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Decision to Delay Bomb Test Is Right Move

UT-D Congressman Jim Matheson who lead the Congressional effort, reports the decision by the Nevada Test Site Office to delay its planned 700-ton conventional explosion-named "Divine Strake"- is in keeping with his request to federal officials for more research into potential environmental hazards that may pose a risk to Utahns.

The National Nuclear Security Administration announced it is withdrawing its Finding of No Significant Impact (FONSI) related to the environmental assessment for the non-nuclear, open air test. The Defense Threat Reduction Agency (DTRA) had set the test of June 2nd, but then postponed it for three weeks following questions from Matheson and other Members of Congress about the purpose and possible health risks.

"After reading comments about 'mushroom clouds' and 'low yield nuclear weapons', I was greatly concerned, and expressed as much to the director of DTRA," said Matheson. "I advised him to put all the health and safety data out on the table so that people's fears about being once again exposed to radioactive contamination could be addressed. I am very pleased to see that these agencies have acted on my advice."

The news release issued by the Nevada Site Office says it will use the delay to "clarify and provide further information regarding background levels of radiation from global fallout in the vicinity of the Divine Strake experiment."

Both open air and underground nuclear tests were carried out in areas surrounding the location selected for the upcoming blast. Nevada environmental officials have refused to issue air quality permits required before its detonation, saying it has not finished analyzing the information provided by DTRA.

Something Wicked this Way Blows

Tona Henerson reports in the Idaho *Emmett Messenger-Index* 5/25/06, "During the nuclear bomb testing in the 1950s and 60s at the Nevada Test Site, our elected officials were silent because they did not know that the people of Emmett were slowly being poisoned. In 1997, the National Cancer Institute issued its report that Gem County was one of the highest fallout counties in the United States for Iodine-131. Senator Craig and Senator Kempthorne were our elected officials at that time, they said they would help us and then did nothing; we were swept under the rug. Now in 2006, we are still awaiting fair compensation for being our Government's guinea pigs during the Cold War. Senator Mike Crapo is our ONLY elected official who is trying to help sickened people in Idaho and Montana.

"Now the worse part of this story, or should I say nightmare. The Nevada Test Site is getting ready to detonate a 700-ton conventional bomb. The bomb will be buried 30 feet under the ground; upon detonation it will send dust at least 10,000 feet into the air. The critics of this bomb say it will re-suspend plutonium and other radioactive particles into the air that are now buried in the soil. The Government Departments that are performing this test say there is no contamination in the soil, so no harm will come to us. (Have we heard this before?)

"If there is no contamination with this test, why can't we wait and have soil samples tested by an independent third party? Again it is 2006. Why is our Delegation silent when Utah and Nevada officials are demanding town hall meetings for their constituents? The government is going to Las Vegas, Nevada and St. George, UT to listen to concerns of the people. Now the mayor of Salt Lake City is also demanding a hearing. Why has the Idaho Delegation not asked for the agency to come to Idaho to answer our questions?

"Please call or write our State and U.S. Senators and Representatives to demand that Idaho get hearings about the Divine Strake bomb test. We do not want to wake up to DIRTY, HOT winds blowing through town? What will that do to our health and economy? I pray our Delegation will no longer be silent and stand up for US! The government has not compensated the Downwinders we already have, now they are possibly going to create more Downwinders out of our children and grandchildren with this test."

US Federal District Court Rules on INL Waste Disposition

After a protracted 16-year legal battle that started in 1991 between the State of Idaho and the Department of Energy (DOE) over the final disposition of huge INL volumes of mixed hazardous and radioactive waste, Judge Edward Lodge issued a final ruling in May 2006.

