Section VI. Centers for Disease Control INL Health Studies

A. Health Studies Background

In July 1990, a legal petition drafted by the Environmental Defense Institute (EDI) was filed with U.S. Health and Human Services (HHS) under a provision of the Superfund Act. The petition requested independent INL health studies be conducted by the Centers for Disease Control (CDC). Michael Blain, Ph.D. offered his "Radio-ecological Effects on Animal and Human Populations Near the Idaho National Engineering Laboratory [Blain] as supportive documentation to the petition. The following organizations were co-petitioners:

American Friends Service Committee, Denver, CO
Citizens for Environmental Quality, St. Maries, ID
Citizens Against Nuclear Weapons & Extermination, Coeur d'Alene, ID
Environmental Defense Institute, Moscow, ID
Focus on Peace and Justice, Burley, ID
Friends of the Earth, Washington, DC
Greater Yellowstone Coalition, Bozeman, MT
Greenpeace USA, Washington, DC
Moscow Chapter, Idaho Conservation League, Moscow, ID
Northern Rockies Chapter Sierra Club, (ID-WA), Hailey, ID
Physicians for Social Responsibility, Washington, DC
Radioactive Waste Campaign, Warnick, NY
SANE/FREEZE: Campaign for Global Security, Washington, DC

Responding to a September 1990 critical report by a peer review panel on DOE's INL Historical Dose Evaluation, then Idaho Governor Cecil Andrus subsequently requested on March 4, 1991 that CDC conduct a dose reconstruction study at INL.

EDI supports CDC's choice to divide the dose reconstruction study into phases and sub-tasks. This is a logical approach that builds on research blocks. INL is an extremely complex site with possibly the most diverse range of operations of any of the DOE sites. Evaluating INL's five operating decades will require equally diverse scientific disciplines.

CDC's INL Dose Reconstruction study was launched in October 1992. Not until January 1995 did CDC establish a formally chartered INL Health Effects Subcommittee (IHES) to give the agency public input into the health research. Unfortunately, CDC appointed individuals to the committee that had a conflict of interest. EDI wrote a letter to David Satcher, then Director of CDC, objecting to the appointments to the IHES. EDI found that the inclusion of Mr. Gassell, former director INL Radiological Environmental Science Laboratory and Mr. Horan former INL health physics technician on the IHES do not meet the legal criteria for balanced representation, independence, and freedom from conflict of interest. [45 CFR 11.3]

CDC's National Center for Environmental Health's (NCEH) position, as expressed to EDI at various meetings, is that conflict of interest is narrowly defined as direct financial interest. HHS regulation cites Executive Order 11222 which states: "An employee shall not have a direct or indirect financial interest that conflicts substantially, or appears to conflict substantially, with his or her duties as a Federal employee. An employee need not have a financial interest that actually conflicts with his or her duties to violate the prohibition of EO 11222. Any financial interest that could reasonably be viewed as an interest which might compromise the employee's integrity, whether or not this is in fact true, is subject to this prohibition." [45 CFR ss 73.735-802]

EDI's legal consultants believe that a direct financial interest exists with respect to John Horan. He has operated as an employee and as an independent contractor to DOE/ID, and it is reasonable that he will continue to do so in the future. Part of the mission of the IHES will be to assess Mr. Horan's work product. This work product includes his recent INL worker dosimetry study and his environmental safety and health monitoring reports. His direct interest is validating his past assessments since if his work product is found to be inadequate, it will seriously affect his ability to secure future contracts. Additionally, his interest is validating his work product since it will enhance the possibility of future contracts.

Mr. Horan's environmental health and safety monitoring data and reporting spans decades to the Atomic Energy Commission (AEC) era. Mr. Horan was an AEC "expert witness" brought in to defend General Electric (INEL contractor) in the radiation injury suit filed by James Dennis who died of a radiogenic disease caused by exposure during the SL-1 reactor accident cleanup.

The potential for economic loss creates a climate where preferential treatment may be given to DOE and RESL ES&H data and thereby losing the appearance of impartiality of action that will adversely affect public confidence in the

integrity of the government's health study research efforts at INL. HHS's regulations state that: "Appropriate safeguards shall be taken to assure that an advisory committee advise and recommendations will not be inappropriately influenced by special interest, but shall instead be the result of the advisory committee's independent judgment." [45 CFR ss 11.4]

NCEH official's suggestion that the conflict of interest test has been met and if the IHES wishes to impose additional conflict of interest criteria then it is free to do so at its first meeting. CDC is inappropriately relinquishing its legal responsibility in appointing individuals who have a conflict of interest under law. Moreover, CDC cannot allocate responsibility to the IHES when existing regulation would prohibit appointment of certain individuals in the first case. Mr. Horan may have violated disclosure and reporting requirements [45 CFR ss 73.735-901] by failing to inform CDC of his three-year INL worker dosimetry contract with DOE/ID while concurrently he was a member of the CDC's INL Interim Technical Working Group convened to advise CDC on its INL dose reconstruction study. This advisory group was intended to fill a federal advisory committee gap between the initiation of the dose reconstruction study in 1992 and the formation of the FACA chartered IHES in 1995.

