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Sierra Club, Jackson Hole Conservation Alliance, and Snake River Alliance Join Plutonium Incinerator Lawsuit

In September, Gerry Spence, Jackson Wyoming attorney for Keep Yellowstone Nuclear Free and the Environmental Defense Institute, filed a lawsuit against the Department of Energy (DOE) alleging violation of environmental laws related to the plutonium incinerator planned for the INEEL. This month, the Sierra Club, Jackson Hole Conservation Alliance, and the Snake River Alliance joined the lawsuit. Other mainstream environmental organizations have expressed a desire to join in the suit as well.

Roger Singer, local chapter director of the Sierra Club notes: "This facility will provide little if any benefit to people and the environment downstream of INEEL while putting Yellowstone Park, its wildlife, and the people who live and recreate in and around it at risk. Contrary to what was analyzed in the Environmental Impact Statement, I know nuclear contamination does not necessarily cease to exist 50 miles away from its source." "We wouldn't be involved in this lawsuit if the DOE had listened to and heeded the advice of concerned Idahoans from the start. From the beginning we've asked the simple question: Will the pile of waste we end up with be safer than the pile we began with after all the risks of treatment are added in? We don't like going to court, but what we really dislike is not having that fundamental question answered," notes Pamela Allister, Executive Director of the Snake River Alliance.

- Critical decisions were made behind closed doors and out of public view in violation of federal law.
- **Before** starting the Environmental Impact Statement, DOE contracted with British Nuclear Fuels Ltd. (BNFL) to construct and operate the treatment facility, and BNFL applied for a series of state and federal permits relating to the incinerator. This is a blatant violation of the law, which requires that an agency study alternatives **before** it selects a course of action not **afterward** as DOE has done here.
- DOE ignored environmental ramifications of the incinerator by limiting its analysis to a 50-mile radius - wholly disregarding the fact that prevailing winds may carry airborne emissions of radioactive and hazardous materials much further, including into the Yellowstone/Teton region and population centers in eastern Idaho and Wyoming.
- DOE inadequately describes the real risks of cancer and other human health impacts from the incinerator, failing even to disclose the total cumulative effects from all INEEL operations which the expected release of radioactive and toxic materials will pose for people who live in the downwind region.

Gerry Spence, nationally famous trial lawyer and author, is leading a team of environmental attorneys including David Nevin, Laird Lucas, Brian Hanson, and Richard Condit. Spence has spent a lifetime representing the poor, the injured, the forgotten, and is serving on this incinerator case without fee. He has tried many nationally known cases, including the murder defense of Randy Weaver, the Karen Silkwood case, the case against Penthouse magazine for Miss Wyoming, and hundreds of others both criminal and civil. He is the founder of the Trial Lawyers's College and is a well-known television commentator.

The Environmental groups seek an immediate halt to the DOE's construction of the plutonium incinerator called the Advanced Mixed Waste Treatment Plant at the INEEL located near Arco, in southeastern Idaho. The planned incinerator will burn plutonium contaminated radioactive, hazardous chemical and "PCB" wastes. DOE approved the project "in blatant violation of the National Environmental Policy Act and the constitutional rights of Wyoming citizens, who were denied meaningful notice and opportunity to comment upon this project."

The plutonium incinerator would lie 90 miles upwind from Jackson, Wyoming, and such national treasures as Yellowstone National Park, Grand Teton National Park, and Jebediah Smith Wilderness Area. The alleged violations include:

The public's scepticism is justified given DOE's abysmal operating history. This coupled with a culture of secrecy and deception resulted in vast numbers of Americans paying the ultimate price for this country's venture into the nuclear age. Not until 1997 did Americans find out about massive radioactive fallout spread over the entire country as a result of nuclear bomb tests in Nevada.

