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DOE Destroyed Another 700 Boxes of Documents

The Department of Energy (DOE) admitted to destroying an additional 700 boxes of documents identified by the Centers for Disease Control (CDC) as relevant to the agency's health study at INEEL. This is the second group of documents that the DOE has admitted to destroying. The first group, destroyed in 1998, was stored in Idaho at the INEEL site and involved a reported 600 boxes. This second announcement in June involved 700 boxes of INEEL documents stored at the Federal Records Center in Seattle, Washington.

CDC is conducting a dose reconstruction health study to estimate how much radiation was released from INEEL over its fifty year operating history. The first step for CDC researchers is to review the historical operating records to determine what was released, how much was released, and when it was released. This process is made more difficult when much of the information is still classified secret and therefore can only be viewed by personnel with a "Q" security clearance.

DOE continues to drag its bureaucratic feet in declassifying all this information despite the fact that releasing it would not compromise national security because it only involves radioactive and chemical releases to the environment. The only conceivable national security issue at stake would be a diminished public confidence in the government's ability to manage nuclear operations in a way that protects public health and safety.

DOE claims that 667 of the 700 boxes destroyed were irreverent "purchasing and contract records." In some cases the department claims to have been able to recreate the records from other archival sources. However, repeated requests for box inventories prior to destruction have not been produced. Consequently, there is no of knowing if the "recreated" boxes are complete. Each box of documents could contain up to 5,000 pages of information. That means that if the 31 destroyed boxes (700-667) that even DOE acknowledges are relevant, is equivalent to about 150,000 pages of information. Losing even one box of crucial records could compromise the health studies if it contained information on a significant release data.

CDC's INEEL Health Effects Subcommittee (IHES), a citizen group that advises the agency on its health study research, wrote letters last year to Secretary of the U.S. Department of Health and Human Services, Donna Schalala, and Secretary of the Department of Energy, Bill Richardson, asking that the documents CDC identified as relevant, be preserved. After this approach failed, the IHES issued a formal recommendation calling for a total moratorium on all DOE document destruction. It remains to be seen if DOE will comply despite the fact that it is required to under a Memorandum of Understanding between DHHS and DOE signed in 1996.

CDC in the meantime is keeping a low profile on the issue and generally doing damage control for DOE and claiming success in working with the department to "ensure the problems do not reoccur." As a federal public health agency, CDC does not have to report about government sponsored disasters they do not know about because the records have been destroyed.

CDC gave DOE a list of all the documents in 1994 that the health agency wanted preserved for later analysis, however, that notification was not enough to save the information. Some of the destroyed documents included radiation emission records that are essential to quantifying radioactive releases to the environment.

Lockheed Martin's INEEL employee newspaper "*Star*" ran six articles between May 1997 and November 1998 describing a two year campaign to clean-out files. The article titled "Site-wide files clean-out a big success" notes that 13,231 cubic feet of documents were destroyed in 1997 and 14,859 cubic feet were destroyed in 1998 for a total of 28,090 cubic feet over the two year campaign. "It costs approximately $2,150 annually to maintain a single five-drawer filing cabinet in a local government office. Based on this last statistic alone, nearly $3 million in soft dollar savings may be realized by eliminating a total equivalent of 1,426 file cabinets worth of records and non-records."

It is uncertain if there is a connection between the Lockheed Martin file clean-out initiative and the documents CDC wanted preserved, but the coincidence is telling. Certainly, the eleven boxes CDC identified as relevant that were destroyed in INEEL office spaces may fall into this category.

DOE is non-committal in taking specific steps to preserve INEEL related documents at other archives. Of particular concern are Hanford reactor throughput records because in the 1950's and 1960's a considerable amount of highly enriched uranium fuel slugs were shipped to the Idaho Chemical Processing Plant (ICPP). These ICPP reactor fuel reprocessing campaigns are collectively known as the RaLa Runs and are the INEEL equivalent to the infamous Hanford Green Runs that released huge quantities of radiation into the air.

