

Environmental Defense Institute

P.O. Box 220 Troy, Idaho 83871-0220 Phone/Fax 208-835-5407

<http://www.environmental-defense-institute.org>

**Comments
on
Centers for Disease Control and Prevention
INEEL Dose Reconstruction Health Study**

**Sanford Cohen and Associates
Aerosol Releases from the
Idaho Chemical Processing Plant
1957-1959
and
A Critical Review of Source Terms for Select
Initial Engine Testes Associated with the
Aircraft Nuclear Propulsion Program
January 5, 2004**

submitted on behalf of
Environmental Defense Institute

by
Chuck Broschius
June 23, 2004

I. Summary

The Environmental Defense Institute (EDI) offers these comments ¹ to Centers for Disease Control and Prevention (CDC) and its sub-agency National Center for Environmental Health (NCEH) Radiation Studies Branch on this “Draft Aerosol Releases from the Idaho Chemical Processing Plant (1957-1959)” (9/03) and “Draft Critical Review of Source Terms for Select Initial Engine Tests Associated with the Aircraft Nuclear Propulsion Program at INEL.” ² EDI is in the process of evaluating SC&A Subtasks 3, 4, and 5.

EDI submitted formal comments 2/6/04 to CDC on the “Atmospheric Source Terms” and those comments cover previous contractor reports by Risk Assessment Corp. (RAC) ³ and recent draft Sanford Cohen and Associates (SC&A) and subcontractor SENES Oak Ridge (SENES) ⁴ related to the agency’s INEEL Dose Reconstruction Health Study. Also see EDI’s formal comments on CDC/RAC reports that were previously submitted 3/7/01. These EDI comments below merge both our previous RAC report review and previous SC&A reports. ⁵
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After calling NCEH/Radiation Studies Branch 6/21/04, EDI was informed that the deadline for comment for the above and other SC&A draft reports was 6/1/04. EDI was never noticed (formally or informally) of this deadline nor is there any apparent notice on CDC’s website of this deadline (see below). Therefore, the public cannot legitimately be arbitrarily penalized for late comment submittals. Additionally, NCEH’s notices of INEEL Health Effects Subcommittee (IHES) meetings typically arrive on or after the date of the meeting, making any submittals to the committee that EDI considers substantive, impossible. EDI has complained to no avail about this problem repeatedly over the years that amounts to effectively public “non-notification.” CDC/NCEH website as of (6/22/04) lists the next IHES meeting 1/21-22/04. [www.cdc.gov/nceh/radiation/] NCEH’s failure to even maintain a current website, that is not accessible to most except those with internet access, and others without internet access impacted INEEL downwinders, is clearly not acceptable. Moreover, NCEH’s website fails to post draft reports that the agency claims they are soliciting public comments.

¹ These EDI comments are necessarily “preliminary” due to the ongoing lengthy and arduous process of reviewing tens-of-thousands of pages of DOE/INEEL/Hanford documents received through the Freedom of Information Act (FOIA) on top of thousands a pages of CDC reports finally pried out of the agency after numerous requests.

² “Draft Critical Review of Source Terms for Select Initial Engine Tests Associated with the Aircraft Nuclear Propulsion Program at INEL.” SC&A/SENES Oak Ridge, July, 2003, CDC Task Order No. 1, Subtask 2,

³ “Identification and Prioritization of Radionuclide Releases from the Idaho National Engineering and Environmental Laboratory,” Centers for Disease Control and Prevention, Department of Health and Human Services, September 30, 2000, submitted by Risk Assessment Corp., contract no. 200-95-0927. Risk Assessment Corp. Report # 3 CDC Task Order 5-2000-Final. Hereinafter referred to RAC 2000.

⁴ Atmospheric Source Terms for the Idaho Chemical Processing Plant, 1957-1959, SC&A/SENES Oak Ridge, Contract No. 200-2002-00367, February 2003.

