

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

DAIRYLAND POWER COOPERATIVE

(LaCrosse Boiling Water Reactor)

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Docket No. 50-409
(FTOL Proceeding)

AFFIDAVIT OF WILLIAM T. RUSSELL
CONCERNING REGULATORY APPROVAL
OF SEP SEISMIC METHODOLOGY

I, William T. Russell, being duly sworn, state as follows: I am employed as the Branch Chief of the Systematic Evaluation Program Branch of the Division of Licensing, Office of Nuclear Reactor Regulation. A copy of my professional qualifications was provided with the Staff's January 28, 1982 affidavit.

The following references (copies of which were provided to the Board by Staff Counsel's letter of July 30, 1982) form the basis for my statements concerning the regulatory approval of the SEP seismic methodology (Staff affidavit, p. 7):

1. Policy Session Item: "The Systematic Evaluation of Operating Nuclear Power Plants," SECY-76-545. November 12, 1976.
2. Memorandum from Samuel J. Chilk to Lee V. Gossick: Subject: SECY-76-545, "Commission Guidance on NRR Systematic Evaluation Program for Operating Reactors," January 27, 1977.
3. Staff Information Report to Commission: "The Conversion of Provisional Operating Licenses (POLs) to Full Term Licenses (FTLs), SECY-77-539, October 14, 1977.
4. Commission Paper: "Systematic Evaluation of Operating Reactors Phases I and II" SECY-77-561, October 26, 1977.
5. Memorandum from Samuel J. Chilk to Lee V. Gossick: Subject: SECY-77-561, "Systematic Evaluation of Operating Reactors - Phases I & II," November 15, 1977.

6. Transcript of Commission Meeting: Briefing on Systematic Evaluation Program, May 6, 1980.

Specifically a major program objective of the SEP (Reference 1, p. 3, program objective 2) was to "establish documentation which shows how each operating plant reviewed compares with current criteria or significant safety issues, and should provide a rationale for acceptable departures from these criteria." As a result of the Commission's directions to the staff (Reference 2) and the need to complete license conversion of Provisional Operating Licenses (POLs) to Full Term Licenses (FTLs) (Reference 3), the staff proposed to accomplish the safety review for POL to FTL conversion as part of SEP Phase II (Reference 4). The Commission approved the staff's proposed SEP Phase II review of eleven plants (including LaCrosse Boiling Water Reactor) on November 15, 1977 (Reference 5). The Commission also required that the staff provide "periodic status reports on progress of Phase II" and "that the staff report back to the Commission at the time decisions are to be made for individual plants" [Reference 5, Items I.(a) and I.(b)]. The staff identified the seismic review of SEP plants as the most resource intensive and difficult review early in the program and reviewed with the Commission during a periodic review of SEP Phase II on May 6, 1980, the approach being followed by SEP seismic reviews (Reference 6, p. 14 line 23 through p. 25). The Commission is aware that the Site Specific Spectra Program documented in NUREG/CR-1582, Volume 2-5, "Seismic Hazard Analysis" by Lawrence Livermore Laboratory and TERA was a state of the art program to develop a realistic estimate of the seismic hazard (reanalysis spectra) for SEP plants.

Following the Commission meeting on SEP Phase II progress, the staff determined that the Site Specific Spectra Program preliminary results should be used for SEP seismic reanalysis of structures, systems and components at five plants.^{1/} These preliminary results were finalized in June 1981.^{2/}

As indicated in the staff's January 28, 1982 affidavit, no specific Commission approval of the SEP approach to definition of the seismic hazard has yet occurred. Two SEP reviews have been completed and issued in draft form pending Commission approval (1) draft NUREG-0820, Integrated Plant Safety Assessment, Systematic Evaluation Program, Palisades Plant issued April 1, 1982 and (2) draft NUREG-0821, Integrated Plant Safety Assessment, Systematic Evaluation Program, R. E. Ginna Plant issued May 27, 1982. However, the seismic reviews of these plants used more conservative Regulatory Guide 1.60 spectra since the Site Specific Spectra Program results were not completed at the time the reviews were started. For five older plants (including LaCrosse) the initiation of the seismic reevaluation was delayed until preliminary results from the Site Specific Spectra Program were available. The staff is going to present the SEP seismic methodology and its application to all SEP plants with the Advisory Committee on Reactor Safeguards (ACRS) Subcommittee on Extreme External Phenomena on October 22, 1982. The ACRS Subcommittee on the Systematic Evaluation Program and the

^{1/} Letters pursuant to 10 CFR 50.54(f) from D. Eisenhut to F. Linder, Dairyland Power Cooperative, dated August 4, 1980.

^{2/} Letter from from D. M. Crutchfield to ALL SEP Licensees Except San Onofre, dated June 17, 1981.

full Committee are scheduled to review the SEP seismic methodology and its application on LaCrosse in January and February 1983 respectively. The Commission is currently scheduled to review LaCrosse in April 1983. The regulatory approval of SEP seismic methodology will be established following Commission review of the first plant for which the SEP Site Specific Spectra Program results are the principal basis for establishing the equivalent Safe Shutdown Earthquake input for reanalysis of structures, systems and components. It is the staff's position that the SEP seismic methodology (i.e., the Site Specific Spectra Program) provides an acceptable rationale for a departure from current licensing criteria (i.e., 10 CFR 100 Appendix A).

William T. Russell
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Subscribed and sworn to before me
this 13th day of August, 1982.

William T. Russell
Notary Public

My Commission expires: 7/1/86