Case Background

Federal District Court Judge Edward Lodge issued a ruling on March 31, 2003 that found in favor of the State of Idaho's contention that a 1995 Settlement Agreement/Consent Order stipulates the removal of all buried transuranic waste from INL. It was hoped that this ruling would end the drawn out legal battle between the State and the Department of Energy over what waste was included in the Agreement. Judge Lodge's 2003 ruling states:

"The express language of the [Settlement] agreement, when taken as a whole, expressly requires that all transuranic waste be removed from INEEL [sic]. The parties specifically define transuranic waste without any limitation as to its location within INEEL nor any limitation to amount. Thus the Court is able to unequivocally state that in viewing the document in the light most favorable to the United States, the plain language of Paragraph B.1 [of the Settlement Agreement] clearly represents the parties intent at the time the agreement was drafted that the United States **remove all transuranic waste located at INEEL** [sic]."[emphasis added]

Not satisfied with the Idaho District Court's ruling, DOE appealed to the U.S. Ninth Circuit Court of Appeals that subsequently decided in favor of the DOE and remanded it back to the Idaho District Court for a new ruling. Once again, Federal District Court Judge Edward Lodge reheard the case and issued a ruling on May 25, 2006.

Judge Lodges' new ruling conclusion states; "Ultimately the interpretation of this contract has been a search for the common meaning of the parties at the time they entered into the 1995 Agreement. It is hard to imagine that the parties to the 1995 Agreement intended anything other than what was put in writing. The final draft was the result of intense negotiations with multiple drafts going back and forth between the parties. The Court's interpretation of the parties' obligations under the 1995 Agreement assures that the concerns of both parties will be met. The United States has been and will be able to store spent nuclear fuel at INEL and the ultimate removal of buried waste from INEL will continue to progress on the timetable establish in the Federal Facility Agreement/Consent Order and in accordance with the requirements of CERCLA [Superfund Cleanup]. **The State of Idaho is assured that waste will be removed and such waste will no longer endanger the Snake River Aquifer.** The waste located at the above ground Radioactive Waste Management Complex [Transuranic Storage Area] TSA will be removed upon the time schedule outlined in the 1995 Agreement and the buried waste shall be removed, once it is determined if and how it can safely be moved as directed by the FFA/CO and CERCLA. This decision also resolves the question posed by the Ninth Circuit. The ambiguity identified by the Ninth Circuit was not an ambiguity in the wording itself, but only whether the 65,000 cubic meters figure was a reasonable estimate of transuranic waste. Ms. Trever's testimony establishes that the Federal government's own documents support that amount of transuranic waste, as defined in the 1995 Agreement, above and below ground was approximately 654,000 cubic meters." [emphasis added] 1

Judge Lodge's ruling was largely in favor of DOE due to gross incompetence by then Idaho Governor Phil Batt and former lead Deputy Attorney General Kathleen Trever in negotiating the 1995 Agreement. The Environmental Defense Institute (EDI) and other organizations and individuals tried aggressively to advise Governor Batt to reconsider the Agreement language because it did not specifically address the huge volume (greater than 65,000 cm) of buried waste at INL. EDI and the Shoshone-Bannock Tribes filed Amicus Briefs with the Court in 1993 in an attempt to alert the Court and the State of Idaho of major deficiencies in the buried waste characterization. Idaho and DOE linked arms (9/21/93) denying both EDI and the Shoshone-Bannock Tribes amicus motions to the court.

Public pressure forced the State of Idaho to reopen the case on the disposition of the INL waste. Again, the Environmental Defense Institute submitted Amicus Curiae Brief (friend of the court) and again Idaho blocked EDI's brief that detailed the extent of the INL buried waste hazard not adequately covered by the negotiated agreements with DOE. The State of Idaho and DOE simply do not want the full extent of the INL buried waste in the Court record.

The CERCLA cleanup process at INL will allow a problematic separations operation to extract only the transuranic waste greater than 100 nano-curies per gram, and return to the INL burial ground all the rest of the alpha emitting transuranics (less than 100 nano-curies/gm) and the greater than Class-C highly radioactive waste

primarily Naval Reactor Facility reactor fuel parts dumped at the INL burial grounds in dozens of "soil vaults" containing more than 1200 drums of extremely radioactive reactor part waste not considered as "transuranic." The INL Radioactive Waste Management Complex has buried waste in some 58 trenches, 10 pits, and 20 rows of soil vaults containing 2 drums per hole.

