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RE: Preliminary Comments on U.S. Department of Energy Renewal of the Mixed Hazardous Waste Permit for the Idaho Nuclear Technology and Engineering Center (INTEC) at the Idaho National Laboratory, Permit Number EPA ID No. ID4890008952 Liquid Waste Management System and the Integrated Waste Treatment Unit. IDEQ Public Notice of Intent 8/18/14, Docket Number 10HW-1402.

Idaho Department of Environmental Quality (IDEQ) issued a public notice 8/18/14 proposing to issue a Renewal Partial Permit for Hazardous Waste Storage and Treatment for the Idaho Nuclear Technology Center (INTEC) Liquid Waste Management System (ILWMS).

The Department of Energy (DOE) Idaho National Laboratory (INL) currently has an approved HWMA/RCRA Storage and Treatment Partial permit for Liquid Waste Management System (LWMS). This permit is due to expire on October 18, 2014. CH2M-WG Idaho, LLC is the current operating contractor for ILMS.

These comments for the public record are submitted by the Environmental Defense Institute (EDI) Inc. We reserve the right to submit supplemental comments due to limited time (45 days) allowed for comments.

EDI's 8/13/13 "Comments on Department of Energy (DOE) Idaho National Laboratory (INL) Highly Radioactive Sodium Bearing Waste Tank Closure Program and Integrated Waste Treatment Unit (IWTU) and Replacement Capacity for Disposal of Remote Handled Low-level Waste," are referenced because the various operations are fundamentally interconnected and the issues articulated were never resolved. [1]

[1] Environmental Defense Institute Comments on DOE's LWMS, Highly Radioactive Sodium Bearing Waste Tank Closure Program and Integrated Waste Treatment Unit (IWTU) and Replacement Capacity for Disposal of Remote

Section I: Summary

EDI finds the "new" Volume 14 LWMS permit reapplication slightly better than the original permit but still deficient. Due to the limited comment time (45 days) and huge volume of Permit Volume 14 (~1,389 pages), EDI's comments will be incomplete. [2] This has been correctly called a "paper dump" that no individual or NGO could possibly adequately review in 45 days.

Additionally, the 45-day comment period (ending 8/2/14) provided by IDEQ is inadequate given the importance of this major new operation (Integrated Waste Treatment Unit) IWTU, the failed applied treatment technology and the potential for significant environmental impact. Therefore, EDI requests that the comment period be extended to 120 days.

The DOE Permit Request submitted to IDEQ includes a new previously classified high-level radioactive and hazardous waste processing plant. This is the deadliest material on the planet short of nerve- gas and therefore deserves more public consideration than IDEQ is providing.

"The LWMS is composed of numerous permitted accumulation tanks, ancillary piping and four primary treatment units including:

* "The process Equipment Waste Evaporator (PEWE) a closed loop evaporator system with the condensed overheads and still bottoms held for further treatment.
* "The Liquid Effluent Treatment and Disposal unit employs fractionation columns to treat the PEWE overheads, recovering a nitric acid stream that is reused.
* "The Evaporator Treatment System, located in CPP-659 further concentrates higher activity liquid wastes.
* "The integrated Waste Treatment Unit (IWTU) is a new steam reformer system built to convert the remaining sodium bearing tank farm waste into a solid form. The IWTU includes dry solids and indoor waste pile storage associated with managing the treated waste." [3]

Integrated Waste Treatment Unit (IWTU)

The INL Integrated Waste Treatment Unit (IWTU) is designed to convert ~900,000 gallons of previously classified high-level liquid waste generated over decades of nuclear fuel reprocessing together with newly generated waste to a solid form suitable for final disposal in a geologic repository. It is crucial to remember that this is the most deadly material on the planet. A dixy cup of it on the table in front of you would give you a fatal dose of radiation before you could get up and leave the room.

DOE has been trying for decades to convert this liquid waste into a stable form that can be put into a permanent waste repository. This more recent DOE treatment – IWTU - from construction to startup has taken over 7 years.