The northern rocky mountain states received the most fallout because the bombs were detonated only when prevailing winds were blowing away from the heavily populated regions of southern California. [1] Again, under public pressure, DOE recently disclosed massive radiation plutonium and uranium contamination at the DOE's Paducah Gaseous Diffusion Plant in Kentucy are only the most recent example of callous disregard for the workers and the community.[3]

Can DOE be trusted to tell the truth about its current operations? In 1997, US Federal Court found that DOE's Los Alamos National Laboratory falsified its radioactive release reports and forced DOE to submit to court ordered independent monitoring.[4] Planned or operating hazardous/radioactive waste incinerators at DOE's Rocky Flats,[5] Lawrence Livermore National Laboratory,[6] Los Alamos National Laboratory, [7] and the Idaho National Engineering and Environmental Laboratory (INEEL) [8] were forced to shutdown because of non-compliance. A fifth hazardous/ radioactive waste incinerator at DOE's Oak Ridge National Laboratory will be shutdown within the next three years.[9] This Oak Ridge incinerator experienced four "upsets" in 1996 which released unfiltered radioactive and chemical gases directly to the atmosphere.[10]

The public has good reason not to trust the federal government when it spends hundreds of millions of dollars defending DOE and its contractors for contaminating residents living in the shadow of their operations. The government's refusal to accept responsibility for its nuclear operations is unconscionable. These millions should have been spent providing health care and compensation for the victims, not for lawyers arguing that the government has sovereign immunity and cannot be held liable for the pain, suffering, and death of downwinders. The last five decades of government secrecy and denial show us what we can expect when this new INEEL plutonium incinerator malfunctions and spreads illness and death. There will be no accountability, just more denial and bogus government-sponsored health studies that find no connection between nuclear plants and health effects.

DOE's Idaho National Engineering and Environmental Laboratory (INEEL) also has a poor operating history and a propensity to destroy millions of pages of documents related to radioactive releases.[11] This systematic and deliberate destruction of evidence needed for an ongoing Centers for Disease Control INEEL radiation dose-reconstruction health study would be considered criminal in some legal situations. Between 1952 and 1989, more than 18.5 million curies of radiation were released from the various INEEL nuclear operations.[12] Dumping of solid and liquid radioactive and hazardous waste has contaminated Idaho's sole source Snake River Plain Aquifer.[13] Much of this liquid waste was pumped directly into the aquifer via injection wells. In the past decade, some 30 emission control systems failed, eight of releases from the Hanford Nuclear Reservation in Washington between 1944 and 1972.[2] Revelations about widespread worker

which were filter failures. [14] INEEL's 52 reactors have experienced 26 meltdowns and the reactor fuel processing plant (ICPP) had five criticality accidents [15] similar to the recent nuclear fuel processing accident in Tokaimura, Japan. DOE refuses too adequately cleanup INEEL's past contamination by relying on "institutional control" to prevent public access to the site, thus creating a "nuclear sacrifice zone." INEEL is currently operating a high-level nuclear waste incinerator called the New Waste Calcine Facility, and a low-level nuclear/hazardous waste incinerator called the Waste Experimental Reduction Facility, that will likely shutdown soon because they cannot meet new EPA emission regulations.[16] A reasonable member of the public would look at this operating history and correctly conclude that this government agency cannot be trusted to put public health and safety interests above its own internal nuclear agenda.

British Nuclear Fuels Limited (BNFL) the owner operator of the proposed plutonium incinerator is reportedly being challenged in its home country. According to press accounts, BNFL's Sellafield nuclear fuels plant in Cumbria, United Kingdom, was recently charged with twice falsifying fuel records on nuclear fuel shipments for Japan.[17] News stories state that Sellafield is also responsible for extensive radioactive contamination discharged into the North Sea.[18] They also state that a BNFL reactor in Scotland is facing tough and unprecedented legal action for breaking safety rules and polluting the environment and that this BNFL Chapelcross power plant, near Annan in Dumfriesshire, UK has been plagued with leaks since the beginning of the year. [19]

BNFL's operations at Oak Ridge apparently have problems as well. Media coverage notes that "In response to a disturbing trend of injury-causing accidents in recent weeks, BNFL suspended its cleanup operations at the East Tennessee Technology Park on April 27, 1999 to conduct safety reviews. Five or six workers have suffered injuries in the last three weeks."[20] This operation is drawing public concern because DOE is recycling radioactive metals back into the commercial market where radiation exposures may occur from appliances to jewelry that used the recycled metals.

