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 RECIP. NAME: O'REILLY, J.P. RECIPIENT AFFILIATION: REGION 2, ATLANTA, OFFICE OF THE DIRECTOR

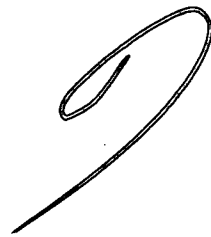
SUBJECT: FORWARDS EFFLUENT RELEASE & SOLID WASTE DISPOSAL SUMMARY FOR
 PERIOD 780701-1231. W/ANNUAL TOTALS FOR LIQUID & GASEOUS
 EFFLUENT RELEASES FOR SOLID WASTE DISPOSAL FOR 1978.

DISTRIBUTION CODE: A007S COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 15
 TITLE: ANNUAL ENVIRON. REPORTS (OL STAGE)

NOTES: M. Cunningham - all AMDTS to FSAR + changes to Tech Specs

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|-----------|--------------------|--------|------|------------------|--------------|------|
| | ID CODE/NAME | LTTR | ENCL | | ID CODE/NAME | LTTR |
| | 05 BC ORB#4 | 7 | 7 | | | |
| INTERNAL: | 01 <u>REG FILE</u> | 1 | 1 | 02 NRC PDR | 1 | 1 |
| | 12 I&E | 2 | 2 | 14 EEB | 1 | 1 |
| | 15 ENVN SPEC BR | 1 | 1 | 16 EFLT TRT. SYS | 1 | 1 |
| | 17 RAD ASMT BR | 1 | 1 | 18 EPS BR SD | 1 | 1 |
| EXTERNAL: | 03 LPDR | 1 | 1 | 04 NSIC | 1 | 1 |
| | 19 ACRS | 1 | 1 | | | |

MAR 6 1979



DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

February 22, 1979

TELEPHONE: AREA 704
373-4083

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

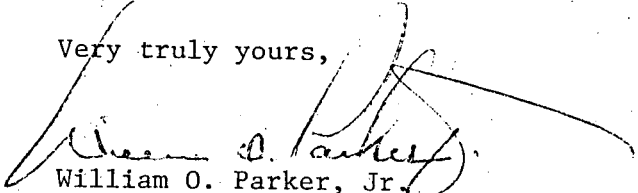
Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

Pursuant to 10CFR 50, §50.36 and Oconee Nuclear Station Technical Specification 6.6, please find attached the effluent release and solid waste disposal summary for the period July 1, 1978 - December 31, 1978. Also included are the annual totals for liquid and gaseous effluent releases and for solid waste disposal for 1978.

Please note that errors which were discovered in some of the gaseous effluent totals previously provided for the first two quarters of the year have been corrected in the attached summaries.

Very truly yours,


William O. Parker, Jr.

RLG:scs
Attachment

cc: Director, Office of Inspection & Enforcement
Washington, D. C.

7903050319

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ATTACHMENT 1

RADIOACTIVE EFFLUENT RELEASES
SOLID WASTE

Docket # 50-269
Control # 7903050319
Date 2-22-79 of Document:
REGULATORY DOCKET FILE

7/1/78 — 12/31/78

RADIOACTIVE EFFLUENT RELEASE
SOLID WASTE

Total volume of solid waste packaged (cubic feet) 55,881.42 for 1978

Total estimated activity involved (curies) 5,934.88 for 1978

Disposal of materials shipped off-site: All shipments to Chem-Nuclear Systems Waste Disposal Facility at Barnwell, South Carolina.

| <u>DATE</u> | <u>CUBIC FT.</u> | <u># OF CURIES</u> |
|-------------|------------------|--------------------|
| 7/2/78 | 205 | 7.02E0 |
| 7/3/78 | 238 | 5.97E0 |
| 7/4/78 | 205 | 1.17E1 |
| 7/7/78 | 205 | 7.20E0 |
| 7/8/78 | 238 | 7.43E0 |
| 7/10/78 | 205 | 5.92E0 |
| 7/12/78 | 205 | 1.51E1 |
| 7/14/78 | 614.5 | 1.03E0 |
| 7/14/78 | 168 | 1.15E-2 |
| 7/15/78 | 238 | 1.45E1 |
| 7/16/78 | 15 | 3.48E0 |
| 7/17/78 | 205 | 2.43E1 |
| 7/18/78 | 205 | 1.24E1 |
| 7/21/78 | 50 | 5.18E-3 |
| 7/21/78 | 209 | 2.94E-3 |
| 7/23/78 | 205 | 1.10E1 |
| 7/24/78 | 148 | 2.46E-3 |
| 7/25/78 | 205 | 7.57E0 |
| 7/26/78 | 985 | 9.90E-1 |
| 7/27/78 | 205 | 4.91E0 |
| 7/31/78 | 205 | 4.77E0 |
| 7/31/78 | 5 | 6.10E-1 |
| 8/3/78 | 205 | 5.04E0 |
| 8/5/78 | 205 | 3.74E0 |
| 8/10/78 | 70 | 6.44E1 |
| 8/10/78 | 653 | 3.23E-1 |
| 8/11/78 | 205 | 5.35E0 |
| 8/11/78 | 238 | 2.22E1 |
| 8/16/78 | 205 | 6.54E0 |
| 8/16/78 | 0.64 | 5.95E2 |
| 8/17/78 | 1.28 | 1.19E3 |
| 8/17/78 | 465 | 1.62E-1 |
| 8/19/78 | 205 | 1.70E1 |
| 8/21/78 | 238 | 3.77E0 |
| 8/22/78 | 238 | 8.29E-1 |
| 8/22/78 | 205 | 4.72E1 |
| 8/24/78 | 238 | 5.84E0 |
| 8/26/78 | 205 | 3.15E0 |
| 8/26/78 | 238 | 2.84E0 |
| 8/29/78 | 205 | 3.26E0 |
| 8/30/78 | 238 | 7.31E0 |

| | | |
|----------|-------|---------|
| 8/31/78 | 631 | 9.10E-1 |
| 9/1/78 | 238 | 8.74E0 |
| 9/4/78 | 205 | 2.82E-1 |
| 9/7/78 | 205 | 6.68E0 |
| 9/10/78 | 205 | 8.82E0 |
| 9/14/78 | 195 | 7.84E0 |
| 9/15/78 | 772.5 | 1.67E0 |
| 9/17/78 | 205 | 1.11E1 |
| 9/20/78 | 238 | 8.19E0 |
| 9/21/78 | 35 | 2.90E0 |
| 9/22/78 | 40 | 3.70E1 |
| 9/23/78 | 562.5 | 5.00E-1 |
| 9/27/78 | 205 | 8.02E0 |
| 10/2/78 | 238 | 2.13E0 |
| 10/2/78 | 205 | 4.80E0 |
| 10/4/78 | 205 | 9.22E0 |
| 10/6/78 | 205 | 8.88E0 |
| 10/8/78 | 205 | 1.72E1 |
| 10/9/78 | 1035 | 4.91E0 |
| 10/11/78 | 205 | 6.29E0 |
| 10/12/78 | 205 | 6.05E0 |
| 10/13/78 | 205 | 5.11E0 |
| 10/14/78 | 1.28 | 1.19E3 |
| 10/16/78 | 205 | 3.12E0 |
| 10/16/78 | 532.5 | 1.02E0 |
| 10/18/78 | 205 | 8.89E0 |
| 10/23/78 | 205 | 1.53E1 |
| 10/25/78 | 15 | 1.10E1 |
| 10/25/78 | 70 | 1.83E2 |
| 10/26/78 | 205 | 1.17E1 |
| 10/28/78 | 885 | 2.80E0 |
| 10/29/78 | 205 | 9.51E0 |
| 11/1/78 | 105 | 1.63E1 |
| 11/1/78 | 38 | 7.79E-4 |
| 11/3/78 | 205 | 4.48E0 |
| 11/5/78 | 205 | 4.64E0 |
| 11/7/78 | 238 | 6.89E0 |
| 11/8/78 | 205 | 5.76E0 |
| 11/11/78 | 205 | 5.34E0 |
| 11/13/78 | 990 | 2.18E0 |
| 11/16/78 | 238 | 2.25E-1 |
| 11/16/78 | 690 | 6.42E-1 |
| 11/17/78 | 205 | 6.86E0 |
| 11/17/78 | 7.5 | 4.76E0 |
| 11/20/78 | 205 | 3.59E0 |
| 11/22/78 | 205 | 4.76E0 |
| 11/24/78 | 238 | 9.64E0 |
| 11/24/78 | 205 | 5.73E0 |
| 11/27/78 | 205 | 2.18E1 |
| 11/29/78 | 205 | 3.99E0 |
| 11/29/78 | 585 | 4.20E-1 |
| 11/30/78 | 205 | 3.98E0 |
| 12/4/78 | 600 | 1.00E0 |
| 12/4/78 | 238 | 9.78E0 |
| 12/5/78 | 660 | 5.31E-1 |
| 12/5/78 | 189 | 1.11E-3 |

| <u>DATE</u> | <u>CUBIC FT.</u> | <u># OF CURIES</u> |
|---|------------------|--------------------|
| 12/5/78 | 238 | 1.49E0 |
| 12/5/78 | 80 | 7.25E-4 |
| 12/7/78 | 205 | 3.06E0 |
| 12/7/78 | 772.5 | 8.32E-1 |
| 12/8/78 | 10 | 1.98E1 |
| 12/11/78 | 205 | 4.06E0 |
| 12/12/78 | 1.28 | 1.19E3 |
| 12/14/78 | 205 | 2.12E1 |
| 12/15/78 | 0.64 | 5.40E1 |
| 12/15/78 | 135.5 | 8.50E-1 |
| 12/17/78 | 205 | 5.68E0 |
| 12/22/78 | 525 | 8.20E-1 |
| 12/27/78 | 205 | 5.36E0 |
| 12/27/78 | 205 | 7.22E0 |
| 12/29/78 | 1140 | 4.17E0 |
| 12/29/78 | 205 | 7.58E0 |
| Totals are for last six months of 1978 | 29,807.62 | 5,182.88 |