⁵ Also see ; 1.) EDI report (2/6/04) Atmospheric Source Terms; 2.) EDI (3/5/01) comments on RAC Task Order 5; 3.) EDI (10/17/00) report on Estimating ICPP Source Terms; 4.) EDI (5/14/03) Beryllium at INEEL report; and 5.) updates to these EDI reports our website

EDI submitted the first formal petition, on behalf of thirteen organizations, to CDC to conduct an INEEL Dose Reconstruction study in 1990. EDI also served for over six years on the initial “Working Group” that later morphed into the current IHES. Subsequently, EDI has submitted substantive comments on the ongoing CDC research. NCEH’s failure to provide timely notification to EDI and the general public on its proceedings simply continues to be not acceptable by any standards!

NCEH states a commitment to public participation, yet in actuality, it administratively over many years has significantly frustrated this crucial process. The public is left wondering what the agency’s “real” agenda is, and if continued public comment is worth the effort given the fact that NCEH refuses to even acknowledge receipt of formal written comments or to make copies available to the IHES members. Other agencies, such as the Idaho Department of Environmental Quality offer the public easy electronic comment provisions on their website where the public is not only offered “fact-sheets” summaries on a permit proposal, but a useful format for directly submitting comments.

II. Aerosol and Atmospheric Source Term Comments

EDI offers in the Aircraft Nuclear Propulsion (ANP) table below a comparative table of various information data currently available to us via the Freedom of Information Act, CDC, and other federal governmental agencies. EDI conducted this laborious comparative analysis out of sheer frustration over the enormous discrepancies (over one million curies) between CDC’s own contractors on the radioactive releases to the environment from these INEEL programs. EDI includes in ANP table not only the Initial Engine Tests (IET) but also Fission Product Release Tests (FPFRT) and Fuel Burn Tests because they were “in support of the General Electric Aircraft Nuclear Propulsion (ANP) Department program to evaluate the consequences of a nuclear aircraft crash involving a fire.”⁶

The RAC report⁷ is not only more comprehensive in terms of citing more major radioactive emissions, but also the estimated release numbers are for most Aircraft Nuclear Propulsion (ANP) Initial Engine Test (IET) reactor runs significantly higher than those offered in the SC&A reports. Moreover the SC&A reports offer no apparent reference to the previous CDC funded RAC analysis of INEEL radioactive releases. SC&A’s reports apparently only compare (in addition to their analysis of IET Runs # 3, 4, and 10) their estimated releases contained in a 1991 DOE’s Historical Dose Evaluation (HDE) report.⁸ Additionally, the particulate uranium emissions are apparently absent from the SC&A documentation.

The arbitrary methodology employed by SC&A to separate out beta and beta minus Iodine-131 (*B-I*) in its summary documentation is interesting, however long-half-life gamma emitters such as cesium species constitute a major part of airborne emissions and consequent doses to INEEL onsite and off-site populations.⁹ The use of only radionuclides with greater than a ten minute half-life in calculating off-site doses is categorically (putting it lightly) disingenuous

⁶ RAC, 2000, page 87

⁷ RAC, 2000.

⁸ INEL Historical dose Evaluation, USDOE Idaho Operations Office, August 1991, DOE/ID/12119.

⁹ SC&A, 7/03, page ES-10.

to the communities of Terreton, Mountain View, Birch Creek, Mud Lake, the driving public on Rt. 28, and others only a few miles away. Is CDC saying that if the emission plume arrived (as DOE's questionable meteorology and CDC claims) 10.9 minutes after release there is no effect?

SC&A arbitrarily uses an average RaLa fuel process time of two days. RAC states that processing given the pressing need for the nuclear weapons program barium-140 (half-life of 12.8 days) for testing people killing weapons, INEEL processing was speeded up to 36 hours after removal from the reactor.¹⁰

RAC cites 78 ICPP process runs (1957- 1963) and SC&A covers only 37 process runs (1957-1959). While it might be interesting for SC&A to evaluate this narrow three-year time frame, there still remain huge discrepancies over these two reports. Moreover, there is no definitive evidence offered by SC&A that other ICPP processing operations during the same time were documented or evaluated. SC&A offers no apparent information on the DOE utilized "stack sampling" data that could distinguish between different ICPP process runs or more importantly if the sampling was taken after the stack discharge of +100,000 cubic feet/minute (cf/m) building ventilation that effectively would dilute the sample monitoring data.

