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From:
Cynthia Sauer

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MC3267

To:
J. E. Dyer

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Sauer Obstetrics & Gynecology
2400 Glenwood Ave Suite 210
Joliet, IL 60435
Phone: (815) 744-8624
Fax: (815) 744-8632

Facsimile Transmittal

J. E. DYER

To: OFFICE OF NUCLEAR REACTOR REGULATION Fax: (301) 415-8333

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J.E.Dyer
Director
Office of Nuclear Reactor Regulation

Dear Mr. Dyer,

I received your letter of April 16, 2004 in response to the letter I wrote to President George W. Bush which was forwarded to you. It appears from your letter that you misunderstood the intent of my letter to President Bush. I have never questioned the responsiveness of US NRC. I am questioning the credibility of the responses.

My husband and I have addressed the two studies you mentioned in your letter. We are currently awaiting a response from John Tappert. I am enclosing a copy of the letter which was forwarded to him. I am also awaiting a response regarding the protective order which I forwarded to Mr. Tappert since your agency could not locate this legal public record. I have not received an answer either regarding the 1994 incident of tritium in the storm sewers. I did receive some information however I am concerned about the information which "never made it to the archives."

You stated in your letter that your agency is "concerned about health effects where they are related to the use of nuclear materials and such health effects will continue to shape the standards that are set to protect the general public and young among us." How can you continue to have health effects shape the standards when you do not take the recommendations of the ad hoc committee and rely on flawed data that is 14 years old? Are you continuing to set standards based upon a newsletter study that was not peer reviewed or published in anything but a newsletter or newspaper?

You stated that you have held discussions with officials and concluded that the statistics did not warrant a detailed health and epidemiological study. Would you provide me with the documentation supporting this decision?

I look forward to further discussions with you regarding my concerns as I and many others in my community share the same principal mission as your agency, protecting the public health and safety, especially our children.

Sincerely,

Cynthia Sauer

April 18, 2004

John Tappert
United States Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Mr. Tappert,

I had the opportunity to review the "Summary of Meeting Held In Support of the Environmental ..." with my wife. I found the explanation by several of your scientists of the mission of the NRC and the renewal process to be quite enlightening. Johnny Eads described the Atomic Energy Act of 1954 as giving the NRC the authorization to regulate the civilian use of nuclear power. He then states that "The first piece of that mission is ensure that there is adequate *protection of public health and safety*" (Italics added for emphasis).

The most interesting comments, however, came from Bruce McDowell, the contracted expert from the Lawrence Livermore Laboratory. He described how the NRC decided to streamline the overall process of developing environmental impact statements. To do this, the NRC looked at 92 issues and decided that 69 of these were the same for all plants with similar features. These 69 issues were classified as Category One and require no investigation. They are simply issued as generic conclusions. The remaining 23 issues require a site specific supplement to the generic Environmental Impact Statement. He then stated that "As part of our approach my team looked at Category One issues applicable to the Dresden plant to determine if there was any new information related to the issue that might change the conclusion that the NRC reached in 1996." "If new information was identified and determined to be significant either about a Category One issue or a new issue ... then my team would perform a site specific analysis for that issue." He then proceeded to provide a detailed review of the environmental impact of the Dresden Plant. There is no mention, however, of the public health aspect of the plant, despite this being labeled as the first piece of the mission of the NRC.

You were then presented with the dramatically worsening health statistics in Grundy County. Your staff was aware of these statistics from a prior presentation at the July 10 2003 GEIS meeting. You were reminded of the doubling of the infant mortality rate, the nearly 400% increase in pediatric cancer and the 38% increase in cancer in those 25-44 years old (IL decreased 8% in the same time frame). You were also reminded of the violations of the Safe Drinking Water Act and spills of radioactive by-products by the Exelon Corporation (aka Com Ed), which occurred during the 1990's.

Despite the clear evidence that the public health in Grundy County is deteriorating, no investigation was performed by your team. The basis for classifying the human health impact as a Category One issue appears to be the publication of articles published by the NCI and the IDPH stating that counties with nuclear facilities have no statistically significant worsening of health. But, as you are also aware, major flaws in the IDPH study were clearly demonstrated at the January 14, 2004 meeting. These flaws were included in your transcript of the meeting. Given that not one of the more than 15 health physicists, engineers or nuclear safety experts from the NRC, U.S. EPA or the Lawrence Livermore Laboratory would stand up to defend this study, the conclusion of the study can hardly be considered justification for making public health a Category One issue.

