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Destruction of INEEL Documents Worse than Previously Reported

The Centers for Disease Control's National Center for Environmental Health (NCEH) in Atlanta, GA is conducting a dose reconstruction health study at the Idaho National Engineering and Environmental Laboratory (INEEL). During the study process in 1994, NCEH researchers identified over 15,000 documents or boxes of documents that may be relevant to the health study. The Department of Energy (DOE), through a formal memorandum of understanding, agreed to place the information under a destruction moratorium until after NCEH had completed its health study.

In the fall of 1998, NCEH requested physical retrieval of 4,948 boxes of previously identified documents from DOE's INEEL archives. DOE contractor Lockheed Martin responded to the NCEH's request by stating that 602 boxes had been destroyed and an additional 72 boxes were missing from the archive due to being "permanently recalled by the custodian," which is an obtuse way of saying the originator of the box of documents ordered the box sent back to them without leaving any copies or record of its current location. This potentially represents over three million pages of information that NCEH researchers will not have available to determine how much radiation was released from INEEL over its nearly five-decade operating history. If the boxes were stacked, the pile would be more than 1,030 feet tall.

John Till, Risk Assessments Corp. (RAC), NCEH Phase-II research contractor, believes "the issue of records being destroyed before we have had an opportunity to verify the content is very disconcerting. This should not have happened, and shows that whatever system was supposed to be in place to prevent it, did not work"

The INEEL/Lockheed Martin December 1998 report, titled "Corrective Action Plan" acknowledges the destruction of 602 boxes of documents that were identified by NCEH as pertinent (Pertinence- 1,2,3,and 9). The report notes "359 boxes were destroyed as a normal course of business because they were not included in the list of frozen records schedules or had been lifted from the freeze by the DOE Historian. Forty-four boxes were destroyed because they were incorrectly scheduled as 'non-records'. And 199 boxes were destroyed because they were incorrectly scheduled in the past, reviewed and rescheduled using schedules that were not identified as frozen." [1]

The fact that the DOE historian was allowed to unilaterally override the NCEH freeze moratorium could be considered obstruction of justice if it was in the context of a civil law suit or other judicial proceedings.

At a December meeting in Salt Lake City of the INEEL Health Effects Subcommittee that advises NCEH on its INEEL Dose Reconstruction Study, NCEH reported that INEEL related documents at four other Federal Records Centers may also be at risk of destruction. Additionally, 11 boxes of pertinence-1 documents in DOE offices have disappeared and are presumed to have been destroyed. DOE is attempting to trivialize the importance of the problem by saying that the bulk of the destroyed boxes were category-9 (pertinence-9) or of lesser importance than category-1 records.

John Till notes that "we [RAC] have recategorized a number of boxes from what they were categorized to be by [former CDC contractor Sanford Cohen and Associates] SC&A. Therefore, I think it is important that no further boxes be destroyed until we have had a chance to verify their contents, even the category 9 boxes. I think it is critical that the Committee takes stock in what has happened and weighs in to recommend some rules that should be followed. It should be recognized that document destruction may be necessary to continue, but not until everyone is absolutely certain what is being destroyed." "...if any boxes of records are to be reviewed during the cleanup process, they must not be destroyed until after they have been looked at. Further, it must be made clear that pert 9 documents from the SC&A review should not be construed as of no value until we have a chance to verify this." [2]

The issue of the 72 boxes permanently "recalled" is also crucial. DOE's statement that "They may still be available to some extent through the recall requestor or returned under another box" is equally spurious. First there is no record of whom the recaller was or even that the box was recalled at all . . . the boxes are just no longer in the archive. If it is returned in another box with another number, it will go unnoticed unless NCEH/RAC does a new search.

The DOE does outline some "corrective actions" to enforce the moratorium on document destruction, however it is like closing the door after the thieves have looted the store. Also there is no assurance on DOE or NCEH's part to clamp down on other archives where INEEL related documents are housed (ie. Federal Records Centers in Atlanta, Los Vegas, Chicago, Germantown, Seattle, and Hanford). DOE/Idaho controls the deposition of INEEL documents at Federal Records Centers and do, on a quarterly basis, order their destruction.