ATTACHMENT 2

RADIOACTIVE EFFLUENT RELEASES
LIQUID RELEASES

RADIOACTIVITY RELEASE RELEASES

YEAR 1973

1. LIQUID RELEASES

1. GROSS RADIOACTIVITY

| | UNITS | JUNE | AUGUST | SEPTEMBER | SUB-TOTAL |
|-----------------------------------|--------|----------|----------|-----------|-----------|
| A. TOTAL RELEASE | CURIES | 5.57E-01 | 1.05E+00 | 5.35E-01 | 2.14E+00 |
| B. AVERAGE CONCENTRATION RELEASED | UCI/ML | 5.59E-03 | 1.05E-03 | 1.63E-03 | 1.81E-03 |
| C. MAXIMUM CONCENTRATION RELEASED | UCI/ML | 2.52E-07 | 5.57E-07 | 1.93E-07 | 3.12E-07 |

2. TRITIUM

| | | | | | |
|-----------------------------------|--------|----------|----------|----------|----------|
| A. TOTAL RELEASE | CURIES | 1.03E+02 | 8.13E+01 | 9.43E+01 | 2.77E+02 |
| B. AVERAGE CONCENTRATION RELEASED | UCI/ML | 1.05E-05 | 1.07E-05 | 2.87E-05 | 2.34E-05 |

3. DISSOLVED NOBLE GASES

| | | | | | |
|-----------------------------------|--------|----------|----------|----------|----------|
| A. TOTAL RELEASE | CURIES | 1.24E+00 | 2.39E+00 | 8.39E-01 | 4.47E+00 |
| B. AVERAGE CONCENTRATION RELEASED | UCI/ML | 1.27E-07 | 3.16E-03 | 2.55E-03 | 3.73E-03 |

4. GROSS ALPHA RADIOACTIVITY

| | | | | | |
|-----------------------------------|--------|----|----|----|----|
| A. TOTAL RELEASE | CURIES | 0. | 0. | 0. | 0. |
| B. AVERAGE CONCENTRATION RELEASED | UCI/ML | 0. | 0. | 0. | 0. |

5. VOLUME OF LIQUID WASTE TO DISCHARGE

| | | | | | |
|-------|--------|----------|----------|----------|----------|
| CANAL | LITERS | 8.19E+06 | 6.99E+06 | 1.02E+07 | 2.54E+07 |
|-------|--------|----------|----------|----------|----------|

6. VOLUME OF DILUTION WATER

| | | | | | |
|--|--------|----------|----------|----------|----------|
| | LITERS | 9.79E+09 | 7.57E+10 | 3.29E+10 | 1.13E+11 |
|--|--------|----------|----------|----------|----------|

7. ISOTOPES RELEASED

| | CURIES | | | | |
|-----------|----------|----------|----------|----------|--|
| BA-LA-140 | 2.98E-03 | 3.54E-03 | 5.54E-04 | 1.02E-02 | |
| SR-89 | 3.77E-03 | 3.08E-03 | 8.50E-03 | 1.53E-02 | |
| I-131 | 3.86E-02 | 1.73E-01 | 4.09E-02 | 2.52E-01 | |
| I-133 | 5.13E-03 | 6.23E-03 | 1.97E-03 | 1.33E-02 | |
| XE-133 | 1.05E+00 | 2.14E+00 | 6.72E-01 | 3.87E+00 | |
| XE-135 | 1.09E-02 | 3.22E-02 | 1.11E-02 | 5.42E-02 | |
| CS-137 | 2.30E-02 | 6.15E-02 | 4.73E-02 | 1.22E-01 | |
| CS-134 | 1.34E-02 | 5.23E-02 | 2.70E-02 | 9.23E-02 | |
| CO-60 | 5.35E-02 | 7.92E-02 | 3.43E-02 | 1.67E-01 | |
| CO-58 | 3.33E-01 | 4.83E-01 | 3.29E-01 | 1.14E+00 | |
| CR-51 | 1.41E-02 | 4.84E-02 | 7.10E-03 | 5.93E-02 | |
| 4N-54 | 7.76E-03 | 8.85E-03 | 4.88E-03 | 2.15E-02 | |
| KR-87 | 0. | 0. | 0. | 0. | |
| ZR-97 | 4.77E-04 | 9.95E-05 | 9.37E-07 | 5.77E-04 | |
| NB-97 | 2.44E-02 | 2.13E-02 | 2.78E-03 | 4.85E-02 | |
| XE-133M | 8.75E-03 | 1.95E-02 | 9.46E-03 | 3.77E-02 | |
| I-132 | 4.49E-04 | 0. | 0. | 4.49E-04 | |
| CS-135 | 2.79E-04 | 2.50E-03 | 4.21E-04 | 3.20E-03 | |
| KR-85A | 2.01E-04 | 8.26E-04 | 7.42E-05 | 1.10E-03 | |
| KR-88 | 9.42E-05 | 3.03E-03 | 7.10E-03 | 1.32E-02 | |
| ZN-65 | 8.75E-05 | 9.97E-05 | 0. | 1.87E-04 | |
| SR-90 | 2.29E-04 | 3.01E-04 | 1.13E-03 | 1.65E-03 | |
| SR-92 | 5.41E-05 | 2.50E-03 | 5.41E-04 | 3.10E-03 | |
| CS-144 | 3.31E-04 | 7.27E-04 | 1.20E-03 | 2.31E-03 | |
| MN-56 | 1.09E-04 | 0. | 0. | 1.09E-04 | |
| MO-99 | 0. | 3.22E-03 | 1.75E-04 | 3.43E-03 | |
| SB-122 | 4.17E-04 | 1.92E-03 | 0. | 2.34E-03 | |
| AG-110M | 1.29E-02 | 9.17E-03 | 2.04E-03 | 2.41E-02 | |
| BA-139 | 4.94E-05 | 4.66E-05 | 0. | 9.60E-05 | |
| NB-95 | 3.50E-03 | 5.49E-03 | 1.34E-03 | 1.03E-02 | |
| FE-59 | 2.85E-03 | 1.88E-03 | 1.99E-04 | 4.93E-03 | |
| SB-124 | 0. | 3.62E-04 | 0. | 3.62E-04 | |
| I-135 | 4.93E-04 | 1.75E-03 | 1.77E-03 | 4.00E-03 | |
| A-167 | 7.84E-04 | 1.58E-04 | 4.44E-05 | 9.87E-04 | |
| CS-135M | 0. | 0. | 0. | 0. | |
| XE-131M | 1.22E-02 | 4.26E-02 | 8.82E-03 | 5.35E-02 | |
| ZR-95 | 1.21E-03 | 3.00E-03 | 4.79E-04 | 4.69E-03 | |
| NR-239 | 2.73E-04 | 3.29E-05 | 3.02E-05 | 3.37E-04 | |
| CO-57 | 7.39E-04 | 1.74E-03 | 9.97E-04 | 3.53E-03 | |
| IC-99M | 4.92E-04 | 7.07E-03 | 1.20E-04 | 7.63E-03 | |
| NA-24 | 3.09E-05 | 0. | 9.83E-06 | 4.07E-05 | |
| CD-115M | 0. | 0. | 0. | 0. | |
| Y-92 | 1.33E-04 | 3.34E-03 | 0. | 3.43E-03 | |
| IN-115M | 0. | 0. | 0. | 0. | |
| CD-115 | 5.37E-05 | 1.75E-04 | 9.51E-05 | 3.24E-04 | |
| CE-134 | 0. | 0. | 0. | 0. | |
| AR-41 | 2.40E-05 | 4.79E-05 | 1.45E-05 | 8.66E-05 | |
| I-134 | 0. | 3.05E-03 | 3.12E-03 | 6.17E-03 | |
| RS-88 | 1.02E-02 | 5.04E-03 | 1.23E-02 | 2.76E-02 | |
| SH-125A | 0. | 0. | 0. | 0. | |
| CS-133 | 0. | 7.48E-05 | 0. | 7.48E-05 | |
| KR-85 | 1.54E-01 | 1.48E-01 | 1.30E-01 | 4.33E-01 | |
| RU-103 | 3.57E-05 | 8.66E-04 | 1.54E-05 | 9.19E-04 | |
| SB-125 | 4.43E-04 | 3.49E-04 | 8.67E-05 | 8.79E-04 | |
| SN-125 | 0. | 0. | 0. | 0. | |
| XE-138 | 0. | 0. | 0. | 0. | |
| SN-123M | 0. | 0. | 0. | 0. | |
| F-18 | 0. | 0. | 0. | 0. | |
| AG-106M | 0. | 0. | 0. | 0. | |
| XE-135A | 1.10E-04 | 2.24E-04 | 0. | 3.34E-04 | |
| SR-91 | 0. | 0. | 4.58E-08 | 4.58E-08 | |
| NI-95 | 9.42E-05 | 0. | 0. | 9.42E-05 | |
| Y-88 | 0. | 0. | 0. | 0. | |
| CD-109 | 4.42E-04 | 3.04E-03 | 0. | 3.50E-03 | |
| PR-144 | 2.96E-04 | 2.50E-03 | 0. | 2.80E-03 | |
| RU-106 | 5.90E-05 | 4.79E-02 | 3.74E-03 | 5.08E-02 | |
| GE-141 | 0. | 0. | 0. | 0. | |