The planned INEEL plutonium incinerator postulated radioactive and chemical releases to the atmosphere are optimistic assumptions of emission control systems efficiency. Since the incinerator has not yet been built, all the emission numbers are estimates. The Idaho State Air Permit discloses that even with all systems working as assumed, 30.7 tons of hazardous materials will be released out the stack. [21] This includes 43 chemicals and heavy metals, eleven of which are known carcinogens. [22] Assumed

incinerator radioactive releases will be 26.6 curies annually which includes 501 million pico curies of plutonium. [23] A pico curie is the unit of measure used by EPA in setting standards for radionuclides in the environment because they are so biologically hazardous. A pico curie is equal to one trillionth of one curie, or 0.000000000001 curie. The filter efficiency claims of 99.99% are based on industry claims for emission control that are unsubstantiated. Existing hazardous/radioactive incinerators in reality cannot meet this efficiency rate for removing hazardous and radioactive pollutants. DOE failed to disclose its emission control system failure to contain radionuclides from entering the environment in all its nuclear facilities.

- "Filter efficiencies are difficult to attain partly because of the fragile nature of the filter [thin paper] medium. A very few small holes in the filter medium . . . can reduce filter efficiency significantly."
- "Currently, there are no independent labs that can test HEPA filters with one exception of Oak Ridge which shutdown in 1999 for lack of funding. Testing is now largely, by default, left to the manufactures." "Even with this pretesting, rejection rates of 3-6% were common."
- "Specific procedures addressing filter operation are typically lacking throughout the defense nuclear complex and have not been made mandatory by DOE. Under accident conditions, such filters are vulnerable to subsequent failure in use, for example, after becoming heavily loaded with smoke particles."
- "Filters can fail under fire scenarios."
- "Filters can fail under heat and elevated temperature scenarios."
- "Filters can fail under wetting and combined fire suppression scenarios."
- No nondestructive testing is being done to test for filter strength. "Further, many unpredictable factors can degrade the filter installation's strength without the operators' knowledge."
- "Air leaks at gaskets, fan seals, and damper actuator penetrations are particularly vulnerable. These regions are not routinely checked for leaks."
- "Filter folds are the most common vulnerability. Loss of water-repellent capability with age is another significant problem."
- "There is physical evidence that some HEPA filters presently in service may be too weak to perform their safety function effectively and there is continued reliance on a field test that provides no information on the filters remaining physical strength." [24]

An internal report by DOE's Defense Nuclear Facilities Safety Board (DNFSB) offers a shocking analysis of nearly two decades of nuclear plant filter failures and the DOE's refusal to correct the problem. This report is a technical review of HEPA filter (the primary emission control filter for the INEEL plutonium incinerator) reports going back to at least 1982 about vulnerability problems that DOE continues to ignore. None of these problems were acknowledged in the INEEL plutonium incinerator Environmental Impact Statement. This new information has risen to the safety crisis level, and the DNFSB jumped in to call on DOE to shape up. The report notes the following problems:

The bottom line is DOE is not showing that it can be trusted to tell the truth about its past operating history or its proposed waste treatment projects. The Environmental Impact Statement on the INEEL plutonium incinerator required to be conducted **before** any decision is made, is suspect because the DOE deal with contractor British Nuclear Fuel Ltd. was signed three years before the environmental study was done, which is violation of National Environmental Policy Act.[25]

Do radioactive/hazardous waste incinerators pose a threat to the public? The director of a federal public health agency testified to Congress that they did not have a clue about what the health effects were to hazardous waste incinerator downwinders, but limited studies indicate severe problems. According this Agency for Toxic Substances and Disease Registry (ATSDR) Congressional testimony, "There are very few data on the actual human health impacts of incinerator emissions on the health of communities near incinerators. Epidemiologic investigations have rarely been conducted, nor have studies of disease and illness patterns been undertaken." [0] The reason for this information void is that the government simply does not want to know what the health effects are of hazardous waste incineration. This is especially true when the incinerator is part of the nuclear infrastructure which is loath to fund health studies. The two limited studies ATSDR did conduct on North Carolina and Arkansas incinerators, the Agency found significant health effects in the surrounding populations to include, "elevated body burdens to certain compounds like 2,4-T and dioxin," and "lung and respiratory diseases caused by hazardous substances." [27]