Then CDC Director Satcher chose to ignore EDI's conflict concerns. Mr. Gassell, however, voluntarily removed himself, and CDC replaced him with a Lockheed Martin manager who also has a conflict of interest. Lockheed Martin is the current prime contractor at INL.

Section VI. B. CDC's INL Phase I Final Report

The Report failed to acknowledge or identify problem areas. An inexperienced reader will question why INL is a Superfund site and why CDC is conducting a multi-million-dollar INL Historical Dose-Reconstruction study. The Report's illogical format scatters the individual contaminate sources throughout the document to the point that a reader is unable to gain any comprehensive perspective of any given source facility. The non-sequential format is not even related to contaminate pathways. Notwithstanding the need to merge pathways, there is also a need to merge releases by facility. The Report also failed to describe and analyze facilities through developmental time. Most descriptions characterize current emission systems and waste disposal practices rather than evolutional stages. There must be an effort to differentiate the developmental stages and ramifications on contaminate releases. The drafters of the Report and the agency representatives responsible for quality assurance clearly put aside the scientific method and replaced it with value laden discussions far removed from objective, dispassionate science. This type of quasi-science is all too common and it has earned the federal health agencies research the dubious distinction of "inconclusive by design".

The Report's response to the public's concerns [CDC(c)@xii] is indicative of not only the inadequate applied science but also CDC's disdain for issues brought to the attention of the agency. For instance, "Issue No. 1: Waste Buried at the RWMC" dismisses public concerns related to spent nuclear fuel burial as being only from test reactors (Materials Test Reactor) and not from power reactors. The table titled "Spent Reactor Fuel Dumped at INL" (Section I(E)(1) shows that CDC's claim is not supported by fact. The ninety metric tons of irradiated fuel dumped in the burial ground are hardly insignificant and the table also shows that the Test Reactor Area (location of the Materials Test Reactor) is the least significant contributor to the spent nuclear fuel volumes buried at the RWMC.

The report also trivialized public concerns related to the amount of plutonium buried at the RWMC and failed to quantify the amount using available data. Perhaps CDC does not consider 3,208 pounds (1,455 kg) of plutonium, 1,329 pounds of Americium (603 kg) significant. [ER-BWP-82] But when DOE's own contractor studies show that there is no threshold for internal plutonium exposure that does not cause 100% fatality in test animals [Parks], the public is justifiably concerned. CDC claims that only beta and gamma waste was dumped at the RWMC. [A-22] Similar statements appear at A-21, A-26, and A-30. Perhaps CDC does not know that plutonium, americium, and uranium are alpha emitters. Indeed more than 62,000 cubic meters of Transuranic waste are buried in the Subsurface Disposal Area. [EG&G-M-24884] Transuranic waste is defined as having radionuclides heavier in atomic weight than uranium and in concentrations greater than 100 nano curies per gram.

Characterization in the Report of RWMC Subsurface Disposal Area (SDA) missed the Transuranic Disposal Area within the SDA. Moreover, the Report fails to acknowledge significant volumes of what would be classified Transuranic waste that was dumped (1952-1975) in the SDA's pits and trenches along with low-level waste. The Transuranic Storage Area was added much later (1975), and therefore the Report misrepresents the historic progression and the dumping practices at the site. This is a fundamental point that was specifically emphasized by the Environmental Defense Institute to CDC and Sanford Cohen & Associates at the very beginning of the research project. Namely, each facility must be evaluated chronologically through time because of periodic upgrades and changes to emission control systems. The Report habitually uses current operating procedures and infrastructure to characterize the whole history of the facility.

CDC perpetuates the DOE's propaganda by adopting the Department's descriptions however misleading. "The stated mission of the RWMC is to provide the waste management for the present and future needs of the INL and assigned DOE off-site generators of low-level and Transuranic waste; to retrieve, examine, and certify stored Transuranic waste for

ultimate shipment to the DOE WIPP in New Mexico; and to initiate and support research, development and demonstration projects for waste management."[A-20] The words dump, disposal site, radioactive waste internment are nowhere to be found here, thus, making the RWMC sound quite innocuous. CDC perpetuates the myth by characterizing the RWMC as having "good surface drainage and clay sediments to exclude moisture." [A-21] No mention of the fact that the RWMC lies in a flood plain some 40 feet in elevation below the Big Lost River. Flooding of the burial grounds has been a constant problem since the beginning of site development. Dikes were later built but even they were breached on numerous occasions. The dikes now also hold in precipitation so that sump pumps are used to reduce flooding. CDC suggests the U.S. Geological Survey concurred with the site-selection however the historical technical reports show dire warnings against using the site for radioactive waste burial. The Atomic Energy Commission chose to ignore its own experts and proceed with the dump. This decision was made as much because the RWMC site was unusable for anything else because of the flooding problems. Flooding has facilitated the migration of contaminates into the underlying soils and groundwater.