As for the 1990 NCI study "Cancer in Populations Living Near Nuclear Facilities, it is limited by the same flaws as the IDPH publication. The writers made this very clear on page xii of Volume 1. The consensus statement lists the flaws in design. They acknowledge that these limitations were known, but they were accepted so that "it could be completed in a time frame that was relatively short for a survey of such magnitude." They continue to state that "this resulted in certain limitations". To summarize these limitations:

1. The study data is based on data from counties. As most counties have their nuclear facilities located in the area of their county with the lowest population density, the effect of radiation on the neighboring residents is diluted by the larger population living at a distance.
2. Many of the nuclear facilities involved in the study had only been in service for a few years. This may not have been enough time for the cumulative effects of low dose ionizing radiation to have manifested in people. It also does not allow for the deterioration of equipment which inevitably will lead to higher leakage rates. It completely ignores the effect of the leakage that occurs with the dry cask storage of spent rods. This obviously increases with the increasing number of spent rods kept at the site. And maybe most importantly, it does not take into account the Tritium that turns up in the water from "spills".
3. The other acknowledged flaw in this study is the use of cancer mortality instead of incidence as an endpoint. Incidence would be much more sensitive in detecting a difference. This is especially true in a study involving facilities that were in service for only a few years. Many of those affected by the radiation would be unaware of their disease or in treatment. As they have not died, they will not be counted until after this study was completed. This also may be biased in that many researchers feel that recurrences are less likely in patients with cancer from environmental causes as they had nothing inherently wrong with their genetic make-up prior to the external insult.

The cancer mortality statistics are also frequently inaccurate in rural counties. In the case of Grundy County, most patients, and all children, with cancer are transferred out to a tertiary care center. If they die in another county, the death certificate is filed in the county of death. The state claims that these deaths are recorded later, but many don't show up in the state data.

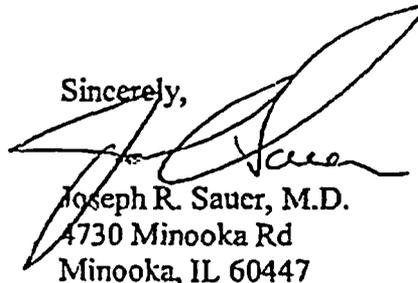
It was the conclusion of the ad hoc committee in their consensus statement that "Consideration should be given, therefore, to further investigations and monitoring, ..." If the ad hoc consensus of the NCI was that further investigation and monitoring was needed, how can the Nuclear Regulatory Commission use this study to justify not monitoring or investigating the health of people living near a nuclear facility. Combining this with the data presented at the meeting regarding the deteriorating state of health in Grundy County, a generic conclusion can not be considered a reasonable investigation.

I am, therefore, formally requesting an independent investigation, preferably a congressional hearing, into the public health impact of the area surrounding the Dresden Nuclear Plant prior to issuance of a license renewal. Furthermore, I am requesting that the public health aspect of the area surrounding all nuclear facilities be made a Category 2 issue for the process of license renewal at all nuclear facilities nationwide.

Upon further investigation, it has come to my attention that during the time of the dramatic worsening of health in Grundy County, the Dresden Nuclear Plant was continuously on the NRC Category 2 Watch List. As you are aware, all the other plants on that list in the 1990's were shut down. As you are also aware, many people within your organization felt Dresden merited a Category 3 in operations and engineering, which would have resulted in immediate closure. While I am not advocating closure of the Dresden Facility, I do feel the people of Grundy County deserve more than a generic answer as to why their children and young adults are getting sick and dying at such an alarming rate. The ad hoc committee of the NCI also stated that "the survey appropriately emphasized leukemia since, of all fatal forms of cancer, leukemia shows the greatest relative increase following exposure to ionizing radiation" In the last five year period available on the IDPH web site (1995-99), the incidence of leukemia is 50% higher in men and 100% higher in women who live in Grundy County as compared to the state of Illinois as a whole.