The Environmental Protection Agency only last year conducted a study to identify what came out the hazardous waste incinerator stack and found what the public has known for decades - that incinerators do not destroy all the dangerous chemicals that are emitted to the air. What is more important, EPA found that incinerators were producing "products of incomplete combustion" (PIC's)

that they never anticipated and have yet even to identify. The EPA report states, "Although a substantial number of PICs have been tentatively identified, a considerably larger number have not been identified at this time. It can be concluded from these experiments that the current sampling and analytical schemes for characterizing [hazardous waste combustion] HWC emissions provide an incomplete picture of the emission profile." [28]

DOE is not telling the people of Idaho and Wyoming about these problems with incinerators. Nor is DOE actively seeking alternatives to incineration mainly because the alternatives do not offer the volume reduction feature that DOE needs to mitigate its already inadequate waste repository space. In short, even if the Waste Isolation Piolet Plant (WIPP) transuranic waste repository opens, it cannot hold all the waste DOE has in inventory around the country.

The Defense Nuclear Facility Safety Board (DNFSB), a quasi independent entity created by Congress and funded by DOE, conveyed a December 22, 1998 report that summarizes the board's review of the INEEL plutonium incinerator. The DNFSB reported deficiencies in the Safety Analysis that failed to identify all the relevant systems as "safety significant and safety critical." This means DOE failed to recognize the significant hazards in the incinerator process which resulted in a flawed design. "Also, the predicted releases from the design basis accidents do not appear appropriately bounding with regard to material quantity and type and for each type of receptor (i.e., the public, collocated workers, and facility workers)." [0] This means that when there is an accident, DOE is understating what potential releases will come out the stack and who will get contaminated.

The DNFSB additionally found that DOE has inadequate knowledge of the characteristics of the waste to be incinerated. If they do not know how much plutonium and PCB's are in the waste, their estimates on what comes out the stack are pure fiction. Consequently, the radiation released during normal operations and/or accident scenarios is likely understated. This problem of not knowing what is in the waste resulted in INEEL losing its certification to ship its TRU waste to the Waste Isolation Piolet Project in New Mexico in June of 1999. [30] Another example of poor waste characterization is in the INEEL Pit-9 privatization contract that Lockheed Martin defaulted on because they found out that the waste was much "hotter" than anticipated. The treatment plant, already half built, was not capable of handling the more highly radioactive waste in Pit-9. This is a fundamental problem with privatizing one-of-a-kind nuclear waste treatment plants.

The DNFSB also found deficiencies in the plutonium incinerator criticality controls that require double contingency for criticality scenarios, as well as electrical systems, and fire-protection systems deficiencies. A criticality occurs when a sufficient quantity of fissile material (like plutonium) is put together, resulting in a spontaneous and uncontrolled nuclear chain reaction, that releases large amounts of radiation.

The DNFSB report is very critical of the incinerator design because it will not meet appropriate seismic structural design standards. Seismic/structural design for the less stringent Zone 2 was used when the requirements for the more stringent Zone 3 or 4 provisions in the Uniform Building Code should have been applied. These DNFSB findings are significant because DOE has been claiming that the INEEL site is "aseismic" and should be considered in a seismic zone 2 so its existing reactors and nuclear plants will not be declared unsafe. These serious safety deficiencies were not addressed in the Final Environmental Impact Statement. Failures too correct these identified flaws are unacceptable. More important, if this plutonium incinerator, with all these design flaws, is built and operated, the likely hood of a catastrophic accident will loom over all of us. □

Why Isn't the Incinerator in NYC?