It is a documented fact that all categories (not just transuranic) of buried INL waste is already migrating into the underlying Snake River Aquifer. EDI released a heavily documented report called "Aquifer at Risk" that details the waste volumes and the groundwater (on and off-site) contamination data. Transuranic elements are bio-hazardous for tens-of-thousands of years. Our bodies or future generations cannot differentiate between a greater than or less than 100 nCi/gm. For details on this see EDI's website publications; <http://www.environmental-defense-institute.org>

The DOE Should Fight Its Own Battles

Mark Sullivan writes in the *Post Register* in an opinion editorial that, "In a May 9, 2006 opinion piece, *Post Register* reporter Nicole Stricker claimed that the 'Partnership for Science and Technology,' a group newly formed to provide public support for the Department of Energy work at INL by Idaho Falls economic interests, including the Chamber of Commerce and Grow Idaho Falls, Inc., 'will have its work cut out for it...countering misinformation put out by opposition activists.' One must ask, why doesn't the DOE counter such supposed 'misinformation' itself?"

"John Lindsay, communications director at INL, vaguely claims that contracts limit how INL workers can respond at public hearings, and that this new group will not be similarly restricted. We believe that INL employees and contractors should be free to discuss the public's business – and operation of a major research laboratory and nuclear materials production facility with taxpayer money is certainly the public's business – publicly. Furthermore, to the extent that such employees are not free to speak at public hearings, surely someone at INL, if not Mr. Lindsay himself, should respond to public criticism and concern, particularly when it is thoroughly researched and well-documented.

"By examining the DOE's own documents obtained through the Freedom of Information Act, Keep Yellowstone Nuclear Free, the Environmental Defense Institute, and other groups have learned of, and made public, the deteriorating physical condition and suspect safety systems at the Advanced Test Reactor at INL. We have documented, with copious citations to DOE records and quotations from DOE officials, a litany of equipment failures and malfunctions due to the age of the ATR. The reactor, which was designed and built in the 1960s, is well beyond its projected useful life and is hobbled by the unavailability of replacement parts. These are grave concerns that deserve closer scrutiny given that this reactor is charged with the mission of processing extremely hazardous radioisotopes for a long time to come.

"Other significant problems we have cited include failing or inadequate supports for primary and secondary cooling systems; unreinforced concrete walls that do not meet building codes and would collapse in the event of an earthquake, crushing critical safety systems; an emergency firewater injection system that, according to the DOE, is a 'major concern' and 'must be replaced' because it may not survive an earthquake; vulnerable off-site substations relied on for power; 'pitting' and 'corrosion' of cooling system piping and heat exchangers; control rod problems; and failing radiation monitors. This is not 'misinformation'; these are the facts, as Ms. Stricker would know if she had researched the matter.

"Before anyone claims opponents have put out 'misinformation,' they should ask what response the DOE has given. Although these problems, among others, were identified in writing, and made public by KYNF in December, 2005, the DOE has offered no response whatsoever apart from repeating to the media its mantra that the 'core internals' of the ATR are replaced every so often and vaguely claiming that many of these problems have been fixed. This is not an issue that should be swept aside with such vagaries -- the levies that were once believed to protect New Orleans received similar hand-waiving platitudes.

"The real 'misinformation' is DOE's claim, repeated by Ms. Stricker, that the ATR doesn't need a containment dome. There is a very real risk of a seismic event causing a loss of coolant accident due to the sub-standard construction and antiquated cooling systems at the ATR. A loss of coolant accident could cause the reactor core to be exposed to the air, causing a fire, or worse, a core meltdown which would send radiation into the outside environment. With no dome to contain the radiation, DOE's own engineers have estimated that an accident could release 175,000,000 curies of radiation, which would rank among the worst nuclear accidents in history. That's fact, not misinformation.

"KYNF welcomes a full and open public debate about the safety of operations at INL and does everything it can to ensure that the information that it releases to the public is accurate. This is not always an easy task because the DOE so closely guards its information about the reactor's safety, selectively releasing documents to the public. The DOE has, in violation of the Freedom of Information Act, withheld from KYNF documents that presumably would shed further light on safety shortcomings at the ATR. Perhaps the "Partnership" will be able to obtain such information and release it to the public. We hope that the Partnership will help to protect the public welfare by providing an objective assessment of the safety of the ATR, rather than acting as a front for the DOE."