RAC notes that significant emission to the atmosphere came from not only the "process vent," but also from the cell building vent and the vessel (tank) off-gas vent (VOG).¹¹

SC&A documentation on beta (iodine-131) and beta minus iodine (*B-I*) is interesting, however, the gamma emissions (cesium isotopes and others) are not apparently included. This remains as a major fundamental short-coming in SC&A reports in term of offering the public with a credible analysis of the radiological impact on surrounding populations.

Within the scientific community there are fundamentals where any research is obliged to acknowledge previous work on the topic and offer data that substantiates their claims if it is different from the previous work. Here we have conflicting findings from CDC's own contractors, yet the agency offers no substantive comment to the public for these significant differences that have major impact on the health and safety of populations around INEEL.

This SC&A "Aerosol" report is fundamentally flawed for the same reasons that previous CDC reports are deficient.¹² CDC failed to exercise "due diligence" in accessing all relevant INEEL documents and more importantly failed to prevent the massive document destruction process of relevant information that was occurring at INEEL with CDC's full knowledge.

Instead, CDC/SC&A has used DOE emission data [page 1] upon which to base its reports. This DOE emission data is significantly inaccurate. CDC claims that it **ASSUMES** DOE data to be only 50% accurate. [page 1] There is no apparent justification or analysis on how CDC arrived at the 50% figure to calculate emission data. This is not credible science by any standards.

CDC failed to conduct a "real time" reconstruction based on actual "throughput" data for INEEL source term analysis similar to the one forced on CDC by the Federal Court, the public and pending Downwinder litigation at Hanford that eventually showed more than a 70%

¹⁰ RAC, 2000, page 19

¹¹ RAC, 2000, page 19

¹² It must be noted that SC&A and RAC had no "control" over what information CDC tasks it to review, or what arbitrary limited releases were to be analyzed, therefore as a mere subcontractor, SC&A and RAC cannot be faulted for CDC unwillingness to provide the most comprehensive information data set available at DOE archives.

increase in Iodine-131 emissions. Analysis of other Hanford (non-iodine) releases will eventually be revealed, not by CDC but through the discovery process and independent scientific analysis in the Hanford Downwinder suit. The point being, CDC never conducted, nor does it plan to despite public pressure, a physical analysis to determine the actual ICCP throughput/probable emission analysis to verify the questionable DOE INEEL emission data. Clearly, the selective analysis of three IET tests (# 3,4, and 10) that revealed huge increases over DOE's disclosures should indicate the need to conduct a full reconstruction of the ICCP emissions.

Despite the above discussed CDC methodology deficiencies in of terms inadequate document access, the agency still determined that according to CDC's CM Wood that. "I understand you [EDI] have documents not in our database. How many boxes are we talking about? I'll pay for the round trip shipping if you want to send them to Atlanta and let us take a look at them." It is incomprehensible that such a categorical admittance could be uttered because it acknowledges scientific fundamental deficiencies that cannot be ignored.

EDI requests that receipt these comments be formally acknowledged, and that they be made available to the IHES prior to the next meeting in October 2004.

Aircraft Nuclear Propulsion Program INEEL Tests 1956 to 1970

Test Number	Dates	Curies Released per RAC w/uranium	Curies Released per SC&A w/o uranium	Curies Released per DOE/HDE w/uranium	Source
IET # 1 and 2				"Cold Runs"	
IET # 3 "HTRE-1"	12/27/55 to 2/11/56	39,300	132,000	46,134.76	B @ A-202
IET # 4 (total)	4/17/56 to 6/29/56	153,000	902,922	1,911,953.21	B @ A-114
IET # 4 A	5/1-5/23/56		7,264.43		D
IET # 4 B	5/24 - 6/29/56		205,772.02		D
IET # 4 C	6/29/56		689,686.73		D
IET # 6	9/24/56 to 12/3/57	13,600	9,000	8,953.12	B @ A-202 E @ 88
Fuel Burn # A	3/20/57	4,500		1.00	B @ A-202 E @ 89
Fuel Burn # B	3/20/57	9,000		74.11	B @ A-202
IET # 8 "HTRE-2"	7/31/57 to 8/28/57	243	1,700	2,152.00	B @ A-121
IET # 10 (Total) # 10 A # 10 B	12/20/57 to 3/6/58 12/20/57 3/1/58	6,900,000	2,220,000 2,740,000	1,650,000.00	B @ A-126 D D
IET # 11	3/20/58 to 4/14/58	3,540	4,200	4,635.00	B @ A-128

