

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
METROPOLITAN EDISON COMPANY, ET AL.
(Three Mile Island Nuclear Station
Unit 2)

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Docket No. 50-320 OLA

AFFIDAVIT OF FRANK J. CONGEL AND RICHARD A. WELLER

We, Frank J. Congel and Richard Weller, being duly sworn, state as follows:

1. I, Frank J. Congel, am employed by the U. S. Nuclear Regulatory Commission as a Leader, Radiological Impact Section, Office of Nuclear Reactor Regulation.
2. I, Richard A. Weller, am employed by the U. S. Nuclear Regulatory Commission as Acting Leader, Safety Review Section, Three Mile Island Program Office.
3. We have reviewed the technical material presented in the statements prepared by Dr. Irwin D. J. Bross, Dr. Karl Z. Morgan, and Dr. Jan Beyea attached to "Petitioner's Motion for Temporary Suspension of TMI-2 Containment Venting Pending Hearing," dated July 3, 1980. Dr. Bross questions the Commission's assessment of the health effects associated with the purging of the containment atmosphere.
4. The statements of Drs. Morgan and Beyea as well as Bross address the report of B. Franke and D. Teufel, Institute for Energy and Environmental Research, Heidelberg, entitled "Radiation Exposure Due to Venting TMI-2

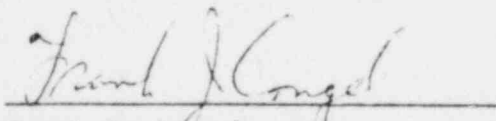
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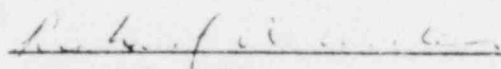
Reactor Building Atmosphere," dated June 12, 1980. These statements again challenge the Commission's assessment of the radiation doses and health effects from purging the TMI-2 containment.

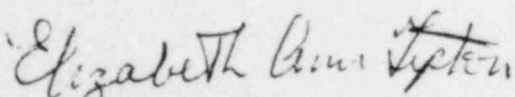
5. The primary thrust of their argument concerns the alleged lack of consideration by the Commission Staff of the doses due to particulate radionuclides cesium and strontium.
6. In addition, Dr. Morgan and Franke and Teufel address the question of global impacts associated with the release of Kr-85 and C-14. None of these statements address the rate at which the purge is to proceed as distinct from the act of purging itself. Nor do the statements express specific concern with the offsite dose limitations temporarily imposed in the Commission's June 12, 1980 Order for Temporary Modification of License in place of the noble gas instantaneous and quarterly activity release limits contained in the TMI-2 technical specifications. This modification to the license technical specifications was taken in order to permit a faster rate of purging than otherwise allowable under the then outstanding technical specifications.
7. The analyses and discussions presented in the referenced statements are familiar to the NRC Staff. The substance of the same positions was considered during the Staff preparation of the "Final Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmosphere," NUREG-0662 and are discussed in part in Staff Review of "Radiological Assessment of the WYHL Power Plant;" an analysis of the Report prepared by the University of Heidelberg, Federal Republic

of Germany, NUREG-0668, and the NRC Staff "Report by the Institute for Energy and Environmental Research, Heidelberg, Federal Republic of Germany" attached to "Order Denying Motion for Reconsideration of CLI-80-25 and Order for Temporary Modification of License," dated June 26, 1980. There is no new information presented in the referenced statements that would lead the Staff to change its discussion or conclusions regarding the acceptability of the purge or purge rate.

8. We previously reviewed the study performed by the Union of Concerned Scientists (UCS) on the decontamination of the TMI-2 reactor building atmosphere and factored UCS comments and recommendations into the Final Environmental Assessment (NUREG-0662). With respect to the Heidelberg study, our evaluation of the source term for radiological effluents during the conduct of the purge included consideration of all radionuclides including the particulates, Cs-134, Cs-137, Co-58, Co-60, I-129, and Ru-106. Additionally, the environmental monitoring program in place for measurement of particulate and noble gas effluents during the purge is considered by the Staff to be the most comprehensive ever developed for a domestic commercial nuclear power facility and fully capable of accurately predicting estimated whole body and beta skin dose in each of the 16 sectors around the TMI-2 plant.
9. Copies of our professional qualifications are attached.


 Frank J. Congel


 Richard A. Weller


 Sworn and Subscribed to before me
 this 7 of July, 1980.

My Commission expires: July 1, 1982

FRANK J. CONGEL

PROFESSIONAL QUALIFICATIONS

I am the Section Leader of the Radiological Impact Section in the Office of Nuclear Reactor Regulation, Nuclear Regulatory Commission. My responsibilities include supervision of, as well as direct participation in the technical review and evaluation of the environmental radiological impact associated with reactor and other fuel cycle facility operation.

I was born in Syracuse, New York. My undergraduate study was done at Le Moyne College, Syracuse, N. Y., where I received the B.S. degree in Physics in 1964. I entered the physics graduate department of Clarkson College of Technology, Potsdam, New York, and received the M.S. degree in 1967 and the Ph.D. degree in 1968. Both degrees include a concentration in nuclear physics and a minor in mathematics.

After completing the Ph.D. degree requirements, I accepted an appointment as a postdoctoral research assistant in the Radiological Physics Division of the Argonne National Laboratory, Argonne, Illinois. During my nine-month stay at the laboratory, I was engaged in a project to determine the environmental neutron flux. This work included both instrumentation design and data analysis and interpretation. I subsequently accepted an academic position in the Physics Department of Malcolmer College,

St. Paul, Minnesota. I continued fundamental research at the college and also taught physics courses to undergraduates at all levels. My research expanded to include measurement and interpretation of gamma ray spectra in the vicinity of electrical generating stations.