EDI conducted an assessment of relevant DOE and other agency reports related to the IWTU, and offer them below. The documented evidence below will give a reasonable person pause before endorsing DOE's choice of radioactive waste treatment technology and the State of Idaho's ability to oversee the operation.

Handled Low-level, August 13, 2013, available on EDI website.

[2] HWMA/RCRA Part B Permit Reapplication for the Idaho National Laboratory, Volume 14- Idaho Nuclear Technology and Engineering Center Liquid Waste Management System (ILWMS), EPA ID No. ID4890008925, April 2014, Book 1 (342 pgs.) 2 (437 pgs.), 3 (177 pgs.) ,and 4 (433 pgs.).

[3] Public Notice: Intent to Renew Permit, Idaho Department of Environmental Quality, 8/18/14.

Defense Nuclear Facility Safety Board report to Congress

"**Integrated Waste Treatment Unit**. During 2012, the Board's staff evaluated preparations to commence operations of the Integrated Waste Treatment Unit project at Idaho National Laboratory. This facility is designed to convert approximately 900,000 gallons of radioactive liquid waste stored in tanks at the Idaho Nuclear Technology and Engineering Center to a solid form in preparation for permanent disposal. On June 16, 2012, the process system over-pressurized during pre-operational testing using nonradioactive materials. The system's off-gas filters were breached, creating an unimpeded path from the process vessels to the environment. The staff reviewed the operating contractor's corrective action plan and found several weaknesses. Among the staff's concerns was the potential for improper operation of bypass valves in the pressure relief system to impact the function of safety-significant rupture disks that protect other portions of the process system from over-pressurizing. The staff's communication of this concern prompted the contractor to declare a Potential Inadequacy of the Safety Analysis to ensure the issue was formally tracked and resolved. The Board continues to monitor the project's progress as DOE prepares to resume startup activities." [4]

Defense Nuclear Facility Safety Board Review [5]

"In June 2012, while facility workers were executing Test Instruction-102, *IWTU Integrated System Test: Hot Start-up*, IWTU experienced an over-pressurization event that forced a prolonged shutdown of the facility. During this shutdown, project personnel developed and implemented a Corrective Action Plan (CAP) in response to the over-pressurization event. After the completion of the actions required by the CAP, CWI conducted a Contractor Readiness Assessment (CRA) beginning in January 2014. Due to equipment faults and preparation deficiencies, CWI personnel were not able to achieve operational conditions at IWTU during the CRA, and it was suspended before all review objectives could be fulfilled. The CRA resumed on March 3, 2014, after normal operating temperatures and pressures had been achieved in a portion of the facility's systems, and without the introduction of steam or non-radioactive waste simulant. The CRA team concluded its review on March 7, 2014, without fully satisfying the CRA Implementation Plan (IP) criterion to have achieved full operating temperature.

"The DOE Readiness Assessment (RA) team commenced its review at IWTU on March 1, 2014. Members of the Board's staff were on-site to observe the DOE RA team conduct the first three days of its assessment.

"Staff Observations of DOE RA. The staff review team made the following observations during the DOE RA. The review team shared these observations with DOE Idaho Operations Office (DOE-ID) personnel, including the DOE-ID Manager.

"Facility Operating Status—The staff members noted that IWTU's off-gas system was not operating at the beginning of the DOE RA and had not been brought up to operating temperature. IWTU's greatest hazards to facility and collocated workers are controlled by the off-gas system, and it includes the majority of safety-significant controls in the facility. As a result of the June 2012 over-pressurization event, project personnel implemented many design modifications to the off-gas system. The modified components had not yet been tested under their normal operating

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[4] http://www.dnfsb.gov/sites/default/files/Board%20Activities/Reports/Reports%20to%20Congress/2013/ar_2013228_21831_0.pdf

[5] Defense Nuclear Facility Board, May 23, 2014 letter to Honorable Ernest J. Moniz, Secretary of Energy, from Peter S. Winokur, Ph.D., Chairman.

temperature, pressure, and flow conditions. Therefore, the effects of these design modifications on operating parameters throughout the rest of the IWTU plant, including on safety systems, were unknown. The staff team believes that without this information, it is not possible to make a defensible conclusion that the facility can proceed safely with nuclear waste processing operations.

