

May 25, 2006

Mr. H. L. Sumner, Jr.
Vice President - Nuclear
Hatch Project
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, AL 35201-1295

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2, ISSUANCE OF
AMENDMENTS RE: REVISE OPERATING LICENSES TO SUPPORT THE
CREDITING OF POTASSIUM IODIDE FOR AN INTERIM PERIOD (TAC
NOS. MD0525 AND MD0526)

Dear Mr. Sumner:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 249 to Renewed Facility Operating License DPR-57 and Amendment No. 193 to Renewed Facility Operating License NPF-5 for the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The amendments consist of changes to the operating licenses and the Final Safety Analysis Report (FSAR) for each unit in response to your application dated March 17, 2006, as supplemented on April 14, 2006.

The amendments authorize the licensee to credit administering potassium iodide (KI) to reduce the 30-day post-accident thyroid dose to the occupants of the main control room for an interim period of 4 years. In addition, the design-basis accident analysis section of the Updated FSARs will be updated to reflect crediting of KI.

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Christopher Gratton, Sr. Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

Enclosures:

1. Amendment No. 249 to DPR-57
2. Amendment No. 193 to NPF-5
3. Safety Evaluation

cc w/encls: See next page

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Amendment No. ML061390380

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SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO.1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 249

Renewed License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 1 (the facility) Renewed Facility Operating License No. DPR-57 filed by Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated March 17, 2006, as supplemented on April 14, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, License Condition 2.C.(8) to Renewed Facility Operating License No. DPR-57 is hereby added to read as follows:

(8) Design Bases Accident Radiological Consequences Analyses

Southern Nuclear is authorized to credit administering potassium iodide to reduce the 30 day post-accident thyroid radiological dose to the operators in the main control room until May 31, 2010. Should design basis changes be completed rendering the crediting of potassium iodide no longer necessary prior to May 31, 2010, Southern Nuclear will remove the crediting of potassium iodide from the design basis accident radiological consequences analyses (reference Unit 2 FSAR paragraph 15.3.3.4.2.2) in the next Updated Final Safety Analysis Report update as required by 10 CFR 50.71(e).

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
License Changes to Renewed License No. DPR-57

Date of Issuance: May 25, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 249

RENEWED FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the Operating License with the attached revised pages. The revised pages are identified by amendment numbers and contain marginal lines indicating the areas of change.

Remove

Insert

4
6

4
6

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-366

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 193
Renewed License No. NPF-5

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 2 (the facility) Renewed Facility Operating License No. NPF-5 filed by Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated March 17, 2006, as supplemented on April 14, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, License Condition 2.C.(3)(f) to Renewed Facility Operating License No. NPF-5 is hereby added to read as follows:

(f) Design Bases Accident Radiological Consequences Analyses

Southern Nuclear is authorized to credit administering potassium iodide to reduce the 30 day post-accident thyroid radiological dose to the operators in the main control room until May 31, 2010. Should design basis changes be completed rendering the crediting of potassium iodide no longer necessary prior to May 31, 2010, Southern Nuclear will remove the crediting of potassium iodide from the design basis accident radiological consequences analyses (reference Unit 2 FSAR paragraph 15.3.3.4.2.2) in the next Updated Final Safety Analysis Report update as required by 10 CFR 50.71(e).

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:

License Changes to Renewed License No. NPF-5

Date of Issuance: May 25, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 193

RENEWED FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

Replace the following pages of the Operating License with the attached revised pages. The revised pages are identified by amendment numbers and contain marginal lines indicating the areas of change.

Remove

Insert

4

4

6

6

7

7

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO
AMENDMENT NO. 249 TO RENEWED FACILITY OPERATING LICENSE DPR-57
AND AMENDMENT NO. 193 TO RENEWED FACILITY OPERATING LICENSE NPF-5
SOUTHERN NUCLEAR OPERATING COMPANY, INC.
EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-321 AND 50-366

1.0 INTRODUCTION

By letter dated March 17, 2006, as supplemented by letter dated April 14, 2006, (Agencywide Documents Access and Management System (ADAMS) accession numbers ML061180036 and ML061070078, respectively) Southern Nuclear Operating Company, Inc. (SNC, the licensee), proposed a license amendment for the Edwin I. Hatch Nuclear Plant, Unit Nos. 1 and 2 (HNP). The proposed change would revise the operating licenses to support compensatory use of potassium iodide (KI) for an interim period of approximately 4 years. This license amendment will authorize HNP to credit administering KI to reduce the 30-day post-accident thyroid radiological dose to the operators in the main control room (MCR). This change is requested to support American Society for Testing and Materials E741 tracer gas testing to determine actual MCR unfiltered leakage, as requested by Nuclear Regulatory Commission (NRC) Generic Letter 2003-01, "Control Room Habitability." The supplemental letter dated April 14, 2006, provided clarifying information that did not change the scope of the March 17, 2006, application nor the initial proposed no significant hazards consideration determination.