In February, 1972, I accepted a position with the U.S. Atomic Energy Commission, Regulatory.

Dr. Richard A. Weller
Professional Qualifications
Three Mile Island Program Office
Office of Nuclear Reactor Regulation

My name is Dr. Richard A. Weller. I am the Acting Section Leader, Safety Review Section, TMI Program Office, Office of Nuclear Reactor Regulation. I attended American University and received a Bachelor of Science Degree in distributed sciences in 1966. I attended the University of Maryland and received Master of Science and Doctor of Philosophy Degrees in Nuclear Engineering in 1971 and 1973, respectively.

After graduation, I worked for the Bechtel Power Corporation which is an architect/engineering company engaged in the design and construction of nuclear power plants. Assigned as a radiation waste engineer, I was responsible for assessing the effects of plant radioactive effluents on the environment and the preparation of Safety Analysis Reports and Environmental Reports. I was also responsible for the design of radwaste process systems and the writing of Technical Specifications for process equipment. My experience included work on both pressurized and boiling water reactors.

In 1974, I joined the Nuclear Regulatory Commission (formerly AEC) as a Nuclear Engineer in the Effluent Treatment Systems Branch. In this position, I was responsible for the review and evaluation of radwaste treatment systems and for the calculation of releases of radioactivity from light-water-cooled and liquid metal fast breeder reactors. I have participated in generic studies of the relationship between reactor operation and radwaste generation and in the preparation of staff papers related to effluent control technology.

Since April of 1979, I have been detailed to the NRC staff supporting the cleanup effort at Three Mile Island. I have performed environmental and safety reviews for the existing and new radioactive waste management systems at TMI and participated in the writing of environmental assessments related to cleanup operations. I have participated in the preparation of the Programmatic Environmental Impact Statement on Decontamination and Waste Disposal from TMI-2.

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 80-1691

September Term, 19 79

Steven Sholly
and
Donald E. Hossler,
Petitioners

v.

United States Nuclear
Regulatory Commission,
et al.,
Respondents

United States Court of Appeals
for the District of Columbia Circuit

FILED JUN 26 1980
GEORGE A. FISHER
CLERK

Metropolitan Edison Company,
Pennsylvania Electric Company,
Jersey Central Power and Light Company,
Intervenors

BEFORE: Wright, Chief Judge, Tamm and MacKinnon, Circuit Judges

O R D E R

On consideration of petitioners' motions for expeditious consideration of petition for review and for injunctive, declaratory and other relief, for argument and hearing on the motions and of the responses to the foregoing, it is

ORDERED by the Court that the motion for oral argument is denied, and, it is

FURTHER ORDERED by the Court that the motion for injunctive, declaratory and other relief is denied, and, it is

FURTHER ORDERED by the Court that the motion for expeditious consideration is granted. The certified index to the record and briefs of the parties shall be filed under a schedule to be developed by the parties provided only that the final brief is filed no later than August 29, 1980.

Per Curiam

Circuit Judge Tamm did not participate in the foregoing order.

UNITED STATES OF AMERICA
 NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

METROPOLITAN EDISON COMPANY, ET AL.

(Three Mile Island Nuclear Station,
 Unit 2)

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Docket No. 50-320 OLA

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF ANSWER IN OPPOSITION TO PETITIONER STEVEN C. SHOLLY'S MOTION FOR TEMPORARY SUSPENSION OF VENTING AND, IN THE ALTERNATIVE, MOTION FOR REFERRAL", dated July 7, 1980, in the above-captioned proceedings, have been served on the following, by deposit in the United States mail, first class, or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 7th day of July, 1980:

John F. Wolf, Esq., Chairman
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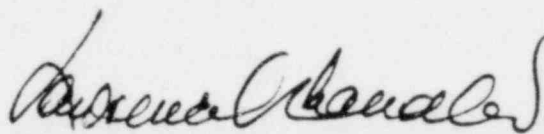
Ms. Mary H. Douglas
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Ms. Karen Lee Miller
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*Atomic Safety and Licensing Appeal
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*Secretary
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Lawrence J. Chandler
Counsel for NRC Staff

Final Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmosphere

Final NRC Staff Report

TMI Support Staff
Office of Nuclear Reactor Regulation

Prepared for
U.S. Nuclear Regulatory
Commission



DUPLICATE DOCUMENT

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ERRATA SHEET

FOR

"Final Environmental Assessment for Decontamination of the
Three Mile Island Unit 2 Reactor Building Atmosphere"

NUREG-0662, Vol. 1

Please note and correct the following errors:

Page

- 1-1. In the second paragraph, replace March 29, 1979 with March 28, 1979.
- 1-1. In the second sentence of the fourth paragraph, replace March 1979 with March 1980.
- 1-3. In Section 2. Purging, replace the second sentence with the following:
"The smaller of the two systems was designed as a backup system to the hydrogen recombiner system to reduce the hydrogen concentrations to prevent possible gas explosions."
- 6-11. In Section 6.2.5.3.3. Environmental Impact, final sentence, replace viable with visible.
- 6-31. In Section 6.8. Onsite Long-Term Storage of Krypton-85, first paragraph, first sentence, delete the final four words "or off-site disposal."
- 6-32. In Table 6.8-1, under the Advantages column, first item, the expression "low peak" should read "low leak".
- 9-2. Final paragraph on this page, delete the last sentence.
- 9-5. Replace first new paragraph on the page with the following: "Dr. Henry W. Kendall, UCS chairman, said the organization ultimately decided to recommend against implementation of the existing Met Ed/NRC venting plan, but he emphasized that this was primarily because of the stress problem."
- 12-2. MDA should be defined as Minimum Detectable Level.