"Considering the non-operational status of the off-gas system, the staff members believed that the IWTU facility was not in an appropriate condition to adequately conduct the full independent assessment that an RA is expected to provide. Specifically, the requirements of the DOE RA's Plan of Action (POA) and IP could not be met in this plant configuration, as the majority of safety-credited systems were not operating, and several recent design modifications could not be tested. The POA states, "The DOE Readiness Assessment will be conducted with the plant at full operating temperature under test procedure TI-102, once CWI provides a readiness to proceed memorandum to the Department." DOE Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*, requires RAs to be conducted in strict accordance with their POAs and IPs. Therefore, the staff team considered IWTU's declaration of readiness to be premature and that the facility had not demonstrated its readiness to safely restart operations.

"The staff review team discussed its observations with DOE-ID and DOE RA team personnel. The DOE RA team leader subsequently requested that CWI commence the off-gas system heat-up during the DOE RA. CWI's managers agreed to this request. This evolution required the resolution of 21 specific engineering actions, from procedural changes to calculating new process operating parameters. Similar additional engineering actions are required before IWTU can introduce steam, and eventually waste simulant, into the process system, which is necessary to complete DOE-ID's IWTU startup plan. While conducting the off-gas system heat- up, a Technical Safety Requirement (TSR) violation occurred due to a safety-significant system in the off-gas system not being properly configured for operation. Operators entered a Limiting Condition for Operations and shifted the facility to its warm standby mode. In the DOE RA team's out-brief to facility personnel, the RA team leader noted the resolution of this situation as a pre-start issue.

"DOE RA Scope—DOE Order 425.1D requires the scope of the RA to "be based, in part, on the status of and changes to the facility." The POA for the DOE RA lists 24 specific facility modifications to be reviewed, but notes that the list is not all-inclusive. The IP contains the same list of modifications in its scope, but omits the "not all-inclusive" caveat. When the staff members discussed this inconsistency with the DOE RA team leader, he indicated that the DOE RA team did not have the resources to perform a review of every facility modification. The staff review team believes that a review of all facility modifications is needed to comply with the intent of DOE Order 425.1D, particularly for such a first-of-a-kind facility startup.

"DOE RA Scheduling—The POA for the DOE RA included an approximate two-week break between the CRA and the DOE RA. However, prior to the March 2014 restart of the CRA, DOE-ID managers made the decision to commence the DOE RA approximately 48 hours after the approval of the CRA team's final report. The extent of the corrective actions that would be required by the CRA's pre-start findings was unknown at the time the decision was made to move up the start date of the DOE RA. The DOE RA team's final report included a post-start finding that concluded that DOE-ID is not holding IWTU to the requirements of DOE Order 425.1D, that the DOE RA was not in compliance with the approved POA, and that acceleration of the schedule between the CRA and DOE RA led to compromises regarding compliance with DOE's readiness process. The Board's staff review team believes that the decision to reduce the time between the CRA and the DOE RA negatively impacted the ability of the RA to fulfill the need for an independent assessment of facility operations.

"DOE Lessons Learned Summary on IWTU. On March 13, 2014, DOE's Office of

Health, Safety and Security (HSS) published Operating Experience Summary Issue Number 2014-01, Article 1: *Lessons Learned from Inadequacies in Management and Oversight at the IWTU*. Regarding IWTU's 2012 ORRs, the HSS summary notes that, "Startup of first-of-a-kind facilities such as IWTU requires a phased approach to ensure that personnel adequately understand the attributes of each component singly and within an integrated system. The selected demonstrations for the ORRs did not provide a representative spectrum of the activities necessary to safely startup the facility as described in the Startup Plan." The staff review team believes that the completion of an integrated startup testing program, prior to declaring readiness, would ensure that the operators and equipment at a first-of-a-kind facility are capable of demonstrating all activities necessary to safely startup the facility during its readiness reviews. Such a program was not completed before the DOE RA at IWTU.