CDC's obsequious description of the RWMC continues. "In the mid-1960's, the Atomic Energy Commission changed waste disposal methods to increase personnel safety and environmental protection. Up to this time, waste containers were stacked to minimize volume occupied. To reduce worker exposure and to reduce risk of accidents during rigging, waste operations specified that waste containers simply be dumped into the open burial pits and trenches. The Atomic Energy Commission subsequently reversed this practice when it recognized the need to minimize burial volume." [A-22] The report fails to mention that change in dumping practices coincided with a labor strike that meant there was not the personnel available to stack waste containers in the trenches. No mention is made of chemical and radionuclide migration 240 feet into underlying ground water, or that all the water faucets at the RWMC have warning signs not to drink the water. Presumably CDC considered the facts potentially disturbing for the reader and chose to provide a calming Report at the cost of science, candor, and credibility.

CERT experiments [2-16] discussed by the Report states "all participants were volunteers," but there is no mention that there was no full disclosure and/or informed consent. The Report also fails to acknowledge that there was no medical follow up to the radiation experiments to determine long-term health impacts on the "volunteers." [CRS(b)]

The Report claims that the Central Facilities Area (CFA) has no significant emissions [3-74] yet DOE documents cite the Health Physics Laboratory at CFA as second on the INL for gamma radiation releases on an aerial monitoring survey. The laundry at CFA is also a high emission area. [ERDA-1536] The laundry has since been privatized to an off-site contractor.

Test Reactor Area (TRA) chemical contaminate sample data offered in the Report is 400,000 times lower than data in CERCLA 12/92 Record of Decision (ROD) for TRA Remedial Action. This ROD is a signed cleanup agreement between the State, EPA, and DOE. No mention is made of TRA's radionuclide ground water contamination 176,470 times over EPA's maximum contaminate levels (MCL) in drinking water. The Report only lists 14 radionuclides released at TRA as liquids. Again, the TRA ROD lists 28 nuclides. CDC perpetuates the myth that "The natural absorptive and ion-exchange properties in the soil of the leaching pond were thought to remove most of the radioactive impurities in the pond water." [B-31] With current data available to CDC showing massive migration of chemicals and radionuclides into the groundwater, an objective reader of the Report can only conclude that CDC is deliberately concealing relevant information.

The lack of comprehension of the Report drafters can also be seen in the description of the Idaho Chemical Processing Plant (ICPP). "The plant reprocessed uranium from research reactors and experiments from the US Navy's nuclear propulsion program." [A-1] It is difficult to imagine how CDC could have missed the fact that the ICPP was the final destination of all the Navy warship and training reactors spent nuclear fuel as well as military and commercial reactor fuel. By volume, INL has 60% of the total DOE (all DOE sites across the country) owned spent nuclear fuel. By fissile mass, INL has 61% of DOE's total.

Feel-good value statements are peppered like saltpeter throughout the report, and emphasize the trivial tone geared to put the reader at ease with the assurance that the INL is a well-run facility. "Strict operational procedures were used from the start of operations at Naval Reactor Facility [NRF] to control the release of radioactive materials".[B-73] Yet the Report is silent on the fact that the NRF is the largest generator (8 million curies) of nuclear waste dumped in the burial grounds. [RWMIS] With such fine management and controls, how on earth did the NRF become a designated Waste Area Group on the INL Superfund site? By not stating problems (errors of omission) the Report authors literally conclude that there are no problems!

The Report's claim that "earthquake activity is absent from this portion of the [Snake River] plain" is not supported by DOE's own Quarterly Seismic Reports. [REP-79-061 to 82-004] CDC could not even get the most recent lava flow right (75,000 years) when it occurred within the last 2,000 years. No mention is made of major INL facilities that do not meet seismic structural codes not the least of which is the ICPP's high-level waste tank farm.

CDC's characterization of the LOFT experiments (intentional reactor meltdowns) again misrepresents the program. "Each test or experiment conducted at LOFT was subjected to extensive safety analyses including LOFT Integrated Test System Final Safety Analysis Report, LOFT Technical Specifications, and extensive meteorology of the TAN site." [A-63]

With all these controls, CDC leads the reader to believe there were no problems here to be concerned with because of all the safety systems. The Report does not mention the 941,912 curies per year were released out the stack or out of leakage in the containment structure. The last test run of the ten-year testing series alone released more than 8,800 curies. [ERDA-1536]

The Report's characterization of the Naval Reactor Facility (NRF) is equally erroneous. "The NRF then began disposal by pumping radioactive liquids from the S1W and other Radioactive Waste Discharge System tanks to leaching beds. The radioactivity in the water was removed as water percolated into the ground from two infiltration pit areas designated A1W and S1W."..."The leaching beds disposal technique relied on the assumption that radioactive wastes were contained for a sufficient time to render - as their contribution to the regional water table during the waste removal operation - a negligible consequence. This process was affected by ion exchange within alluvial materials or through radioactive decay when radioactive wastes are pooled above sedimentary levels as perched water zones." [B-72] One could only suppose that CDC thinks the radioactive contaminates under the NRF as acknowledged in the CERCLA Record of Decision got there from Soviet nuclear bomb tests.

