



Entergy Nuclear Northeast
Indian Point Energy Center
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Fred Dacimo
Site Vice President
Administration

February 22, 2005

Re: Indian Point Unit 3
Docket No. 50-286
NL-05-026

Document Control Desk
U.S. Nuclear Regulatory Commission
Mail Stop O-P1-17
Washington, DC 20555-0001

Subject: **Additional Information Regarding Indian Point 3 License Amendment
Request Alternate Source Term (TAC MC3551)**

- References:
1. Entergy letter NL-04-068 to NRC, dated June 2, 2004; regarding Alternate Source Term license amendment request.
 2. Entergy letter NL-05-020 to NRC, dated February 11, 2005; regarding Alternate Source Term and Stretch Power Uprate license amendment requests.

Dear Sir:

Entergy Nuclear Operations, Inc (Entergy) is submitting additional information to support NRC review of the alternate source term (AST) license amendment request (Reference 1) for Indian Point 3 (IP3). This letter provides additional information regarding the recently completed tracer gas testing and also supplements the information provided in Attachment 7 of Reference 2 regarding dose consequences in the Unit 2 control room for hypothetical accidents occurring at Unit 3, and vice versa.

The additional supporting information, provided in Attachment 1, does not alter the conclusions of the no significant hazards evaluations that support the AST license amendment request. If you

A001

have any questions or require additional information, please contact Mr. Kevin Kingsley at (914) 734-6695.

I declare under penalty of perjury that the foregoing is true and correct. Executed on 2/22/2005.

Sincerely,



Fred R. Dacimo
Site Vice President
Indian Point Energy Center

cc: Mr. Patrick D. Milano, Senior Project Manager
Project Directorate I
Division of Licensing Project Management
U.S. Nuclear Regulatory Commission
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Washington, DC 20555-0001

Mr. Samuel J. Collins
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King of Prussia, PA 19406-1415

Resident Inspector's
Indian Point Unit 3
U.S. Nuclear Regulatory Commission
P.O. Box 337
Buchanan, NY 10511-0337

Mr. Peter R. Smith, President
New York State Energy, Research
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17 Columbia Circle
Albany, NY 12203

Mr. Paul Eddy
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3 Empire State Plaza
Albany, NY 12223-6399

ATTACHMENT 1 TO NL-05-026

**ADDITIONAL INFORMATION REGARDING
AST LICENSE AMENDMENT REQUEST
FOR INDIAN POINT 3**

**ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3
DOCKET NO. 50-286**

NRC QUESTION:

Please discuss the impact of postulated accidents occurring at IP3, on control room doses at the IP2 and vice versa.

ENERGY RESPONSE:

Supplementing our response provided in letter NL-05-020 dated 2/11/05, dose calculation results are provided below for control room doses at IP3 from accidents at IP2, and for control room doses at IP2 from accidents at IP3. In addition, atmospheric diffusion factors for IP2 release points to the IP3 control room are provided. The mode of operation of the IP3 control room HVAC is the mode proposed in our AST submittal of June 2, 2004 with 1500 CFM filtered makeup in the emergency mode.

As can be seen from the results below, all dose results are well below 5 REM TEDE. Thus, it may be concluded that the requirements of GDC 19 are satisfied for accidents occurring at either unit and the effects at the other unit's control room.

| Indian Point 2 Event | Dose (TEDE) in IP3 Control Room | Assumptions for Control Room Emergency Ventilation Mode Operation (for column at the left) | For Comparison: Dose (TEDE) at IP3 Control Room from an Event Occurring at IP3 |
|------------------------------|---------------------------------|--|--|
| LBLOCA | 1.7 REM | Switchover at 1.8 hours | 4.4 REM |
| Locked Rotor | 0.18 REM | No switchover assumed | 2.5 REM |
| Steam Line Break | 0.14 REM | No switchover assumed | 2.1 REM |
| Steam Generator Tube Rupture | 0.37 REM | No switchover assumed | 2.2 REM |
| Fuel Handling Accident | 0.42 REM | No switchover assumed | 1.4 REM ⁽¹⁾ 2.8 REM ⁽²⁾ |
| Rod Ejection Accident | 0.80 REM | No switchover assumed | 0.9 REM |
| SBLOCA | 0.78 REM | Switchover at 0.5 hours | 2.2 REM |