By David Brinkley, renown TV news anchorman

My wife, Susan, and I arrived in Jackson Hole in the spring, looking forward to another summer in this pleasant town in one of the most beautiful settings on earth. The mountains, the cool air, the beautiful clouds, interesting small shops, the wonderfully friendly people. We found it all to be the same as ever, but we also heard our Jackson friends talking in deep concern about the incinerator. The incinerator? What is that? We soon learned. Everyone we knew in town told us that the state of Idaho, just next door, is intent on building one to burn the plutonium and other poisonous waste from out of state. Why here? Because when efforts were made to build incinerators in other locations with nuclear reactors at Lawrence Livermore, Rocky Flats and Los Alamos legal action by the public stopped them all. And not only that, a panel of scientists at Livermore reported: "We view incineration as a violation of the cardinal principle of radioactive waste treatment, namely containing radioactivity rather than spreading it around." The scientists at Livermore, in short, rejected an incinerator as unwanted at their own location and somebody suggested that it would be welcomed in Idaho, a state with no great industrial base. It came and it was indeed welcomed by the Idaho politicians who saw high-paying jobs coming into a state that badly needed them. So, hardly for the first time, politicians settled for money over any other considerations. The next stop will be in Jackson Hole just across the state line, where a lawsuit will soon be filed in the courts. A Wyoming lawyer, Gerry Spence, has taken the case pro bono and is filing suit to block the building of the incinerator. Then it's on its way to the courts for a hearing and a lawsuit that says the winds could bring nuclear pollution into Jackson Hole and Yellowstone National Park, endangering the health of humans and animals. It does not

necessarily kill the animals but those commonly used in the human diet, such as cattle and buffalo, are made inedible.

Paul Connet, the scientist, says the incinerator will pump deadly poisons into the air, worst of all plutonium, which causes cancer, even in the tiniest amounts. The would-be builder of the incinerator, the INEEL (The Idaho National Engineering and Environmental Laboratory) insists that filters will remove any dangerous chemicals but Spence says the filters are unreliable and have failed eight times in the past, endangering lives.

Critics of the incinerator, who are numerous in Jackson Hole, ask: if the project is safe, why was it turned down in the three places having serious histories of nuclear research? Is the industry expecting to use the Idaho incinerator as the national trash can? Why else did it come here?

Idaho's Governor Kempthorne stoutly defends his decision to welcome the new incinerator, saying it brings money into a state that is not swimming in it and has already created the highest-paying jobs in the state and insists that the threats to public health are overstated and that the operation will be safe. But the critics ask: If the incinerator is all that safe why did they decide to build it out here in Idaho? "If it's as safe as they claim, they could have built it in New York's Central Park." [31]

Taking a Stand

by Mary Mitchell

"I know of no safe repository of the ultimate powers of society but the people themselves and if we think them not enlightened enough to exercise their control with a wholesome discretion, the answer is not to take it from them, but to inform their discretion" [Thomas Jefferson]

The issue of the proposed plutonium incinerator in Idaho has been at large in our community for nearly six months. Many people have taken hold of this issue and adamantly oppose it. Some people have yet to declare a stance on it, and others have showed little interest in the topic. Publicly available information on the incinerator at the Idaho Nuclear Engineering and Environmental Laboratory (INEEL) has been essentially non-existent for us in Jackson until a few months ago, thanks in great part to few individuals concerned enough to devote their time to educating themselves and the public. Time is now running out, as the Department of Energy (DOE) remains intent to begin construction of the incinerator in February 2000. Happy New Year, indeed.

Whether or not one perceives the operation of a nuclear and hazardous waste incinerator as threatening, it remains the fundamental right of all us to understand issues that have potential risks and consequences to our lives and health for generations to come. The tremendous amount of nuclear waste generated by the Cold War and nuclear power plants is a national problem, and one we all must face. It is not a matter of damning all things nuclear, it is about making responsible decisions in dealing with its legacy. In order to make such decisions, we need to be informed by those whom we have entrusted to positions of power and governance, as the quote from Jefferson so wisely emphasizes. The government however has failed to live up to their obligation to do so, and it is incumbent upon us to rectify their dubious silence. This is part of what we are "burned up" about at Keep Yellowstone Nuclear Free (KYNF). The Department of Energy knowingly entered in to a deal with a private company (British Nuclear Fuels Inc.) to utilize a technology which has calculated risks for the general public. We in Wyoming were excluded from this process, and those who were informed were given biased and in most cases, deliberately deceiving information. This is wrong and we need to take back control of this. As most are now aware, Gerry Spence and his legal team have filed a lawsuit against the DOE. The legal team is working at a fast and furious pace, and uncovering multiple acts of deception on behalf of the DOE. Lawsuit or not however, the public has a right to decide and protect themselves from an untested treatment method, and we cannot abdicate our responsibilities as citizens to the legal process. This battle will be won or lost in the public arena.

