

cc V. Boneraya
V. Stello
R. Wallace
J. Kashner

June 13, 1974

Note to Roby Bevan
Jim Shea ✓

By virtue of the Licensing Board's order of May 22, 1974, and counsel for MPCA's verbal communication with me, it is now clear which MPCA contentions have been admitted in this proceeding. With respect to the joint MECCA--Gadler contentions, it is not yet clear whether counsel will file the necessary affidavits and rewrite presently objectionable contentions with the requisite specificity and basis. By this note, therefore, I am informing you of the admitted MPCA contentions. As soon as the matter of admission of the MECCA--Gadler contentions is settled, I will so inform you.

MPCA CONTENTIONS ADMITTED

Contention II-17.

The section in the FES on gaseous wastes (pp. III-10 through III-18) is inadequate in these ways:

- (1) There is insufficient background and justification for the conclusion that 90 percent of the radioiodine will be removed in the steam jet condenser.
- (2) No consideration has been given to possible releases of radioactive gaseous materials from the upper part of the turbine building.

Contention II-18.

On p. III-20 of the FES the following statement is made:

Presently, all liquid wastes generated during normal operation are being returned to the plant for reuse. In our evaluation, considering expected operational occurrences and equipment availability, we assumed

that 10 percent of the water processed through the mixed-bed demineralizer will be released from the plant each year.

Neither the FES nor other documents prepared by AEC staff members in this matter provide a justification for the use of this "assumed" figure. In light of the operating experience at Monticello (two years with zero liquid release), the figure is inaccurate and unwarranted. Either the justification for use of this figure must be developed, or a more accurate figure must be chosen.

Contention II-23.

Since the possibility of a fish kill due to sudden thermal shock is greatest in the discharge canal, the possibility of screening off the canal to the movement of large fish should be explored.

Contention II-24 (Combining A.6).

Because no terrestrial ecological study has been made at the Monticello facility, it is impossible to determine the plant's biological impact, including but not limited to its impact on any rare or endangered species found at the site. (See FES II-15 -- II-17.) The applicant should be required to make a terrestrial study in order to determine the impact on the biological communities involved.

Contention II-26.

The FES is inadequate in that it contains no discussion of the following alternatives to the radwaste treatment system proposed by the Applicant:

- (1) Operation of the off-gas treatment system on a full-time basis.
- (2) Hold-up times for gaseous effluent released from the main condenser air ejector system greater than those provided by the proposed off-gas treatment system.

(3) Particulate and charcoal filtration for all secondary sources.

(4) Cryogenic removal system for longer-lived noble gases.

(5) Clean steam for the turbine gland seals.

(6) Use of present operating and treatment modes to achieve zero liquid release.

(7) Facility for loading liquid waste into trucks for treatment elsewhere, should the present zero liquid release mode prove unfeasible.

(8) Addition of a wiped-film evaporator system for use on liquid effluents, should the present zero liquid release mode prove unfeasible.

Contention II-27.

The discussion of direct shine doses on page XIII-25 of the FES is inadequate. The shine doses must be measured and only then can a determination be made as to whether they are as low as practicable.

Contention II-33.

AEC's evaluation of the probabilities of Class 9 accidents is deficient in the following ways:

(1) Present analysis is too general, with specific analysis aimed only at loss-of-coolant accidents. Specific analyses should be developed, covering other kinds of possible Class 9 accidents, including but not limited to:

- a. major failures of the reactor pressure vessel, and
- b. failure to scram incidents with major consequences.

Such analyses should make particular reference to the type of reactor involved and other specific characteristics of the plant in question.

(2) Present analysis, such as that presented by Edson Case in the Prairie Island evidentiary hearing, is not really an analysis of "probability," in a statistical sense. It is not a "calculation" of the likelihood of such accidents, but a judgment. Further statistical analysis should be undertaken and any "judgmental" evaluations should be affirmatively shown to be justified by applicable experience and experimentation.

(3) The present analysis only provides a design objective or "aiming point" accident probability. What is called for in addition is an indication of what probabilities can be reasonably assured based on operative experience.

Because of these inadequacies, further analyses must be made and the environmental effects of Class 9 accident at Monticello should be evaluated. Furthermore, the adequacy of the emergency plan to cope with an accident of this magnitude should be explored.

Contention II-34.

Both the FES and the APPLICATION fail to demonstrate that the standards for radioactive emissions set forth in 35 Federal Register 18385, 10 C.F.R. § 20.1(c) are met. The standard set therein is that radioactive exposures and effluent releases must be maintained "as far below the limits specified in this part as practicable."