8. PERCENT OF THEORETICAL SPECIFICATIONS LIMIT (15 D) FOR TOTAL ACTIVITY RE- LEASED

| | | | |
|----------|----------|----------|----------|
| 3.71E+01 | 7.01E+03 | 3.54E+03 | 1.43E+01 |
|----------|----------|----------|----------|

| | | JANUARY | FEBRUARY | MARCH | APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER | OCTOBER | NOVEMBER | DECEMBER | SUB-TOTAL |
|--|--------------------------------|---------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|
| 1. GROSS RADI ACTIVITY | | | | | | | | | | | | | | |
| A. | TOTAL RELEASE | CURIES | 2.38E-01 | 1.96E-01 | 1.76E-01 | 1.76E-01 | 1.76E-01 | 1.76E-01 | 1.76E-01 | 1.76E-01 | 1.76E-01 | 1.76E-01 | 1.76E-01 | 8.10E-01 |
| B. | AVERAGE CONCENTRATION RELEASED | UCI/ML | 2.46E-09 | 8.47E-09 | 3.46E-09 | 3.46E-09 | 3.46E-09 | 3.46E-09 | 3.46E-09 | 3.46E-09 | 3.46E-09 | 3.46E-09 | 3.46E-09 | 4.16E-09 |
| C. | MAXIMUM CONCENTRATION RELEASED | UCI/ML | 1.14E-07 | 1.37E-07 | 7.23E-07 | 7.23E-07 | 7.23E-07 | 7.23E-07 | 7.23E-07 | 7.23E-07 | 7.23E-07 | 7.23E-07 | 7.23E-07 | 1.22E-07 |
| 2. TRITIUM | | | | | | | | | | | | | | |
| A. | TOTAL RELEASE | CURIES | 9.45E+01 | 1.34E+02 | 9.73E+01 | 9.73E+01 | 9.73E+01 | 9.73E+01 | 9.73E+01 | 9.73E+01 | 9.73E+01 | 9.73E+01 | 9.73E+01 | 3.26E+02 |
| B. | AVERAGE CONCENTRATION RELEASED | UCI/ML | 9.75E-07 | 2.34E-06 | 4.92E-06 | 4.92E-06 | 4.92E-06 | 4.92E-06 | 4.92E-06 | 4.92E-06 | 4.92E-06 | 4.92E-06 | 4.92E-06 | 1.67E-06 |
| 3. DISSOLVED NOBLE GASES | | | | | | | | | | | | | | |
| A. | TOTAL RELEASE | CURIES | 4.19E-01 | 6.70E-01 | 4.50E-01 | 4.50E-01 | 4.50E-01 | 4.50E-01 | 4.50E-01 | 4.50E-01 | 4.50E-01 | 4.50E-01 | 4.50E-01 | 1.54E+00 |
| B. | AVERAGE CONCENTRATION RELEASED | UCI/ML | 4.33E-09 | 1.42E-08 | 8.55E-09 | 8.55E-09 | 8.55E-09 | 8.55E-09 | 8.55E-09 | 8.55E-09 | 8.55E-09 | 8.55E-09 | 8.55E-09 | 7.90E-09 |
| 4. GROSS ALPHA RADIOACTIVITY | | | | | | | | | | | | | | |
| A. | TOTAL RELEASE | CURIES | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| B. | AVERAGE CONCENTRATION RELEASED | UCI/ML | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL | | LITERS | 7.77E+06 | 7.87E+06 | 9.01E+06 | 9.01E+06 | 9.01E+06 | 9.01E+06 | 9.01E+06 | 9.01E+06 | 9.01E+06 | 9.01E+06 | 9.01E+06 | 2.47E+07 |
| 6. VOLUME OF DILUTION WATER | | LITERS | 9.59E+10 | 4.71E+10 | 5.08E+10 | 5.08E+10 | 5.08E+10 | 5.08E+10 | 5.08E+10 | 5.08E+10 | 5.08E+10 | 5.08E+10 | 5.08E+10 | 1.95E+11 |
| 7. ISOTOPES RELEASED | | CURIES | | | | | | | | | | | | |
| BA-LA-140 | | | 5.71E-04 | 2.43E-03 | 6.70E-04 | 6.70E-04 | 6.70E-04 | 6.70E-04 | 6.70E-04 | 6.70E-04 | 6.70E-04 | 6.70E-04 | 6.70E-04 | 3.67E-03 |
| SR-89 | | | 1.17E-03 | 4.80E-03 | 5.13E-03 | 5.13E-03 | 5.13E-03 | 5.13E-03 | 5.13E-03 | 5.13E-03 | 5.13E-03 | 5.13E-03 | 5.13E-03 | 1.11E-02 |
| I-131 | | | 3.12E-02 | 7.46E-02 | 2.25E-02 | 2.25E-02 | 2.25E-02 | 2.25E-02 | 2.25E-02 | 2.25E-02 | 2.25E-02 | 2.25E-02 | 2.25E-02 | 1.35E-01 |
| I-133 | | | 2.94E-03 | 3.70E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 1.13E-03 | 7.77E-03 |
| XE-133 | | | 3.18E-01 | 5.37E-01 | 3.73E-01 | 3.73E-01 | 3.73E-01 | 3.73E-01 | 3.73E-01 | 3.73E-01 | 3.73E-01 | 3.73E-01 | 3.73E-01 | 1.23E+00 |
| XE-135 | | | 1.57E-02 | 4.97E-03 | 1.19E-02 | 1.19E-02 | 1.19E-02 | 1.19E-02 | 1.19E-02 | 1.19E-02 | 1.19E-02 | 1.19E-02 | 1.19E-02 | 3.25E-02 |
| CS-137 | | | 2.31E-02 | 9.94E-02 | 4.08E-02 | 4.08E-02 | 4.08E-02 | 4.08E-02 | 4.08E-02 | 4.08E-02 | 4.08E-02 | 4.08E-02 | 4.08E-02 | 1.68E-01 |
| CS-134 | | | 1.74E-02 | 6.35E-02 | 2.53E-02 | 2.53E-02 | 2.53E-02 | 2.53E-02 | 2.53E-02 | 2.53E-02 | 2.53E-02 | 2.53E-02 | 2.53E-02 | 1.06E-01 |
| CD-60 | | | 1.39E-02 | 1.01E-02 | 3.59E-03 | 3.59E-03 | 3.59E-03 | 3.59E-03 | 3.59E-03 | 3.59E-03 | 3.59E-03 | 3.59E-03 | 3.59E-03 | 2.76E-02 |
| CD-58 | | | 9.90E-02 | 1.04E-01 | 5.14E-02 | 5.14E-02 | 5.14E-02 | 5.14E-02 | 5.14E-02 | 5.14E-02 | 5.14E-02 | 5.14E-02 | 5.14E-02 | 2.54E-01 |
| CR-51 | | | 5.75E-03 | 4.92E-03 | 3.42E-03 | 3.42E-03 | 3.42E-03 | 3.42E-03 | 3.42E-03 | 3.42E-03 | 3.42E-03 | 3.42E-03 | 3.42E-03 | 1.42E-02 |
| MN-54 | | | 1.57E-03 | 1.74E-03 | 6.27E-04 | 6.27E-04 | 6.27E-04 | 6.27E-04 | 6.27E-04 | 6.27E-04 | 6.27E-04 | 6.27E-04 | 6.27E-04 | 3.93E-03 |
| KR-87 | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| ZR-97 | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| NB-97 | | | 3.62E-03 | 1.43E-03 | 1.58E-03 | 1.58E-03 | 1.58E-03 | 1.58E-03 | 1.58E-03 | 1.58E-03 | 1.58E-03 | 1.58E-03 | 1.58E-03 | 6.63E-03 |
| XE-133M | | | 5.02E-03 | 5.00E-03 | 5.51E-03 | 5.51E-03 | 5.51E-03 | 5.51E-03 | 5.51E-03 | 5.51E-03 | 5.51E-03 | 5.51E-03 | 5.51E-03 | 1.55E-02 |
| I-132 | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| CS-136 | | | 4.79E-04 | 1.60E-03 | 1.96E-04 | 1.96E-04 | 1.96E-04 | 1.96E-04 | 1.96E-04 | 1.96E-04 | 1.96E-04 | 1.96E-04 | 1.96E-04 | 2.27E-03 |
| KR-85M | | | 6.26E-05 | 2.35E-05 | 1.55E-04 | 1.55E-04 | 1.55E-04 | 1.55E-04 | 1.55E-04 | 1.55E-04 | 1.55E-04 | 1.55E-04 | 1.55E-04 | 2.41E-04 |
| KR-88 | | | 2.57E-03 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2.57E-03 |
| ZN-65 | | | 0. | 3.72E-06 | 4.95E-06 | 4.95E-06 | 4.95E-06 | 4.95E-06 | 4.95E-06 | 4.95E-06 | 4.95E-06 | 4.95E-06 | 4.95E-06 | 3.67E-06 |
| SR-90 | | | 2.25E-04 | 4.33E-04 | 4.86E-04 | 4.86E-04 | 4.86E-04 | 4.86E-04 | 4.86E-04 | 4.86E-04 | 4.86E-04 | 4.86E-04 | 4.86E-04 | 1.14E-03 |
| SR-92 | | | 3.90E-04 | 4.50E-04 | 4.17E-04 | 4.17E-04 | 4.17E-04 | 4.17E-04 | 4.17E-04 | 4.17E-04 | 4.17E-04 | 4.17E-04 | 4.17E-04 | 1.26E-03 |
| CE-144 | | | 5.70E-04 | 1.45E-04 | 1.12E-03 | 1.12E-03 | 1.12E-03 | 1.12E-03 | 1.12E-03 | 1.12E-03 | 1.12E-03 | 1.12E-03 | 1.12E-03 | 1.64E-03 |
| MN-56 | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| MO-99 | | | 3.89E-04 | 1.30E-05 | 1.35E-05 | 1.35E-05 | 1.35E-05 | 1.35E-05 | 1.35E-05 | 1.35E-05 | 1.35E-05 | 1.35E-05 | 1.35E-05 | 4.16E-04 |
| SB-122 | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| AG-110M | | | 1.39E-03 | 1.87E-03 | 1.54E-03 | 1.54E-03 | 1.54E-03 | 1.54E-03 | 1.54E-03 | 1.54E-03 | 1.54E-03 | 1.54E-03 | 1.54E-03 | 5.31E-03 |
| BA-139 | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| NB-95 | | | 7.30E-04 | 4.83E-04 | 4.39E-04 | 4.39E-04 | 4.39E-04 | 4.39E-04 | 4.39E-04 | 4.39E-04 | 4.39E-04 | 4.39E-04 | 4.39E-04 | 1.65E-03 |
| FE-59 | | | 2.08E-04 | 6.43E-05 | 3.95E-06 | 3.95E-06 | 3.95E-06 | 3.95E-06 | 3.95E-06 | 3.95E-06 | 3.95E-06 | 3.95E-06 | 3.95E-06 | 2.77E-04 |
| SB-124 | | | 0. | 2.61E-05 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2.61E-05 |
| I-135 | | | 1.49E-04 | 2.08E-03 | 1.66E-03 | 1.66E-03 | 1.66E-03 | 1.66E-03 | 1.66E-03 | 1.66E-03 | 1.66E-03 | 1.66E-03 | 1.66E-03 | 3.89E-03 |
| N-187 | | | 9.06E-05 | 2.43E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.27E-04 |
| CS-135M | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| XE-131M | | | 3.46E-03 | 1.29E-02 | 3.77E-03 | 3.77E-03 | 3.77E-03 | 3.77E-03 | 3.77E-03 | 3.77E-03 | 3.77E-03 | 3.77E-03 | 3.77E-03 | 2.01E-02 |
| ZR-95 | | | 2.21E-04 | 1.71E-04 | 7.67E-05 | 7.67E-05 | 7.67E-05 | 7.67E-05 | 7.67E-05 | 7.67E-05 | 7.67E-05 | 7.67E-05 | 7.67E-05 | 5.39E-04 |
| NP-239 | | | 6.36E-05 | 9.75E-06 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 1.24E-05 | 8.53E-06 |
| CD-57 | | | 1.50E-04 | 1.97E-04 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 4.31E-04 |
| TC-99M | | | 3.68E-04 | 1.06E-03 | 3.44E-05 | 3.44E-05 | 3.44E-05 | 3.44E-05 | 3.44E-05 | 3.44E-05 | 3.44E-05 | 3.44E-05 | 3.44E-05 | 1.47E-03 |
| NA-24 | | | 1.02E-05 | 1.55E-05 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2.57E-05 |
| CD-115M | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| Y-92 | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| IN-115M | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| CD-115 | | | 5.27E-05 | 7.35E-06 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 6.01E-05 |
| CE-134 | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| AR-41 | | | 5.09E-05 | 1.51E-05 | 8.12E-07 | 8.12E-07 | 8.12E-07 | 8.12E-07 | 8.12E-07 | 8.12E-07 | 8.12E-07 | 8.12E-07 | 8.12E-07 | 6.66E-06 |
| I-134 | | | 1.50E-03 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1.50E-03 |
| RB-88 | | | 1.73E-02 | 1.68E-02 | 1.23E-02 | 1.23E-02 | 1.23E-02 | 1.23E-02 | 1.23E-02 | 1.23E-02 | 1.23E-02 | 1.23E-02 | 1.23E-02 | 4.64E-02 |
| SN-125A | | | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| CS-138 | | | 1.39E-05 | 0. | 5.54E-06 | 5.54E-06 | 5.54E-06 | 5.54E-06 | 5.54E-06 | 5.54E-06 | 5.54E-06 | 5.54E-06 | 5.54E-06 | 6.93E-06 |
| KR-88 | | | 7.44E-02 | 1.10E-01 | 5.55E-02 | 5.55E-02 | 5.55E-02 | 5.55E-02 | 5.55E-02 | 5.55E-02 | 5.55E-02 | 5.55E-02 | 5.55E-02 | 2.40E-01 |
| | | | | | | | | | | | | | | |