The preceding comments on CDC's Final Report on the Phase I of the INL Dose Reconstruction study are by no means an exhaustive analysis. The cited areas are only representative of the overall quality of the Report. Clearly, a page by page review of the Report is indicated.

Any member of Congress looking for fat in agency appropriations could readily conclude from CDC's Report that spending additional millions of scarce dollars on this study is not an appropriate use of taxpayer's resources. Since the Report clearly indicates that there is no problem that warrants public concern, we should not be surprised to see funding dry up like a cow pie on a hot southeast Idaho day.

"Inconclusive by Design" is a National Toxics Campaign report that analyzed CDC and the Agency for Toxic Substances and Disease Registry (ATSDR) health studies. This critique of the public health agencies' research demonstrated how they deliberately excluded data from their analysis so that the findings would be inconclusive. The political motivation to add a layer of bureaucratic cover for the polluter - especially when it is another sister agency - has won again.

"Two federal agencies, the Centers for Disease Control (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR), bear the primary responsibility for safeguarding the nations' environmental health. They are responsible for studying communities exposed to toxic pollution and wastes and making recommendations for public protection. Instead of ensuring a margin of safety and recommending measures to end public exposures to toxins, both of these agencies have routinely funded and conducted studies of efforts of toxic pollution on public health which is inconclusive by design. These intentionally inconclusive studies have been used by polluters and government officials to mislead local citizens into believing that further measures to prevent toxic exposures are unnecessary. In systematically engaging in such practices, the two agencies are violating sound public health policy." [NTCF]

CDC used the Health Effects Subcommittee as a token public participation process. After reviewing the Working Group meeting transcript it is clear that the agency and its contractor Sanford Cohen & Associates (represented by John Mauro) were told in no uncertain terms that their reporting was inaccurate, misleading, and a rehash of DOE public relations material. And as the transcripts show, Mauro was obliged to state that "we agree". Yet despite this admittance, the Final Report was not corrected. The word science must never be used to describe CDC's Phase I Report unless in conjunction with science-fiction. CDC has again perpetuated its reputation for generating studies that are "inconclusive by design." Or as Ed Martell said, "ignorance is compounded by the sins of omission".

CDC's Phase-I contract with Sanford Cohen and Associates (SC&A) also required them to compile a database of all documents that would be useful in calculating radioactive and chemical doses to the public from site releases. This work product was delivered to CDC in January of 1995. This database is to provide the informational foundation upon which all subsequent phases of the dose-reconstruction study will be built. Consequently, the database is the most crucial part of the whole study. CDC delayed responding for nearly two years to requests from members of its INL Health Effects Subcommittee for copies of the database.

Over the years the Environmental Defense Institute (EDI) has built a modest library of INL operating history documents. Most of these documents were obtained through Freedom of Information Act requests or by making copies of documents in the INL Technical Library in Idaho Falls. These documents have provided the information basis for EDI's Citizens Guide to INL.

EDI after finally receiving a copy of the INL Phase-I database from CDC has conducted a cursory review and finds SC&A's work product wanting. EDI's review consisted of running spot checks to see if selected documents from EDI's library were in the database. The selected documents are of indisputable importance to a credible dose reconstruction study. For instance, the accident reports on the Idaho Chemical Processing Plant (ICPP) criticalities in October 1959, and January 1961 are not in the database. These two criticalities were significant occurrences that resulted in large radioactive releases and dozens of worker exposures. The ICPP RaLa green reactor fuel reprocessing campaigns between 1953 and 1963

released significant amounts of radionuclides to the atmosphere. Dozens of Phillips Petroleum Co. (Operator of the ICPP) reports describing the individual RaLa process runs are not in the database.

Any credible dose reconstruction study must have a thorough understanding of plant emission control systems through evolutionary time. Many documents that review the efficiency of ICPP emission control systems and offer recommendations for system upgrades are not in the database. As we saw from the Hanford Dose Reconstruction study, the emission control system efficiency is a major factor in calculating the release fractions from fuel reprocessing.

Environmental surveillance reports are essential for verifying the calculated source terms. Important documents in this category are missing from the database. Documents relating to the ICPP's Bluenose releases are similarly absent from the database. EDI recently submitted another FOIA request for additional documents related to the Bluenose program - a copy of which was forwarded to CDC.