CDC Refuses to Include On-site Individuals in the Dose Reconstruction Health Study

A hotly debated question that has raged since DOE released its own INEEL dose evaluation report in 1990, has been who will be included in the CDC's dose reconstruction study. DOE calculated dose only beyond the INEEL boundary line. The State of Idaho's Dose Evaluation Review and Assessment (DERA) Advisory Panel 1993 report states, "Because the same models that will be used for the dose reconstruction can be used to estimate doses to workers, we strongly recommend that the proposed future dose reconstruction take advantage of this opportunity to clarify risks to all persons who have worked on the INEEL site including military, research and construction personnel. Omitting these dose estimates would provide an incomplete picture of health risks at the INEEL. Such estimates would also be useful for quantifying risks to members of the public who may have been on the INEEL property during releases." [pg.79]

CDC's National Center for Environmental Health (NCEH), however, refuses to include people on the INEEL site in its dose reconstruction study. NCEH insists that it will only include off-site populations. Given that INEEL is nearly 900 square miles, the size of the State of Rhode Island, starting radiation dose calculations at the boundary line guarantees that the doses will be significantly reduced. In other words, it is like saying that the residents of Rhode Island will not be included but the residents of Connecticut will be included. CDC's IHES advisory committee has been trying to change the agency's mind since 1997 to include those individuals closest to the radioactive and chemical releases, but to no avail.

Admittedly, another CDC agency, the National Institute for Occupational Safety and Health (NIOSH) is conducting an INEEL worker epidemiological mortality study which applies a totally different type of scientific methodology from NCEH's dose reconstruction study. The artificial fence-line boundaries should not be applied for the following reasons:

1. The INEEL is geographically the largest Department of Energy production site encompassing 890 square miles with a workforce at its height of over 12,000 individuals not counting service, concessionaire, researchers, visitors, and other individuals. Inclusion of these on-site populations will provide a more comprehensive and credible dose reconstruction study.

2. Inclusion of the on-site populations will not affect NIOSH's INEEL worker mortality epidemiological study. Infact, the two separate health research approaches (dose reconstruction and epidemiology) will provide valuable verification of the two agency findings and thus reinforce the public confidence in the respective agency findings.

3. Only 40% of the INEEL workers were monitored with radiation dosimetry badges and even then only after they arrived at their work facility. Therefore, the dose received by workers during travel time to and from work over dozens of miles of site roads may not be covered in the NIOSH study.

The INEEL Health Effects Subcommittee (IHES) unanimously approved a letter in June to CDC Director Jeffery Koplan, once again stating its recommendation to the agency for inclusion of on-site workers in NCEH's dose reconstruction study and to "include the combination of the Nevada Test Site, Hanford, and global fallout doses with the INEEL doses."

The IHES letter to Koplan went on to say, "The committee believes that there is a compelling public right to know not only what the dose received from INEEL activities, but also what the cumulative dose was from all domestic DOE nuclear operations. Moreover, the public is more interested in the cumulative dose than the individual site doses because of the impact on their health and safety. The committee respectfully expresses a degree of frustration that the NCEH has failed to provide substantive responses to the above recommendations, and therefore we appeal directly to you for resolution to this impasse."

CDC refuses to combine the doses from different U.S. nuclear radiation sources. [3/99,Transcripts] This intransigence persists since the concept surfaced after the dramatic revelations of radioactive fallout resulting from U.S. nuclear weapons tests. In 1998, Congress forced the National Cancer Institute (NCI) to release a nuclear bomb fallout study that the agency had embargoed for fifteen years. This NCI study showed that Idaho received more fallout than any other state including Utah and Nevada. The motivation on the part of public health agencies for withholding this cumulative INEEL-Hanford-Nevada Test Site dose information from the public is consistent with the motivation of the National Cancer Institute's refusal to release the Nevada Test Site nuclear bomb fallout doses. Two words describe the health agencies agenda - damage control.

The public health interest is clearly not a priority for the health agencies. Keeping the lid on a potentially explosive government liability is the top priority. Limiting the government's liability is task one today as it was fifty years ago. The INEEL Health Effects Subcommittee deserves considerable credit for withstanding the agency's onslaught and taking the issue directly to the CDC Director's door in Atlanta.

New INEEL Transuranic Waste Incinerator Planned

DOE has signed a $1.1 billion contract with British Nuclear Fuels Limited (BNFL) to build and operate a treatment plant for mixed transuranic nuclear waste. This is waste that has radioisotopes heavier than uranium, like plutonium, in concentrations greater than 100 nano curies per gram and also has hazardous chemical waste "mixed" in with the nuclear waste.