IET # 12 "Boot"	4/21/58 to 5/7/58	43,400	4,000	29,070.00	B @ A-132
FPFRT-1	7/25/58			9.80	B @ A-201
FPFRT-2	8/4/58			9.30	B @ A-201
FPFRT-3	8/6/58			9.90	B @ A-200
FPFRT-4	8/14/58			9.60	B @ A-200
FPFRT-5	8/27/58			140.00	B @ A-200
FPFRT-6	9/4/58			115.28	B @ A-200
FPFRT-7	9/17/58			90.79	B @ A-200
FPFRT-8	9/18/58			102.48	B @ A-200
FPFRT-9	9/26/58			10.08	B @ A-200
IET # 13	10/8/58 to 11/18/58	9,500	940	9,730.00	B @ A-137
IET # 14	4/24/59 to 5/19/59	49,700	7,500	13,456.00	B @ A-139
IET # 15 (total) IET # 15 A IET # 15 B	5/27/59 to 6/24/59	3,400	2,000 1,200	3,178.34	B @ A-199 D D
IET # 16	7/28/59 to 10/28/59	76	300	294.42	B @ A-199
IET # 17 (total) IET #17 A IET # 17 B	11/2/59 to 12/12/59	5,600	2,400 2,200	6,202.00	B @ A-147 D D
IET # 18 "HTRE-3"	12/23/59 to 2/8/60	18,600	14,000	14,157.30	B @ A-153
IET # 19 (total) IET # 19 A IET # 19 B	2/9/60 to 4/30/60	14,000	1,200 8,400	11,381.00	B @ A-153 D D
IET # 20	5/1/60 to 6/13/60	26,000	7,500	10,249.00	B @ A-155
IET # 21 "Feet 1"	6/20/60 to 8/8/60	4,700	2,000	3,752.00	B @ A-158
IET # 22	8/12/60 to 8/25/60	404,000	4,100	10,526.80	B @ A-160
IET # 23 "Feet #2"	9/1/60 to 10/14/60	5,500	1,700	2,890.00	B @ A-163
IET # 24 "Lime"	10/17/60 to 10/26/60	340,000	4,800	7,725.90	B @ A-165
IET # 25 (total) IET # 25 A IET # 26 B	11/15/60 - 12/16/60	1,740	2,400 7,800	10,171.26	B @ A-197 D D
IET # 26 (total) IET # 26 A IET # 26 B	12/22/61 to 3/31/61	46,400	7,000 3,100	12,110.00	B @ A-173 D D
7 & 3 Module # 1168 to # 1192	1967 to 1969				C @ 29 to 116

Total IET Runs		8,095,799	6,997,034		
Total Uranium Released				1,635.82 grams	

* Only hot run tests are listed, therefore, missing test numbers indicate cold runs. Curie content of uranium released is not included in the SC&A total curies released. Releases for the 7 &3 Module are not yet fully analyzed. Between 1956 and 1966 the ANP reactors operated in excess of 3,064.24 hours. During this time the reactors were operated at high power for 1,575.8 hours.

Above Table Sources: “Decontamination and Decommissioning Plan for the Initial Engine Test Facility and Associated Hot Waste Line” March 1986, EG&G, (PG-WM-85-008 @2-3;

[A] - Energy Research Development Agency INEL EIS (ERDA-1536), ERDA was created after the Atomic Energy Commission was split between military and commercial, and was the predecessor to the current Department of Energy (DOE).

[B] - DOE/ID report “INEL Historical Dose Evaluation” (DOE/ID-12219).