3. PRESENT OF TECHNICAL SPECIFICATIONS
LISTED ON THE FORM ATTACHED TO
PAGE 2

1. GROSS RADIOACTIVITY

| | UNITS | 1st QUARTER | 2nd QUARTER | 3rd QUARTER | 4th QUARTER | TOTAL |
|-----------------------------------|--------|-------------|-------------|-------------|-------------|----------|
| A. TOTAL RELEASE | CURIES | 1.24E+00 | 2.52E+00 | 2.14E+00 | 8.10E+01 | 6.51E+00 |
| B. AVERAGE CONCENTRATION RELEASED | UCI/L | 2.97E+02 | 7.48E+02 | 1.81E+03 | 4.15E+03 | 6.51E+02 |
| C. MAXIMUM CONCENTRATION RELEASED | UCI/L | 1.08E+07 | 2.44E+07 | 3.12E+07 | 1.22E+07 | 2.94E+07 |

2. TRITIUM

| | | | | | | |
|-----------------------------------|--------|----------|----------|----------|----------|----------|
| A. TOTAL RELEASE | CURIES | 3.24E+02 | 2.49E+02 | 2.79E+02 | 3.26E+02 | 1.18E+03 |
| B. AVERAGE CONCENTRATION RELEASED | UCI/L | 9.24E+07 | 7.40E+07 | 2.35E+06 | 1.67E+05 | 1.15E+06 |

3. DISSOLVED NOBLE GASES

| | | | | | | |
|-----------------------------------|--------|----------|----------|----------|----------|----------|
| A. TOTAL RELEASE | CURIES | 8.52E+01 | 3.01E+00 | 4.47E+00 | 1.54E+00 | 9.88E+00 |
| B. AVERAGE CONCENTRATION RELEASED | UCI/L | 2.43E+09 | 8.94E+09 | 3.78E+08 | 7.90E+09 | 9.87E+09 |

4. GROSS ALPHA RADIOACTIVITY

| | | | | | | |
|-----------------------------------|--------|----|----|----|----|----|
| A. TOTAL RELEASE | CURIES | 0. | 0. | 0. | 0. | 0. |
| B. AVERAGE CONCENTRATION RELEASED | UCI/L | 0. | 0. | 0. | 0. | 0. |

5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL

| | | | | | |
|--------|----------|----------|----------|----------|----------|
| LITERS | 3.55E+07 | 3.28E+07 | 2.54E+07 | 2.47E+07 | 1.18E+08 |
|--------|----------|----------|----------|----------|----------|

6. VOLUME OF DILUTION WATER

| | | | | | |
|--------|----------|----------|----------|----------|----------|
| LITERS | 3.57E+11 | 3.37E+11 | 1.18E+11 | 1.95E+11 | 1.00E+12 |
|--------|----------|----------|----------|----------|----------|