The deal has been stalled due to justified public concern expressed at state sponsored hearings on BNFL's pollution source permit application. DOE's public statements attempt to trivialize the nature of this waste by saying that it is mostly gloves, paper, and rags from nuclear facilities around the country. A closer review of the environmental impact statement shows that less than 25% falls in to this innocuous category.

According to DOE's Environmental Impact Statement of BNFL's project called the Advanced Mixed Waste Treatment Plant (AMWTP), the facility will employ a number of treatment operations depending on the type of waste in the throughput.

"The proposed AMWTP would retrieve, sort, characterize, and treat approximately 65,000 cubic meters of transuranic (TRU) waste, alpha-contaminated low-level mixed waste currently **stored** at the INEEL Radioactive Waste Management Complex, and package the treated waste for shipment offsite for disposal. The AMWTP facility could also treat an additional 120,000 cubic meters of waste from INEEL and other DOE sites."

In June, CDC's INEEL Health Effects Subcommittee unanimously passed a resolution calling on the federal Agency for Toxic Substances and Disease Registry to review the proposed AMWTP to "ensure that health and safety requirements are met with special emphasis on proposed incineration of transuranic waste and emission control system's ability to filter ultra-fine particles of plutonium."

Generally, public concern has focused on the incineration component of the AMWTP process. The other processes of super-compaction and grouting (mixing with cement) are less controversial except for DOE's priority of treating the **stored** waste first and making no commitment to exhume the **buried** waste that currently poses the greatest hazard to the underlying Snake River Aquifer.

The importance of prioritizing stored waste over the buried waste can not be over emphasized. Admittedly, DOE did initiate a demonstration project on Pit-9 at the INEEL waste burial ground. The Pit-9 project, like the BNFL incinerator was part of DOE's venture into privatization of its waste management. DOE's claims that private corporations could build, operate, and treat radioactive waste more economically than the government's use of traditional means of contracting.

The Pit-9 contract went to a Lockheed Martin subsiderary that eventually reneged on its contract ostensibly because the waste in Pit-9 turned out to be much more radioactive than previously thought. This oversight of the waste characterization meant that the initial plans would be inadequate to handle the higher radiation fields. DOE and Lockheed Martin are now locked in heated litigation over the aborted contract.

DOE must utilize the Pit-9 experience to differentiate between appropriate and inappropriate privatization. Purchasing standardized tires for its rolling stock can not be equated with first-of-a-kind radioactive waste treatment facilities. Just as important is the pressing need for DOE to radically reform its cost plus maintenance and operations contracting procedures that previously allowed runaway overhead. Setting minimum overhead rates backed up by aggressive auditing will facilitate cost containment, so that cleanup dollars actually go toward environmental remediation.

The most credible critics of the AMWTP plan insist that the portion of the waste slated for incineration, currently about 25%, be kept in the existing safe storage buildings. DOE must invest in new research and development to improve current questionable emission control systems. Additionally DOE must focus on exhuming the buried waste whose contaminates continue to migrate to the aquifer. Problems encountered in the Pit-9 fiasco can be overcome if adequate resources and policy commitment are applied to the task.

Another major criticism of DOE is its unwillingness to fully characterize, or identify the hazardous composition of its waste. Recently, TRU waste shipments from INEEL were suspended to the Waste Isolation Piolet Project (WIPP) in New Mexico because DOE failed to accurately characterize the waste and meet WIPP waste acceptance criteria. This is not a good sign because this deficiency could mean an unnecessary quantity of waste gets run trough the AMWTP incinerator when it is constructed.

Similar operating or proposed DOE radioactive waste incinerators at Rocky Flats in Colorado, Los Alamos in New Mexico, and Lawrence Livermore in California, were shut down as a result of successful litigation against DOE by environmental organizations. The primary argument in the suits was the actual versus the claimed efficiency of the filtration systems.

DOE's Pacific Northwest Laboratory reports, gained by EDI through the Freedom of Information Act, on beagle dogs and rats subjected to plutonium in the lungs showed a near total mortality rate. Even minute particles of plutonium inhaled into the lungs pose a major risk for lung cancer.

