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U. S. NUCLEAR REGULATORY COMMISSION
Document Control Desk
Washington, D. C. 20555

Gentlemen:

DOCKETS 50-266 AND 50-301
REPLY TO NOTICE OF VIOLATION
50-266/87013 AND 50-301/87012
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

By letter dated July 29, 1987, Region III transmitted the report of a routine safety inspection at Point Beach Nuclear Plant. The letter stated that certain activities appeared to be in violation of NRC requirements and enclosed a Notice of Violation addressing three separate matters. Pursuant to 10 CFR 2.201, this letter and the enclosure are in response to the Notice of Violation. At our request a ten-day extension of the due date for this response was granted by the Senior Resident NRC Inspector at Point Beach.

Wisconsin Electric agrees that the violations involving the reactor coolant discharge and the diesel generator air start isolation valves were properly classified as Severity Level V because of their minor safety and environmental significance. Our corrective actions for these two items are provided in the enclosure.

The matter of sludge disposal has been a subject of considerable discussion with your staff. Our position has been that the language of 10 CFR 20.303 authorizes the sludge disposals in question. Notwithstanding this interpretation, we suspended further disposal when the activity was initially questioned by your inspectors. By our letter of July 14, 1987, we filed a 10 CFR 20.302 request for approval of our disposal procedures as recommended by your staff. In view of these actions, we did not anticipate a Severity Level IV citation and

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believe that some misunderstanding of our actions or intentions may have existed. These matters are discussed in some detail in the enclosure. We would appreciate your review and consideration of reclassification or withdrawal of the citation.

If you have any questions concerning our response, please do not hesitate to contact us.

Very truly yours,

C. W. Fay
Vice President
Nuclear Power

Enclosure

Copies to NRC Regional Administrator, Region III
NRC Resident Inspector

ENCLOSURE

RESPONSE TO NOTICE OF VIOLATION
50-266/87013 AND 50-301/87012
POINT BEACH NUCLEAR PLANT

Item 1: Sludge Disposal

Item 1 of the Notice of Violation asserts that six on-site sewerage sludge disposal operations from 1983 to 1986 violate the requirements of 10 CFR 20.301.

Wisconsin Electric owns and operates a sanitary sewerage system on the Point Beach site. The current system has been in operation since 1982. The system, which is similar to any modern, up-to-date municipal system and is fully licensed by the State of Wisconsin Department of Natural Resources, treats wastes from sinks, showers, and toilets at Point Beach. Sludge from the system's aeration tanks and aerobic digester must be periodically removed for efficient facility operation to continue. Beginning in December 1983, pursuant to Wisconsin Pollutant Discharge Elimination System Permit WI-0000957-3, Wisconsin Electric has disposed of the sludge by land application on property owned by Wisconsin Electric in the immediate vicinity of the Point Beach facility on six occasions (December 1983, April 1984, December 1984, June 1985, April 1986, and November 1986). The presence of radionuclides in the sludge was noted in Point Beach's Semiannual Monitoring Reports for the periods of concern.

Trace amounts of radionuclides have been measured in the sludge. These originate primarily from wash basins in the controlled area of the Point Beach facility. The quantities and concentrations are extraordinarily small. In fact, the concentrations are below the lower limits of detection required by the Point Beach Radiological Effluent Technical Specifications. Since our instrumentation is more sensitive than the Technical Specifications require, we have been able to quantify the radioactivity. For the next proposed sludge disposal, we have calculated the total annual exposure to the maximally exposed individual as 0.071 mrem. For past disposals, the highest calculated exposure to the maximally exposed individual was 0.095 mrem per year. For the case of a hypothetical inadvertent intruder spending 365 days a year on the sludge disposal site, breathing any resuspended material, and eating vegetables grown on the site (even though growing vegetables within one year would be in violation of the WPDES permit), the maximum calculated annual exposure for past disposals is 0.353 mrem. Similarly, the maximum calculated annual exposure to the hypothetical inadvertent intruder for the next proposed disposal is 0.115 mrem.