Chuck Broschius writes in a later Idaho Falls *Post Register* opinion editorial, "Francis C. Fogarty, who was an INL manager nearly 15 years ago, sought to reassure the public by stating that the safety problems Keep Yellowstone Nuclear Free and the Environmental Defense Institute have raised with respect to the Advanced Test Reactor at INL were 'self-identified' by the DOE. This is certainly cold comfort, particularly when neither Mr. Fogarty, nor any current DOE official, has explained whether, how or when these serious problems have been or will be fixed.

"Mr. Fogarty, following the lead of current DOE officials, also sought to compare the ATR to research reactors located at some universities in populated areas around the country, as an explanation for why no containment structure is required at the ATR to ensure public safety. As Mr. Fogarty is certainly aware, the comparison is grotesquely misleading.

"There is no university research reactor in the country that is comparable to the ATR. First, the ATR is a 250 Megawatt reactor, not as large as a typical commercial nuclear reactor used for power generation to be sure, but 25 times more powerful than even the largest university research reactor -- the 10 Megawatt facility at the University of Missouri-Columbia.

"At public hearings DOE officials have even had the arrogance to compare the ATR to the research reactor at nearby Idaho State University, which is a .000005 Megawatt facility. That's like comparing a child's toy rocket to the vehicles that will deliver the recently-launched NASA mission to Pluto and beyond. It is deceitful and presumes that one's audience will not check the facts.

"Second, and as the DOE itself so often repeats, the ATR is a unique facility that acts as a 'time machine' because it delivers extraordinarily high doses of radiation used to test how materials will stand up to radiation over time. It is for this reason that the ATR poses a serious risk. The ATR has a 'release inventory' of 175,000,000 curies of radiation -- an enormous load that far surpasses anything a university research reactor might contain. It is also the reason that a containment dome is warranted for the ATR.

"The only useful point of comparison between university research reactors and the ATR is their typical age. Most university reactors were built, like the ATR, in the 50s and 60s. For that reason, the majority of those reactors have already been decommissioned -- and so too should the ATR."

More Censorship of Freedom of Information Act Requests

Censorship by DOE for Freedom on Information Act (FOIA) requested documents continues to prevent the Environmental Defense Institute, Keep Yellowstone Nuclear Free and attorney David McCoy from conducting a comprehensive independent review of INL Advanced Test Reactor (ATR) operations. The most recent DOE FOIA document shipment (4/26/06) is no exception.

Of the 17 documents requested, DOE only sent seven, claiming that for the other 10 "No Responsive Documents Exist." EDI found a crucial contradiction. Item #1 "Documents related to ATR RCRA permit" DOE/ID determined "No Responsive Documents Exist." There is no ATR RCRA permit. Yet Document # 3 shows ATR RCRA waste processors and # 4 shows quantities of RCRA waste. Specifically, document # 4 (3/13/06) with EDI manual totals mixed (RCRA) ATR generated waste for one year is 1.803 cubic meters = 63.646 cubic feet. ²

Occurrence Reports. This is a list of DOE's recent ATR/RTC accidents and "off-normal" occurrences. Based on the ascension numbers, there are at least 27 missing reports. For example, if there is a 0007 and a 0009, it is assumed that 0008 is missing. Since we have no idea how many total reports for each year, there may be missing reports at the end that would not be obvious using this tracking method.

² Also see the link shows mixed TRU waste in to bottom of the ATR Canal.
<http://www.id.doe.gov/doeid/INLContract/SecJAttPconform.pdf>

Occurrence Report NE-ID-BEA-ATR-2005-0011 (10/24/05); Technical safety requirements surveillance procedures fail to properly demonstrate system operability. "An annual functional test of the ATR canal firewater injection system is performed to fulfill Technical Safety Requirements (TSR) surveillance requirements. Results of the last test revealed unacceptable data and consequently the system was declared inoperable and appropriate Limiting Conditions for Operation (LOC) action statements were performed as required by the TSR." [page 2] "The ATR canal firewater injection system was declared inoperable and the appropriate LOC action were [sic] completed. The ATR canal firewater injection system functional test was re-performed and the system was determined to be in specification and declared operable." [page 3]