"The HSS summary also emphasized the need to establish expectations for normal and abnormal process conditions and to "require rigorous assurance that equipment and personnel will function as credited in the approved safety basis documentation" during startup of a first-of-a-kind facility like IWTU. The staff review team believes that this rigorous assurance is best provided by independent technical assessments that ensure safety system performance under expected operating parameters.

"Issues Identified During IWTU Startup Testing. Since the completion of the DOE RA in March 2014, CWI personnel have identified several issues during startup testing. These issues appear to require significant engineering efforts to resolve and may result in changes to the IWTU safety basis and design. The magnitude of the engineering and operational changes may be significant enough to warrant independent review prior to the start of nuclear operations. Examples of some of these issues are described below. DOE-ID and CWI personnel expect to identify additional issues as startup testing continues.

"Granular Activated Carbon (GAC) Bed Potential Inadequacy of the Safety Analysis (PISA)—On April 3, 2014, during a subsequent attempt at off-gas system heat-up, CWI declared a PISA at IWTU with respect to the estimated time to GAC vessel failure when subjected to the maximum credible fire temperature of 1000 °C. The GAC vessels are a significant portion of the off-gas system and have several safety-significant controls to ensure their proper operation. Engineers discovered that the GAC vessel wall thickness used in the original engineering analysis of a fire in the vessel did not take into account the corrosion rate of the vessel wall. Following the declaration of this PISA, a test hold was put in place with the process off-gas bypassing the GAC vessels. CWI is performing an analysis of the GAC vessels with the anticipated wall corrosion rate. Following the conclusion of the analysis, CWI engineers will determine if changes are required to IWTU's safety basis and/or operating procedures.

"High Off-Gas Temperature Causes Actuation of Safety Instrumented Function (SIF)-2 Panel—On April 11, 2014, while heating up the GAC beds, IWTU experienced a SIF-2 trip due to high temperature in the process off-gas system. The SIF-2 safety instrumented system performs a safety-significant function to prevent a release of hazardous concentrations of nitrous oxide and mercury resulting from a breach in the off-gas system due to high off-gas temperatures. To assist in the heat-up of the GAC beds, the Shift Supervisor directed the Control Room Operator (CRO) to increase the outlet temperature of the Off-Gas Cooler (OGC). The CRO made the associated adjustment to the OGC's automatic temperature controller. After approximately 30 minutes, the CRO shifted the OGC's temperature control from automatic to manual to aid in maintaining the desired outlet temperature. Soon after, the test engineer noted that the OGC and GAC bed outlet temperatures were rising more rapidly than previously observed. Consequently, the Assistant CRO (ACRO), who had responsibility for maintaining the OGC outlet temperature, attempted to lower the OGC temperature. In doing so, the ACRO

adjusted the temperature controller in the wrong direction, reducing the amount of cooling provided by the OGC. The OGC outlet temperature subsequently rose to 204 °C, causing the SIF-2 trip, which prevented further heat-up of the GAC beds.

"Inadequate Operation of Hydrogen Analyzer System—On April 18, 2014, while reviewing the hydrogen analyzer in preparation for adding steam to IWTU's processing systems, CWI engineers noted that a gas sampling line was unexpectedly cold. Gas samples are drawn from the Process Gas Filter (PGF), routed through the hydrogen analyzer, and returned to the Denitration Mineralization Reformer. An eductor [sic]provides the motive force to move the sampled gas. The engineers directed a series of troubleshooting actions to determine if obstructions existed in the sample lines or the educator [sic], but found none. The engineers believe that the design of the educator [sic] is inadequate to draw the required sample from the PGF. They are re-evaluating the eductor's [sic] design and intend to procure a replacement. Management personnel made the decision to shut down and cool down the facility until corrective actions can be implemented. This situation highlights the consequences of the numerous unknowns associated with how the as-built IWTU facility operates.