These citations include all emissions including uranium;

[C] - Critical Experiments on a Modular Cavity Reactor, May 1970, Idaho Nuclear Corp. (IN-1376)

[D] - CDC contractor Sanford Cohen and Associates (SC&A) 7/03. Except for individual analysis of IET tests Nos. 3,4, and 10 SC&A cites HDE emissions on page ES-5. Given the ANP operations intended “melt-downs” and near total uranium reactor fuel dis-indignation and with the resultant particulate dispersion of this material out the stack, this is lack of inclusion of uranium emissions remains a significant deficiency in the CDC/SC&A research.

[E] CDC contractor Risk Assessments Corp. (RAC) “Identification and Prioritization of Radionuclide Releases from the Idaho National Engineering and Environmental Laboratory,” September 30, 2000, pages 70 to 87.

Acronyms:

IET = Initial Engine Test;

FPFRT = Fission Product Field Release Test;

Modular - NASA's Modular Cavity or "Light Bulb" Reactor.

SC&A = Sanford Cohen and Associates

RAC = Risk Assessments Corp.

III. Source Term Determination

The Environmental Defense Institute (EDI) offers these additional comments (also see EDI 2/6/04) to Centers for Disease Control and Prevention (CDC) and its subagency National Center for Environmental Health and Safety (NCEH) on previous contractor reports by Risk Assessment Corp. (RAC) ¹³ and current Sanford Cohen and Associates (SC&A) and subcontractor SENES Oak Ridge (SC&A/SENES) ¹⁴ related to the agency's INEEL Dose Reconstruction Health Study. EDI's formal comments on CDC/RAC reports were previously submitted 3/7/01. The EDI comments below merge both our previous RAC report review and current SC&A report comments because the major unresolved issues that flowed from RAC continued into the SC&A report documentation for CDC on INEEL historic radioactive releases.

Fundamentally, contractors or sub-contractors cannot be faulted if the CDC puts a strangle-hold noose around what information can be reviewed and, more importantly, restricts costs related to researchers going to remote government archives to review relevant reports. That being said, it is predictable when CDC contractors do not fully disclose (even as uncertainty analysis) in their reports the limitations imposed by CDC on document review and report agency censorship. Tragically, the general public remains in the dark about what really impacts their health and safety. EDI submitted numerous Freedom of Information Act (FOIA) requests and received tens of thousands of pages of previously classified "Secret" documents, some "blacked out" for "security declassification" reasons. Although useful and informative, these FOIA documents still do not disclose the full information required because huge gaps remain undisclosed. At best EDI can only offer "snapshots" based on what limited information has been made available via FOIA. Despite the huge limitations, the comments below reveal major deficiencies to CDC's INEEL Dose Reconstruction Health Study.

EDI originally submitted a petition (together with thirteen other organizations) to CDC in July 1990 that subsequently was followed by then Idaho Governor Andrus request to CDC to conduct a comprehensive health study of INEEL.

As documented below, CDC stood aside for many years while DOE destroyed crucial documents needed to establish INEEL radioactive releases to the environment, and then claimed that there was "inadequate data." The current CDC/SC&A reports fail to:

¹³ Risk Assessment Corp. Report # 3 CDC Task Order 5-2000-Final.

¹⁴ Atmospheric Source Terms for the Idaho Chemical Processing Plant, 1957-1959, SC&A/SENES Oak Ridge, Contract No. 200-2002-00367, February 2003.

- Include all relevant documents to ICPP radiation releases
- Include all ICPP “green fuel/slug “ process runs in release estimates
- Include the most exposed individual in dose calculations
- Acknowledge massive document destruction that impaired research
- Include Nevada nuclear bomb test fallout on Idaho in cumulative dose calculations

EDI documents below that RaLa production from “hot” piolet plant runs in 1954 through full scale production extended through 1963 with a total of about 83 runs and barium-140 throughput production at about 3.8 million curies. CDC only analyzed 31 of these runs between 1957 and 1959. The bottom line from EDI’s perspective is that the CDC’s INEEL Dose Reconstruction Health Study reports are grossly inaccurate and continue to significantly underestimate the mixed hazardous and radioactive contaminants released to the environment that impact the health and safety of residents of the region.