In a separate violation this OR report states; "During operational readiness review (ORR) by DOE it was noted that an existing TSR surveillance procedure did not appear to test the reverse function for neck shim rods for the Advanced Test Reactor Critical Facility (ATRC). ...The new information provided by the reviews showed that the existing surveillance was performed as required by the TSA but was not adequate to properly demonstrate neck shim reverse function operability, and consequently the system was declared inoperable until the requirements to show that neck shim insertion upon receipt of a reverse signal is removed." [page 3]

Scram (emergency ATR shutdown due to system failure) 2000 through 2004 total seven. Again there are some 27 reports missing, so this scram number may be understated.

ATR/TRA/RTC accident history events between 1991 and 1999 experienced 11 emergency shutdowns "scrams" due to system failures that are indicative of a reactor operating beyond its design life. These system failures will only increase with each day the ATR continues to operate. For instance, on July 21, 1998 the Advanced Test Reactor Critical Facility went into a "scram" or emergency shut down when an unplanned **power "excursion" or surge** resulted when the control cylinder withdrawal failed to operate. 3

How significant are the Scrams in terms of being the type of thing that could lead to accidents that are quite serious? On scrams - they are indicative of a very unreliable operating system and something that would not be tolerated in a commercial power plant because it's very expensive to stop and restart a reactor outside of scheduled shutdowns. In a scram - the control rods have to be dropped into the core to absorb the neutrons. The Union of Concerned Scientists report talked a length about extensive problems with ATR vintage control rod drivers failing.

Although not specifically stated in Occurrence Report NE-ID-BBWI-ATR-2000-0009; New Reactor Element Dimensional Checks violated current procedures during refueling, DOE may now need to use smaller radial diameter fuel rods to fit into the reactor core. It was an identified problem with ATR experiment loops where capsules got stuck, so DOE had to reduce the diameter of the capsules to compensate for the age distortion of the ATR core.

Also see Occurrence Report NE-ID-BBWI-ATR-2001-0001; ATR West Outer Shim Control Cylinder West 1 & 2 Drive Mechanism Failure Caused by Incorrect Installation of Woodruff Key. This is part of the reactor safety control rod system. This report states; "While all 16 ATR Outer Shim Control Cylinders (OSCC) were being withdrawn as a group during the initial approach to criticality for Cycle 124B-1, the West 1 & 2 OSCC (which are controlled by a single mechanical drive) ceased moving when the cylinders reached the 96 degrees withdrawn position. After this, the West 1 & 2 OSCC could not be moved in either the withdraw or insert direction." [page 2] "It is not known how long this incorrectly sized Woodruff key had been installed in the East 1 & 2 OSCC drive. The information probably would have been documented on DOPs and Quality records at the time of the change." [page 4]

The major point here is the crucial mechanism for inserting the control rods for ATR reactor shutdown malfunctioned. DOE's own ATR Safety Basis Report concludes, "The impact on the facility safety basis due to not maintaining the early [Safety Analysis Report] SAR and the patchwork approach to applying updated codes and standards which resulted in potential weaknesses in the safety basis was not recognized when preparing the upgraded safety basis. The decision to exclude the design basis verification scope from the safety basis upgrade project led to these weaknesses being carried forward into the new safety basis. Discovery of this condition, through a DOE OA audit and reviews by ATR safety analysts resulted in shutdown of the ATR for more than three months at a cost of approximately three million dollars per month in lost productivity. A design basis reconstitution program must be performed under much less favorable circumstances and likely, at greater direct

3 "Unacceptable Risks at the INL ATR, the Case for Closure" <http://environmental-defense-institute.org>. Also see Union of Concerned Scientists October 1971 Report. Between 1954 and 1967, TRA's Materials Test Reactor and Engineering Test Reactor had at least 5 meltdowns.[Citizens Guide to INL pg 191 citing DOE/ID accident reports]

cost than would have been required if performed in conjunction with the safety basis upgrade project." 4

DOE's own 2005 ATR Audit states; "The current schedule for completing the Design Basis Reconstitution [upgrades] program is in 2011 is **not timely** considering the number and importance of the design basis issues that were identified in the OA in 2003." [1] This is a violation of DOE-STD-1027-92 and DOE Order 5480.23. 5

Public confidence in DOE's commitment to correcting crucial safety problems is justifiably skeptical, especially when we are the ones that will face the consequences of a major accident.