Clearly, DOE is required to treat its "mixed" radioactive waste to meet Resource Conservation Reconvey Act (RCRA) requirements. These legitimate regulations forbid burial of liquid and flammable chemicals without treatment. As previously noted, additional research and development is needed to find more appropriate applied technologies. Pyrolysis, or low temperature treatment that is only hot enough to vaporize the volatile organic compounds (VOC) but not hot enough to volatize the radionuclides, should be considered. The pyrolysis can only work if there is a secondary high temperature burner to ensure destruction of these VOC. Additionally, a very comprehensive waste characterization must be in place to prevent certain chlorinated plastics from being incinerated. Other alternatives proposed by the Institute for Energy and Environmental Research include chemical treatment, and thermal treatments such as plasma-arc.

Hanford Thyroid Disease Study Bombs

Few government reports have generated as much scientific and public outrage here in the northwest as the CDC's Hanford Thyroid Disease Study (HTDS). This ten year, $18 million study was intended to determine if there was an impact on the downwind population as a result of some 739,000 curies of radioactive iodine-131 released between 1945 and 1963 from reactor fuel repocessing at Hanford. In subsequent weeks after CDC's press barrage that "showed no relationship between thyroid disease and exposures to radioactive Iodine-131 released from the Hanford site," independent researchers started to unravel CDC findings.

CDC chose to ignore the January 18, 1999 National Research Councils' (NRC) negative peer review of the doses used in study noting that the Iodine-131 in the milk consumed by children that was based on highly misleading assumptions.

SENES Oak Ridge Inc's Center for Risk Analysis showed that the doses used by the HTDS were understated by 400% in 1950, 300% for 1951, and 600% for 1952.

It should be noted that many of these challenges to CDC's dose estimates were generated by the law firm Harrimann and Harrimann in preparation for the Hanford Downwinder class action litigation that is slated for trial this year. This is the first indication of the extent to the scientific war of numbers that will soon be fought in court. CDC is already running for cover before the judge has even raised his gavel.

As reported by Karen Dorn Steele of the *Spokesman Review,* critics contend that, "Top CDC officials and their Seattle researchers exaggerated the HTDS negative findings, buried contradictory data, and released it January 28 in a way that caused maximum harm to Hanford downwinders."

CDC eventually admitted that there are mistakes in the Iodine-131 dose estimates and that the doses will all have to be recalculated on the 3,441 individuals in the study. The HTDS researchers characterized the study cohort as containing a rough comparison between two groups. One group consisted of Columbia Basin counties closest to Hanford, and the other group consisted of Okanogan, Stevens, and Ferry counties further to the northeast of Hanford. Karen Dorn Steele notes that CDC's hypothesis was that the Columbia Basin counties closest to Hanford had higher Hanford-related radiation doses than the northern counties. Connor said, "The problem is, these were all exposed people."

Only a glance is required of the dispersion maps that show where the radiation went after leaving the Hanford stacks, to see that CDC deliberately chose counties all along the plume trajectory, and yet called them unexposed.

Another major problem that the HTDS failed to account for is the high numbers of sick and dead people as well as the elevated levels of thyroid disease. According to Steele, "Some 525 of the 5,991 people originally sought out for the study were dead - 20 percent higher than normal for a group of middle-aged people in Washington state."

In a joint February 18 letter to Dr. Richard Jackson, Director of the CDC's National Center for Environmental Health (NCEH), Tim Connor and twenty-one other individuals and organizations (including EDI) noted that, "We are writing to express our profound dismay and objections to the manner and process by which the results of the Hanford Thyroid Disease Study were released last month. The way in which the report was released showed a contemptible lack of sensitivity to the individuals whose personal well-being and family and community health have been, and continue to be, jeopardized by past exposures to Hanford radiation. Moreover, it is already clear that the substantive basis for the report's conclusions is dubious; that uncertainties about the accuracy of the doses assigned to study subjects should have been reconciled before such definitive conclusions were offered to the Congress, the press, and the public at large."

The Jackson letter went on to state, "Our grievance with the Hanford Thyroid Disease Study is that the conclusiveness of the study's findings are not yet warranted by the quality of the science. Officials and scientists at the Centers for Disease Control and Prevention had advance knowledge of these shortcomings and limitations. It is inexplicable that they failed to publicly disclose them. Furthermore, it is inexcusable that they did not seek to explain how the conclusions drawn in the draft report are, at best, premature."

