

BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of)	
)	
THE DETROIT EDISON COMPANY)	Docket Nos. 50-452
(Greenwood Energy Center)	50-453
Units 2 and 3))	

AMENDMENT NO. 14
TO APPLICATION FOR LICENSES

The Detroit Edison Company, Applicant in the above captioned proceeding, hereby files Amendment No. 14 to its Application for Licenses for the purpose of submitting Amendment No. 14 to the Preliminary Safety Analysis Report.

On June 4, 1973, Applicant filed with the Atomic Energy Commission its Application for Licenses to construct and operate two pressurized water reactors to be located in Greenwood Township, St. Clair County, Michigan. That Application contained, as required, a Preliminary Safety Analysis Report (PSAR). Amendment No. 14 consists of revisions and additions to that PSAR to reflect changes in the design of the units since 1975. In order to expedite review of the PSAR by the Commission Staff, Amendment No. 14 contains both the revised PSAR sections and those sections that remain unchanged. Therefore, Applicant is submitting a complete PSAR, and reference to previous PSAR material is not required.

In general, the changes in design of Greenwood Units 2 and 3 include:

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1. Two, single, unitized plants instead of two plants sharing major facilities such as the control building and radwaste building;
2. A design basis safe shutdown earthquake of 0.20 g instead of 0.12 g;
3. A 3,800 Mwt core power level instead of 3,600 Mwt;
4. Addressing NRC Regulatory Guides 1.1 through 1.142 for the balance of plant, and Regulatory Guide 1.96 for the NSS;
5. Incorporation of Babcock & Wilcox B-SAR-205 by reference;
6. Utilization of the NRC Regulatory Guide 1.70, Revision 2, format in the PSAR; and
7. Use of natural draft cooling towers instead of spray canals.

The design of the Greenwood Units is based upon the Babcock & Wilcox standardized plant referred to in B-SAR-205. However, there are some areas in which the Greenwood nuclear steam supply (NSS) differs from B-SAR-205. These areas are designated as exceptions to B-SAR-205, i.e. significant changes to the NSS as specified by B-SAR-205 or its defined interfaces that would either affect a prior B-SAR-205 safety analysis or require an NRC Staff review of an area previously approved.

A "significant change" is defined as one which would affect the ability of the NSS to perform its essential safety functions to insure:

- a. the integrity of the reactor coolant pressure boundary;
- b. the fuel design limits are not exceeded;
- c. the capability to achieve and maintain safe shutdown; and

- d. the prevention or mitigation of accident consequences resulting in excessive radiation exposure.

The exceptions from the B-SAR-205 are the following:

1. The use of Gentile flowmeters to measure reactor coolant system flow;
2. The Seismic Category I source of auxiliary feedwater is the nuclear service water system, not the condensate storage tank;
3. New fuel will be stored in 13-inch center-to-center racks instead of the 21-inch racks in B-SAR-205;
4. The chemical addition system and boron recovery sub-system are not presently within the scope of the NSS;
5. There are differences in the fuel handling equipment, namely, the span of the fuel building bridge is greater than that specified in B-SAR-205, and the fuel tube length is longer;
6. The feedwater control valve also functions as a feedwater isolation valve; and
7. Tube material for the decay heat coolers is inconel or equivalent.

The Greenwood reactors were purchased from Babcock & Wilcox in 1972. Due to the suspension of the Greenwood project, the revised PSAR addresses revisions in ASME codes. The ASME Winter 1977 Addenda are established for components in the plant except the reactor vessel, the steam generators, and the pressurizer for which the Summer 1976 Addenda are used. Different codes are used because many of the forgings for these components were ordered in 1973, delivered in 1974, and have been in storage since then. While it is possible to re-examine and recertify materials, it is not possible to

retroactively certify an approved Quality Assurance program for the material manufacturer or qualify NDE personnel by written examination.

WHEREFORE, Applicant prays as in its Application for Licenses.

THE DETROIT EDISON COMPANY

By C. M. Heidel
C. M. Heidel
Executive Vice President -
Operations

Subscribed and sworn to before
me this 27 day of February, 1979.

Sherrin von Allmen

Sherrin von Allmen
Notary Public, Wayne County, MI
My Commission expires: Feb. 11, 1981