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 AUTH. NAME AUTHOR AFFILIATION
 ALEXICH, M.P. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
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 MURLEY, T.E. Document Control Branch (Document Control Desk)

SUBJECT: Responds to 891023 request for addl info re 890314
 application for amend to Tech Spec.

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AEP:NRC:1039A

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
T/S CHANGE REQUEST ON LOCKING OF HIGH RADIATION
AREAS: REQUEST FOR ADDITIONAL INFORMATION

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

ATTN: T. E. Murley

November 21, 1989

Dear Dr. Murley:

This letter provides the response to your October 23, 1989 request for additional information regarding our application for Technical Specification amendment (AEP:NRC:1039, March 14, 1989). The additional information concerns the qualification, training, and authority of access control personnel and their potential annual dose rate. The questions and our responses are provided in the attachment.

This document has been prepared following Corporate procedures that incorporate a reasonable set of controls to ensure its accuracy and completeness prior to signature by the undersigned.

Sincerely,

M. P. Alexich
Vice President

eh

Attachment

cc: D. H. Williams, Jr.
A. A. Blind - Bridgman
R. C. Callen
G. Charnoff
NFEM Section Chief
NRC Resident Inspector - Bridgman
A. B. Davis - Region III

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Attachment to AEP:NRC:1039A

Question 1:

Please provide a description of the qualifications, training, and authority of the "designated individuals" with respect to their assignments to provide positive access controls to prevent unauthorized entries into high radiation areas.

Response 1:

The "designated individuals" shall be Junior Radiation Protection Technicians. Their training includes the Nuclear General Employee Training, and the Basic Orientation Module and Technician Basic courses of the Radiation Protection Lesson Plan. These courses include information on such topics as radioactive material control, external exposure controls, and dose rate meter operation. The fundamentals of radiation are also covered in the initial training sequence. Their authority will include the ability to allow access, deny access, and eject personnel from the area.

Question 2:

Please provide a list of areas for which posting of "designated individuals" will be substituted for locked doors. Also, please provide typical dose rates within these areas and at points of access to these areas.

Response 2:

At present, the Steam Generator working platforms are the main focus of attention for implementing this change. This area typically has dose rates from 30 mR to 1.2R/hr. The dose rate at the access point is typically less than 20mR/hr. This change is also being requested for situations where the transport of highly radioactive waste creates a general area radiation field of greater than 1000 mR/hr or in the event of a defective locked door.

Question 3:

Please discuss current access controls at D. C. Cook for high radiation areas within containment and what, if any, changes will be made in these controls if the requested amendment is approved.

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Response 3:

Currently, access to areas which exceed 1000mR/hr is controlled by a lock-and-key system. The key accountability is maintained by the use of a key locker and log system in accordance with approved security procedures. A Radiation Work Permit (RWP) which allows entry into the specific area of consideration is also required. The proposed change would allow access to the area to be controlled by a designated individual (see Question 1 response for access responsibilities) instead of the lock-and-key system in the event that it is not possible or practicable to provide locked doors. An RWP which specifically allowed access to the area would still be required.

Question 4:

Please provide a discussion of the means by which occupational radiation doses to "designated individuals" will be maintained as low as is reasonably achievable (ALARA) during assignments of these individuals to provide access control.

Response 4:

To provide the means to limit exposures ALARA, the access control point where the designated individual will be stationed shall be limited to less than 90 mR/hr. Special structures (i.e. lead "cages") may be temporarily constructed to limit exposure if the dose rate approaches or exceeds this level.

In addition, any personnel entering these high radiation areas will have their activities monitored by a Senior Radiation Protection technician.

Question 5:

Please provide an estimate, including the basis for the estimate, of the typical and maximum annual occupational dose that will be incurred by a "designated individual" as a result of that individual's assignment to provide access control.

Response 5:

The Donald C. Cook Nuclear Plant is committed to keeping exposures below the limits contained in 10CFR20. The exposure estimates described below are based on the regulatory limits in the proposed

Attachment to AEP:NRC:1039A

revision to 10CFR20. No individual will receive exposure in excess of the revision of 10CFR20 in effect at the time of the exposure.

The anticipated annual exposure of the typical designated individual is .9 ManRem. This estimate is based on an individual remaining in a 5 mR/hr field for 45 hours per week for 4 weeks. The estimated maximum annual exposure for a designated individual is 4.0 ManRem. This is based on an individual stationed in a 20 mR/hr field for 50 hours per week for 4 weeks.

Question 6:

Please provide an estimate, including the basis for the estimate, of the annual collective dose (person-rem) to "designated individuals" that will be attributable to the assignments of these individuals to provide access control.

Response 6:

The estimated number of these designated individuals assigned to access control for areas greater than 1000 mR/hr is four. Conservatively estimating that one of these individuals will incur the maximum dose and three will incur the typical dose given in the response to Question 5., the estimate for the annual collective dose is 6.7 ManRem.



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