EDI's library contains a limited number of INL contractor document indexes. Comparing document bibliographies listed in these indexes - documents from their titles suggest a clear relevance to a dose reconstruction study - again, are missing from the Phase-I database. Also, the lack of database indexes on document number suggests that a document specific quality assurance review has never been conducted - besides EDI's cursory review.

EDI lacks the resources and makes no claims to have conducted an exhaustive quality assurance review of the Phase-I database. Only a spot check of selected documents based on a limited knowledge of the site was done. Even at this relatively low level of quality, the database has flunked the test. EDI submitted a list of 122 essential documents that were not found in the database.

EDI renewed its previous demand that CDC convene a quality assurance and control team with adequate resources to conduct a credible review of the Phase-I database. Questions about the adequacy of the Phase-I work have plagued the process and clearly lead to the dismissal of the original contractor, Sanford Cohen and Associates. EDI's legitimate request to have the Phase-I work products peer reviewed have been ignored. Nothing in the current Phase-II task order with Radiological Assessments Corp. mandates a quality assurance review of the Phase-I products let alone the resource allocation to conduct a review. Proceeding on with such uncertainty about the adequacy of the information base is not good science.

EDI's Phase-I quality assurance recommendation is based on four reasons. First, it is part of the National Research Council's Radiation Dose Reconstruction for Epidemiologic Uses report that states the following. "In addition to public participation, other means exist for ensuring the credibility of the study. One of these is through periodic review of the study by scientists who are not engaged in its conduct and have no interest, or appearance of interest, in its outcome." Second, EDI's analysis of the Phase-I final report identified serious inadequacies. Third, only someone with a "Q" security clearance could assess the quality of the Phase-I report, which is beyond the capabilities of the INL Health Effects Subcommittee (IHES) that monitors CDC's research. Fourth, this must be initiated soon because Phase-I provides the informational basis for all subsequent research phases in the dose reconstruction study. Uncertainties about the adequacy of this research foundation component will literally compromise the rest of the work. If inadequacies are found, they must be corrected before proceeding with Phase-II source terms.

In this era of significant Congressional cut backs to CDC on its DOE related health research, EDI advocates that these limited resources be applied solely to document review and source term calculations. A limited window of opportunity exists to access this information that may not exist five or ten years hence. INL documents are being destroyed according to two quarterly contractor reports to CDC. There is simply no incentive on the Department, contractors, or responsible individuals to preserve potentially compromising information.

INL represents orders of magnitude in complexity over relatively simple - single mission production sites - such as Fernald or Rocky Flats. No other site in the DOE complex has had the diversity of nuclear programs as INL. Fifty-two reactors have operated at the site -highest concentration in the world. INL has also had forty-two reactor meltdowns, sixteen of which were accidents and the remaining twenty-six were intentional. Moreover, information on these varied programs is not centralized, but dispersed throughout the country in various government, contractor, and university archives. Accessing the relevant INL information is a monumental task that, if not done correctly and thoroughly, compromises all subsequent work. Contaminate dispersion/pathway modeling and dose calculations can be done at any future time without compromise. Indeed, these methodologies are still in their infancy and are evolving through an arduous trial and error process. Every month, year, and decade that passes, the source term reconstruction process becomes more difficult and problematic. EDI recommended focusing the limited resources on the time sensitive research that will provide a reliable and credible foundation for later dose estimates.

The June 1997 meeting of the INL Health Effects Subcommittee (IHES) generated a consensus recommendation for CDC to convene a quality assurance and control review of its INL Historical Dose Reconstruction Phase-I database and that the reviewers be scientists that are not directly involved in the study, either as participants or as advisors, and that time and resources would be allocated for resolving discrepancies in the results. Quality assurance reviewers must also have

appropriate security clearances needed to access classified document holdings. Under intense pressure, CDC reluctantly agreed to initiate the review within the next few months. This represents a significant step in the right direction as to establishing the scientific method to the research project.

Section VI. C. CDC's INL Health Study Phase-II

The Centers for Disease Control and Prevention (CDC) is moving into Phase-II of its Historical Dose-reconstruction at the Idaho National Environmental Engineering Laboratory (INL). This health study is designed theoretically to quantify what radioactive and chemical contaminates were released from INL and estimate the probable doses to effected populations. Two separate CDC agencies are involved in the research. The National Center for Environmental Health (NCEH) is evaluating off-site impacts and the National Center for Occupational Safety and Health (NIOSH) is studying on-site effects.

To further complicate the issue, NCEH contracts out all the research work to private contractors. The Phase-I contract was awarded to Sanford Cohen Associates and due to questionable work they were not offered the Phase-II contract. NCEH instead turned to Radiological Assessments Corporation who is also conducting studies for NCEH at Department of Energy (DOE) Fernald, Ohio and Savannah River, South Carolina sites.