It is the stance of Keep Yellowstone Nuclear Free that the incinerator planned for INEEL is entirely the wrong technology to deal with radioactive materials. Incineration does not destroy radiation, rather radiation is dispersed by incineration. The officials at DOE and INEEL admit that there will be trace amounts of radionuclides which will evade the filtering system and be released into the air. If inhaled these submicron particles (i.e. plutonium) can penetrate to the smallest lung alveoli and cause cancer and other serious illnesses. It is these small particles we are worried about, and refuse to accept the risks they calculate which don't even factor in the inevitable accidental releases. Brad Bugger, the spokesperson for the DOE says risk is an unavoidable feature in all of our lives. That may be so in aspects of our choosing, but not in this case where there are other less risky and viable alternatives to incineration available. Brad Bugger has no place speaking for the general public.

There is more information publicly available so that we the people can become informed, and voice our opinions. The DOE has finally made it over to Jackson and one can find their information at the Library, and in their new office space when that is open. The caveat of reader beware must be noted however. The DOE Information will not inform you of the real, and almost certain dangers of their project. Most every one of their sites has been rendered a toxic wasteland, due to their zeal to "get the job done". You will not hear about the contaminated workers at other DOE sites, or about the existence of contaminated lands and aquifers that are a result of previously touted "safe and environmentally sound" projects. One must keep in mind that billion dollar contracts belie their representation of

truth. Information of a scientific, technical and editorial nature written in the name of public interest, is available to the through KYNF. This information can be obtained through our office (732-2040), website (www.yellowstonenuclearfree.org) and Library. This plutonium incinerator will succeed or fail based upon the collective voice and actions we generate, or never fail to address.

Mary Mitchell, Vice President, Keep Yellowstone Nuclear Free

What You Can DO

Public Hearings in Idaho sponsored by the Idaho Division of Environmental Quality (DEQ) where testimony for the record will be received at the following locations:

Tuesday **January 18**, 2000 at DEQ Conference Center 1410 North Hilton, Boise, Idaho

Wednesday **January 19**, 2000 at Best Western Cavanaugh's 1357 Blue Lakes Boulevard North, Twin falls, Idaho

Thursday, **January 20** , 2000
Shilo Inn Conference Hotel, 780 Lindsay Boulevard
Idaho Falls, Idaho

Contact Keep Yellowstone Nuclear Free office for dates and location for yet unscheduled Wyoming hearings at:
307-732-2040. www.yellowstonenuclearfree.org .

Anyone can testify at the hearings. Some folks think that only the experts or people who have spent weeks reading the government reports can get up before the hearing officials to state their case. That is only an illusion that the government would like to perpetuate in order that regular folk with an opinion might be scared away. All that is need is a concern for the well being of your family and the gumption to just say NO! There is no substitute for direct public involvement especially when it is our own government that needs straightened out.

Endnotes

1. Estimated Exposures and Thyroid Doses Received by the American People from Iodine-131 in Fallout Following Nevada Atmospheric Nuclear Bomb Tests, National Cancer Institute, October 1997.

2.Hanford Health Information Network, Spring 1997, acknowledges 740,000 curies of Iodine-131 released between 1944-1972 from Department of Energy Nuclear Reservation at Hanford.

3."Worker Bodies to be Exhumed, Tests are part of $10 billion classaction suit filed on behalf of workers," Philadelphia Inquirer, Nov. 15, 1999, by Raad Cawthon. Also see; Paducah Nuclear Reaction Possible U.S. Report says Accident Unlikely, Louisville Courier-Journal. October 21, 1999, By James Malone, The Courier-Journal.

4. Concerned Citizens for Nuclear Safety, et.al. v. United States Department of Energy, et. al., Civ. No. 94-1039 M/WWD, In The United States District Court for the District of New Mexico, filed March 25, 1997, Consent Decree.