SNC has asserted that crediting KI will permit the plant to continue to meet the dose acceptance criteria specified in Standard Review Plan (SRP) 6.4, "Control Room Habitability System," and Title 10 of the Code of *Federal Regulations*, Part 50 (10 CFR Part 50), Appendix A, General Design Criterion 19 (GDC-19) radiological dose acceptance limits for control room habitability for loss-of-coolant accidents (LOCAs) using 110 cubic feet per minute (cfm) unfiltered leakage. The LOCA is the limiting design-basis accident (DBA) for radiological exposures to the operators in the MCR. The current HNP licensing basis does not assume any unfiltered leakage through the control room envelope boundary and only 10 cfm from ingress and egress. Any test measurement that exceeded 0 cfm would not be bounded by the HNP current licensing basis DBA control room dose analyses. This amendment will allow interim credit for the administration of KI to enable SNC to conduct MCR tracer gas testing and remain within its licensing basis for test results of unfiltered leakage of up to 110 cfm. This will provide time for SNC to implement appropriate design-basis changes to address the impact of any unfiltered leakage.

The proposed license amendment will add a license condition to Sections 2.C of the HNP Operating Licenses. This license condition will authorize SNC to credit the administering KI and reduce the 30-day post-accident thyroid radiological dose to the operators in the MCR for an interim period of approximately 4 years. The proposed license condition states:

Design Bases Accident Radiological Consequences Analyses

Southern Nuclear is authorized to credit administering potassium iodide to reduce the 30 day post-accident thyroid radiological dose to the operators in the main control room until May 31, 2010. Should design basis changes be completed rendering the crediting of potassium iodide no longer necessary prior to May 31, 2010, Southern Nuclear will remove the crediting of potassium iodide from the design basis accident radiological consequences analyses (reference Unit 2 FSAR paragraph 15.3.3.4.2.2) in the next Updated Final Safety Analysis Report update as required by 10 CFR 50.71(e).

By letters dated March 17 and April 14, 2006, SNC made the following regulatory commitments:

1. SNC will end the crediting of potassium iodide to reduce the 30-day post-accident thyroid radiological dose to the main control room operators prior to May 31, 2010.
2. Should design basis changes be completed rendering the crediting of potassium iodide no longer necessary prior to May 31, 2010, SNC will remove the crediting of potassium iodide from the design basis accident radiological consequences analyses in the next Updated Final Safety Analysis Report update as required by 10 CFR 50.71(e).
3. SNC will submit a license amendment request supporting full scope implementation of an alternative source term (AST) in accordance with the requirements of 10 CFR 50.90 and 10 CFR 50.67 no later than August 31, 2006.

2.0 REGULATORY EVALUATION

The regulatory requirements on which the NRC staff based its acceptance are the accident dose guidelines in 10 CFR 100.11, as supplemented by accident-specific criteria in Section 15 of the SRP, and 10 CFR Part 50, Appendix A, GDC 19, "Control Room," as supplemented by Section 6.4 of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants." Except where the licensee proposed a suitable alternative, the NRC staff used the regulatory guidance provided in the following documents in performing this review.

- Regulatory Guide 1.3, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss-of-Coolant Accident for Boiling Water Reactors"
- SRP Section 15.6.5, "Loss-of-Coolant Accidents Resulting from Spectrum of Postulated Piping Breaks Within the Reactor Coolant Pressure Boundary," Appendix A, Appendix B, and Appendix D

- SRP Section 6.4, "Control Room Habitability Systems"
- Regulatory Guide 1.196, "Control Room Habitability at Light-Water Nuclear Power Reactors"

The NRC staff also considered relevant information in the HNP Updated Final Safety Analysis Report (UFSAR), Technical Specifications, and a prior amendment (Amendment No. 132, License No. NPF-5).

3.0 TECHNICAL EVALUATION

The NRC staff reviewed the regulatory and technical analyses, as they related to the radiological consequences of a DBA LOCA, that were performed by SNC in support of its proposed license amendment. Information regarding these analyses was provided in Enclosure 1 of the licensee's letter dated March 17, 2006, and in a supplementary letter dated April 14, 2006. The NRC staff reviewed the assumptions, inputs, and methods used by SNC to assess the impacts of the proposed license amendment. The NRC staff performed independent calculations to confirm the conservatism of the licensee's analyses. The findings of this safety evaluation input are based on the descriptions of the licensee's analyses and other supporting information docketed by SNC.