John Till stated that "The Seattle records center is a special situation which is becoming more problematic. There are quite a few pert 9 boxes there, and I do not want them destroyed either until we decide how to verify the contents of some or all of the boxes, depending on the strategy we take during the review. Hopefully we will have some information on alternatives that can be used at the next meeting. Things have gotten a bit frustrating over there."

A legitimate question to ask is: when did NCEH learn about the document destruction problem and what - if anything is being done about it? NCEH's Phase-I research contractor Sanford Cohen and Associates (SC&A) quarterly reports (October-December 1993) and (January-March 1994) acknowledge that document destruction is a significant problem area. [3] SC&A's 1994 draft final Phase-I report quantifies the document destruction at 65,000 boxes. [4] Five years later NCEH is still sitting on their hands without an effective plan to stop the destruction of more documents.

The National Institute for Occupational Safety and Health (NIOSH) based in Cincinnati, Ohio is conducting a completely separate health study of the INEEL workforce called an epidemiologic morbidity study. Document destruction is a major problem with this study as well. In a September 1993 protocol report, NIOSH states:"While stored files are no longer being destroyed under the DOE-ordered moratorium in March 1990, prior to its implementation approximately 11,000 boxes of INEL records had been destroyed. Many of these boxes contained information germane to INEL's operations during its earlier years, and the only way to compensate for their loss is by obtaining oral histories for each INEL facility from its long-term employees." [5] By shear volume alone, the worker health study has a major document destruction problem along with the National Center for Environmental Health's dose reconstruction study.

Mary Burket, daughter of Clair Burket, is trying to obtain radiation exposure records pertaining to her father's involvement in the INEEL SL-1 reactor explosion that occurred in 1961. Three reactor operators died in the explosion. Ms. Burket claims that NIOSH has no record of her father's radiation exposure records while working on the SL-1 but acknowledges they have records of her father while doing administrative work at INEEL's Test Area North. Clair Burket died prematurely a year and a half later of a massive stroke at the age of 33.

NIOSH critics contend that the agency should be doing dose reconstruction and risk assessment, instead, NIOSH only does epidemiological analysis with false negative findings often used as confirmation of no effects. Radiation is a known carcinogen, the dose response is most likely linear, and thus there is no reason why NIOSH cannot conduct dose and risk analyses for their employees like NCEH does this for members of the public.

Critics also note that as the Hanford Thyroid Dose Study is showing, it is important to have a suitable control group. Also they should look for a dose response within the exposed group. Moreover, they should take uncertainty in dosimetry into account when analyzing for a dose response and guard against misinterpretation of potential negative findings.

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 determine what kinds of radioactive isotopes were released, when they were released, and how much was released. This is called establishing the source term.

Lockheed Martin's INEEL employee newspaper "Star" ran an article on November 24, 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. Lockheed Martin believes that "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." The 2,809 cubic feet are the equivalent of 1,872 boxes. 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.

In 1990, then DOE Secretary Watkins issued a memorandum mandating the retention of epidemiological and other related health study records. Every succeeding DOE Secretary including current Secretary Bill Richardson, have reauthorized the freeze order. Elaborate records management plans were developed to establish categories or document series that were to be included in the destruction moratorium. Unfortunately at INEEL, the plans were not adequately implemented. The DOE Idaho Operations office is actually attempting to unilaterally drop some of the freeze categories from the moratorium. It is uncertain if the public health agencies will challenge this action.