5. Sierra Club, et. al. v. United States Department of Energy, et. al. In The United States District Court for the District of Colorado, Civil Action No. 87-F-706. This suit involved two mixed hazardous and plutonium laden waste incinerators at Rocky Flats, and both were forced by the court to apply to the state for permits. DOE decided to shutdown the incinerators rather than apply for the hazardous waste permits. Also see Denver Post July 21, 1990 article by Judith Brimberg, "Public hearing must precede Flats Burn."

6. Lawrence Livermore National Laboratory (LLNL). DOE prepared a Environmental Impact Statement for the

Decontamination and Waste Treatment Facility (DWTF) incinerator proposed for LLNL. Western States Legal Foundation (WSLF) challenged that the EIS risk assessment calculations were flawed, which was later confirmed by leaked internal LLNL reports. WSLF also challenged state hazardous waste permits. DOE finally withdrew the incinerator project. 10/21/99 phone call (510-839-5877) with Andrew Lichterman attorney for WSLF.

7. Los Alamos National Laboratory (LANL) in 1989 had an existing (since 1979) mixed transuranic incinerator called the Controlled Air Incinerator and LANL planned to build a new mixed low-level incinerator. At that time the State of New Mexico had no legislation in place to regulate nuclear waste incinerators. Then Congressman Bill Richardson successfully passed an amendment to the 1989 Defense Authorization Bill that imposed a moratorium on nuclear incinerator operations in NM until the state could implement regulations. [Albuquerque Journal 7/29/89] The state subsequently implemented regulations. Under public pressure, the NM Environmental Dept. sought to impose operating conditions that when radioactive air emissions from the incinerator exceeded 10% above background, then operations would be halted. The University of California (LANL operator) sued NMED in state court, DOE sued NMED in fed court. The cases were consolidated in federal court. DOE's argument was that the state can't regulate radionuclides. The state essentially argued that NM can impose this operating condition to protect public environmental safety and health because it's mixed waste under the Resource Conservation Recovery Act. The state's position won, and then won again when DOE appealed. The mixed transuranic incinerator was shutdown and the new low-level incinerator was never built. [Concerned Citizens for Nuclear Safety fact sheet "Radioactive and Hazardous Wastes to be Burned in Los Alamos Incinerators" July 1989]

8. Idaho National Engineering and Environmental Laboratory (INEEL) mixed hazardous transuranic incinerator called Process Experimental Piolet Plant (PREPP) built in the late 1980's at INEEL at a cost of nearly $100 million. PREPP went through trial burns required for final operating permits in 1992 but the project was canceled due to design problems (absence of an interlock on the secondary combustion chamber to automatically prevent loading to the incinerator if the secondary chamber was not operating properly) and failure to meet emission standards. In 1998 the PREPP was dismantled and the building demolished. [DOE Environmental Survey Preliminary Report, September 1988, section 3.1.4] [Accelerating Cleanup: Paths to Closure, DOE Idaho Operations Office, June 1998, page A-54]

9. Weapons Complex Monitor, September 13, 1999 citing DOE Inspector General's audit of Oak Ridge TSCA incinerator number IG-0451. Also see September 7, 1999 Oak Ridger story by Larisa Brass

10. The Tennessean, February 16, 1997 article by Laura Frank notes that "Lockheed Martin found in February 1996 an emergency vent on the incinerator kept mysteriously popping open, four times within three months releasing unfiltered gases into the air." This article quoted EPA and Tennessee state regulators acknowledging the releases.

11. Centers for Disease Control INEEL Health Effects Subcommittee Meeting, Idaho Falls, 3/17/99, Nancy Schwartz Reporting, verbatim transcripts , page 495. DOE officials are on record acknowledging that these documents were destroyed despite the Centers for Disease Control's request that they be preserved for use in CDC's INEEL Dose Reconstruction Health Study.

12. Idaho National Engineering Laboratory Historical Dose Evaluation, United States Department of Energy Idaho Operations Office, August 1991. DOE/ID-12119. Also see Waste Management Operations, INEL Final Environmental Impact Statement, US Energy Research and Development Administration, September 1977, ERDA-1536

13.Department Of Energy, Environmental Survey Preliminary Report, September 1988, page 3-166, DOE/EH/OEV-22P

14. Citizens Guide to the Idaho National Engineering and Environmental Laboratory list of accidents citing USDOE's Daily Operations Briefs, Daily Field Management Reports, and DOE's Operating Experience Weekly Summary published by Office of Nuclear and Facility Safety.