(1) For the IP3 FHA dose of 1.4 REM, switchover at 24 minutes was assumed

(2) For the IP3 FHA dose of 2.8 REM, no switchover was assumed

Atmospheric Diffusion Factors for IP2 Release Points to IP3 Control Room

| Release Location | 95% X/Q from ARCON96 | | | | | ARCON96 RUN ID * |
|---|----------------------|-----------------|------------------|----------------|-----------------|---------------------|
| | 0 to 2 hours | 2 to 8 hours | 8 to 24 hours | 1 to 4 days | 4 to 30 days | |
| Containment Surface | 6.77E-05 | 6.03E-05 | 2.44E-05 | 2.06E-05 | 1.54E-05 | IP2S01R1 |
| Containment Vent | 9.11E-05 | 7.84E-05 | 3.20E-05 | 2.65E-05 | 1.98E-05 | IP2S02R1 |
| Auxiliary Boiler Feed Building Stack | 9.30E-05 | 8.37E-05 | 4.15E-05 | 3.38E-05 | 2.69E-05 | IP2S03R1 |
| Auxiliary Boiler Feed Building, South side | 9.25E-05 | 8.62E-05 | 4.30E-05 | 3.46E-05 | 2.77E-05 | IP2S04R1 |

* See following pages for the ARCON96 input / output sheets for these four cases.

| Indian Point 3 Event | Dose (TEDE) in IP2 Control Room | Assumptions for Control Room Emergency Ventilation Mode Operation (for column at the left) | For Comparison: Dose (TEDE) at IP2 Control Room from an Event Occurring at IP2 |
|---------------------------------------|---------------------------------------|---|--|
| LBLOCA | 2.7 REM | Switchover at 1.1 hours | 4.9 REM |
| Locked Rotor | 0.46 REM | Switchover at 0.37 hours | 0.65 REM |
| Steam Line Break | 0.96 REM | No switchover assumed | 0.52 REM ⁽³⁾ |
| Steam Generator Tube Rupture | 0.85 REM | Switchover at 0.27 hours | 1.36 REM |
| Fuel Handling Accident | 1.4 REM | No switchover assumed | 3.0 REM |
| Rod Ejection Accident | 0.51 REM | Switchover at 0.2 hours | 1.4 REM |
| SBLOCA | 1.3 REM | Switchover at 0.2 hours | 3.5 REM |

(3) The Unit 2 Control Room dose subsequent to a SLB at Unit 3 (0.96 REM) is greater than the Unit 2 dose from a SLB at Unit 2 (0.52 REM). This is because the Unit 2 analysis does not credit switchover for an accident occurring at Unit 3, but it does credit a 60-second switchover for a SLB at Unit 2.

NRC QUESTION:

The response to question 7c in Entergy letter NL-05-013, dated January 28, 2005 stated that tracer gas testing may identify the most significant sources of unfiltered inleakage. Are the X/Q values used in the AST analysis still appropriate based on inleakage source location that may have been identified during the recently completed testing?

ENTERGY RESPONSE:

The Tracer Gas Testing has been completed and the measured inleakage values were reported in Entergy Letter NL-05-020 dated February 11, 2005. Although the control room inleakage was very low in the emergency mode (less than 100 cfm), the test did indicate the major source of the leakage was associated with the pressurization fans and the air filtration unit located inside the HVAC equipment room on elevation 15 ft. Since the inlet for ventilation for this room is co-located with the inlet for the HVAC equipment for the control room, the X/Qs would be identical.

Program Title: ARCON96.

Developed For: U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Program Management

Date: June 25, 1997 11:00 a.m.

NRC Contacts: J. Y. Lee Phone: (301) 415 1080
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L. A. Brown Phone: (301) 415 1232
e-mail: lab2@nrc.gov

Code Developer: J. V. Ramsdell Phone: (509) 372 6316
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Code Documentation: NUREG/CR-6331 Rev. 1

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Program Run 2/15/2005 at 11:56:47

***** ARCON INPUT *****

Number of Meteorological Data Files = 3
Meteorological Data File Names
C:\IP3Prime\IP_1995.MET
C:\IP3Prime\IP_1996.MET
C:\IP3Prime\IP_1997.MET

Height of lower wind instrument (m) = 10.0
Height of upper wind instrument (m) = 60.0
Wind speeds entered as miles per hour

Ground-level release
Release height (m) = 40.3
Building Area (m^2) = 3059.3
Effluent vertical velocity (m/s) = .00
Vent or stack flow (m^3/s) = .00
Vent or stack radius (m) = .00

Direction .. intake to source (deg) = 039
Wind direction sector width (deg) = 90
Wind direction window (deg) = 354 - 084
Distance to intake (m) = 283.1
Intake height (m) = 2.3
Terrain elevation difference (m) = .0