Technically speaking, CDC has little authority over DOE documents. This is due to a Memorandum of Understanding (MoU) signed in 1996 between DOE and Department of Health and Human Services (DHHS) that establishes mechanism for

DOE to provide DHHS with funding for health studies at DOE sites. CDC is an agency under DHHS. The MoU however specifically stipulates that all documents reviewed by CDC during the health studies remains under the control of DOE. The MoU states:

"The Department of Energy and its contractors shall continue to maintain documents, records, record systems, and other information sources for the conduct of epidemiologic research. Although the Department of Health and Human Services will be provided with access to relevant information and will possess copies of such data for use in its research, the data will remain the property of the Department of Energy."[6]

Boxes of Documents Destroyed	609
Boxes Documents Permanently recalled	72
Boxes Removed from offices (presumed destroyed)	11
Total Boxes	692

These health studies are not just another academic exercise, or the equivalent to determining where to put a new interchange on Interstate 15. It is about determining why southeastern Idahoans had next to the lowest cancer rate in the nation during the first half of the century, and now in the second half of the century after INEEL's start up, southeastern Idaho ranks up there with the polluted big cities. This is about the health and safety of hundreds of thousands of Idahoans who live in the shadow of that nuclear reservation. Idaho Division of Health studies around INEEL indicates increased rates of radiogenic diseases.[7] (See INEEL News, 1/99) The Tennessean newspaper conducted surveys of INEEL downwinders and generated a list of forty individuals with health problems that they believed were related to INEEL emissions.

DOE Funding of CDC Health Studies Is Aggravating the Problem

The DOE is funding both NCEH's INEEL Dose Reconstruction Study and NIOSH's INEEL Worker Morbidity Study. Critics view the funding structure as a conflict of interest that challenges the credibility of the public health agency research. This funding arrangement may also explain the timidity of the heath agencies to appropriately respond to DOE's document destruction campaign. The U.S. Department of Health and Human Services Advisory Committee on Energy Related Epidemiological Research (ACERER) is a national body that monitors the public health agency studies at DOE sites. Recently ACERER recommended transferring the funding from DOE over to Department of Health and Human Services. ACERER's recommendation states:

"This [funding] arrangement is a vestige of a bygone era in U.S. history in which the research emphasis on all aspects of nuclear energy development - including the health consequences of radiation exposures - was primarily oriented toward national defense. The need for a robust health research program into the effects of ionizing radiation on nuclear workers and exposed communities continues. However, the arrangement for funding this research has proven to be inadequate and has outlived its usefulness."

"Under the current system, the agency (DOE) that inherited the weapons production and nuclear energy promotion responsibilities from the old Atomic Energy Commission is the recipient of virtually all of the federal funds spent on health research related to radiation exposures caused by past and present DOE activities. As such, the agency continues to exercise discretionary control over whether and how much funding passes through for this research. DOE's continued control over this research creates real or perceived conflicts of interest. In practice, funding transfers have neither been timely nor complete; in such cases funding that should have been provided hasn't been"

"The [ACERER] Committee believes that national security no longer requires that the nation fund health research into radiation-effects through such a system. Moreover, we believe that public expectations for a health research program that is removed from even the appearance of institutional bias are legitimate and reasonable. We also believe that a reorganization can be accomplished without weakening DOE's occupational protection and training programs. Likewise we believe this can be accomplished while maintaining under DOE's purview the environmental monitoring programs necessary for it to provide its own internal assurance that it is fulfilling its legal and managerial responsibilities to protect workers, the public and the environment. Therefore, the ACERER committee recommends that Congress, with deliberate speed, frame a new mandate for research on the health effects of ionizing radiation, and that this mandate charge Health and Human Services with the primary responsibility for administering such research."

There are no guarantees that funding transfers will accomplish the desired unbiased commitment to good science in radiation health studies. However, it is a first step in a long journey that must be taken, otherwise there will be no journey toward the land of accountability. Recent biased radiation health studies by the National Cancer Institute are reminders that eternal public vigilance is a fundamental requirement of a participatory democracy. The only alternatives are large well financed class action litigation that can afford independent research to establish cause and effect between radioactive releases and health outcomes. Workers and nearby residents of the DOE Fernald

site in Ohio won an $85 million dollar settlement and a large Hanford Downwinder class action is scheduled to trial this year.