"Staff Conclusion. The staff review team believes that the scope and depth of the engineering actions required to address the TSR violation, PISA, design changes, and transitions to steam and non-radioactive simulant feeds indicate a lack of assurance that the facility can safely proceed with nuclear operations. These changes may result in a safety basis, facility design, and operational procedures very different from those assessed during the DOE RA. DOE Order 425.1D requires a readiness review after substantial process, system, or facility modifications. Additional and independent technical assessments, such as an additional readiness review, may be necessary to ensure that all potential safety and operational issues have been identified and appropriately resolved prior to introducing radioactive feed." [6]

Subsequently, a month later, DOE's Acting Assistant Secretary for Environmental Management sent the DNFSB *Report on the Evaluation of the Need for Additional Independent Assessment of Startup Readiness for the Integrated Waste Treatment Unit*. "DOE agrees that IWTU will benefit from an additional independent assessment at the completion of startup testing and prior to the introduction of radioactive waste feed as described in the enclosed report." [7]

The DNFSB review is not comprehensive enough to be anything but a high level overview. However, it remains the only "independent" analysis available to the public. Certainly it cannot be called extensive. And IWTU is too unique of a facility for much of the DNFSB's expertise to rapidly hone in on any problems not previously identified. Their quick look at IWTU may be of some reassurance to the DOE regulators who must approve hot startup, but as with most audits, it is of limited scope and cannot be considered comprehensive. And it may even promote a false sense of security.

Occurrence Reports

DOE's Occurrence Reports document serious malfunctions of the IWTU that state:

"On Saturday, June 16, 2012, the Integrated Waste Treatment Unit (IWTU) was performing startup and testing activities when an unexpected pressure transient caused a loss of vacuum in the

[6] Defense Nuclear Facility Board, May 23, 2014 letter to Honorable Ernest J. Moniz, Secretary of Energy, from Peter S. Winokur, Ph.D., Chairman.

[7] David Huizenga, DOE Acting Assistant Secretary for Environmental Management letter to Peter S. Winokur, Chairman Defense Nuclear Safety Board, June 20, 2014.

Carbon Reduction Reformer (CRR) vessel activating the Rapid Shutdown System (RSS).

"IWTU Operations were in the process of performing the system lineup to transfer Off-Gas Filter (OGF) material to the Product Receiver Filter/Product Receiver Cooler-1 (PRF/PRC-1) when the CRR began losing vacuum needed to maintain established operating parameters and to continue heat-up of the steam reforming process. Control room operators backed out of the product transfer lineup, exited the transfer procedure and continued to operate the plant under the IWTU startup procedure.

" IWTU Operations personnel, with engineering support, continued to monitor the system and make adjustments throughout the evening attempting to restore CRR heat up and to maintain vacuum. During the adjustments, the pressure in the CRR rose to approximately 14 inches of water column. The RSS trip point is 14.0 inches of water column. Downstream temperature and differential pressure problems became evident in the HEPA filters, 260 and 240 blower systems. A pressure increase in the Off-Gas Cooler (OGC) caused a rupture of the rupture disk on the OGC and an increase in the OGC outlet temperature which tripped Safety Instrumented Function (SIF)-2. The failure of the rupture disk and the tripping of SIF-2 are the initiating events for this ORPS occurrence. Timeline: 11:57 - A Hi CRR pressure alarm was received. Operators responded per procedure by raising the Off-Gas Blower speed. CRR pressure responded as expected and pressure returned to normal. 12:08 CRR pressure began to rise. Operators responded per procedure and pressure became erratic. 12:20 - CRR pressure began to rapidly rise passing through the Hi and Hi-Hi alarm set-points. 12:24 - A Hi-Hi-Hi CRR pressure alarm was received along with the corresponding Distributed Control System (DCS) - RSS activation. 13:05 - The shift supervisor commenced plant shutdown per procedure. During shutdown a dark plume was noted coming from the stack. 13:35 - The OGC rupture disc pressure alarm was received indicating Rupture Disc PSE-SRC-160-003, a design feature SSC, had ruptured. 13:59 - Following rising temperatures at the outlet of the OGC, SIF-2 High-Temperature Protection System (a Safety Significant System) activated.