SNC has evaluated the HNP MCR dose with an assumed unfiltered inleakage of 110 cfm for the bounding LOCA DBA. By taking credit for the operator receiving KI within 2 hours after the start of the accident as part of a licensee-administered KI program, the MCR LOCA thyroid dose meets the regulatory dose acceptance criteria of 30 rem thyroid set forth in SRP 6.4. The MCR LOCA whole-body dose continues to meet the GDC-19 limit of 5 rem whole body, with 110 cfm of unfiltered inleakage.

The DBA LOCA dose analysis includes three release paths: containment leakage, main stack release, and main steam isolation valve (MSIV) leakage. Leakage through each of these paths releases fission products to the environment and contributes to the dose to personnel in the MCR. HNP Units 1 and 2 have a common control room. The MCR is located between the open end bays of the HNP Units 1 and 2 turbine buildings. The LOCA MCR radiological dose analysis input parameters are given in Table 1 (Attachment 1). The atmospheric dispersion factors (X/Qs) are provided in Table 2 (Attachment 2), and are the same as those used in the HNP current licensing basis. The Unit 2 control room receptor X/Q values are larger and were used as the basis for a bounding calculation.

In the NRC staff's evaluation of the licensee's revised dose analysis, the confirmation of the MCR dose is supported by a review of a prior amendment that included MSIV dose calculation as well as an NRC staff independent calculation of the dose from each of the LOCA release paths. The calculations were based on the licensee's assumptions given in Table 1 and were performed with the computer code RADTRAD, described in NUREG/CR-6604, "RADTRAD: A Simplified Model for RADionuclide Transport and Removal And Dose Estimation."

The thyroid dose received by the operators is based on the assumption that KI would be administered within 2 hours of the accident initiation. In the dose calculation, the 1/10

reduction of thyroid dose is applied to the entire time period (as recommended by NEI 99-03). The 30-day LOCA MCR dose is the sum of the doses from the three release paths.

The assumptions used in the revised LOCA dose analysis in support of this amendment request are the same as those in the current licensing basis, with the exception of the increased control room unfiltered inleakage and credit for administration of KI for reduction of the control room thyroid dose. A review of an earlier LOCA dose calculation, as described in the safety evaluation for Amendment No. 132 for Unit 2, provides reasonable assurance of the SNC calculation and confirms the SNC calculated 30-day thyroid dose in MCR as reasonable.

Based on the above, the NRC staff concludes that there is reasonable assurance that the requirements of GDC 19 will continue to be met for unfiltered control room inleakage of up to 110 scfm.

The NRC staff does not generally allow credit for KI unless it is an interim compensatory measure needed to address a degraded nonconforming condition while corrective actions are being taken. Regulatory Guide 1.196 describes the use of KI for addressing degraded or nonconforming conditions. For this amendment, the licensee requested that credit for KI be authorized for up to 4 years to support ASTM E471 tracer gas testing of the main control room and to allow time to implement any design basis changes to address the impact of control room unfiltered inleakage. The design-basis changes are expected to include the full scope implementation of an alternative source term following NRC staff approval, and could also include other design and licensing bases changes. The NRC staff considered this justification when reviewing the amount of time that KI could be part of the licensing basis and found it to be acceptable.

The licensee included a total of three regulatory commitments to support its license amendment request, two regulatory commitments in Enclosure 6 of the licensee's March 17, 2006, application, and one regulatory commitment in Enclosure 2 of the licensee's April 14, 2006, application supplement. The NRC staff finds that reasonable controls for the implementation and subsequent evaluation of proposed changes pertaining to the regulatory commitment in Enclosure 2 of the licensee's April 14, 2006, application supplement is best provided by the licensee's administrative processes, including its commitment management program (See Regulatory Issue Summary 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff"). The regulatory commitment does not warrant the creation of regulatory requirements (items requiring prior NRC approval of subsequent changes). The NRC staff notes that the two regulatory commitments of Enclosure 6 of the licensee's March 17, 2006, application also are contained in the license condition, and, therefore, would require prior NRC approval of subsequent changes, if needed.

This amendment also includes a revised page 7 to Renewed License No. NPF-5. The revised page contains text previously located on page 6, but was moved to page 7 due to changes on page 6. The changes to page 7 of Renewed License No. NPF-5 are editorial and acceptable.

Technical Evaluation Conclusion

The NRC staff reviewed the assumptions, inputs, and methods used by SNC to assess the radiological impacts of a design-basis LOCA at HNP. The NRC staff finds that SNC used analytical methods and assumptions consistent with the conservative regulatory requirements and guidance identified in Section 2.0 above. The NRC staff compared the doses estimated by SNC to the acceptance criteria identified in Section 2.0. The NRC staff finds, with reasonable assurance, that the licensee's estimates of the control room thyroid doses, when crediting dose reduction from KI, will continue to comply with these criteria.