7. ISOTOPES RELEASED

| | | | | | |
|---------|----------|----------|----------|----------|----------|
| CURIES | | | | | |
| BA-140 | 3.42E-03 | 1.38E-02 | 1.02E-02 | 3.67E-03 | 3.11E-02 |
| SR-89 | 2.91E-02 | 3.18E-02 | 1.53E-02 | 1.11E-02 | 8.73E-02 |
| I-131 | 2.56E-01 | 3.18E-01 | 2.52E-01 | 1.35E-01 | 9.92E-01 |
| I-133 | 1.19E-02 | 1.34E-02 | 1.33E-02 | 7.77E-03 | 4.64E-02 |
| XE-133 | 5.95E-01 | 2.40E+00 | 3.87E+00 | 1.23E+01 | 8.09E+00 |
| XE-135 | 1.10E-02 | 2.97E-02 | 5.42E-02 | 3.25E-02 | 1.27E-01 |
| CS-137 | 2.39E-01 | 1.70E-01 | 1.32E-01 | 1.68E-01 | 6.40E-01 |
| CS-134 | 1.29E-01 | 5.93E-02 | 9.28E-02 | 1.06E-01 | 3.87E-01 |
| CD-60 | 9.29E-02 | 1.30E-01 | 1.67E-01 | 2.76E-02 | 4.63E-01 |
| CO-58 | 1.39E-01 | 1.35E+00 | 1.14E+00 | 2.54E-01 | 2.89E+00 |
| CR-51 | 5.95E-03 | 1.13E-01 | 6.96E-02 | 1.42E-02 | 2.03E-01 |
| MN-54 | 1.54E-02 | 2.50E-02 | 2.15E-02 | 3.93E-03 | 6.58E-02 |
| KR-87 | 3.59E-05 | 1.34E-05 | 0. | 0. | 5.43E-05 |
| ZR-97 | 2.29E-04 | 2.21E-03 | 5.77E-04 | 0. | 3.02E-03 |
| NB-97 | 3.10E-02 | 1.46E-01 | 4.85E-02 | 5.63E-03 | 2.32E-01 |
| XE-133M | 2.11E-03 | 1.97E-02 | 3.77E-02 | 1.55E-02 | 7.50E-02 |
| I-132 | 8.01E-07 | 0. | 4.49E-04 | 0. | 4.50E-04 |
| CS-136 | 1.12E-03 | 4.75E-03 | 3.20E-03 | 2.27E-03 | 1.13E-02 |
| KR-85M | 2.04E-03 | 2.09E-04 | 1.10E-03 | 2.41E-04 | 3.59E-03 |
| KR-88 | 3.90E-04 | 2.51E-04 | 1.52E-02 | 2.57E-03 | 1.84E-02 |
| ZN-65 | 4.95E-05 | 1.39E-03 | 1.87E-04 | 8.67E-06 | 1.64E-03 |
| SR-90 | 1.73E-03 | 1.37E-03 | 1.66E-03 | 1.14E-03 | 6.40E-03 |
| SR-92 | 1.67E-04 | 6.32E-05 | 3.10E-03 | 1.26E-03 | 4.58E-03 |
| CE-144 | 2.68E-03 | 6.45E-03 | 2.31E-03 | 1.84E-03 | 1.33E-02 |
| MN-56 | 0. | 0. | 1.09E-04 | 0. | 1.09E-04 |
| MO-99 | 5.53E-04 | 0. | 3.40E-03 | 4.16E-04 | 4.37E-03 |
| SB-122 | 0. | 0. | 2.34E-03 | 0. | 2.34E-03 |
| AG-110M | 2.07E-02 | 5.13E-02 | 2.41E-02 | 5.31E-03 | 1.01E-01 |
| BA-139 | 6.45E-04 | 3.32E-03 | 9.60E-05 | 0. | 3.42E-03 |
| NB-95 | 4.81E-03 | 1.76E-02 | 1.03E-02 | 1.65E-03 | 3.44E-02 |
| FE-59 | 5.36E-04 | 4.30E-03 | 4.93E-03 | 2.77E-04 | 1.05E-02 |
| SB-124 | 0. | 0. | 3.62E-04 | 2.61E-05 | 3.89E-04 |
| I-135 | 7.89E-03 | 7.35E-04 | 4.00E-03 | 3.89E-03 | 1.66E-02 |
| A-187 | 5.16E-04 | 1.97E-03 | 9.87E-04 | 1.27E-04 | 3.60E-03 |
| CS-135M | 0. | 0. | 0. | 0. | 0. |
| XE-131M | 1.47E-02 | 6.43E-02 | 6.36E-02 | 2.01E-02 | 1.63E-01 |
| ZR-95 | 1.39E-03 | 1.29E-02 | 4.69E-03 | 5.39E-04 | 1.95E-02 |
| NP-239 | 1.70E-03 | 1.11E-03 | 3.37E-04 | 8.58E-05 | 3.23E-03 |
| CD-57 | 3.42E-04 | 2.72E-03 | 3.53E-03 | 4.31E-04 | 7.02E-03 |
| TC-99M | 1.85E-04 | 2.31E-03 | 7.46E-03 | 1.47E-03 | 1.21E-02 |
| NA-24 | 3.86E-05 | 4.78E-05 | 4.07E-05 | 2.57E-05 | 1.53E-04 |
| CD-115M | 0. | 0. | 0. | 0. | 0. |
| Y-92 | 1.37E-03 | 5.56E-04 | 3.48E-03 | 0. | 5.90E-03 |
| IN-115M | 7.06E-05 | 1.44E-05 | 0. | 0. | 8.70E-05 |
| CD-115 | 6.62E-04 | 2.65E-04 | 3.24E-04 | 6.01E-05 | 1.31E-03 |
| CE-134 | 0. | 0. | 0. | 0. | 0. |
| AR-41 | 4.12E-05 | 3.80E-04 | 8.66E-05 | 5.68E-05 | 5.74E-04 |
| I-134 | 1.31E-04 | 0. | 6.17E-03 | 1.50E-03 | 7.67E-03 |
| RB-86 | 7.23E-03 | 3.45E-02 | 2.76E-02 | 4.64E-02 | 1.16E-01 |
| SN-125M | 2.15E-05 | 0. | 0. | 0. | 2.15E-05 |
| CS-138 | 8.40E-06 | 5.50E-03 | 7.48E-05 | 5.93E-05 | 5.65E-03 |
| KR-85 | 2.25E-01 | 4.75E-01 | 4.33E-01 | 2.40E-01 | 1.39E+00 |
| RU-103 | 1.39E-04 | 5.63E-03 | 9.19E-04 | 4.68E-05 | 6.74E-03 |
| SB-125 | 1.35E-03 | 1.38E-03 | 8.79E-04 | 3.62E-04 | 3.96E-03 |
| SN-125 | 1.42E-03 | 0. | 0. | 0. | 1.42E-03 |
| XE-136 | 1.35E-05 | 2.37E-03 | 0. | 3.92E-05 | 2.42E-03 |
| SN-123M | 0. | 0. | 0. | 0. | 0. |
| P-18 | 0. | 0. | 0. | 0. | 0. |
| AT-104M | 6.00E-05 | 2.92E-05 | 0. | 0. | 3.92E-05 |
| XE-135M | 0. | 0. | 3.34E-04 | 0. | 3.34E-04 |
| SR-91 | 8.03E-05 | 6.42E-05 | 4.58E-05 | 5.76E-05 | 2.02E-04 |
| NI-65 | 7.03E-05 | 3.64E-04 | 9.42E-05 | 2.36E-05 | 5.32E-04 |
| Y-86 | 0. | 0. | 0. | 0. | 0. |
| CU-102 | 0. | 0. | 3.50E-03 | 0. | 3.50E-03 |
| PR-144 | 0. | 0. | 2.80E-03 | 0. | 2.80E-03 |
| RU-106 | 0. | 0. | 5.08E-02 | 2.31E-03 | 5.31E-02 |
| CR-141 | 0. | 0. | 0. | 0. | 0. |
| RB-23 | 0. | 0. | 0. | 0. | 0. |
| SB-126 | 0. | 0. | 0. | 0. | 0. |

8. PERCENT OF TECHNICAL SPECIFICATION LIMIT (95% OF TOTAL ACTIVITY RELEASED)

| | | | | | |
|--|----------|---------|----------|----------|----------|
| | 9.21E+01 | 1.5E+01 | 1.44E+01 | 6.00E+01 | 4.94E+01 |
|--|----------|---------|----------|----------|----------|

ATTACHMENT 3

RADIOACTIVE EFFLUENT RELEASES
AIRBORNE RELEASES

II. AIRBORNE RELEASES

| | UNIT | JULY | AUGUST | NUMBER | SEP-ESTIMATE |
|---|---------|----------|----------|----------|--------------|
| 1. TOTAL NOBLE GASES | CURIES | 1.63E+01 | 1.42E+04 | 2.04E+03 | 1.99E+04 |
| 2. TOTAL HALOGENS | CURIES | 7.08E-03 | 2.44E-02 | 5.35E-03 | 1.68E-02 |
| 3. TOTAL PARTICULATE GROSS BETA-TAMIA | CURIES | 9.85E-04 | 1.14E-02 | 1.87E-02 | 1.11E-02 |
| 4. TOTAL TRITIUM | CURIES | 1.82E-01 | 2.31E+00 | 1.96E+00 | 4.45E+00 |
| 5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY | CURIES | 0. | 0. | 0. | 0. |
| 6. MAXIMUM NOBLE GAS RELEASE RATE | UCI/SEC | 1.60E+03 | 1.60E+03 | 1.60E+03 | 1.60E+03 |
| 7. PERCENT OF APPLICABLE LIMIT FOR: | | | | | |
| A. NOBLE GASES | % | 7.12E+00 | 2.78E+01 | 4.00E+00 | 3.90E+01 |
| B. HALOGENS | % | 1.86E+00 | 6.41E+00 | 1.41E+00 | 2.64E+00 |
| C. PARTICULATES | % | 8.95E-02 | 1.04E+00 | 1.70E+00 | 2.83E+00 |

d. ISOTOPES RELEASED

PARTICULATES

| | CURIES | | | | |
|-----------|----------|----------|----------|----------|--|
| CS-137 | 1.86E-06 | 5.09E-06 | 6.58E-06 | 1.35E-05 | |
| BA-LA-140 | 3.33E-05 | 5.13E-05 | 1.41E-05 | 2.25E-05 | |
| SR-90 | 1.31E-10 | 1.30E-09 | 1.51E-09 | 2.95E-09 | |
| CS-134 | 2.36E-06 | 4.50E-06 | 3.26E-06 | 1.02E-05 | |
| SR-89 | 2.99E-10 | 2.92E-09 | 3.40E-09 | 5.62E-09 | |
| CD-53 | 6.33E-05 | 1.26E-05 | 1.45E-05 | 9.04E-05 | |
| CS-136 | 2.41E-07 | 9.64E-07 | 2.15E-06 | 1.23E-06 | |
| CS-138 | 2.92E-06 | 6.47E-05 | 3.43E-05 | 1.02E-04 | |
| MN-54 | 3.95E-03 | 9.18E-07 | 5.82E-08 | 1.02E-06 | |
| MO-99 | 9.10E-09 | 9.81E-06 | 3.44E-05 | 4.43E-05 | |
| NR-95 | 8.26E-09 | 6.32E-07 | 1.95E-07 | 8.35E-07 | |
| CD-50 | 6.21E-06 | 1.40E-06 | 4.31E-06 | 5.77E-06 | |
| NA-24 | 2.36E-09 | 1.47E-03 | 5.39E-09 | 2.29E-03 | |
| AC-110M | 4.01E-06 | 1.86E-07 | 1.47E-03 | 4.21E-06 | |
| CR-51 | 1.51E-05 | 2.68E-05 | 3.71E-03 | 3.75E-03 | |
| SB-124 | 0. | 1.14E-03 | 0. | 1.14E-03 | |
| TC-99M | 7.30E-09 | 5.92E-03 | 2.84E-08 | 9.43E-03 | |
| AG-106M | 1.97E-08 | 5.09E-03 | 6.00E-07 | 6.71E-07 | |
| RB-88 | 9.38E-04 | 1.10E-02 | 1.30E-02 | 2.49E-02 | |
| NP-239 | 1.12E-05 | 7.50E-05 | 1.71E-03 | 1.73E-03 | |
| CD-115 | 5.24E-06 | 3.87E-06 | 3.12E-06 | 1.22E-05 | |
| CE-144 | 1.09E-05 | 1.78E-05 | 3.38E-05 | 6.25E-05 | |
| SR-91 | 2.23E-06 | 5.27E-06 | 3.39E-06 | 1.09E-05 | |
| Y-91M | 0. | 2.30E-09 | 0. | 2.30E-09 | |
| RU-103 | 2.11E-08 | 5.95E-07 | 8.46E-09 | 6.24E-07 | |
| MN-56 | 9.86E-09 | 5.66E-07 | 0. | 5.76E-07 | |
| BA-139 | 1.07E-07 | 5.87E-06 | 0. | 5.93E-06 | |
| SN-125M | 0. | 0. | 0. | 0. | |
| SR-92 | 9.99E-09 | 8.74E-06 | 5.54E-08 | 8.81E-06 | |
| CO-57 | 6.40E-09 | 3.90E-07 | 2.41E-08 | 4.20E-07 | |
| FE-59 | 2.37E-07 | 1.32E-06 | 1.10E-06 | 2.65E-06 | |
| ZR-95 | 2.77E-06 | 1.93E-06 | 4.66E-06 | 4.75E-06 | |
| NR-97 | 1.97E-08 | 7.90E-03 | 1.04E-06 | 1.14E-06 | |
| ZR-97 | 4.47E-09 | 2.58E-07 | 7.28E-09 | 2.70E-07 | |
| Y-92 | 8.73E-06 | 1.49E-05 | 0. | 2.36E-05 | |
| SB-125 | 6.92E-06 | 3.38E-06 | 4.13E-06 | 1.45E-05 | |
| ZN-65 | 1.13E-06 | 1.11E-06 | 1.50E-06 | 3.79E-06 | |
| NI-63 | 1.81E-06 | 5.15E-06 | 9.27E-06 | 1.62E-05 | |
| IN-115M | 1.47E-06 | 1.27E-06 | 0. | 2.75E-06 | |
| NA-22 | 2.18E-09 | 3.80E-08 | 5.52E-09 | 4.58E-03 | |
| NI-65 | 6.55E-07 | 3.04E-06 | 3.13E-06 | 6.83E-06 | |
| PR-144 | 0. | 1.13E-04 | 0. | 1.13E-04 | |
| CD-109 | 0. | 5.19E-05 | 0. | 5.19E-05 | |
| CE-141 | 0. | 3.40E-06 | 0. | 3.40E-06 | |
| RU-106 | 0. | 1.58E-05 | 5.64E-05 | 7.22E-05 | |