Critics contend that the CDC public health agencies identified the revealing radiation release documents in 1994 and had their funding cut significantly. Progress on the INEEL health studies floundered for four years. DOE/Idaho may have seen the implications and used the four years to clean house. Critics believe that CDC under a mandate to produce a health study will proceed with what diminished information is available. If there were smoking guns, critics allege, they were likely long since sent to the shredder.

NCEH Ignores Advisory Committee Recommendation to Include On-Site Populations in INEEL Study

When CDC's National Center for Environmental Health (NCEH) and the National Institute for Occupational Safety and Health (NIOSH) divided up the health study work at INEEL, an artificial and illogical division of on-site and off-site was made. NCEH would do off-site dose-reconstruction and NIOSH would do an on-site epidemiologic study of worker mortality. Because of this inefficient division, the NCEH onsite populations will not be included in the dose reconstruction study. This is especially egregious because the on-site population being the closest, would likely be most affected. A more logical research work allocation would be; NIOSH to do the epidemiological studies and NCEH do the dose reconstruction studies. INEEL is nearly 900 square miles - the size of the State of Rhode Island - with a workforce during its peak years of about 13,000.

The NIOSH worker morbidity study will look at death certificates for information on the cause of death. Two groups of INEEL workers will be evaluated in the "cohort"; one group that been exposed and one INEEL group (control group) that had not been exposed. The study will rely on the accuracy of the dosimetry badges that the workers wore inside the "hot" facilities. The Institute for Energy and Environmental Research 1997 report notes that DOE worker dosimetry is grossly understated because it does not adequately include internal doses in addition to external doses. [8] So this study may have the same methodology flaws that plagues the Hanford Thyroid Study.

The NCEH dose reconstruction will determine how much radiation was released and when it was released. As it is currently designed, the agency will estimate the doses to people off-site starting at the INEEL boundary using computer dispersion modeling to estimate doses.

Categories of possible impacted individuals not covered in the NCEH dose reconstruction, in addition to dosimetry badged workers, are the unbadged construction workers, university biological and environmental monitoring researchers, security guards, bus drivers, Central Facilities maintenance staff, ranchers herding cattle on site, utility, concession suppliers (the Coke delivery person), and visitors.

The dose reconstruction should include workers and the public because in both cases, an air dispersion model must be used, especially since all the workers weren't badged, and secondly most badges don't pick up on the fraction of the radionuclides in the air that are inhaled or ingested (internal dose).

Arbitrarily calculating doses at the fence line twenty miles away and beyond will structurally understate the doses. Screening criteria that exclude short-lived isotopes because the site boundary is 20-30 miles from the release point obscures the facts that there were thousands of on-site workers who may have been immersed in the plume as it traveled toward the fence. In 1993, the Idaho Department of Health and Welfare's DERA Panel recognized this shortcoming and recommended the following:

"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 INEL site including military, research, and construction personnel. Omitting these dose estimates would provide an incomplete picture of health risks at the INEL [sic]. Such estimates would also be useful for quantifying risks to members of the public who may have been on the INEL property during releases." [9]

One of the DERA Panel members was then Director of NCEH's Radiation Studies Branch, James Ruttenber, M.D. who currently teaches at the University of Colorado School of Medicine and is involved in the State of Colorado's health study review of DOE's Rocky Flats site. In 1997 Dr. Ruttenber gave a presentation to the INEEL Health Effects Subcommittee when he again advised NCEH to include on-site populations in their dose reconstruction study by stating:

"If your going to get into reconstructing doses and modeling releases and you know that you had workers out in the field, an efficient thing to do, is to make estimates for them. This has come up in a number of other studies where there have been missed opportunities for generating dose estimates, and they could have been useful. It happened at the Nevada Test Site. At the time when they were making estimates for atmospheric dispersion for [Nevada Test Site] off-site, they could have been estimating doses to the military present during the bomb tests. But they didn't and they lost a real opportunity. It would not have cost that much more to get at that."