The NRC staff also finds the license condition that authorizes the crediting of KI for an interim period not to exceed May 31, 2010, acceptable. This condition is consistent with regulatory guidance that states that the prophylactic use of KI can be credited as an interim compensatory measure while final corrective actions are being taken.

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92(c) state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or,
- (2) Create the possibility of a new or different kind of accident from any previously evaluated; or,
- (3) Involve a significant reduction in a margin of safety.

The following analysis was provided by the licensee in its March 17, 2006, letter:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

This proposed change will authorize SNC to credit KI for an interim period in the DBA radiological consequences analyses to address the impact of MCR unfiltered inleakage. This proposed change does not result in any functional or operational change to any systems, structures, or components and has no impact on any assumed initiator of any analyzed accident. Therefore, the proposed change does not result in an increase in the probability of an accident previously evaluated.

This proposed change introduces an additional method of mitigating the thyroid dose to MCR occupants in the event of a loss-of-coolant accident (LOCA). The updated LOCA MCR radiological dose, considering 110 cfm unfiltered inleakage and crediting KI, continues to meet GDC 19 acceptance limits. In the context of the current licensing basis with MCR unfiltered inleakage considered, LOCA continues to be the limiting event for radiological exposures to the operators in

the MCR. Radiological doses to MCR occupants are within the regulatory limits of GDC 19 with MCR unfiltered inleakages of up to 1000 cfm without the crediting of KI for the main steam line break accident (MSLB), control rod drop accident (CRDA), and fuel handling accident (FHA). Therefore, the proposed change does not result in a significant increase in the consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any previously evaluated?

This proposed change will authorize SNC to credit KI for an interim period in the DBA radiological consequences analyses to address the impact of MCR unfiltered inleakage. This proposed change does not result in any functional or operational change to any systems, structures, or components. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant decrease in the margin of safety?

This proposed change will authorize SNC to credit KI for an interim period in the DBA radiological consequences analyses to address the impact of MCR unfiltered inleakage. This proposed change does not result in any functional or operational change to any systems, structures, or components. This proposed change introduces an additional method of mitigating the thyroid dose to MCR occupants in the event of a LOCA. The updated LOCA MCR radiological dose, considering 110 cfm unfiltered inleakage and crediting KI, continues to meet GDC 19 acceptance limits. In the context of the current licensing basis with MCR unfiltered inleakage considered, LOCA continues to be the limiting event for radiological exposures to the operators in the MCR. Radiological doses to MCR occupants are within the regulatory limits of GDC 19 with MCR unfiltered inleakages of up to 1000 cfm without the crediting of KI for the main steam line break accident (MSLB), control rod drop accident (CRDA), and fuel handling accident (FHA). Therefore, the proposed change does not involve a significant decrease in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, has concluded that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff has determined that the proposed amendment involves no significant hazards consideration.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Georgia State official was notified of the proposed issuance of the amendments. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (71 FR 15223). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Attachments:

1. Table 1 - LOCA MCR Radiological Dose Analysis Input Parameters
2. Table 2 - MCR Atmospheric Dispersion Factors

Principal Contributor: D. Chung

Date: May 25, 2006

**Table 1
LOCA MCR Radiological Dose Analysis Input Parameters**

PARAMETER	VALUE
Containment Volume	2.6X10 ⁵ cubic feet (ft ³)
Containment Leakage Rate	1.2 % per day
Secondary Containment Bypass Leakage	0.9% of 1.2% per day
Iodine Form	
Elemental	91%
Organic	4%
Particulate	5%
Standby Gas Treatment System Filter Efficiency	95% iodine, 0% noble gases
MSIV leakage	250 standard cubic feet per hour
Control Room Envelope Volume	93,500 ft ³
Control Room Occupancy Factors	
0-8 hours	1.0
8-24 hours	1.0
1-4 days	0.6
4-30 days	0.4
MCR Breathing Rate (0-30 days)	3.47X10 ⁻⁴ cubic meters (m ³)/sec
Filtered Outside Air Intake Rate	400 cfm
Unfiltered Intake Rate	110 cfm
KI	Administered 2 hours after start of LOCA
MCR Filtered Recirculation Rate	2100 cfm
Filter Efficiency	95% iodine, 0% noble gases

Table 2
MCR Atmospheric Dispersion Factors

x/Q (sec/m ³)			
Release Point ->	Unit 1 Containment	Unit 2 Containment	Plant Stack
Receptor ->	MCR Intake	MCR Intake	MCR Intake
0-2 hr	9.90E-4	1.26E-3	4.85E-6
2-8 hr	3.97E-4	3.87E-4	1.17E-6
8-24 hr	4.3E-4	4.17E-4	9.69E-7
1-4 day	3.22E-4	3.56E-4	8.27E-7
4-30 day	2.62E-4	2.37E-4	5.49E-7

Edwin I. Hatch Nuclear Plant, Units 1 & 2

cc:

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