15. Ibid. note 14; INEEL Criticality accidents:

1959, October 16; Criticality accident at ICPP vessel WH-100 released 4E+19 fissions of U-235 (350,000 Curies) 21 workers exposed - some at 50 R/Hr [IDO-10035];

1960, February 15; ICPP criticality accident. [Ginkel][IDO-10035]

1961, January 25; ICPP criticality accident in vessel H-110 released 5,200 Ci to environment 20 workers exposed [IDO-10036];

1978, October 17; ICPP criticality accident occurred in first cycle uranium extraction system in CPP-601 building, lasting 20 minutes releasing a radioactive plume (including Iodine) which traveled beyond the boundary to the SW. 6,200 Ci release resulted in one month plant closure and evacuation;

1991, Feb.11; ICPP fuel disolver exploded, spraying three workers with highly enriched uranium and heated nitric acid; a forth worker was also exposed when he came to their aid. The facility remains closed because of explosion damage and high levels of contamination. Office of Nuclear Safety concluded that the initial contractor investigation & the corrective actions taken by the DOE/ID were inadequate. See Harold Ryan, Senior US District Judge, summary judgement , 6/28/93, Public Services Co. of Colorado v. Cecil Andrus; United States of America v. Cecil Andrus, Civil No 91-0035-S-HLR & 91-0054-S-HLR page 53]

ERDA-1536; Waste Management Operations, INEL Final Environmental Impact Statement, US Energy Research & Development Administration, September 1977

IDO-10035; Nuclear Incident at the Idaho Chemical Processing Plant, US Atomic Energy Commission, National Reactor Testing Station, March 17, 1960

IDO-10036; Nuclear Incident at the ID Chemical Processing Plant, US Atomic Energy Commission, National Reactor Testing Station, January 25, 1961

16. The New Waste Calcine Facility (NWCF) incinerates mixed hazardous and high-level radioactive liquid waste stored in underground tanks at the Idaho Chemical Processing Plant that are the product of spent reactor fuel reprocessing. The Waste Experimental Reduction Facility (WERF) is a mixed hazardous and low-level radioactive waste incinerator. Idaho Division of Environmental Quality Mike Simon 10/8/99 phone conversation stated that the NWCF and WERF can not meet new EPA MACT hazardous waste incinerator regulations without extensive upgrades that he doubts DOE will pay for, thus requiring them to shut down the plants.

17.

Independent, Inspectors sent in as Sellafield Admits to Serious Safety Lapses, Sept. 14, 1999;
Independent, Crisis talks after Sellafield safety alert, September 15, 1999;
Independent, Now Sellafield admits to 22 Faked nuclear safety checks, September 22, 1999;
Guardian, Political fallout deals blow to Sellafield, Paul Brown, October 2, 1999;
Independent, Sellafield may be the biggest loser, Geoffrey Lean, October 3, 1999

18.(a) Department of the Environment, Transport and the Regions, Report by the United Kingdom on Intentions for Action at the National Level to Implement the OSPAR Strategy with Regard to Radioactive Substances, October 1999, Sec. 4.4.
(b.) Radioactive Contamination in Ireland From BNFL's Sellafield Reprocessing Plant, 6/98, Also see 5/26/98, Greenpeace.
(c.) Levels of Tc-99 in Seawater and Biota samples from Norwegian Coastal Waters and Adjacent Seas, Marine Pollution Bulletin Vol 38 No 7 pp560, 1999.
(d.) Liquid Discharges from European Reprocessing Facilities, A Report by Greenpeace International, written by Diederik Samson.

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22. Advanced Mixed Waste Treatment Plant Proposed Permit to Construct for an Air Pollution Emitting Source, April 9, 1999, Table 4-11, page 57.

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30. Shipping halted at INEEL DOE audit finds problems with waste documentation," Associated Press, Idaho Falls, June 23, 1999. INEEL lost its certification to ship waste to a New Mexico dump until it fixes waste-handling and record-keeping problems.
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