IV. Background

A. Access to Current Information

The Environmental Defense Institute (EDI) offers this background information because it is crucial to readers to put these comments into the context of over a decade of public input and Centers for Disease Control and Prevention (CDC) research methodology developmental process that shapes the current INEEL Dose Reconstruction Project and information the CDC offered to the public. CDC initially (early 1990’s) contracted with Sanford Cohen & Associates (SC&A) to conduct Phase-I of the INEEL Dose Reconstruction studies. After major failures, SC&A was replaced by Radiological Assessment Corp. (RAC). And now, despite its previous record during the Phase I, SC&A is back as CDC’s contractor with new project management and subcontractor SENES of Oak Ridge.

EDI received no official notice from CDC that the September 2000 Draft Task Order 5 report or the subsequent Sanford Cohen and Associates (SC&A) reports dated February 2003 were available.¹⁵ Comments herein combine CDC subcontractor RAC and SC&A reports because of fundamental unresolved issues in these progressively inadequate reports. Only recently did EDI hear anecdotal knowledge that these current SC&A reports were available and requested a copy (not on CDC/NCEH website) from CDC. After concerted efforts by EDI, SC&A released 1/16/04 reports on INEEL, about five days prior to the INEEL Health Effects Subcommittee meeting scheduled for 1/21/04, and not enough time to review the reports containing thousands of pages.

This lapse of public outreach is indicative of CDC’s lack of commitment to public involvement in its research findings. As of this writing, a random search of CDC’s website document database does not contain relevant DOE/INEEL reports that EDI has copies of from Freedom of Information Act requests that are crucial to understanding ICPP source term releases.¹⁶

¹⁵ Environmental Defense Institute representative Chuck Broschious, as one of the original CDC INEEL Health Effects Subcommittee members through 1999, and author of the original 1990 Petition to CDC to conduct an INEEL Dose Reconstruction Study. Despite this EDI is not officially notified of new CDC report releases.

¹⁶ CDC/NCEH has copies of EDI’s FOIA requests, so exclusion of these reports from the agency’s database appears to be arbitrary especially after EDI has cited these specific reports in official comments to CDC.

B. Access to Historical Information

The most formidable obstacle to independent analysis of Department of Energy (DOE) operations is access to information. Reviewing the CDC Task Order 5 (TO5) (produced by Risk Assessments Corp.) on the Idaho National Engineering and Environmental Laboratory (INEEL) Dose Reconstruction Study and subsequent Sanford Cohen and Associates (SC&A) is an example of this fundamental paradigm. RAC's deficiencies in Phase I can be seen on EDI's website. The bottom line is CDC uses only the information it wants and structures the Task Orders accordingly to fit the agency's preconceived agenda to limit federal government liability to past misdeeds.

The veil of secrecy established at the beginning of the nuclear age continues to shroud INEEL's operations from the public's eye. Independent review of CDC's INEEL Dose Reconstruction Study reports are therefore fundamentally crippled from exercising the most basic of scientific processes required to validate any finding - equal access to the information so CDC's analysis can be replicated. CDC is not troubled by this secrecy paradigm and in fact is actively maintaining it. Under these circumstances, CDC cannot claim an unbiased scientific approach to its research.

For instance, in 1994, responding to EDI's inquires, CDC publicly announced that Operation Bluenose did not involve radiation releases and, therefore, was irrelevant to the INEEL dose reconstruction study. CDC was later forced to recant this statement after censored FOIA documents received by EDI clearly documented that Operation Bluenose involved radioactive releases from INEEL and other sites. Another instance in 1997, CDC, DOE, and the U.S. Navy advocated against an Environmental Defense Institute and INEEL Health Effects Subcommittee (IHES) supported recommendation requesting an index of classified documents deemed useful by EDI as a check against CDC's request to DOE for declassification of documents relevant to the study. The agency's argument revolved around the "fact" that an index did not exist and extensive resources would be needed to create one and that it would not be useful in their view in a dose reconstruction study. In fact, CDC stated on the record that resources diverted to generating an index of classified documents would come out of DOE's budget allocations to CDC and therefore restrict CDC's health study. [See IHES meeting verbatim transcript 10/11/97]

After lengthy appeals, EDI FOIA requests produced the INEEL index of classified documents, and it was revealed that CDC had a copy of the index as early as 1992, but did not want EDI or the public to have access to it. These are but a few examples of how CDC actively blocks public access to information related to radiation releases from INEEL.