I thank you for your time and consideration. If you have any questions or if I have misinterpreted the process in any way, please do not hesitate to contact me. I look forward to hearing from you.

Sincerely,



Joseph R. Sauer, M.D.
4730 Minooka Rd
Minooka, IL 60447

CONSENSUS STATEMENT OF THE
AD HOC ADVISORY COMMITTEE FOR THE STUDY OF
CANCER IN POPULATIONS LIVING NEAR NUCLEAR FACILITIES

The Committee has reviewed the data assembled by the authors of this report, the methods employed to obtain the data, the form of the analyses and the inferences that have been made based on those analyses. Three formal meetings were held in 1989 and 1990, at which the progress of the survey was critically reviewed. The Committee was also asked to provide suggestions for additional research, if any seemed warranted.

The NCI survey utilized existing sources of data so that it could be completed in a time frame that was relatively short for a survey of such magnitude. However, this resulted in certain limitations, which are discussed below.

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The survey examined deaths attributed to leukemia or other cancers in the study counties, that is, counties that encompass or are near nuclear facilities. All commercial nuclear electric plants that were in operation by 1981 were included, as were ten facilities that engaged in nuclear fuel fabrication or reprocessing, isotope separation or other activities that use radionuclides.

✍

Although all forms of cancer were studied, the survey appropriately emphasized leukemia since, of all fatal forms of cancer, leukemia shows the greatest relative increase following exposure to ionizing radiation, and increases in leukemia had previously been reported among children who lived near certain British nuclear facilities.

The Committee believes that the statistical treatment and interpretation of these data are quite satisfactory. Comparisons of study and control counties exhibit substantial variation, as should be expected, because the matching cannot remove all variation due to demographic factors. Properly taking this into account, there is no evidence of systematically higher cancer risks in the study counties. Moreover, even the highest relative risks for individual facilities were compatible with the general level of variation seen.

In this regard, the comparison of cancer rates both before and after nuclear facilities began operation was especially informative. Overall, the relative risks of leukemia and other cancers appeared to be slightly higher before reactor startup than after, providing no evidence that environmental pollution attributable to the facilities might be causing a substantial increase in cancer risk in the study counties.

The Committee concludes that the survey has produced no evidence that an excess occurrence of cancer has resulted from living near nuclear facilities. Further, measurements of radioactive releases from nuclear facilities indicate that the dose from routine operations is generally much below natural background radiation, and hence may be unlikely to produce observable effects on the health of surrounding populations.

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However, there have been releases from some facilities, such as at Hanford, that were high, and there continues to be widespread public and scientific concern, in part raised by unexpected findings in the United Kingdom that have not yet been explained fully. Consideration should be given, therefore, to further investigations and monitoring, including attention to the following points:

- *
 - The present study is based on data from counties, some of which are very large, and it is possible that any effects in the immediate vicinity of the facilities escaped detection because they were diluted by the larger populations more remote from the facilities. Surveys of cancer occurrence around certain facilities using smaller population groupings, such as census tract data, may be useful.
- Many of the nuclear electric plants have come into service only in the past few years, and not enough time may have passed for possible radiogenic effects to have appeared. Thus, cancer mortality rates in areas around nuclear facilities should continue to be monitored.
- Data on cancer incidence, rather than mortality, would permit a more sensitive assessment of possible increases in cancer. In this study, incidence data were available for only four facilities. In recent years, however, cancer registration data, some of which are of good quality, have become available in many states and the possibility of utilizing such data should be explored.
- Case-control studies of cancer incidence, in small areas around nuclear facilities and in control areas, are potentially informative. Such studies, however, are not without methodologic limitations, and, in addition, make very heavy demands upon both time and resources. They should, therefore, be undertaken only after careful consideration.
- The recent findings by Gardner and co-workers, showing that the risk of leukemia in children living near the Sellafield nuclear reprocessing plant in Britain was higher for those children whose fathers had been occupationally exposed to ionizing radiation, are potentially of great importance (Br Med J 300:423, 1990). An attempt to replicate such findings would be of interest.
- To ensure that effort and resources are not duplicated, and to ensure that methodologies are compatible so that the results from different studies can be combined, there should be close cooperation among state health departments, federal agencies, academic institutions, and other groups that are presently conducting or planning detailed studies of the populations near individual facilities.

July 11, 1990