The technical specifications for the permanent operating license should require the use of the off-gas treatment system on a full-time basis and should also require the present zero liquid release mode of operation of the liquid radioactive waste system. Only in this way can radioactive exposures and effluent releases be said to be "as low as practicable."

CONTENTIONS ON 8X8 FUEL

B.1 FUEL DESIGN EVALUATION AND PROOF TESTING

Neither the Applicant nor the Staff has shown that sufficient design evaluation and proof testing has been performed to assure the safe performance of the Monticello facility using the 8 x 8

fuel assemblies. Both have alluded generally to previous operating and testing experience with nuclear reactor fuels of designs that differ in one or more important respects from the proposed 8 x 8 reload fuel, but it is apparent that operating experience with fuel of the proposed type is extremely minimal. Recent evidence of anomalous lightwater reactor fuel behavior demonstrates the imprudence of proceeding with commercial reactor operation in the absence of thorough fuel design evaluation and proof testing.

B.2 QUALITY ASSURANCE

Neither the Applicant nor the Staff has addressed the critical issues of quality assurance in the information docketed in this matter. In the absence of inspection of quality control measures during fuel manufacture, there can be no reliable evaluation of whether the fuel will perform as designed.

B.3 EMERGENCY CORE COOLING

The Applicant has failed to present experimental and analytical information that shows the conformance of the facility (using 8 x 8 fuel assemblies) with General Design Criterion 35.

Further, the Applicant has failed to establish conformance of the facility (using 8 x 8 fuel assemblies) with the Commission's Interim Policy Statement, and has not adequately assessed the effect of various pipe-break sizes and locations, as required by the Interim Policy Statement.

The Applicant has also failed to consider the effects of flow blockage in its assessment of emergency core cooling system performance.

B.4 ENVIRONMENTAL IMPACT STATEMENT REQUIREMENTS

The proposed change in fuel design incorporates a new fuel-array geometry, redesigned uranium fuel pellets and use of fully-annealed rather than cold-worked zircaloy cladding. These changes and their potential effect on plant safety margins may significantly

after the impact of the Monticello facility on the environment. Routine emissions of radionuclides from the plant may vary from past performance depending on the integrity of the new fuel. The effect of new fuel on the radiological consequences of system transients may also be considerable.

In light of the foregoing considerations, the proposed change in technical specifications for the facility represents a major federal action with significant potential impact on the environment, a circumstance in which an Environmental Impact Statement is mandated.

RESERVATIONS

As these Contentions on the use of 8 x 8 fuel assemblies are in part based upon documents which will be superseded, modified or supplemented before or during the hearing, MPCA respectfully reserves the right to modify, amend, add or delete Contentions based upon such new information. This reservation is in addition to that encompassed by the agreement between MPCA, Applicant and Staff and discussed at page 2 of this filing. Further, it specifically includes the right to add Contentions based upon use of the proposed Pressure Relief Trip valves, once the Staff Safety Evaluation on the p.r.t. valves is completed. This reservation also includes, but is not limited to, the issuance of any other Safety Evaluations and any Draft and Final Environmental Impact Statements issued on the proposed changes as well as any other documents issued by AEC, the Applicant, or the Advisory Committee on Reactor Safeguards (ACRS).

A few explanatory comments are in order.

Insofar as contentions II-26 and II-34 raise the issue of the "health effects" aspects of exposure to low-level releases, the appropriate portions of the record in the Prairie Island proceeding will be incorporated into the record of this proceeding.

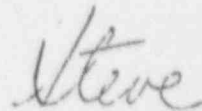
The Board has admitted contention II-33 only insofar as MPCA is challenging the appropriateness of the Staff assertions of low probability of occurrence of a Class 9 accident, including ATWS and pressure vessel rupture.

The only significance of the "reservation" by MPCA at the close of its 8 x 8 contentions is that the Staff, as part of the agreement whereby MPCA withdrew from the proceeding on the 8 x 8 amendment, agreed that MPCA could, after publication of a Staff safety evaluation on the prompt relief trip system, seek to raise issues related thereto.

Please bear in mind the following dates:

1. Last day for filing discovery requests, July 26. Please transmit to me any input with respect to questions you want to ask MPCA by July 12.
2. All answers to discovery requests are due no later than August 30, and earlier responses would be required depending on when a request is filed. Since I anticipate receiving discovery requests from MPCA, I will need your assistance, and that of TR and BNL, in responding.
3. Written testimony to be filed by October 1.
4. Commencement of hearing on October 22.

I will be in further contact with you. In the meantime, I request that you circulate these contentions to the appropriate persons in TR and at BNL. Please emphasize to them that I would like suggested discovery questions by July 12.



Stephen H. Lewis

cc: Joseph F. Scinto