reactor Regulation division did a poor follow-up on the significant issues identified, and prematurely closed them.

Shirani alleges that all existing Holtec casks, some of which are already loaded with highly radioactive waste, as well as the casks under construction now, still flagrantly violate engineering codes (such as those of the American Society of Mechanical Engineers [ASME] and American National Standards Institute [ANSI]), as well as NRC regulations. He concludes that the Holtec casks are "nothing but garbage cans" if they are not made in accordance with government specifications.[3]

Specific examples of the QA violations and related problems alleged by Shirani include:

- Welding problems, such improper "fast cooling" of hot cask welds and metal using fans and air conditioning equipment, which are in violation of ASME and ANSI codes and risk tearing and cracking of the unevenly cooling welds and metal, in order to meet production goals. Welds on the casks were also performed by unqualified welders. Even NRC has acknowledged that "weld quality records are not in agreement with the code requirements."[4]
- Inadequate controls on the quality of materials used in the manufacturing process, risking brittleness and weakness in the casks.
- Holtec's failure to report holes in neutron shielding material (neutrons are especially hazardous emissions from highly radioactive waste).
- US Tool & Die's failure to use coupon (a small physical sample of metal) testing, and Post Weld Heat Treatment on a regular basis, as required by ASME code and in violation of the codes that were part of the license agreement with NRC.
- Holtec and U.S. Tool & Die quality control inspectors' bypass of hundreds of non-conforming conditions, departures from the original design during cask manufacture. The departures from the original design amount to design changes that require revised analysis to guarantee that manufactured casks actually live up to the structural integrity of the original design. The fact that this revised analysis was never done is in violation of ASME and ANSI codes, and thus NRC regulations, and means the actual manufactured casks' structural integrity is questionable, according to Shirani.
- Holtec's consent to allow U.S. Tool & Die to make design decisions and changes, despite the fact that U.S. Tool & Die does not have design control capability under its QA program.
- Failure to conduct a "root cause investigation" of Holtec's QA program, even though root causes are the main reason for repeated deficiencies.
- Exelon's obstruction of Shirani from performing any follow-up of the audit to confirm that problems had been solved, despite knowing that the fabrication issues identified would have a detrimental impact on the design.
- Exelon's falsified quality-assurance documents and the misleading of the NRC investigation, stating that Shirani's allegations of QA violations were resolved when in fact they were not.
- Lack of understanding in the NRC of the design control process and Holtec's QA program, relating to flaws in welding, design, manufacturing, and materials procurement control. NRC lacks a corrective action mechanism for repeated findings. Shirani alleges

his audit findings embarrassed NRC because it had also audited the Holtec casks just a few months previously but found no problems whatsoever.

Shirani concludes that these numerous design and manufacturing flaws call into question the structural integrity of the Holtec casks, especially under heat-related stress such as during severe transportation accidents. He also warns that his eight-day audit showed him only a snap shot of problems, and that there could in fact be additional ones yet to be identified.

[1] Elizabeth Brackett, "Nuclear Controversy," " Chicago Tonight," WTTW Channel 11 Television, Chicago, Illinois, January 29, 2004.

[2] J.A. Savage, "Whistleblower Alleges PG&E Proposed Dry Casks Slipshod," California Energy Circuit, Vol. 1, No. 1, Berkeley, California, September 5, 2003.

[3]*Ibid*.

[4] April 2002 NRC review panel memo, cited in J.A. Savage, "Whistleblower Alleges PG&E Proposed Dry Casks Slipshod," California Energy Circuit, Vol. 1, No. 1, Berkeley, California, September 5, 2003.

* This summary was prepared by Kevin Kamps, Nuclear Waste Specialist at Nuclear Information and Resource Service in Washington, D.C. July 22, 2004.]

Neither Holtec nor NRC have rectified this problem much, or at all, since. Thus, Shirani questioned the integrity of Holtec containers sitting still, going zero miles per hour, let alone 60 miles per hour, or faster, down the railroad tracks, subject to the extreme forces of severe accidents. Dr. Landsman compared NRC's decision making to that of NASA's, which led to Space Shuttles hitting the ground.

Holtec CEO Krishna Singh also attempted to bribe Shirani and Landsman into silence. Shirani told me that Singh told him that he could name his own salary, into the many hundreds of thousands of dollars per year, to come and join Holtec. But of course he would have to shut up about the Holtec QA violations. Both Landsman and Shirani refused and rejected Singh's bribe offer, and continued to blow the whistle.

Singh was separately implicated in a $55,000 bribe made to a Tennessee Valley Authority Browns Ferry nuclear power plant official in Alabama, made in order to secure a contract there.

When asked on a tax break application form, under oath, by a State of NJ agency, Krishna Singh answered that Holtec had never been banned nor barred from doing business with a federal agency or state government. This was a lie. Holtec had been banned and barred from doing business with TVA, after the bribery scandal at Browns Ferry. Singh's falsehood on the tax break application form was uncovered by ProPublic and WNYC in May 2019. It has led to a major scandal in New Jersey (Holtec's home base), with ongoing investigations. Singh's lie secured a $260 million tax break for Holtec, which was used to build a brand new, major manufacturing

plant in Camden, NJ, which bears Singh's name. Should a company like Holtec, and a CEO like Krishna Singh, be entrusted with 173,600 metric tons of highly radioactive irradiated nuclear fuel? The rogue behaviors they have exhibited would make that a resounding NO!

Relatedly, on June 25, 2020, Colin A. Young with the Statehouse News Service reported at WBUR (the Boston, MA NPR radio station), an article entitled "Report: Company Decommissioning Pilgrim Nuclear Plant Under Criminal Investigation."

The article is posted online here: <https://www.wbur.org/earthwhile/2020/06/25/plymouth-nuclear-plant-decommissioning-company-criminal-investigation>

The article reports:

[Holtec International, a subsidiary of which owns and is decommissioning the inactive nuclear plant in Plymouth, is under criminal investigation, Politico New Jersey reported based on a legal brief filed by the New Jersey Economic Development Authority.

According to the report, New Jersey-based Holtec International sued the NJ EDA in March over the payment of $26 million of a $260 million New Jersey tax incentive, which the agency held up because Holtec allegedy gave a false answer on its 2014 tax credit application.

"Holtec's misrepresentations — which include its failure to disclose a prior government debarment by the Tennessee Valley Authority (the 'TVA') for bribing an official of that agency — first came to light during an investigation conducted by the Governor's Task Force on the Economic Development Authority's Tax Incentive Program, and they are now the subject of an ongoing criminal investigation," the brief read, according to Politico.]

Again, should NRC rubber-stamp a license for Holtec's CISF, when the company is under "an ongoing criminal investigation" in its home state of New Jersey? The answer is NO! Obviously, Holtec cannot be trusted.

These comments are submitted on behalf of our members and supporters in New Mexico, and across the country along impacted transport routes.

Please acknowledge receipt of these comments. Thank you.

Sincerely,

Kevin Kamps
Radioactive Waste Specialist
Beyond Nuclear
7304 Carroll Avenue, #182
Takoma Park, Maryland 20912

Cell: (240) 462-3216

kevin@beyondnuclear.org
www.beyondnuclear.org

Beyond Nuclear aims to educate and activate the public about the connections between nuclear power and nuclear weapons and the need to abolish both to safeguard our future. Beyond Nuclear advocates for an energy future that is sustainable, benign and democratic.

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