HALOGENS

| | | | | |
|-------|----------|----------|----------|----------|
| I-131 | 6.30E-03 | 2.22E-02 | 4.24E-03 | 3.27E-02 |
| I-133 | 7.28E-04 | 2.04E-03 | 2.66E-04 | 3.06E-03 |
| I-135 | 4.54E-05 | 1.12E-04 | 5.56E-05 | 2.13E-04 |
| I-132 | 2.49E-06 | 1.94E-05 | 7.92E-04 | 3.14E-04 |
| I-134 | 9.91E-03 | 7.76E-06 | 7.17E-07 | 8.59E-06 |
| F-18 | 2.42E-03 | 0. | 0. | 2.42E-03 |
| BR-84 | 0. | 1.54E-05 | 0. | 1.56E-05 |

GASES

| | | | | |
|---------|----------|----------|----------|----------|
| KR-85 | 1.67E+01 | 2.20E+01 | 5.12E+01 | 8.99E+01 |
| XE-133 | 3.54E+03 | 1.32E+04 | 1.87E+03 | 1.93E+04 |
| KR-84 | 2.95E-01 | 3.83E+00 | 2.43E+00 | 6.56E+00 |
| KR-87 | 1.46E-02 | 2.49E-01 | 1.04E-01 | 3.72E-01 |
| KR-85M | 6.69E-01 | 4.39E+00 | 4.70E+00 | 2.76E+00 |
| XE-135 | 2.03E-04 | 0. | 2.25E+00 | 7.29E+00 |
| XE-135M | 0. | 2.93E-03 | 0. | 7.93E-03 |
| XE-135 | 3.21E+01 | 1.50E+02 | 5.42E+01 | 2.39E+02 |
| AR-41 | 1.87E-02 | 3.44E-01 | 2.09E+00 | 2.46E+00 |
| XE-133M | 3.91E+01 | 1.34E+02 | 1.31E+01 | 1.77E+02 |
| XE-133M | 9.24E+00 | 1.05E+01 | 3.80E+01 | 5.08E+01 |
| XE-137 | 0. | 0. | 1.13E-01 | 1.15E-01 |

| 11. ALBUQUERQUE RIVER | UNIT | 1974 | 1975 | 1976 | SUB-TOTAL |
|--|---------|----------|----------|----------|-----------|
| 1. TOTAL NOBLE GASES | CURIES | 2.13E+01 | 3.94E+01 | 1.02E+03 | 7.21E+03 |
| 2. TOTAL HALOGENS | CURIES | 4.15E+01 | 8.55E+03 | 1.24E+02 | 2.52E+02 |
| 3. TOTAL PARTICULATE GROSS BETA-GAMMA | CURIES | 1.91E-03 | 3.52E-03 | 1.49E-03 | 5.90E-03 |
| 4. TOTAL TRITIUM | CURIES | 2.13E+01 | 2.23E+00 | 2.35E+01 | 4.75E+01 |
| 5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY | CURIES | 0. | 0. | 0. | 0. |
| 6. MAXIMUM NOBLE GAS RELEASE RATE | UCI/SEC | 1.60E+03 | 1.60E+03 | 1.60E+03 | 1.60E+03 |
| 7. PERCENT OF APPLICABLE LIMIT FOR: | | | | | |
| A. NOBLE GASES | % | 4.28E+00 | 7.72E+00 | 2.13E+00 | 1.41E+01 |
| B. HALOGENS | % | 1.09E+00 | 2.28E+00 | 3.27E+00 | 6.64E+00 |
| C. PARTICULATES | % | 1.55E-01 | 3.27E-01 | 1.35E-01 | 5.27E-01 |
| d. ISOTOPES RELEASED | CURIES | | | | |
| PARTICULATES | | | | | |
| CS-137 | | 1.32E-05 | 1.94E-05 | 5.95E-05 | 9.22E-05 |
| BA-LA-140 | | 2.20E-05 | 1.40E-05 | 6.56E-06 | 4.25E-05 |
| SR-90 | | 2.91E-09 | 2.56E-09 | 3.15E-09 | 3.67E-09 |
| CS-134 | | 3.63E-07 | 7.25E-06 | 2.02E-05 | 2.73E-05 |
| SR-90 | | 2.74E-08 | 2.43E-08 | 2.99E-08 | 3.15E-08 |
| CO-58 | | 2.57E-05 | 1.59E-05 | 2.45E-05 | 5.62E-05 |
| CS-135 | | 1.32E-06 | 2.74E-07 | 2.64E-07 | 1.85E-06 |
| CS-138 | | 1.64E-05 | 3.31E-05 | 3.15E-05 | 3.10E-05 |
| MN-54 | | 1.33E-08 | 1.08E-08 | 9.51E-06 | 9.54E-06 |
| MO-99 | | 4.17E-05 | 3.75E-05 | 6.97E-05 | 1.49E-04 |
| NB-95 | | 1.24E-09 | 2.10E-08 | 2.40E-08 | 4.62E-08 |
| CO-60 | | 9.04E-06 | 4.91E-06 | 1.14E-05 | 2.53E-05 |
| NA-24 | | 0. | 1.76E-08 | 1.14E-08 | 2.90E-08 |
| AG-110M | | 5.37E-08 | 1.18E-06 | 6.44E-07 | 1.89E-06 |
| CR-51 | | 5.58E-05 | 4.76E-05 | 1.44E-04 | 2.47E-04 |
| SB-124 | | 0. | 0. | 0. | 0. |
| IC-99M | | 9.79E-10 | 7.49E-09 | 1.28E-08 | 2.13E-08 |
| AG-103M | | 1.23E-06 | 9.28E-09 | 1.30E-08 | 1.26E-06 |
| RB-88 | | 1.45E-03 | 3.31E-03 | 8.05E-04 | 5.57E-03 |
| NP-239 | | 5.89E-06 | 3.72E-07 | 1.44E-07 | 5.40E-06 |
| CO-115 | | 7.31E-06 | 5.49E-07 | 1.11E-06 | 3.97E-06 |
| CE-144 | | 4.05E-05 | 3.47E-05 | 6.36E-05 | 1.39E-04 |
| SR-91 | | 1.14E-05 | 7.54E-06 | 1.80E-05 | 3.71E-05 |
| Y-91M | | 0. | 0. | 0. | 0. |
| RU-103 | | 0. | 4.51E-09 | 1.41E-07 | 1.45E-07 |
| MN-56 | | 9.73E-10 | 1.05E-08 | 1.81E-08 | 2.96E-08 |
| BA-139 | | 0. | 0. | 0. | 0. |
| SN-125M | | 0. | 0. | 0. | 0. |
| SR-92 | | 3.13E-06 | 1.05E-07 | 1.17E-07 | 3.35E-06 |
| CO-57 | | 8.40E-10 | 6.71E-09 | 1.25E-08 | 2.00E-08 |
| FE-59 | | 2.54E-06 | 1.09E-06 | 4.21E-08 | 2.59E-06 |
| ZR-95 | | 2.48E-06 | 2.21E-08 | 5.17E-08 | 2.55E-06 |
| NB-97 | | 1.23E-07 | 2.75E-08 | 1.56E-08 | 1.66E-07 |
| ZR-97 | | 5.36E-09 | 5.16E-09 | 1.42E-08 | 2.52E-08 |
| Y-92 | | 0. | 0. | 0. | 0. |
| SB-125 | | 6.30E-06 | 4.16E-08 | 2.05E-06 | 3.83E-06 |
| ZN-65 | | 1.72E-06 | 2.59E-08 | 4.92E-08 | 1.79E-06 |
| W-187 | | 1.39E-05 | 5.45E-06 | 5.30E-06 | 2.46E-05 |
| IN-115M | | 0. | 0. | 0. | 0. |
| NA-22 | | 0. | 1.16E-08 | 1.37E-08 | 2.53E-08 |
| NI-65 | | 1.37E-05 | 4.60E-06 | 6.64E-06 | 2.49E-05 |
| PR-144 | | 0. | 0. | 0. | 0. |
| CO-109 | | 0. | 0. | 0. | 0. |
| CE-141 | | 0. | 0. | 0. | 0. |
| RU-106 | | 6.40E-05 | 4.70E-05 | 2.10E-04 | 3.21E-04 |
| HALOGENS | | | | | |
| I-131 | | 3.78E-03 | 7.75E-03 | 9.12E-03 | 2.07E-02 |
| I-133 | | 2.41E-04 | 6.94E-04 | 2.05E-03 | 2.92E-03 |
| I-135 | | 8.44E-05 | 1.71E-04 | 1.02E-03 | 1.20E-03 |
| I-132 | | 4.52E-05 | 1.11E-04 | 1.53E-04 | 3.02E-04 |
| I-134 | | 2.17E-08 | 2.05E-07 | 9.45E-05 | 9.45E-05 |
| F-18 | | 0. | 0. | 0. | 0. |
| BR-84 | | 0. | 0. | 0. | 0. |
| GASES | | | | | |
| KR-85 | | 1.01E+02 | 3.20E+01 | 1.63E+00 | 1.35E+02 |
| XE-133 | | 1.94E+03 | 3.92E+03 | 1.04E+03 | 5.82E+03 |
| KR-88 | | 1.58E+00 | 1.02E+00 | 5.51E+00 | 8.15E+01 |
| KR-87 | | 8.74E-03 | 3.02E-01 | 4.90E-02 | 3.60E-01 |
| KR-85M | | 8.20E+00 | 2.36E+00 | 3.26E-01 | 1.14E+01 |
| XE-135 | | 0. | 0. | 2.65E-02 | 2.65E-02 |
| XE-135M | | 0. | 2.94E-02 | 1.86E-01 | 2.25E-01 |
| XE-136 | | 7.59E+01 | 4.06E+01 | 2.29E+01 | 1.40E+02 |
| AR-41 | | 0. | 2.01E-01 | 1.39E-01 | 3.42E-01 |
| XE-137M | | 1.44E+01 | 2.24E+01 | 6.34E+00 | 4.33E+01 |
| XE-131M | | 2.31E+00 | 3.37E+01 | 7.26E+00 | 4.87E+01 |
| XE-137 | | 0. | 0. | 1.93E-02 | 1.93E-02 |