Since its inception in 1989, EDI has filed dozens of FOIA requests with DOE's Hanford and Idaho Operations as well as the U. S. Air Force related to radiation releases from INEEL. DOE launched numerous efforts to block EDI's FOIA requests starting with denial of fee waiver provided by law and attempted to impose copy charges of \$1,200,000. When that tactic failed under appeal, DOE tried to deny the FOIA's on the basis that EDI did not have the technical resources to understand the information nor the ability to disseminate the information to the general public. That tactic also eventually failed on appeal. Finally, DOE, the Navy, and the Air Force (especially over Operation Bluenose releases) have hunkered down behind the "national

security” barricade by claiming that release of these fifty-year-old secret documents on radiation releases would compromise this country’s national security. Consequently, what few documents that are released under FOIA, have major sections missing and/or major portions are censored (“blacked”) out. The censors claim that: “These portions contain information that remains currently and properly classified in the interest of the national security.... the authorized disclosure of this information could reasonably be expected to cause serious damage to the national security.” [USAF 29 January 1999 response to EDI FOIA request]

Other censor tactics are blacking out page numbers so it is impossible to determine if the whole document was released. Still other censor tactics are to declassify a cover letter with deletions and not include the attachment that contains the important information. Of the 158 documents requested in EDI’s 1998 “Bluenose” FOIA, only 41 have been declassified and those are heavily censored to the point of being useless. See discussion below on Operation Bluenose. Reviewing the Attachment below FOIA title listings can leave little doubt of the connection of Hanford and INEEL’s involvement in Bluenose releases. CDC simply cannot bury its collective agency head in the sand and ignore this program in its INEEL TO5 analysis.

Given this piecemeal and at best sketchy access to information, it is nearly impossible for EDI to review the full range of operations at INEEL that may have resulted in major releases of radiation into the environment, which is the subject of CDC’s INEEL Dose Reconstruction Study. Specifically, undue focus on the “RaLa” Runs as being the only “green” reactor fuel reprocessing program that released large quantities of radiation into the environment during the early years, is highly questionable. CDC acknowledges as much by stating: “Interestingly a high release of I-131 (about 50 curies) on Saturday, March 1, 1958 was not associated with a RaLa run and points out the difficulty of completely separating out the releases from the RaLa operations from other processing activities at the ICPP during that time.” [CDC/RAC @20]

Green fuel is a term used to describe reactor fuel that has not “cooled” first before being reprocessed. “Cooling” in water pools allows short lived fission products in the fuel to “safely” decay before reprocessing. The popular term “RaLa” is a misnomer since the research, development, and production is centered around the isotope barium-140. **Radioactive Lanthanum-140** is the daughter of barium-140 which was used in radiological warfare because it killed people through radiation exposure without destroying infrastructure. Based on limited documentation available to EDI, some 782,814 curies of Ba-140 produced at ICPP were shipped to Los Alamos during the production years of 1960 and 1961¹⁷ for open air radiological warfare tests. CDC states in its reports that this period was insignificant and therefore not analyzed. CDC/SC&A claims that “the RaLa product was used for diagnostic use” is patently false and intentionally misleading. [SC&A pg. 3-1] Other secret programs involving “green fuel” reprocessing occurred before, during and after the time of the RaLa Runs and therefore must also be analyzed.

C. Document Destruction

During the study process in 1994, CDC’s National Center for Environmental Health (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

¹⁷ CPP Production Weekly Reports, Ay-95-60A and Ay-3-62A.

of Understanding (MOU), 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 3 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.

John Till, Radiological Assessments Corp. (RAC) (NCEH Phase-II research contractor) believes "the issue of records being destroyed before we have had an opportunity to verify the contents 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 (Pertinent 1,2,3,9). 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."¹⁸

The fact that the DOE historian was allowed to unilaterally override the NCEH freeze moratorium could be considered obstruction of justice if it were in the context of 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 only reported that 62 boxes of pertinent documents were destroyed and failed to quantify the number of boxes that had been recalled by their originators.

