Consumers Power Company

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Mr. Jerome Saltzman
Assistant Director
State and Licensee Relations
Office of State Programs
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Saltzman:

Our responses to the questions posed in your July 12, 1982 letter to me, relating to our Request for Exemption dated June 22, 1982, are as follows:

Question 1: When contacting carriers concerning additional coverage, did Consumers Power attempt to negotiate premiums so that they would reflect Consumers' perceived risk of potential damage from an accident at the Big Rock Point reactor? Also, did Consumers contact both ANI and NEIL-II for $67 million in excess coverage? If so, what were the rates quoted by NEIL-II?

Answer: Consumers Power did negotiate premiums for the coverage, with the result that NML lowered its annual premium for the $450 million of primary coverage from $900,466 to $713,336. (Effective August 1, 1982, NML increased the available primary coverage to $500 million. The Company has purchased the additional $50 million for Big Rock Point, effective August 1, 1982, for an additional annual premium of $40,082.) Consumers Power contacted both ANI and NEIL-II for $67 million in excess coverage, but NEIL-II was unable to respond prior to the time the coverage had to be in effect.

Question 2: As indicated in item 14 of Mr. James D. Cooper's affidavit, Consumers Power attempted to find a surety company to bond the cost of decontamination and cleanup in the amount of $67 million. Were other methods of protection (e.g., secured lines or letters of credit) evaluated? If so, which parties were contacted and what were the costs of such methods?

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Answer: Other methods of protection were evaluated. Fee-based lines of credit could probably be obtained to cover the $67,000,000 exposure, but, based on our experience, the cost of such lines would be 1/2% of the principal amount, or $335,000 per year. We contacted The Chase Manhattan Bank to check the availability and cost of a letter of credit, having secured similar letters of credit from Chase Manhattan in the past. We were advised that the cost of a letter of credit to satisfy the NRC's requirement in this instance would cost 1/2% to 5/8% per year on the $67,000,000 principal amount (i.e., $335,000 to $422,100 per year).

Question 3: Attachment 2 of Exhibit A of the Request for Exemption discusses the assumptions underlying the study of decontamination and cleanup costs at Big Rock Point after a "maximum credible accident." However, the accident assumptions provided in Attachment 2 appear to be similar to a TMI-2 type accident. Please indicate the basis for deciding that the accident scenario provided in Attachment 2 is a "maximum credible accident."

Answer: The accident assumptions provided in Attachment 2 are more severe than a TMI-2 accident. It should not be inferred, from the assumption that contamination levels would be about the same, that a similar case was postulated. The accident at TMI-2 was not the "maximum credible accident" for that plant or for Big Rock Point. Attachment 2 to Exhibit A assumed, in essence, that the maximum credible accident at Big Rock Point would result in a release of radionuclides 4 to 6.6 times greater than that which would have been released as a result of a TMI-2 type accident at Big Rock Point. During the accident at TMI-2, more than 60% of the noble gases, 25% of the halogens and 20% of the cesiums were released from the core, and less than 2% of the other solids were released (NSAC Report 17, "Designing for Post-Accident Radiological Conditions," Table 4.1-1). Using a factor of 4 to 6.6 times greater release for the Big Rock Point postulated accident results in assumed releases of 100% of the noble gases, 100% of the iodines, 100% of the cesiums and about 10% of the other solids. This release fraction is consistent with WASH-1400 (Appendix V, Table V2-1), where the worst case (PWR-1) resulted in a release of 90% of the noble gases, 70% of the halogens, 40% of the cesiums and 0-40% of the other solids. Assuming a release that is a factor of 4 to 6.6 greater than TMI-2's results in contamination levels for Big Rock Point that are about the same as the TMI-2 levels.

Since the quantity of radionuclides available for release is a function of core thermal power, and Big Rock Point's core thermal power is 10 times less than TMI's, the quantity of fission products available for release at Big Rock Point is a factor of 10 less than that at TMI-2. The fraction of fission products released from the core to the primary coolant system and from the primary

coolant system to the containment is a function of the thermodynamic conditions in the primary coolant system in the vicinity of the fuel and in the containment, respectively. If the same accident occurred at both plants, the thermodynamic conditions in the primary coolant system and containment would be about the same, and the fraction of radionuclides released would be about the same. The concentration of radionuclides in the containment atmosphere and in the sump is calculated by dividing the activity (in curies) by the volume. In Task D, Attachment 3 to Exhibit A, the concentration of radionuclides in the containment water (sump) was calculated to be a factor of 4 less than that at TMI-2 and the quantity of radionuclides deposited on surfaces (activity divided by surface area) was calculated to be a factor of 6.6 less, assuming the same accident occurred at both plants. Since a large fraction of the cleanup costs is directly proportional to the concentration in the sump and activity deposited on surfaces, the cost for cleanup at Big Rock Point would be approximately between 4 and 6.6 times less. However, since the "maximum credible accident" would result in the release of a larger fraction of the radionuclides, resulting in larger concentrations, the analysis assumed an increase in the Big Rock Point radionuclide concentration in the sump by a factor of 4 and an increase in the quantity of radionuclides deposited on surfaces by a factor of 6.6.

If you need further information, please let me know.

Yours very truly,

JLB/pb

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