Potential for Catastrophic Release of Radiation from Advanced Test Reactor (ATR)

"The radiological analysis of the large-break loss-of coolant accident shows that an ATR core inventory of 1.11 gigacuries [1.11 billion curies] at reactor scram [emergency shutdown] conditions releases [to the atmosphere] an available source term of 175 megacuries [175 million curies]...that includes 58,000,000 curies of **all** radioactive iodine species" 6

In such an ATR "Condition 4 [accident the] radiation exposure limits would be 25 rem [25,000 millirem] whole body and 300 rem [300,000 millirem] thyroid dose [effective dose equivalent (EDE) to the maximally exposed individual] to off-site public and evacuating workers (excluding personnel considered directly at the location of the accident. Reactor fuel source term limit: The primary coolant pressure boundary must be maintained ... and the reactor confinement must not be damaged." 7

Office of Facility Safety (EH-2) Office of Environment, Safety and Health Unreviewed Safety Question Activity Report July – September 2005 page 32 [B-1] shows that higher radiological consequences could result for an accident at ATR than analyzed in the SAR-153 report because of a faulty analysis of flow rate in the hot fuel plate analysis. **Thus there is a "potentially inadequate safety analysis."** 8

In other words, if the coolant and confinement are compromised, the radiation released and exposure would be significantly more for the off-site public.

The National Emission Standard for Hazardous Air Pollutants (NESHAP) for Radionuclides (40 CFR 61.92) limit is 10 millirem/year whole body effective dose equivalent (EDE) or 0.010 rem EDE. 9 NESHAP limit for radioactive iodine is 3 millirem/year or 0.003 rem . 10 Radioactive iodine primarily affects the thyroid.

In other words, in the event of a major ATR accident, anyone living within 60 miles (includes Pocatello) would potentially receive 2,500 times the NESHAP allowable whole body EDE radiation limit. Exposure to the thyroid would exceed the NESHAP standard by 100,000 times the Environmental Protection Agency EDE limit. These are lethal doses by any standards. Downwinders living beyond the 60 mile radius would apparently receive less radiation depending on their location from the ATR, however if there is a meteorological situation of precipitation (snow/rain), the radiation can be carried much further and be more concentrated.

4 Advanced Test Reactor Safety Basis Upgrade Lessons Learned Relative to Design Basis Verification and Safety Basis Management" Gregg L. Sharp, Bechtel BWXT Idaho, INEEL

5 http://www.llnl.gov/es_and_h/sawg2004/pdf/p4_3.pdf

6 2000 DOE-PEIS 0310, page I-6, and Table I-4.

7 Advanced Test Reactor (ATR) Facility 10 CFR 830 Safety Basis Related to Facility Experiments, 6/02, 12th Annual Energy Facility Contractors Group Safety Analysis Workshop, INEEL/CON-02-00148, page 9. The ATR Safety Analysis Report [SAR-153 pg. ES-18] estimated that populations within a 60 mile radius of an ATR loss-of-coolant accident would receive 185 rem (or 185,000 millirem) to the thyroid and 13.2 rem (or 13,200 millirem) whole body effective dose equivalent (EDE). This Safety Analysis Report which is supposed to be definitive was off by a large factor on the amount of exposure possible.

8 http://www.eh.doe.gov/facility_safety/usq_activity_report_2005-3.pdf

9 40 CFR Sec. 61.92 Standard: states " Emissions of radionuclides to the ambient air from Department of Energy facilities shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr.

10 40 CFR 61.102 Subpart I_National Emission Standards for Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H: states: (a) Emissions of radionuclides, including iodine, to the ambient air from a facility regulated under this subpart shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr. (b) Emissions of iodine to the ambient air from a facility regulated under this subpart shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 3 mrem/yr.