"Immediate Action(s): All applicable Emergency Action Response procedure steps were verified completed and a plant shutdown/cool-down was initiated. Notifications were made to DOE-ID and CWI Corporate." [8]

An on-site employee at INTEC during the IWTU startup "incident;" states the "he was not sure whether or not that there had actually been an explosion (of coal dust) but its pretty darn certain that ALL of the IWTU's off-gas filters had failed resulting in 'stuff' being blown up the stack. These filters include the sintered ceramic blow back filters at the tops of the cyclones situated downstream of both the fluidized bed reactors (DMR & CRR) and the main bank of HEPA filters situated immediately upstream of the main stack." [9]

"On March 13, 2012, a Hot Work Permit was authorized and a Fire Safety Watch was present for workers to weld and grind brackets in Room 109 South Corridor at IWTU. At 1430 hours MST, the Fire Safety Watch observed smoke coming out of the fume extractor unit, disconnected the unit and took it outside of the facility. After taking the smoking unit outside the Fire Safety Watch removed the spark trap cover and observed a small flame in the pre-filter which self-extinguished.

"The workers were performing hot work (welding and grinding) installing supports on an electrical cable tray. The workers were in compliance with the hot work permit. Due to the restricted work area the intake funnel on the fume extractor hose was located below the hot work

[8] DOE Occurrence Report; EM-ID-CWI-IWTU-2012-0008

[9] Darryl Siemer 6/22/12 email to Chuck Broscious

area, pointed up and positioned close to the welding location, but not directly under. The cable tray is approximately 10 feet above the ground with the fume extractor, ACE Industrial Products, Model No 73-200 M, located on a cart below. It appears that a hot spark was sucked into the funnel and down the hose into the spark trap portion of the fume extractor. The spark was drawn onto the surface of the pre-filter where it caused the pre-filter media to smolder generating the smoke observed by the fire watch." [10]

"Waste Treatment: Startup testing was suspended on June 16, 2012, at the Integrated Waste Treatment Unit (IWTU), which is designed to treat about 900,000 gallons of liquid radioactive waste stored at the Idaho Nuclear Technology and Engineering Center. Testing was suspended and plant heat-up was terminated to allow detailed evaluation of the process temperature, pressure and flow excursion observed on June 16. Facility startup testing has been ongoing for the past month, evaluating system and component operation and response during operating conditions. Radioactive waste has not been introduced into the facility, pending successful completion of startup testing." [11]

"July 17, 2012: A potential inadequate safety analysis was declared as part of the investigation into the pressure event that occurred during start-up of the Integrated Waste Treatment Facility. It was determined that the potential for "blinding" filter systems in the facility with unburned charcoal had not been adequately analyzed in the current safety documents. The facility was shut down after the June 16 pressure event, and an investigative team was commissioned to determine the root causes of the event and how to correct them." [12]

"Waste Treatment Progress: Progress continues in the effort to resume start-up activities for the Integrated Waste Treatment Unit, after the "pressure event" halted start-up activities last summer. **The IWTU** is designed to treat the remaining 900,000 gallons of liquid waste stored at the Idaho Nuclear Technology and Engineering Center tank farm. With the completion of the IWTU main process piping flush, the project can now start reassembling the process gas filter, off gas filter and the carbon reduction reformer. Restart activities are anticipated to resume this summer. [13]

"Dec. 17, 2013: An investigation was initiated into the adequacy of controls for relief valves and a rupture disk at the Integrated Waste Treatment Unit (IWTU). If the valves are not properly controlled, pressure could increase downstream of the rupture disks during process heat-up. This increase could cause a condition where the rupture disks would not rupture at the required pressure to protect the process off-gas system. IWTU operations have been shut down and will not resume until the necessary changes have been made to the facility or procedures)." [14]

"June 19, 2012: Operators at the Integrated Waste Treatment Unit were performing start-up testing when an unexpected pressure transient caused a loss of vacuum in the Carbon Reduction Reformer vessel, activating the Rapid Shutdown System. All applicable emergency action

[10] DOE Occurrence Report; EM-ID-CWI-IWTU-2012-0004

[11] DOE-ID Operations Summary; For the Period June 5 to June 18, 2012.