Output file names
ip2s01r1.log
ip2s01r1.cfd

Minimum Wind Speed (m/s) = .5
Surface roughness length (m) = .10
Sector averaging constant = 4.0

Initial value of sigma y = 7.32
Initial value of sigma z = 13.31

Expanded output for code testing not selected

Total number of hours of data processed = 26304
Hours of missing data = 170
Hours direction in window = 8388
Hours elevated plume w/ dir. in window = 0
Hours of calm winds = 361
Hours direction not in window or calm = 17385

DISTRIBUTION SUMMARY DATA BY AVERAGING INTERVAL

| AVER. PER. | 1 | 2 | 4 | 8 | 12 | 24 | 96 | 168 | 360 | 720 |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| UPPER LIM. | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 |
| LOW LIM. | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 |
| ABOVE RANGE | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| IN RANGE | 8749. | 10120. | 11940. | 14553. | 16663. | 20420. | 25538. | 25549. | 25378. | 25002. |
| BELOW RANGE | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| ZERO | 17385. | 15998. | 14148. | 11475. | 9385. | 5591. | 303. | 46. | 0. | 0. |
| TOTAL X/Qs | 26134. | 26118. | 26088. | 26028. | 26048. | 26011. | 25841. | 25595. | 25378. | 25002. |
| % NON ZERO | 33.48 | 38.75 | 45.77 | 55.91 | 63.97 | 78.51 | 98.83 | 99.82 | 100.00 | 100.00 |

95th PERCENTILE X/Q VALUES
6.77E-05 6.77E-05 6.61E-05 6.22E-05 5.11E-05 3.70E-05 2.47E-05 2.10E-05 1.83E-05 1.66E-05

95% X/Q for standard averaging intervals

| | |
|---------------|----------|
| 0 to 2 hours | 6.77E-05 |
| 2 to 8 hours | 6.03E-05 |
| 8 to 24 hours | 2.44E-05 |
| 1 to 4 days | 2.06E-05 |
| 4 to 30 days | 1.54E-05 |

| | HOURLY VALUE RANGE | |
|----------------|--------------------|----------|
| | MAX X/Q | MIN X/Q |
| CENTERLINE | 8.18E-05 | 4.94E-06 |
| SECTOR-AVERAGE | 5.13E-05 | 3.10E-06 |

NORMAL PROGRAM COMPLETION

Program Title: ARCON96.

Developed For: U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Program Management

Date: June 25, 1997 11:00 a.m.

NRC Contacts: J. Y. Lee Phone: (301) 415 1080
e-mail: jy11@nrc.gov
J. J. Hayes Phone: (301) 415 3167
e-mail: jjh@nrc.gov
L. A. Brown Phone: (301) 415 1232
e-mail: lab2@nrc.gov

Code Developer: J. V. Ramsdell Phone: (509) 372 6316
e-mail: j_ramsdell@pnl.gov

Code Documentation: NUREG/CR-6331 Rev. 1

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Program Run 2/15/2005 at 11:56:48

***** ARCON INPUT *****

Number of Meteorological Data Files = 3
Meteorological Data File Names
C:\IP3Prime\IP_1995.MET
C:\IP3Prime\IP_1996.MET
C:\IP3Prime\IP_1997.MET

Height of lower wind instrument (m) = 10.0
Height of upper wind instrument (m) = 60.0
Wind speeds entered as miles per hour

Ground-level release
Release height (m) = 76.2
Building Area (m^2) = 3059.3
Effluent vertical velocity (m/s) = .00
Vent or stack flow (m^3/s) = .00
Vent or stack radius (m) = .00

Direction .. intake to source (deg) = 039
Wind direction sector width (deg) = 90
Wind direction window (deg) = 354 - 084
Distance to intake (m) = 289.9
Intake height (m) = 2.3
Terrain elevation difference (m) = .0

Output file names
ip2s02r1.log
ip2s02r1.cfd

Minimum Wind Speed (m/s) = .5
Surface roughness length (m) = .10
Sector averaging constant = 4.0

Initial value of sigma y = .26
Initial value of sigma z = .00

Expanded output for code testing not selected

Total number of hours of data processed = 26304
Hours of missing data = 170
Hours direction in window = 8417
Hours elevated plume w/ dir. in window = 0
Hours of calm winds = 293
Hours direction not in window or calm = 17424