Recent health studies on radioactive iodine exposure show that 0.087 Sievert (8.7 rem) (8,700 mrem) will likely cause malignant tumors to the thyroid. 11 Independent health critics claim this exposure level is grossly misleading, and that major thyroid cancer and other autoimmune diseases will develop at much lower doses.

As noted above, DOE's own estimates of ATR radiation releases during a "loss-of-coolant" accident would be 175 million curies which includes 6 million curies of radioactive iodine-131. 12 This is nearly half the 340 million curies of radiation released by Chernobyl which permanently contaminated thousands of square miles around Chernobyl. President Bush and Idaho's Governor are playing "Russian roulette" with Idahoans and all INL downwinders' lives just like Gorbachev did with the downwinders' of Chernobyl. There is not even an off-site evacuation plan on record for a major INL radiation release. 13 Even if there were an evacuation plan, we have all seen how totally inadequate the Federal Emergency Management Agency response to the 2005 gulf coast hurricane disasters was for these residents.

Disabling of Safety System and Falsification of Records at ATR-C

"On September 21, 1998, DOE issued an [Notice of Violation] NOV to LMITCO [ATR operating contractor]. The NOV cited two violations of nuclear safety requirements involving disabling of a safety system and three violations involving failure to perform surveillances as specified in procedures, falsification of records, and failure to promptly initiate corrective action documentation.

"On October 31, 1997, an electrical lead on the seismic scram subsystem detector in the Advanced Test Reactor-Critical (ATR-C) Facility was found disconnected. The ATR-C is a lowpower (100-watt) reactor designed to test prototypical experiments before irradiation of the actual experiments in the ATR. The seismic scram subsystem is designed to actuate an automatic shutdown of the reactor if seismic movement is detected. The disconnection of the electrical lead was not authorized. This action violated 10 CFR 830.120(c)(2)(i). The investigation found that ATR-C was operated on three occasions without the seismic scram subsystem shown to be in an operable condition, violating facility technical specifications. LMITCO's investigation of the disconnected seismic switch uncovered three instances in which surveillances could not have been completed in their entirety by the two operators who purportedly performed them."

Failure to Maintain Radiation Monitoring Equipment Operational

"On August 4, 1998, DOE issued an Enforcement Letter to LMITCO concerning repetitive noncompliance with the Quality Assurance Rule (10 CFR 830.120) work process requirements. The repetitive noncompliance resulted in six occurrences where radiation monitoring instruments required by the facility Safety Analysis Report (SAR) were found to be inoperable. No actual personnel exposure or adverse consequence resulted from these inoperable instruments, but DOE concluded that the repetitive nature of these non-compliances could have contributed to personnel exposure if an accidental release had occurred when these instruments were inoperable."

Radiological Release and Contamination of Workers at INL

"DOE issued two separate NOV's: the first to LMITCO, which is the DOE prime contractor for the INEEL; and the second to MAC Isotopes, which is a privatized subcontractor to LMITCO that uses INEEL facilities and services for the production of radioisotopes for commercial use. Both NOV's were issued for failing to have adequate radiological work control processes in place for maintenance work on a hot cell manipulator. As a result, radioactive material was uncontrollably released into [a Test Reactor Area building], causing small exposures to six workers, as well as contamination of the entire building, which was closed for 3 weeks for decontamination." 14

11 "Radiation Linked to Thyroid Nodules in Atomic Bomb Survivors", Reuters, 3/1/06, As reported in the Journal of the American Medical Association for March 1, 2006.

12 Final Programmatic Environmental Impact Statement for Accomplishing Extended Civilian Nuclear Energy Research and Development and Isotope Production Missions in the United States, Including the Role of the Fast Flux Test Facility, December 2000, Section I.1.1.1.2. (2000 DOE/EIS-0310).

13 Idaho's present Federal Emergency Management Administration (FEMA) plans posted on <http://www.bhs.idaho.gov/>

14 1998 Annual Report Price-Anderson Nuclear Safety Enforcement Program, Office of Enforcement and Investigation Environment, Safety and Health U.S. Department of Energy, January 1999. Penalties totaled \$ 235,000.