11. AIRBORNE RELEASE

2001 JANUARY RELEASE RELEASES

YEAR 1978

| | UNITY | QUANTITY | QUANTITY | SUB-TOTAL |
|--|---------|----------|----------|-----------|
| 1. TOTAL NOBLE GASES | CURIES | 1.72E+04 | 7.21E+03 | 2.71E+04 |
| 2. TOTAL HALOGENS | CURIES | 3.40E+02 | 2.52E+02 | 6.20E+02 |
| 3. TOTAL PARTICULATE GROSS BETA-GAMMA | CURIES | 3.11E+02 | 6.90E+02 | 3.80E+02 |
| 4. TOTAL TRITIUM | CURIES | 4.45E+00 | 4.75E+01 | 5.20E+01 |
| 5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY | CURIES | 0. | 0. | 0. |
| 6. MAXIMUM NOBLE GAS RELEASE RATE | UCI/SEC | 1.60E+03 | 1.60E+03 | 1.60E+03 |
| 7. PERCENT OF APPLICABLE LIMIT FOR: | | | | |
| A. NOBLE GASES | % | 3.93E+01 | 1.41E+01 | 5.31E+01 |
| B. HALOGENS | % | 9.63E+03 | 6.64E+00 | 1.63E+01 |
| C. PARTICULATES | % | 2.83E+00 | 6.27E+01 | 3.45E+00 |
| 8. ISOTOPES RELEASED | CURIES | | | |
| PARTICULATES | | | | |
| CS-137 | | 1.35E-05 | 9.22E-05 | 1.06E-04 |
| SA-LA-140 | | 2.25E-05 | 4.26E-05 | 6.51E-05 |
| SR-90 | | 2.95E-09 | 8.47E-09 | 1.16E-08 |
| CS-134 | | 1.02E-05 | 2.78E-05 | 3.80E-05 |
| SR-39 | | 6.62E-09 | 8.16E-08 | 8.82E-08 |
| CO-58 | | 9.04E-05 | 6.52E-05 | 1.57E-04 |
| CS-136 | | 1.23E-04 | 1.36E-04 | 3.09E-04 |
| CS-138 | | 1.02E-04 | 6.10E-05 | 1.83E-04 |
| MY-54 | | 1.02E-05 | 9.54E-06 | 1.06E-05 |
| MO-99 | | 4.43E-05 | 1.49E-04 | 1.93E-04 |
| NB-95 | | 8.35E-07 | 4.52E-08 | 8.82E-07 |
| CO-60 | | 5.77E-05 | 2.53E-05 | 3.11E-05 |
| NA-24 | | 2.29E-08 | 2.90E-08 | 5.19E-08 |
| AG-110M | | 4.21E-04 | 1.38E-06 | 6.03E-06 |
| CR-51 | | 3.75E-03 | 2.47E-04 | 4.00E-03 |
| SB-124 | | 1.14E-08 | 0. | 1.14E-08 |
| TC-99M | | 9.48E-03 | 2.13E-08 | 1.16E-07 |
| AG-103M | | 6.71E-07 | 1.26E-06 | 1.93E-06 |
| R3-88 | | 2.49E-02 | 5.57E-03 | 3.05E-02 |
| NP-239 | | 1.73E-03 | 6.40E-04 | 1.73E-03 |
| CU-115 | | 1.22E-05 | 6.97E-06 | 2.12E-05 |
| CE-144 | | 6.25E-05 | 1.39E-04 | 2.01E-04 |
| SR-91 | | 1.02E-05 | 3.71E-05 | 4.80E-05 |
| Y-91M | | 2.30E-09 | 0. | 2.30E-09 |
| RJ-103 | | 6.24E-07 | 1.45E-07 | 7.70E-07 |
| MY-55 | | 5.76E-07 | 2.95E-08 | 6.05E-07 |
| SA-139 | | 5.93E-05 | 0. | 5.93E-05 |
| SA-125M | | 0. | 0. | 0. |
| SR-92 | | 8.81E-06 | 3.36E-06 | 1.22E-05 |
| CU-57 | | 4.20E-07 | 2.00E-08 | 4.40E-07 |
| FE-59 | | 2.65E-06 | 2.59E-06 | 5.24E-06 |
| ZR-95 | | 4.75E-04 | 2.56E-04 | 7.31E-04 |
| NB-97 | | 1.14E-06 | 1.66E-07 | 1.30E-06 |
| ZR-97 | | 2.70E-07 | 2.52E-08 | 2.95E-07 |
| Y-92 | | 2.36E-05 | 0. | 2.36E-05 |
| SB-125 | | 1.45E-05 | 8.38E-06 | 2.34E-05 |
| ZR-95 | | 3.72E-06 | 1.79E-06 | 5.50E-06 |
| 4-137 | | 1.42E-05 | 2.46E-05 | 4.08E-05 |
| IN-115M | | 2.75E-06 | 0. | 2.75E-06 |
| NA-22 | | 4.53E-04 | 2.53E-08 | 7.11E-03 |
| NI-65 | | 6.83E-06 | 2.49E-05 | 3.17E-05 |
| PR-144 | | 1.13E-04 | 0. | 1.13E-04 |
| CO-109 | | 5.19E-05 | 0. | 5.19E-05 |
| CE-141 | | 3.40E-06 | 0. | 3.40E-06 |
| RJ-106 | | 7.22E-05 | 3.21E-04 | 3.93E-04 |
| HALOGENS | | | | |
| I-131 | | 3.27E-02 | 2.07E-02 | 5.33E-02 |
| I-133 | | 3.06E-03 | 2.99E-03 | 6.04E-03 |
| I-135 | | 2.13E-04 | 1.20E-03 | 1.42E-03 |
| I-132 | | 8.14E-04 | 3.09E-04 | 1.12E-03 |
| I-134 | | 8.54E-04 | 9.48E-05 | 1.01E-04 |
| F-19 | | 2.42E-03 | 0. | 2.42E-03 |
| BR-84 | | 1.56E-05 | 0. | 1.56E-05 |
| GASES | | | | |
| KR-85 | | 8.22E+01 | 1.35E+02 | 2.24E+02 |
| XE-133 | | 1.23E+04 | 6.82E+03 | 2.61E+04 |
| KR-88 | | 6.55E+00 | 8.15E+00 | 1.47E+01 |
| KR-87 | | 3.72E+01 | 3.50E+01 | 7.32E+01 |
| KR-85M | | 9.75E+00 | 1.14E+01 | 2.12E+01 |
| XE-134 | | 2.20E+00 | 2.46E+00 | 2.28E+00 |
| XE-132 | | 9.23E+03 | 2.26E+01 | 2.35E+01 |
| AR-41 | | 2.34E+00 | 1.40E+02 | 3.76E+02 |
| AR-41 | | 2.34E+00 | 3.42E+01 | 2.78E+01 |
| XE-133M | | 1.77E+02 | 4.79E+01 | 2.70E+02 |
| XE-131M | | 5.51E+01 | 4.11E+01 | 1.26E+02 |
| XE-137 | | 1.17E+01 | 1.87E+00 | 1.34E+01 |