The joint letter to Jackson adds that, "As the National Research Council's Committee on the Assessment of CDC's Radiation Studies concluded in a November 16, 1994 letter to CDC about a review of progress and plans for the HTDS: 'The committee's main reservations were that the statistical power, although adequate, is not outstanding, and that some questions about dosimetry remain unresolved.' When the results of the HTDS were made public on January 28th, the HTDS investigators reported, in the words of principal investigator Scott Davis, that 'it was important to point out, in considering these [results], the study is a powerful study.'"

"There was no discussion, by either the investigators or the CDC officials and scientists present during the briefings, about how the critical statistical power issues had been resolved, and whether CDC concurred that they had been resolved. Notably absent was any discussion about how uncertainties in the dose estimates could affect the confidence of the regression analysis (the critical dose response function)."

"The most egregious omission, however, was the total lack of disclosure and candor having to do with the critical uncertainties in the doses assigned to individuals in the HTDS cohort."

"In a letter transmitted to CDC just 10 days before the HTDS was released, the National Research Council Committee on the Assessment of CDC's Radiation Studies,

raised and emphasized problems with the uncertainties of individual doses calculated with the Hanford Environmental Dose Reconstruction methods used in conjunction with the HTDS study. '[I]t should be noted,' the Committee reported, 'that the inherent uncertainty associated with the individual doses will decrease the likelihood of determining a meaningful risk coefficient for the effects of radioiodine on the target population.'"

The joint letter says that, "It is appalling that CDC would go forward with the release of the HTDS under such circumstances, and so quickly after its NRC review committee had identified such major problems."

"Unfortunately, it will be extremely difficult to repair the harm done to CDC's credibility as a result of this fiasco. It is simply hard to imagine that any community in America, concerned about environmental exposures to pollutants and subsequent health outcomes, would welcome CDC to come in and conduct, sponsor, or otherwise oversee an epidemiologic study. We are deeply troubled by this," the joint letter to Jackson finally concludes.

Connor Resigns as Chair of ACERER Subcommittee

Tim Connor, Chairman of the Subcommittee for Community Affairs, Advisory Committee for Energy-Related Epidemiologic Research (ACERER), U.S. Department of Health and Human Services released the following resignation letter to Richard Jackson, Director of NCEH, distributed on June 25, 1999.

"Given the depth of my involvement and commitment to the ACERER over the years, I would be remiss if I did not comment on the events of the past six months which, in my view, have made serving on ACERER much more difficult than it had been previously."

"These changes caused considerable stress. They also, I believe, exacerbated a troubling decline in trust and morale between the Committee, citizen consultants and CDC staff. As I've communicated previously, the way in which the Hanford Thyroid Disease Study was released in January was a major setback. It is quite clear, by now, that the Fred Hutchinson Cancer Research Center was irresponsible in the way it over interpreted the findings of the draft study to proclaim, unequivocally, that the incidence of thyroid disease among people exposed to Hanford radioiodine is not influenced by these exposures. In their presentations before the NRC review committee last Saturday, [June 19] both Owen Hoffman and Dr. Jim Ruttenber offered convincing demonstrations that the statistical analysis of the HTDS results could not preclude the existence of a positive dose response between doses attributable to radio-iodine and the abundant cases of thyroid disease logged via the HTDS medical surveillance."

"My complaint for the past five months, and counting, is that CDC abdicated its responsibility with regard to how the draft HTDS findings were presented to Congress and the public. A decade ago I was one of the people who worked very hard to get this study funded by Congress through CDC. Our expectations, at the time, were that CDC would be primarily responsible to the public for assuring the quality of the study and for communicating the results. I'm grateful for the extension of the NRC review and trust that it will result in a thorough, objective evaluation of the science. I'll also concede that some of the changes CDC has made in its materials and public statements about the study over the past few months have been constructive." "But the harm done in January--when the draft results of the HTDS made national news--was immense. The ill-founded message was a knife in the hearts of many Hanford downwinders and remains a source of inspiration for those in the American Nuclear Society and other nuclear industry proponents who would like to convince the world that low dose radiation is either harmless or therapeutic." Tim Connors' resignation from the ACERER Community Working Group must be recognized as a wake-up call to community activists and all those committed to good public health science. Tim stands out above all others.

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