DISTRIBUTION SUMMARY DATA BY AVERAGING INTERVAL

| AVER. PER. | 1 | 2 | 4 | 8 | 12 | 24 | 96 | 168 | 360 | 720 |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| UPPER LIM. | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 | 1.00E-04 |
| LOW LIM. | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 | 1.00E-08 |
| ABOVE RANGE | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| IN RANGE | 8710. | 10072. | 11885. | 14483. | 16586. | 20332. | 25516. | 25549. | 25378. | 25002. |
| BELOW RANGE | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| ZERO | 17424. | 16046. | 14203. | 11545. | 9462. | 5679. | 325. | 46. | 0. | 0. |
| TOTAL X/Qs | 26134. | 26118. | 26088. | 26028. | 26048. | 26011. | 25841. | 25595. | 25378. | 25002. |
| % NON ZERO | 33.33 | 38.56 | 45.56 | 55.64 | 63.67 | 78.17 | 98.74 | 99.82 | 100.00 | 100.00 |

95th PERCENTILE X/Q VALUES
9.11E-05 8.94E-05 8.69E-05 8.16E-05 6.72E-05 4.85E-05 3.20E-05 2.71E-05 2.34E-05 2.14E-05

95% X/Q for standard averaging intervals

| | |
|---------------|----------|
| 0 to 2 hours | 9.11E-05 |
| 2 to 8 hours | 7.84E-05 |
| 8 to 24 hours | 3.20E-05 |
| 1 to 4 days | 2.65E-05 |
| 4 to 30 days | 1.98E-05 |

HOURLY VALUE RANGE

| | MAX X/Q | MIN X/Q |
|----------------|----------|----------|
| CENTERLINE | 1.11E-04 | 5.12E-06 |
| SECTOR-AVERAGE | 6.98E-05 | 3.21E-06 |

NORMAL PROGRAM COMPLETION

Program Title: ARCON96.

Developed For: U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Program Management

Date: June 25, 1997 11:00 a.m.

NRC Contacts: J. Y. Lee Phone: (301) 415 1080
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L. A. Brown Phone: (301) 415 1232
e-mail: lab2@nrc.gov

Code Developer: J. V. Ramsdell Phone: (509) 372 6316
e-mail: j_ramsdell@pnl.gov

Code Documentation: NUREG/CR-6331 Rev. 1

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Program Run 2/15/2005 at 11:56:48

***** ARCON INPUT *****

Number of Meteorological Data Files = 3
Meteorological Data File Names
C:\IP3Prime\IP_1995.MET
C:\IP3Prime\IP_1996.MET
C:\IP3Prime\IP_1997.MET

Height of lower wind instrument (m) = 10.0
Height of upper wind instrument (m) = 60.0
Wind speeds entered as miles per hour

Ground-level release
Release height (m) = 23.9
Building Area (m^2) = 3059.3
Effluent vertical velocity (m/s) = .00
Vent or stack flow (m^3/s) = .00
Vent or stack radius (m) = .00

Direction .. intake to source (deg) = 033
Wind direction sector width (deg) = 90
Wind direction window (deg) = 348 - 078
Distance to intake (m) = 291.1
Intake height (m) = 2.3
Terrain elevation difference (m) = .0

Output file names
ip2s03r1.log
ip2s03r1.cfd

Minimum Wind Speed (m/s) = .5
Surface roughness length (m) = .10
Sector averaging constant = 4.0

Initial value of sigma y = .28
Initial value of sigma z = .00

Expanded output for code testing not selected

Total number of hours of data processed = 26304
Hours of missing data = 170
Hours direction in window = 10598
Hours elevated plume w/ dir. in window = 0
Hours of calm winds = 284
Hours direction not in window or calm = 15252

DISTRIBUTION SUMMARY DATA BY AVERAGING INTERVAL

| AVER. PER. | 1 | 2 | 4 | 8 | 12 | 24 | 96 | 168 | 360 | 720 |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| UPPER LIM. | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 |
| LOW LIM. | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 |
| ABOVE RANGE | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| IN RANGE | 10882. | 12327. | 14241. | 16991. | 19093. | 22469. | 25748. | 25595. | 25378. | 25002. |
| BELOW RANGE | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| ZERO | 15252. | 13791. | 11847. | 9037. | 6955. | 3542. | 93. | 0. | 0. | 0. |
| TOTAL X/Qs | 26134. | 26118. | 26088. | 26028. | 26048. | 26011. | 25841. | 25595. | 25378. | 25002. |
| % NON ZERO | 41.64 | 47.20 | 54.59 | 65.28 | 73.30 | 86.38 | 99.64 | 100.00 | 100.00 | 100.00 |