The Environmental Defense Institute (EDI) reviewed NCEH's Phase-II work plan presented to Radiological Assessments Corporation. EDI continues to strenuously object to tasking the contractor with: "Reviewing the dose calculations performed by DOE in their Historical Dose Evaluation (HDE), comparing the original documents to the summary information used in the HDE to see if any of the information in the original documents might significantly change the exposures calculated in the HDE". The HDE was peer reviewed in 1990 by a nine-member panel headed by John Till. The findings of the peer review were issued in a September 15, 1990 report to Dr. Thomas Gesell, DOE Idaho Operations Office. [Till] The HDE was also extensively reviewed over a two year period by the state sponsored Dose Evaluation Review and Assessment (DERA) Advisory Panel chaired by Dr. Margret von Braun. [1] The findings of the fourteen- member panel were released in its final report January 1993. [DERA@80] Both of these review panels recommended that an independent dose reconstruction be conducted by CDC.

"The Panel concludes that the Draft INEL Historical Dose Evaluation does not satisfactorily meet the stated objective. The methodology presented is not sufficiently state of the art nor complete to lend confidence that the dose estimates truly represent upper bounds of exposure. It is likely that if thyroid doses to infants and children had been calculated, they would have exceeded those for adults reported in the study." [RAC@2]

Therefore, it makes no sense now that CDC is well into its INL dose reconstruction study to be doing anything but independent source terms and dose calculations. If DOE wants to compare its calculations with CDC's on their own time and dime that is fine; but reviewing HDE is not CDC's mission here. All review and comparisons of the HDE must be dropped from the task order not only because it is redundant to the work of the other two review panels but also CDC cannot assume accurate analysis of data and accuracy of calculations.

"Future work should include independent collection and verification of data, comparisons between modeled and monitored data, rigorous uncertainty analyses, and a quality assurance program for all data collection and analysis. Doses should be reconstructed for hazardous chemicals and all potential exposure pathways, including groundwater and soil ingestion." [DERA@4]

Is the institutional memory so short that DOE's health studies at other sites like Fernald and Hanford showed only half or a quarter of the radioactive releases ultimately uncovered by independent dose reconstruction studies at those sites. Credibility will only be attached to this research if it utilizes the best available science and that it be completely independent.

Prioritizing the release sites and radionuclides, as mandated in the task order, is perhaps an interesting exercise but if it leads to shortcuts of only conducting source term analysis on the biggest releases then it is unacceptable. The reason for this position is that individually perhaps some sources were relatively small, but collectively and cumulatively, the total may be significant. The public demands that CDC either do the research right or don't do it at all.

Again, the deliverables requiring: "A final report listing the most likely top three sources to the off- site public from those sources considered in the HDE", should be completely dropped from the task order as previously explained. Additionally, the task order is not explicit as to the degree to which the various source terms would be identified and what the exact extent of the spectrum of pollutants to be analyzed would be. There is no mention on protocol the contractor is to follow concerning classified information deemed necessary to the research. In view of the ongoing obfuscation by DOE/DOD on this declassification problem, not providing for it in the task order is a significant error. There is no provision

[1] 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.

in the task order for the physical accumulation of all relevant information into a single publicly accessible archive in Idaho where both CDC and public analysts can conduct their research. The Peer Review Panel recommended that: "Public credibility is strongly enhanced by the availability of these records to permit public repetition of that process." [Till@18] The DERA Panel recommended that: "The public needs to have access to all data and results. We recommend that all relevant classified documents be declassified, and that all documents used in the CDC dose reconstruction be available for public review." [DERA@81,72]

Source terms and dose calculations for the water pathway absolutely must include contaminates in all groundwater not just the aquifer. Specifically, perched water zones must be included. The academic distinction between these two ground waters by CDC is not shared by the general public. This perched water provision is mentioned by the Peer Review Panel. "It would be of interest to include radioactivity that has seeped into the perched water zones as well as the aquifer from the RWMC and any percolation ponds that have been used." [Till @ 19]

The contractor must also be instructed to work collaboratively with NIOSH researchers to ensure that any informational findings relevant to either on-site or off-site research effort must be shared. The need to specifically accommodate resource allocation to this intra-agency exchange cannot be overstated. The capricious division between on-site (NIOSH) and off-site (NCEH) dose research opens a huge crack that workers who have not yet had a medical outcome are going to fall through. The on-site populations closest to the releases and most likely to have been effected have a right to know what they were exposed to even though they are not on the Idaho Tumor Registry yet or happened to be badged or had one of those rare whole body counts at CFA's "copper room". Categories of possible impacted individuals in addition to badged workers are the un-badged construction workers, university biological and environmental monitoring researchers, security guards, bus drivers, Central Facilities maintenance staff, ranchers herding cows and sheep on site. Arbitrarily calculating doses at the fence line and beyond will structurally understate the doses. Screening criteria that excludes short lived isotopes because the site boundary is 20-30 miles from the release point obscures the fact that there were thousands of on-site workers who may have been immersed in the plume as it traveled toward the fence. The DERA Panel recognized this short-coming 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 [sic] property during releases." [DERA@79]

Questions about the adequacy of the Phase-I work have plagued the process and may have led to the dismissal of the original contractor, Sanford Cohen and Associates. EDI's legitimate request to have the Phase-I work products peer reviewed have been ignored. Nothing in the current task order mandates a quality assurance review of the Phase-I products. Proceeding on with such uncertainty on the adequacy of the information base is not good science.