"There is a similar situation at Hanford, an example of something swept under the table and not really looked at, that will come back to haunt you in the end if you don't include it. At Hanford they [Technical Steering Panel] always said they would look at assessing exposure of particulates to military personnel that were there to guard Camp Hanford. It is really

important to try to understand whether the few thousand military there was at risk, and answer the question as to what was their risk. They didn't do it. The HDER [HanfordTechnical Steering] panel promised they were going to do it and always said they were going to do it. Then they ran out of steam and ran out of funds. I think this could be useful information to a worker study and it's most efficiently done at the outset, and not in trying to do it in retrospect after all the dispersion codes and source terms are lost somewhere." [10]

In December 1997, the INEEL Health Effects Subcommittee recommended that: "The National Center for Environmental Health [NCEH] include INEEL on-site in addition to off-site dose reconstruction of all affected populations." The agency was unresponsive to the recommendation so the INEEL Health Effects Subcommittee again asked NCEH at the last meeting in December 1998, to develop an implementation plan on how they intend to include the on-site populations in the dose reconstruction. NCEH continues to ignore these recommendations.

To further complicate the problem, NCEH's document identification and retrieval is deliberately ignoring information related to "radiation survey data at the workplace and on the grounds" by listing them as "pertinence-9." NCEH is also stripping this "pertinence-9" material from the document database. This information is needed to verify or corroborate the accuracy of the calculated radiation releases called source terms. By eliminating the on-site radiation survey data, they will cripple any later effort to include on-site populations in the dose reconstruction. By removing the Pertinence-9 information from the database, it also lets DOE off the hook for destroying hundreds of boxes of these records.

Another argument for including on-site populations is that both epidemiological and dose reconstruction studies are needed because they utilize totally different methodologies and can therefore be used to verify the findings of the other research.

Endnotes:

1. Denson, W.J., President and CEO, Lockheed Martin Idaho Technologies Co., letter to John Wilcynski, Manager U.S. Department of Energy Idaho Operations Office, Concern with Destroying Epidemiological records, December 4, 1998, cover letter for "Corrective Action Plan for the Continued Protection of Epidemiological Records at the Idaho National Engineering and Environmental Laboratory, December 8, 1998.

2. John Till email January 31, 1999 to Chuck Broscious

3. Britz, Wayne, Project Manager, Sanford Cohen and Associates letter to Leeann Denham, Project Officer, Centers for Disease Control and Prevention, Subject Quarterly Report, October-December 1993, page 10; Quarterly Report, January-March 1994, Contract No 200-92-0538, page 7

4. Draft Identification, Retrieval and Evaluation of Documents and Data Pertinent to a Historical Dose Reconstruction At The Idaho National Engineering Laboratory, Revision 1, Prepared by S. Cohen and Associates, Inc for Centers for Disease Control and Prevention, September 2, 1994, page 3-13

5. Preliminary Protocol For An Epidemiologic Study of Workers at the Idaho National Engineering Laboratory, Health and Energy Related Research Branch Division of Surveillance, Hazards Evaluation, and Field Studies, National Institute for Occupational Safety and Health, September 23, 1993

6. Memorandum of Understanding between Department of Energy and Department of Health and Human Services, Hazel O'Leary, Secretary, May 14, 1996; Donna Shalala, Secretary, July 1, 1996, Section IV(A).

7. Comparison of Cancer Incidence Rates Between Selected Counties and the Remainder of the State of Idaho, Cancer Cluster Analysis Group, Idaho Department of Health and Welfare, March 1995

8. Science for Democratic Action, Volume 6 Number 2, November 1997, "WORKER RADIATION DOSES DEEPLY FLAWED" Institute for Energy and Environmental Research

9. DERA; Report of the Dose Evaluation Review and Assessment (DERA) Advisory Panel, to the Idaho Department of Health and Welfare, January 1993, Review of INEL Dose Models and INEL Historical Dose Evaluation, Margrit von Braun, Ph.D., P.E. Chair.

10. Idaho Health Effects Subcommittee, Quality Inn Pocatello Park Hotel, June 25, 1997, video tape number 3

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