Wisconsin Electric believes that the disposal of slightly contaminated sludge from Point Beach's sanitary sewerage system did not violate 10 CFR 20.301 for several reasons. First, 20.301

explicitly allows disposal "[a]s provided in 10 CFR 20.303." Section 20.303 in turn allows the disposal of licensed material "into a sanitary sewerage system" if the material is (a) readily soluble or dispersible in water, and (b) meets certain quantity and concentration limits. There is no dispute that the inflow to the Point Beach sanitary sewerage system meets the solubility/dispersibility, quantity and concentration requirements of 10 CFR 20.303. While apparently not requiring municipal sewerage plants to seek approval for customary methods of sludge disposal, the NRC asserts such a requirement for the Wisconsin Electric sanitary sewerage system (and apparently for any sanitary sewerage system associated with any other nuclear power plant), despite the fact that the radionuclide concentrations and quantities, even as concentrated in the sludge at Point Beach, are orders of magnitude less than the limits allowed for flow into a sanitary sewerage system. The basic issue which appears in question is whether the Point Beach sanitary sewerage system is considered "a sanitary sewerage system" as that phrase is used in 20.303. In response to the March 20, 1987, Region III memorandum formally requesting regulatory guidance, the NRR Staff memorandum from L. J. Cunningham to D. L. Wigginton, dated July 2, 1987, states that:

> "The sanitary sewerage systems discussed in 10 CFR 20.303 are sanitary sewerage systems that extend beyond a licensee's facility and a licensee's control, such as a municipal sanitary sewerage system."

No such distinction appears in the language of the regulation. The language of the regulation appears to be clear and unqualified.

While we recognize that the Commission has considerable discretion in determining when a violation should be issued, we did not expect a violation in this matter, since (1) the issue was sufficiently arcane that the interpretive guidance of NRR was sought by the Region; (2) we ceased further disposal pending resolution; and (3) we applied for 10 CFR 20.302 authorization as recommended by NRC Staff.

Even if the Commission's discretion is appropriately applied by identifying the sludge disposal as a violation, we believe it should be categorized as a Severity Level V (Supp. IV). The Notice of Violation identifies the disposal as a Severity Level IV, which is defined in 10 CFR Part 2, App. C, as "less serious (than Level III) but ... of more than minor concern; i.e., if left uncorrected, they could lead to a more serious concern." The examples of Level IV violations listed in Supp. IV are not applicable. These examples are: (1) exposure in excess of the limits of 10 CFR 20.101; (2) unrestricted area radiation levels in excess of 2 mrem in one hour or 100 mrem in seven consecutive days; (3) failure to make 30-day notification in

accordance with 10 CFR 20.405; (4) failure to make followup written reports required by 10 CFR 20.402(b), 20.408, and 20.409; or (5) any other matter that has more than minor safety or environmental significance. The sludge disposal activity does not appear to meet the criteria for a Level IV violation nor does it resemble any of the examples provided.

It would be unreasonable for anyone to claim that radioactive discharges orders of magnitude less than permitted by regulation, in concentrations below the lower limits of detection required by Technical Specifications, and yielding total annual exposure to the maximally exposed individual or the inadvertent intruder of a small fraction of 1 mrem have "more than minor safety or environmental significance." We would request that you consider reclassification to Level V if withdrawal of the violation is not granted.

Notwithstanding the foregoing discussion regarding the applicability of the regulations in this matter or the questions regarding the appropriateness of the citation, it is important to note that Wisconsin Electric, at some inconvenience on its part, suspended further sludge disposal since the initial oral discussions in which NRC inspectors questioned the regulatory interpretation. Notwithstanding our belief that the disposals of concern are in compliance with the regulations, by letter dated July 14, 1987, we have made application pursuant to 10 CFR 20.302 for NRC approval of our sewerage disposal program as orally requested by the NRC staff. The suspension of further sludge disposal pending NRC authorization and the filing of the 10 CFR 20.302 request constitute our completed corrective action. We would appreciate your review and consideration of reclassification or withdrawal of the citation.