EDI's Phase-I peer review recommendation is based on four reasons. First, it is part of the National Research Council's Radiation Dose Reconstruction for Epidemiologic Uses report which states the following.

"In addition to public participation, other means exist for ensuring the credibility of the study. One of these is through periodic review of the study by scientists who are not engaged in its conduct and have no interest, or appearance of interest, in its outcome." [NAS(c)@15]

Second, EDI's analysis of the Phase-I final report suggests serious inadequacies. Third, only someone with a "Q" security clearance could assess the quality of the Phase-I report, which is beyond the capabilities of the IHES Committee. Fourth, this must be initiated soon because Phase-I provides the informational basis for all subsequent research phases in the dose reconstruction study. Uncertainties about the adequacy of this research foundation component will literally compromise the rest of the work. If inadequacies are found, they must be corrected before proceeding with Phase-II source terms.

In this era of significant Congressional cut backs to CDC on its DOE related research, EDI advocates that these limited resources be applied solely to document review and source term calculations. There is a limited window of opportunity to access this information that may not exist five or ten years hence. INL documents are being destroyed. [SC&A@5] There simply is no incentive for the Department, contractors, or responsible individuals to preserve potentially compromising information.

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 INL. 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 INL site and involved a reported 600 boxes. This second announcement in June involved 700 boxes of INL documents stored at the Federal Records Center in Seattle, Washington.

CDC's dose reconstruction health study task is to estimate how much radiation was released from INL 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 claimed 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 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, 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 INL 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. DOE did not 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 INL 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." [2]

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 INL office spaces may fall into this category.

DOE is non-committal in taking specific steps to preserve INL 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 INL equivalent to the infamous Hanford Green Runs that released huge quantities of radiation into the air.

Section VI.D Destruction of INL Documents Worse than Previously Reported [3]

The CDC's National Center for Environmental Health (NCEH) in Atlanta, GA conducted the dose reconstruction health study at the INL. 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. CDC's National Institute for Occupational Health (NIOSH) continues to study individual cohorts of INL workers.

In the fall of 1998, NCEH requested physical retrieval of 4,948 boxes of previously identified documents from DOE's

[2] 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.

[3] See EDI Document Distruction Report at: http://environmental-defense-institute.org/publications/DocDestruction.pdf

INL 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 INL 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" [4]

The INL/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." [5]

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 INL Health Effects Subcommittee that advises NCEH on its INL Dose Reconstruction Study, NCEH reported that INL 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. [6]

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." [7]

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 INL related documents are housed (i.e., Federal Records Centers in Atlanta, Los Vegas, Chicago, Germantown, Seattle, and Hanford). DOE/Idaho controls the deposition of INL 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. SC&A's 1994 draft final Phase-I report quantifies the document destruction at 65,000 boxes. Five years later NCEH

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[4] John Till email January 31, 1999 to Chuck Broscious

[5] 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.

[6] 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

[7] John Till email January 31, 1999 to Chuck Broscious

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 INL 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." 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. [8]

Mary Burket, daughter of Clair Burket, is trying to obtain radiation exposure records pertaining to her father's involvement in the INL SL-1 reactor explosion that occurred in 1961. Three reactor operators and a nurse died initially 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 INL'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. [9]

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.

As previously noted: Lockheed Martin's INL 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 INL, 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." [10]

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[8] 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

[9] 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).

[10] 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).

"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 INL'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 INL indicates increased rates of radiogenic diseases. The Tennessean newspaper conducted surveys of INL downwinders and generated a list of forty individuals with health problems that they believed were related to INL emissions.

INL represents orders of magnitude in complexity over relatively simple - single mission production sites - such as Fernald or Rocky Flats. No other site in the DOE complex has had the diversity of nuclear programs as INL. Moreover, information on these varied programs is not centralized, but dispersed throughout the country in various government, contractor, and university archives. Accessing the relevant INL information is a monumental task that, if not done correctly and thoroughly, compromises all subsequent work. Contaminate dispersion modeling and dose calculations can be done at any future time without compromise. Indeed, these methodologies are still in their infancy and are evolving through an arduous trial and error process. Every month, year, and decade that passes, the source term reconstruction process becomes more difficult and problematic. Let us focus the limited resources on the time sensitive research that will provide a reliable and credible foundation for later dose estimates.

