

File - 1

OCT 1 1971

53-247

Myron Karman, Attorney, Office of the General Counsel
THRU: B. Grimes, Chief, Radiological Safety Branch, DRL

INDIAN POINT 2 OL HEARING TRANSCRIPT

On pages 1493 and 1552 of the transcript, the Chairman of the ASLB requested the staff to annotate the testimony on iodine removal by containment sprays. Attached is a list of references, indexed to the initial mention of a specific topic in the transcript.

G. Burley
Radiological Safety Branch
Division of Reactor Licensing

Enclosure:
As Stated

- cc: w/enclosure
- H.R. Denton
- R. DeYoung
- D. Muller
- A. Kenneke
- K. Kneil

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OFFICE ▶	DRL	DRL					Memo
SURNAME ▶	GBURLEY; mj						
DATE ▶	10/1/71						

- 1314 V. Griffiths: Report AHSB(S) R-45 UKAEA (Dec 1962)
L 4 The Removal of Iodine from the Atmosphere by Sprays
- 1332 1) B.J. Mason: The Physics of Clouds Oxford Univ Press (1957)
L 10 2) WCAP - 7499 - L (PROPRIETARY)
- 1334 1) ORNL 4228 pp 227 Annual Report Nuclear Safety Program for 1967
L 6 2) WCAP - 7499 - L
- 1337 Summary in ORNL-4360
L 10 Spray & Pool Absorption Technology Program
- 1484 1) BNWL - 1485: Effect of Continuous Spray Operation
L 16 2) Griffiths (See ref. above)
3) L.F. Parsly: ORNL-TM-2412 Part VII (1970)
A Method for Calculating Iodine Removal by Sprays
- 1487 L.P. Parsly: ORNL-TM-1911 (1967)
L 15 Removal of Elemental Iodine from Steam Air Atmospheres by Reactive Sprays
- 1524 1) BNWL - 1485
L 21 2) WCAP - 7499 - L
- 1538 BNP-100 (Battelle Northwest Lab - 1970)
L 6 Iodine Removal from Containment Atmospheres by Boric Acid Spray

1560 BNWL - 1485

L 5

D. R. Muller, DRL

RE: INDIAN POINT 2 - LOSS OF FLOW TESTING

Enclosed for your information is a copy of a memorandum from our Region I (Newark) Office which discusses the licensee's position on loss of flow testing. The memorandum provides background information for our October 1, 1971 meeting with Con Ed.

Enclosure:
Memo dtd September 22, 1971

cc w/enclosure:
R. C. DeYoung, DRL
R. H. Engelken
K. Kniel, DRL
W. S. Farmer, CO
F. J. Nolan, CO
M. S. Hildreth, CO

J. G. Keppler, CO

9/28/71

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SURNAME ▶	FJNolan: mm JGKeppler					
DATE ▶	9/28/71					



UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE
REGION I
970 BROAD STREET
NEWARK, NEW JERSEY 07102

201 645-3942

SEP 22 1971

James G. Keppler, Chief, Reactor Testing and Operations Branch,
Division of Compliance, HQ

CONSOLIDATED EDISON COMPANY (Indian Point No. 2)
DOCKET NO. 50-247

As discussed with you during our telecon (Keppler, Madsen, Brunner) on September 21, 1971, the following information is forwarded. The licensee was informed by our letter to him, dated August 26, 1971, that discrepancies in his power ascension program had been referred to Compliance Headquarters for further review.

As previously reported*, the context of the proposed power ascension program for the subject facility revealed apparent deficiencies when compared to the AEC Guide for Planning of Initial Startup Programs, dated December 7, 1970. Subsequently, these identified deficiencies were evaluated at CO:HQ and CO:I was advised that the following additional loss of flow testing was considered appropriate.

1. Loss of the pumps associated with one electrical bus (one pump) when operating at 100% power.
2. When operating at about 50% power, loss of one pump if on three loop operation or loss of two pumps if on four loop operation.

Con Ed was informed on August 4, 1971 of the above. At that time, the inspector did not receive a commitment relative to the additional loss of flow testing; however, the inspector was informed that this item would receive serious consideration, and a Con Ed position would be forthcoming.

On September 13, 1971, Mr. Prestele of Con Ed called to advise the inspector that Con Ed questions the need for the performance of the additional loss of flow testing. During subsequent discussions with Mr. Makepeace on September 16, 1971, the following information was presented:

1. Flow coast down measurements for the loss of one, two, three, and four pumps are being performed at zero power and hot conditions.
2. Time delay considerations associated with loss of flow are measured and evaluated against acceptance limits for the loss of flow condition.

*CO Report No. 50-247/71-10, paragraph 9.

3. Natural circulation tests are scheduled to be performed immediately after shutdown from at least 50% power. This test will provide heat removal capabilities for the natural circulation mode.
4. Generator, turbine and other trip tests will be performed to evaluate the various primary and secondary system parameters that result from these trips.
5. Loss of one pump of four will not cause significantly different primary and secondary parameter variations than those observed during the above stated trip testing.

Since the Con Ed power ascension program is not that of the AEC Guide, we recommend that at an early date a meeting be set up at Headquarters between Consolidated Edison, CO:HQ, CO:I and DRL to resolve this matter. When a date has been established, we will inform the licensee.