Item 2.1: Discharge of Reactor Coolant

The second item identified in the Notice of Violation is associated with the inadvertent discharge of 165 gallons of reactor coolant which occurred on June 19, 1987. The citation states that, contrary to the requirements of 10 CFR 50, Appendix B, Part V, and Point Beach administrative procedures, the procedure used to control the release of the holdup tank did not contain precautionary notes to alert the operators to the potential for an inadvertent discharge of reactor coolant. Subsequent to the event, on June 22, 1987, the plant manager commissioned a special investigative team to examine all aspects of the event. The team members were directed to identify the root cause of the event, determine whether any precursors to the event were overlooked, and recommend corrective actions which would prevent a recurrence of similar mistakes. On July 1, 1987, that investigation team issued a final report documenting their findings. The NRC Senior Resident Inspector was provided a copy of that report.

The conclusions of this report recognized that, as stated in the citation, the controlling procedure (WMTP 11.30) did not provide precautions regarding the operation of the makeup pump and consequential valve alignments. We are in the process of evaluating a number of procedural changes to address this citation. The procedures used for controlling liquid discharges will be revised to add appropriate precautions. The blender operating procedure will be revised to address non-routine use. Measures requiring the review of procedures which implement a temporary modification to the plant will also be examined. These steps will be completed by the end of November 1987.

The procedure controlling effluent releases will be modified to permit adjustment of radiation monitoring system alert alarms. These alert alarms can then be adjusted to trigger operator intervention more promptly than was experienced during this event. This revision should be completed by the end of 1987. Finally, WMTP 11.30 will be evaluated in light of the above revisions and either modified or replaced with a new procedure by March 1988. We will be in full compliance at that time.

Our investigation report also identified other actions we are planning to take to further reduce the potential for similar events. These additional items are provided for your information as follows:

1. An evaluation of all liquid release paths is in progress. This evaluation will include both normal release methods and those involving special or temporary valve lineups. The evaluation will focus on the capability to isolate the release path quickly or automatically. If plant modifications are identified as a result of this evaluation, we will prepare suitable modification packages for approval. A modification request to evaluate and correct the flow anomalies through radiation detector RE-220 (service water for the spent fuel pool heat exchangers), which was identified during our investigation of this event, has already been issued.

2. Several training needs analyses have been issued as a result of our investigation. For operations management personnel, the need for training on the scope of pre-job briefing is being analyzed. For operating personnel, the need for training on the interrelationship between the spent fuel pool heat exchanger, service water system, and RE-220 monitor will be assessed. The inclusion of the material from these needs analyses normally results in the material being included in a training session within 12 to 18 weeks. A review of applicable operations training materials for non-routine operation precautions and for examples of non-routine lineups will also be conducted.

3. Operations personnel will be provided with guidance as to when master copies of procedures are required in the control room. Guidance will also be provided as to when extra personnel would be appropriate in the execution of procedures.

Finally, we would like to clarify certain information in the discussion of this event in the inspection report. On page 4 of the report, the statement is made that, "the highest ten minute average for the release was 3.85×10^{-4} micro ci/ml. The alarm setpoint is 2.43×10^{-4} micro ci/ml based on the Radiological Effluent Technical Specifications (RETS) for Maximum Permissible Concentration of Co-60 at the release point." The implication is that the RETS limits were exceeded. The report correctly states that the actual release was more than an order of magnitude less because of the detector response to the presence of entrained noble gases. We would also point out that the alarm setpoint is based on the assumption of a conservative configuration of service water and circulating water pumps. When the actual pump configuration at the time of the release is taken into account, the line concentration corresponding to the maximum permitted by RETS becomes 5.42×10^{-4} micro ci/ml. Thus at no time during the event were RETS limits exceeded.

Item 2.2: Diesel Generator Testing

On June 24, 1987, during a biweekly test of the 3D emergency diesel generator, air start isolation valves were left in the shut position after completion of the portion of the procedure requiring hand turnover of the diesel. The procedure requires these air supply valves to be shut for safety purposes while the diesel was turned over by hand and subsequently opened prior to the auto start portion of the procedure. The shut air supply valves resulted in the diesel not starting upon demand during a later step in the controlling procedure. Upon failure to start, the operator immediately recognized the earlier error and opened the air supply valves; the subsequent start was successful. The auxiliary operator involved in this event has been counseled on the necessity for complete and accurate compliance with all procedural steps. The surveillance procedure will be evaluated to determine whether a revision is necessary. If required, the procedure will be revised by the end of January 1988. At that time we will be in compliance.