CDC's had six years of this INL Dose Reconstruction health study. Two agencies within CDC are working on the health study - the National Centers for Environmental Health (NCEH) and the National Institute for Occupational Safety, and Health (NIOSH). Much of the information needed to determine the radioactive releases is classified secret. CDC researchers with security clearances claim they have reviewed the relevant secret documents and prepared a list for the Department of Energy (DOE) to declassify. DOE continues to drag its bureaucratic feet to these public health agency requests for timely declassification.

At a INL Health Effects Subcommittee (IHES) meeting in September 1997, the Environmental Defense Institute's (EDI) representative put a recommendation before the committee that would provide a means by which the committee and independent researchers could determine if CDC was asking for all the relevant secrets.

EDI proposed that the IHES consider a recommendation to DOE that an index of classified documents be generated and made available to the committee and CDC. Such an index would give independent reviewers some means of determining if CDC was requesting declassification of all the information needed to quantify how much radiation was released. Currently, there is no way for IHES or the public to evaluate CDC's work because of the security clearance requirement.

In a remarkable display of unanimity, NCEH and NIOSH together with DOE, and the Navy closed ranks to make a solid front opposing the classified index proposal. Agency arguments opposing the classified index covered a wide range. NIOSH said, "trust us we looked at all the classified documents." NCEH said, "it would not be useful for a dose reconstruction." The Navy argued that "it is a waste of tax payer money." DOE complained that "it will stall the declassification process because reviewers will be bogged down with generating the index." The majority of the committee was so impressed by this collective agency reasoning that they voted the proposal down. However, the Committee did recommend that CDC generate a list of work for others projects conducted at INL.

Since that avenue for transparency was effectively blocked by the public health agencies, the INL Research Bureau (IRB) a coalition sponsored by the Environmental Defense Institute filed a Freedom of Information Act (FOIA) for the index of classified documents. DOE Idaho Operations denied the FOIA request stating that such an index "did not exist." The IRB appealed the denial to DOE headquarters' Office of Hearings and Appeals (OH&A) who overruled the Idaho Operations' denial. OH&A's ruling was based on the fact that an index did exist and that the Idaho Operations deception about its non-existence constituted a violation of FOIA. The officials in OH&A deserve considerable credit for standing up to their field office's position.

In subsequent negotiations with Idaho to comply with the OH&A's ruling, Carl Robertson, head of INL's Office of External Affairs, stated that the index would be mailed in a few days. Robertson acknowledged that the reason for the rapid response was because DOE had already sent a copy of the index to CDC during Phase I of the INL Dose Reconstruction Study.

This is a compelling revelation. CDC never disclosed that they had the index and went to the mat trying to kill any attempt by the public to get a copy. Is this a situation where CDC just does not want the public to be able to substantively evaluate the quality of their science; or is the agency an active conspirator in obstruction; or is it both? At the April 1998 IHES meeting, CDC was confronted with their deception and obstruction and admitted that agency did request and receive an index of classified DOE documents during the early part of CDC's INL Dose Reconstruction Study.

Another example of obstruction occurred in 1994 when CDC stated that after reviewing all the classified documents on Operation Bluenose that they concluded that the secret project did not release any radioactivity to the environment and therefore was not relevant to the INL dose reconstruction study. Unsatisfied with this position, the INL Research Bureau (IRB) [11] filed a series of FOIA's on Operation Bluenose which showed conclusively that there were significant releases. It took CDC four years to finally acknowledge that the Operation Bluenose releases would be included in the dose reconstruction study.

A big part of the problem is money. CDC is loath to admit that additional document searches are needed its Phase-I database is not complete. If a Quality Assurance review finds that another search of the archives will be required, CDC will have to go back to DOE for more money to correct the deficiencies.

It's bad enough having one federal agency (CDC) investigating another (DOE), but it gets even more incestuous, when DOE is paying CDC to reveal its darkest secrets. DOE cut CDC's budget nearly a third from its earlier meager allocation. The Environmental Defense Institute along with other public interest groups tried to convince Congress that CDC's numerous dose reconstruction studies at DOE sites should be funded directly through the U.S. Department of Health and Human Services without any funding from DOE that has a direct conflict of interest.

[11] The INL Research Bureau (IRB) was a coalition of 10 environmental organizations that EDI formed to meet DOE's arbitrary criteria for FOIA requests to satisfy "in the public interest." Initially, DOE tried to charge the IRB over $2 million for printing and shipping of the FOIA documents. The IRB won an appeal via the Office of Hearings and Appeals. INL Research Bureau Members include: Citizens Against Nuclear Weapons & Extermination, Coeur d'Alene Idaho; Citizens for Environmental Quality St. Maries, Idaho; Environmental Defense Institute, Troy, Idaho; Focus on Peace and Justice, Burley Idaho; Government Accountability Project, Seattle, Washington; Greater Yellowstone Coalition Bozeman, Montana; Greenpeace USA Washington, DC; Radioactive Waste Campaign, Warnick, New York; Moscow Chapter Idaho Conservation League Moscow Idaho; Wood River Chapter Idaho Conservation League, Ketchum, Idaho