Although CO Report No. 50-247/71-14 contains additional information, this report may not be distributed by the date of the meeting. If desired, Region I personnel will provide a briefing for Commission personnel before the meeting with the licensee.


Eldon J. Brunner
Senior Reactor Inspector

D. R. Muller, DRL

RE: INDIAN POINT 2 - ITEMS REMAINING TO BE COMPLETED PRIOR TO ISSUANCE OF CORE LOADING - SUBCRITICAL TESTING LICENSE

cc w/enclosure:
R. C. DeYoung, DRL
R. H. Engelken, CO
J. P. O'Reilly, CO:I
K. Kniel, DRL

E. Brunner, CO:I
G. Madsen, CO:I
F. J. Nolan, CO

Enclosed for your information is a listing of the items remaining to be completed prior to issuance of a core loading - subcritical testing license for the Indian Point 2 facility.

The licensee estimates that these items will be completed by October 4, 1971, and expects to initiate startup loading sequence preparations on October 4, 1971, with initial loading tentatively scheduled for October 11, 1971. We believe that this is a realistic schedule. I will keep you informed promptly of significant inspection findings affecting licensing.

J. G. Keppler, CO

Enclosure:
As Stated

9/28/71

OFFICE ▶	m CO				
SURNAME ▶	FJ Nolan JG Keppeler				
DATE ▶	9/28/71				

Enclosure

ITEMS REQUIRING COMPLETION PRIOR TO COMPLIANCE'S RECOMMENDING
ISSUANCE OF A CORE LOADING - SUBCRITICAL TESTING LICENSE

1. Installation of electrical separation barriers and firestops within containment.
2. Installation of pipe hangers for all systems within containment or included in hot functional testing.
3. Approval and issuance of the pipe monitoring program for subsequent heat-ups.
4. Approval and issuance of preoperation procedures.
5. Satisfactory completion of preoperational tests, with the exception of those requiring the presence of the reactor core, performance, evaluation, and resolution of significant problems.
6. Approval and issuance of the power ascension program.
7. Satisfactory resolution of plant security issues.
8. Approval and issuance of operating procedures relating to core loading and low power testing.
9. Establishment of the operating organization to meet FSAR and Technical Specification commitments.
10. Satisfactory performance of Technical Specification surveillance requirements.
11. Completion of insulation within containment.
12. Completion of appropriate preoperational testing, electrical, and mechanical punchlists.
13. Completion of steam generator cladding repairs.
14. Resolution of containment valve (purge, exhaust, and supply) closure problem and other FSAR differences.

D. R. Muller, PWR
Projects Branch #1,
DRL

RE: INDIAN POINT 2; ITEMS REMAINING TO BE COMPLETED
PRIOR TO ISSUANCE OF CORE LOADING - SUBCRITICAL
TESTING LICENSE

Enclosed for your information is a listing of the
items remaining to be completed prior to
issuance of a Core Loading - Subcritical Testing
License for the Indian Point 2 facility.

Our current estimate is that these items will be
completed by early October 1971. The licensee
agrees that this is a realistic schedule;
however, Westinghouse is attempting to complete this
work by September 17, 1971. I will keep you informed
promptly of significant inspection findings affecting
licensing.

Enclosure:
As Stated

J. G. Keppler, CO

cc: w/ enclosure
R. DeYoung, DRL
R. H. Engelken, CO
J. P. O'Reilly, CO:I
K. Kneil, DRL

G. Madsen, CO:I
F. Nolan, CO

7421 9/8/71

OFFICE ▶	<i>m</i> CO	<i>JK</i>				
SURNAME ▶	FNolan:bjm	JGKeppler				
DATE ▶	9/8/71	9/8/71				

Enclosure

Consolidated Edison Company
Indian Point No. 2
Docket No. 50-247

ITEMS REQUIRING COMPLETION PRIOR TO COMPLIANCE'S RECOMMENDING ISSUANCE
OF A CORE LOADING - SUBCRITICAL TESTING LICENSE

1. Installation of electrical separation barriers and firestops within containment.
2. Installation of Pipe hangers for all systems within containment or included in hot functional testing.
3. Approval and issuance of the pipe monitoring program for subsequent heat-ups.
4. Installation and testing of the containment recirculation filters.
5. Approval and issuance of preoperation procedures.
6. Satisfactory completion of preoperational tests, with the exception of those requiring the presence of the reactor core, performance, evaluation, and resolution of significant problems.
7. Approval and issuance of the power ascension program -
 - a. Administrative procedures
 - b. Procedures involved in subcritical testing program
8. Satisfactory resolution of plant security issues.
 - a. Fences
 - b. Doors
9. Approval and issuance of operating procedures relating to core loading and low power testing.
10. Establishment of the operating organization to meet FSAR and Technical Specification commitments.
11. Satisfactory performance of Technical Specification surveillance requirements.
12. Completion of insulation within containment.

13. Completion of appropriate preoperational testing, electrical, and mechanical punchlists.
14. Repair and testing of containment spray pump 21.
15. Completion of steam generator cladding repairs.
16. Resolution of containment valve (Purge, exhaust, and supply) closure problem.