[12] DOE Occurrence Report, EM-ID—CWI-IWTU-2012-0009

[13] DOE-ID Operations Summary -13 4-1; For the Period Feb. 12 to Feb. 25, 2013.

[14] DOE-ID Operations Summary 13.01; For the Period Dec. 11, 2012-Jan. 2, 2013, citing DOE Occurrence Report EM-ID—CWI-IWTU-2012-0013.

procedures were followed, and a plant shutdown was initiated. A team has been formed to evaluate the cause of the incident and recommend corrective actions.)." [15]

"July 17, 2012: A potential inadequate safety analysis was declared as part of the investigation into the pressure event that occurred during start-up of the Integrated Waste Treatment Facility. It was determined that the potential for "blinding" filter systems in the facility with unburned charcoal had not been adequately analyzed in the current safety documents. The facility was shut down after the June 16 pressure event, and an investigative team was commissioned to determine the root causes of the event and how to correct them.)." [16]

U.S. Nuclear Waste Technical Review Board

"The NWTRB is an independent agency of the U.S. Federal Government. Its sole purpose is to provide independent scientific and technical oversight of the Department of Energy's program for managing and disposing of high-level radioactive waste and spent nuclear fuel." [17]

According to Dr. Darryl Siemer, former INL scientist, "the people on the NWTRB Board are supposed to serve as totally independent advisors/counselors to DOE on its "technical' issues - kinda like what the folks at the National Academy of Sciences & Defense Nuclear Facility Safety Board are also supposed to be doing for it (us?). Frankly, I think that DOE has made captives of all of its "advisors" because 1) it's both fun & lucrative (about $165K/yr for part time work) to be one of DOE's pet independent experts, and 2) they don't really have to do all much for it (their support staff does all the scut work). The main problem is that DOE usually dictates what its independent experts are supposed to "think" about & provides them with carefully rehearsed dog & pony shows/selected documents to "bring them up to speed" on each such issue. Most of these experts don't seem to question what they're being told & therefore usually end up not spotting/fixing the real problem(s)."

Additional Occurrence Reports on IWTU Problems

7/30/12; ITWU – Failure to Follow Confined Space Entry Process; [18]

5/2/12; ITWU Potential Inadequacy of Safety Analysis (PISA) – Inadequacy of Technical Safety Requirements TSR-level Controls for Fire Detection in Granular Activated Carbon Beds; [19]

4/25/12; ITWU Hazardous Energy Control Process Violation; [20]

2/27/12; IWTU – Safety Significant Pressure Safety Disk PSE- SRH-141-001A Discovered Ruptured; [21]

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[15] DOE-ID Operations Summary; For the Period June 19 to July 12, 2012, citing EM-ID—CWI-IWTU-2012-0008.

[16] DOE-ID Operations Summary; For the Period July 13 to Aug. 2, 2012, (EM-ID—CWI-IWTU-2012-0009

[17] http://NWTRB.gov

[18] DOE Occurrence Report; EM-ID-CWI-IWTU-2012-0011

[19] DOE Occurrence Report; EM-ID-CWI-IWTU-2012-0007

[20] DOE Occurrence Report; EM-ID-CWI-IWTU-2012-0006

[21] DOE Occurrence Report; EM-ID-CWI-IWTU-2012-0002

Respectfully Submitted

Chuck Broscious
President

Attachments: EDI ILWMS Sections I –to- V
EDI ILWMS Tank 18 List