11. AIRBORNE RELEASES

RAI 11/11/77 RELEASE RELEASE

YEAR 1977

| | UNIT | 1st QUARTER | 2nd QUARTER | 3rd QUARTER | 4th QUARTER | TOTAL |
|--|---------|----------------|----------------|----------------|----------------|----------|
| 1. TOTAL NOBLE GASES | CURIES | 3.08E+03 | 1.31E+04 | 1.99E+04 | 7.21E+03 | 4.32E+04 |
| 2. TOTAL HALOGENS | CURIES | 3.09E-02 | 7.31E-02 | 3.48E-02 | 2.52E-02 | 1.71E-01 |
| 3. TOTAL PARTICULATE GROSS BETA-GAMMA | CURIES | 3.82E-3 | 8.30E-13 | 3.11E-02 | 6.90E-03 | 5.07E-02 |
| 4. TOTAL TRITIUM | CURIES | 4.19E-01 | 1.55E+01 | 4.45E+00 | 4.75E+01 | 6.79E+01 |
| 5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY | CURIES | 0. | 0. | 0. | 0. | 0. |
| 6. MAXIMUM NOBLE GAS RELEASE RATE | UCI/SEC | 1.60E+03 | 1.60E+03 | 1.60E+03 | 1.60E+03 | 1.60E+03 |
| 7. PERCENT OF APPLICABLE LIMIT FOR: | | | | | | |
| A. NOBLE GASES | % | 6.03E+00 | 2.56E+01 | 3.90E+01 | 1.41E+01 | 8.43E+01 |
| B. HALOGENS | % | 9.12E+00 | 2.05E+01 | 9.68E+00 | 6.64E+00 | 4.50E+01 |
| C. PARTICULATES | % | 3.47E-01 | 8.77E-01 | 2.93E+00 | 6.27E-01 | 4.61E+00 |
| 8. ISOTOPES RELEASED | CURIES | | | | | |
| PARTICULATES | | | | | | |
| CS-137 | | 9.24E-06 | 1.22E-04 | 1.35E-05 | 9.22E-05 | 2.37E-04 |
| BA-LA-140 | | 1.22E-07 | 5.30E-05 | 2.25E-05 | 4.26E-05 | 1.15E-04 |
| SR-90 | | 2.01E-07 | 6.50E-07 | 2.95E-09 | 8.67E-09 | 8.63E-07 |
| CS-134 | | 2.14E-05 | 4.32E-05 | 1.02E-05 | 2.78E-05 | 1.03E-04 |
| SR-89 | | 9.45E-07 | 8.78E-06 | 6.62E-09 | 8.16E-03 | 9.81E-06 |
| CJ-53 | | 7.14E-06 | 1.19E-04 | 9.04E-05 | 6.62E-05 | 2.53E-04 |
| CS-136 | | 1.56E-06 | 6.34E-06 | 1.23E-06 | 1.56E-06 | 1.10E-05 |
| CS-138 | | 3.73E-05 | 6.39E-05 | 1.02E-04 | 3.10E-05 | 2.69E-04 |
| MN-54 | | 3.60E-07 | 4.67E-07 | 1.02E-05 | 9.54E-05 | 1.14E-05 |
| MO-99 | | 0. | 2.91E-07 | 4.43E-05 | 1.49E-04 | 1.93E-04 |
| NB-95 | | 6.60E-09 | 1.29E-07 | 5.35E-07 | 4.62E-03 | 1.02E-05 |
| CO-60 | | 2.57E-05 | 1.35E-05 | 5.77E-06 | 2.53E-05 | 7.04E-05 |
| NA-24 | | 0. | 8.60E-06 | 2.29E-08 | 2.97E-03 | 3.55E-06 |
| AG-110M | | 1.62E-06 | 9.66E-05 | 4.21E-06 | 1.88E-05 | 1.04E-04 |
| CR-51 | | 2.85E-07 | 3.26E-04 | 3.75E-03 | 2.47E-04 | 4.32E-03 |
| SB-124 | | 0. | 0. | 1.14E-08 | 0. | 1.14E-08 |
| TC-99A | | 3.83E-08 | 2.77E-06 | 9.43E-08 | 2.13E-03 | 2.92E-06 |
| AG-103M | | 0. | 1.89E-06 | 6.71E-07 | 1.26E-05 | 3.31E-06 |
| RB-88 | | 3.70E-03 | 3.93E-03 | 2.49E-02 | 5.57E-03 | 3.31E-02 |
| HP-239 | | 0. | 2.15E-04 | 1.73E-03 | 6.40E-06 | 1.95E-03 |
| CO-115 | | 8.90E-06 | 1.05E-04 | 1.22E-05 | 8.97E-06 | 1.35E-04 |
| CE-144 | | 0. | 2.21E-04 | 6.25E-05 | 1.39E-04 | 4.22E-04 |
| SR-91 | | 0. | 7.16E-05 | 1.09E-05 | 3.71E-05 | 1.20E-04 |
| Y-91M | | 0. | 0. | 2.30E-09 | 0. | 2.30E-09 |
| RJ-103 | | 4.74E-03 | 1.34E-07 | 5.24E-07 | 1.45E-07 | 9.51E-07 |
| MN-56 | | 1.84E-08 | 1.23E-06 | 5.76E-07 | 2.96E-03 | 1.86E-06 |
| BA-137 | | 0. | 2.04E-05 | 5.93E-06 | 0. | 2.64E-05 |
| S4-125M | | 0. | 0. | 0. | 0. | 0. |
| S4-92 | | 0. | 1.34E-05 | 3.81E-06 | 3.36E-05 | 2.56E-05 |
| CO-57 | | 0. | 4.33E-07 | 4.20E-07 | 2.00E-08 | 8.73E-07 |
| FE-59 | | 0. | 9.63E-06 | 2.65E-06 | 2.59E-05 | 1.49E-05 |
| ZR-95 | | 0. | 3.33E-05 | 4.75E-05 | 2.56E-05 | 4.56E-05 |
| N3-97 | | 0. | 5.76E-07 | 1.14E-06 | 1.66E-07 | 2.30E-06 |
| ZR-97 | | 0. | 1.44E-07 | 2.70E-07 | 2.52E-03 | 4.39E-07 |
| Y-92 | | 0. | 3.16E-03 | 2.35E-05 | 0. | 3.16E-03 |
| SB-125 | | 0. | 8.73E-05 | 1.45E-05 | 3.88E-06 | 1.04E-04 |
| ZN-65 | | 0. | 2.27E-05 | 3.79E-06 | 1.79E-06 | 2.33E-05 |
| W-187 | | 0. | 4.79E-05 | 1.62E-05 | 2.45E-05 | 3.07E-05 |
| IN-115M | | 0. | 1.98E-05 | 2.75E-06 | 0. | 2.25E-05 |
| NA-22 | | 0. | 1.03E-07 | 4.58E-08 | 2.53E-03 | 1.74E-07 |
| NI-65 | | 0. | 5.38E-05 | 6.83E-05 | 2.49E-05 | 3.55E-05 |
| PR-144 | | 0. | 0. | 1.13E-04 | 0. | 1.13E-04 |
| CO-109 | | 0. | 0. | 5.19E-05 | 0. | 5.19E-05 |
| CE-141 | | 0. | 0. | 3.40E-06 | 0. | 3.40E-06 |
| RJ-106 | | 0. | 0. | 7.22E-05 | 3.21E-04 | 3.93E-04 |
| HALOGENS | | | | | | |
| I-131 | | 2.94E-02 | 6.37E-02 | 3.27E-02 | 2.07E-02 | 1.51E-01 |
| I-133 | | 1.03E-03 | 5.45E-03 | 3.06E-03 | 2.99E-03 | 1.25E-02 |
| I-135 | | 4.09E-05 | 1.34E-03 | 2.13E-04 | 1.29E-03 | 2.79E-03 |
| I-132 | | 9.23E-06 | 1.41E-04 | 8.14E-04 | 3.09E-04 | 1.27E-03 |
| I-134 | | 7.73E-07 | 1.62E-05 | 3.53E-06 | 9.43E-05 | 1.20E-04 |
| F-18 | | 3.61E-04 | 2.55E-03 | 2.42E-08 | 0. | 3.01E-03 |
| BR-84 | | 0. | 0. | 1.55E-05 | 0. | 1.55E-05 |
| GASES | | | | | | |
| KR-85 | | 3.29E+02 | 1.51E+02 | 3.29E+01 | 1.35E+02 | 7.04E+02 |
| XE-133 | | 2.35E+03 | 1.25E+04 | 1.93E+04 | 6.82E+03 | 4.10E+04 |
| KR-83 | | 8.34E+00 | 7.74E+00 | 6.56E+00 | 8.15E+00 | 3.08E+01 |
| KR-87 | | 0. | 8.19E-01 | 3.72E-01 | 3.60E-01 | 1.55E+00 |
| KR-85M | | 0. | 6.59E+00 | 9.75E+00 | 1.14E+01 | 2.78E+01 |
| XE-134 | | 0. | 6.29E-01 | 2.25E+00 | 2.65E-02 | 2.91E+00 |
| XE-135M | | 0. | 3.30E-01 | 9.93E-01 | 2.25E-01 | 9.55E-01 |
| XE-136 | | 1.96E+02 | 1.43E+02 | 2.35E+02 | 1.40E+02 | 7.07E+02 |
| AR-41 | | 3.33E+01 | 2.53E+01 | 2.44E+00 | 1.43E-01 | 6.24E+01 |
| ZE-137M | | 5.14E+00 | 1.08E+02 | 1.77E+02 | 4.33E+01 | 3.44E+02 |
| XE-131M | | 1.53E+02 | 7.31E+01 | 5.69E+01 | 4.83E-01 | 3.11E+02 |
| XE-137 | | 0. | 1.51E-01 | 1.13E-01 | 1.33E-01 | 2.95E-01 |