95th PERCENTILE X/Q VALUES

| | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 9.30E-05 | 9.10E-05 | 8.94E-05 | 8.60E-05 | 7.30E-05 | 5.63E-05 | 3.95E-05 | 3.43E-05 | 3.10E-05 | 2.86E-05 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|

95% X/Q for standard averaging intervals

| | |
|---------------|----------|
| 0 to 2 hours | 9.30E-05 |
| 2 to 8 hours | 8.37E-05 |
| 8 to 24 hours | 4.15E-05 |
| 1 to 4 days | 3.38E-05 |
| 4 to 30 days | 2.69E-05 |

| HOURLY VALUE RANGE | | |
|--------------------|----------|----------|
| | MAX X/Q | MIN X/Q |
| CENTERLINE | 1.16E-04 | 1.21E-05 |
| SECTOR-AVERAGE | 7.29E-05 | 7.59E-06 |

NORMAL PROGRAM COMPLETION

Program Title: ARCON96.

Developed For: U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Program Management

Date: June 25, 1997 11:00 a.m.

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e-mail: jy11@nrc.gov
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Code Developer: J. V. Ramsdell Phone: (509) 372 6316
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Program Run 2/15/2005 at 11:56:48

***** ARCON INPUT *****

Number of Meteorological Data Files = 3
Meteorological Data File Names
C:\IP3Prime\IP_1995.MET
C:\IP3Prime\IP_1996.MET
C:\IP3Prime\IP_1997.MET

Height of lower wind instrument (m) = 10.0
Height of upper wind instrument (m) = 60.0
Wind speeds entered as miles per hour

Ground-level release
Release height (m) = 13.7
Building Area (m^2) = 3059.3
Effluent vertical velocity (m/s) = .00
Vent or stack flow (m^3/s) = .00
Vent or stack radius (m) = .00

Direction .. intake to source (deg) = 033
Wind direction sector width (deg) = 90
Wind direction window (deg) = 348 - 078
Distance to intake (m) = 278.5
Intake height (m) = 2.3
Terrain elevation difference (m) = .0

Output file names
ip2s04r1.log
ip2s04r1.cfd

Minimum Wind Speed (m/s) = .5
Surface roughness length (m) = .10
Sector averaging constant = 4.0

Initial value of sigma y = 1.41
Initial value of sigma z = 1.41

Expanded output for code testing not selected

Total number of hours of data processed = 26304
Hours of missing data = 170
Hours direction in window = 10598
Hours elevated plume w/ dir. in window = 0
Hours of calm winds = 284
Hours direction not in window or calm = 15252

DISTRIBUTION SUMMARY DATA BY AVERAGING INTERVAL

| AVER. PER. | 1 | 2 | 4 | 8 | 12 | 24 | 96 | 168 | 360 | 720 |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| UPPER LIM. | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 | 1.00E-03 |
| LOW LIM. | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 | 1.00E-07 |
| ABOVE RANGE | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| IN RANGE | 10882. | 12327. | 14241. | 16991. | 19093. | 22469. | 25748. | 25595. | 25378. | 25002. |
| BELOW RANGE | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| ZERO | 15252. | 13791. | 11847. | 9037. | 6955. | 3542. | 93. | 0. | 0. | 0. |
| TOTAL X/Qs | 26134. | 26118. | 26088. | 26028. | 26048. | 26011. | 25841. | 25595. | 25378. | 25002. |
| % NON ZERO | 41.64 | 47.20 | 54.59 | 65.28 | 73.30 | 86.38 | 99.64 | 100.00 | 100.00 | 100.00 |

95th PERCENTILE X/Q VALUES
9.25E-05 9.12E-05 9.02E-05 8.78E-05 7.40E-05 5.80E-05 4.04E-05 3.52E-05 3.19E-05 2.94E-05

95% X/Q for standard averaging intervals

0 to 2 hours 9.25E-05
2 to 8 hours 8.62E-05
8 to 24 hours 4.30E-05
1 to 4 days 3.46E-05
4 to 30 days 2.77E-05

| HOURLY VALUE RANGE | | |
|--------------------|----------|----------|
| | MAX X/Q | MIN X/Q |
| CENTERLINE | 1.23E-04 | 1.43E-05 |
| SECTOR-AVERAGE | 7.72E-05 | 8.94E-06 |

NORMAL PROGRAM COMPLETION