John Till notes that "we [RAC] have re-categorized a number of boxes from what they were categorized to be by [former 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 take stock in what has happened and weigh 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."¹⁹

¹⁸ Denson, W.J., President and CEO, Lockheed Martin Idaho Technologies Co., letter to John Wilczynski, 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.

¹⁹ 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, Margaret von Braun, Ph.D., P.E. Chair, page 79.

The issue of the 72 boxes permanently recalled is also crucial...and not fully disclosed by NCEH at an agency meeting in Salt Lake. DOE's statement that "There may still be available to some extent through the recall requestor or returned under another box" is equally bogus. First there is no record of who the recaller was or even that the box was recalled at all...it just is 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. To date, there is no indication this has occurred.

INEEL 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, Las Vegas, Chicago, Germantown, Seattle, and Hanford).

John Till stated that "The Seattle records center is a special situation which is becoming more problematic. There are quite a few per 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.²⁰ SC&A's draft final Phase-I report quantifies the document destruction at 65,000 boxes. Five years later NCEH is still sitting on their hands and not particularly concerned over the issue.²¹

CDC's National Institute for Occupational Safety and Health (NIOSH) is conducting a completely separate health study of the INEEL workforce. 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."²² By sheer volume alone, the worker health study has a major document destruction problem along with the National Center for Environmental Health's dose reconstruction study

This is not just another academic exercise. This is not equivalent to determining whether or not to put a new interchange on interstate 15. It is about determining why southeastern Idahoans had 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, the southeastern Idaho ranks up there with

²⁰ 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

²¹ 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.

²² 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

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 indicate increased rates of radiogenic diseases. 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.

Who controls the information needed to answer these basic accountability questions? Who is responsible for destroying the documentation needed to determine why Idahoans suddenly have such a high cancer rate? None other than the Department of Energy!

Who is paying NCEH's Radiation Studies Branch to conduct this INEEL Dose Reconstruction Study? Who is paying the National Institute for Occupational Safety and Health to study the health of the INEEL workforce? Who has the greatest liability exposure if a cause and effect is established? None other than the Department of Energy. Whoever controls the purse strings controls the outcome.

This system of health study funding has corrupted the credibility of the public health agencies. The U.S. 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. ACERER recommended transferring the funding from DOE over to Department of Health and Human Services. ACERER's recommendation states:

"This 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 [CDC/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 litigations that can afford independent research to establish cause and effect between radioactive releases and health outcomes.

In 1999, 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 irrelevant "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 way 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, it 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 to then Secretary of the U.S. Department of Health and Human Services, Donna Schalala, and then 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.

The issue of INEEL document destruction is at the crisis point. The CDC status report on documents relevant to the INEEL Dose Reconstruction Study reveals that some 1,254 boxes of documents have been destroyed or are otherwise missing. A single box could hold 5,000 pages, so the total loss of information could be in excess of 6 million pages. One of the issues is the CDC's document classification system of Pertinence 1, 2, 3, and 9 in descending order of relative importance to the INEEL Dose Reconstruction Study. To illustrate the problem, let us use the example of the previously discussed need for a physical reconstruction of ICPP source terms. Since CDC never intended to do a physical reconstruction of the ICPP, documents related to reactor power level, cooling time, emission control systems would not be considered a high priority (pertinence 1 or 2) document. CDC's delays of over eight years to conclude its Phase -1 document review has given DOE ample opportunity to destroy incriminating evidence. The problem is so acute, that it is uncertain that a credible study can be done even if CDC suddenly found the political will to do good science. The same problem will be faced by independent researchers working on a future INEEL class action suit, because the essential information simply may no longer exist. CDC additionally failed to secure documents once identified so that they would be later available for use in the health study. That is like farmer Brown telling the fox which chickens are the fat ones and which roost they are on before turning over the keys to the fox to guard the chicken coop.

See EDI's website for previous CDC submittal that shows a generated table that itemizes the various categories of INEEL related document retrieval operations discussed above.