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SVP-01-046

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

Quad Cities Nuclear Power Station, Units 1 and 2  
Facility Operating License Nos. DPR-29 and DPR-30  
NRC Docket Nos. 50-254 and 50-265

Subject: Correction to Quad Cities Nuclear Power Station's Radioactive Effluent Report for January through December 2000

Reference: T. Tulon (Exelon) letter to USNRC dated March 30, 2001 "Quad Cities Nuclear Power Station's Radioactive Effluent Report for January through December 2000."

In accordance with the Quad Cities Technical Specifications Section 6.9.4 and 10 CFR 50.36a, the referenced letter transmitted to the NRC contained a minor error. While updating trending information station personnel identified that the liquid tritium curie values were erroneously transcribed and reported as gaseous curies released for the first two quarters of 2000. This oversight does not impact the dose values reported. This occurrence was entered into our corrective action program and the remainder of the report was re-verified and found to be acceptable. Attached is a corrected Attachment A of the referenced letter.

Should you have any questions concerning this letter, please contact Mr. W. J. Beck at (309) 654-2241, extension 3609.

Respectfully,



Timothy J. Tulon  
Site Vice President  
Quad Cities Nuclear Power Station

Attachment: Revised Effluent and Waste Disposal Semiannual Report Supplemental Information

cc: Regional Administrator – NRC Region III  
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station



**Attachment A**  
**Revised Effluent and Waste Disposal Semiannual Report Supplemental**  
**Information, Quad Cities Nuclear Power Station, January – June 2000**  
**SVP-01-046**

**ATTACHMENT A (Page 1 of 5)**

**EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT**

**GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES**

Period: January through June

2000

| A. FISSION & ACTIVATION GASES                | UNIT         | FIRST<br>QUARTER | SECOND<br>QUARTER | Est.Total<br>Error % |
|--|--------------|------------------|-------------------|----------------------|
| 1. Total Release                             | Ci           | 3.41E+01         | 4.47E+01          | 12.4                 |
| 2. Average release rate for the period       | $\mu$ Ci/sec | 4.34E00          | 5.69E00           |                      |
| 3. *Percent of ODCM limit Chimney &<br>Stack | %            | 1.26E-02         | 1.72E-02          |                      |
|  |              | 4.28E-04         | 8.17E-04          |                      |

|  |              |          |          |      |
|--|--------------|----------|----------|------|
| <b>B. IODINE</b>                       |              |          |          |      |
| 1. Total Iodine-131                    | Ci           | 1.49E-03 | 8.80E-04 | 40.0 |
| 2. Average release rate for the period | $\mu$ Ci/sec | 1.90E-04 | 1.12E-04 |      |

|   |              |          |          |      |
|---|--------------|----------|----------|------|
| <b>C. PARTICULATES</b>                  |              |          |          |      |
| 1. Particulates with half-lives >8 days | Ci           | 1.74E-03 | 9.98E-04 | 30.1 |
| 2. Average release rate for the period  | $\mu$ Ci/sec | 2.21E-04 | 1.27E-04 |      |
| 3. Gross alpha radioactivity            | Ci           | 7.58E-06 | 4.36E-06 |      |

|   |              |          |          |     |
|---|--------------|----------|----------|-----|
| <b>D. TRITIUM</b>   |              |          |          |     |
| 1. Total Release  | Ci           | 2.59E+01 | 2.38E+01 | 8.0 |
| 2. Average release rate for the period                    | $\mu$ Ci/sec | 3.29E00  | 3.03E00  |     |
| <b>E. Iodine 131 &amp; 133, Tritium &amp; Particulate</b> |              |          |          |     |
| 1. Percent of ODCM limit Chimney & Stack                  | %            | 9.71E-02 | 2.99E-01 |     |

\*NOBLE GAS GAMMA/NOBLE GAS BETA DOSE LIMITS

**ATTACHMENT A (Page 2 of 5)**  
**EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT**  
**MAIN CHIMNEY GASEOUS EFFLUENTS**  
**CONTINUOUS MODE**

**BATCH MODE**

| NUCLIDES RELEASED | UNIT | FIRST QUARTER | SECOND QUARTER | FIRST QUARTER | SECOND QUARTER |
|-------------------|------|---------------|----------------|---------------|----------------|
| 1. Fission gases  |      |               |                |               |                |
| Kr-85             | Ci   | 1.28E-01      | <LLD           | NA            | NA             |
| Kr-85m            | Ci   | 4.76E-01      | 6.20E-01       | NA            | NA             |
| Kr-87             | Ci   | 9.51E-01      | 1.41E00        | NA            | NA             |
| Kr-88             | Ci   | 5.27E-01      | 1.13E00        | NA            | NA             |
| Xe-133            | Ci   | 3.50E00       | 2.10E00        | NA            | NA             |
| Xe-135            | Ci   | 1.01E00       | 3.51E00        | NA            | NA             |
| Xe-135m           | Ci   | 5.69E00       | 7.71E00        | NA            | NA             |
| Xe-138            | Ci   | 2.11E+01      | 2.81E+01       | NA            | NA             |
| Ar-41             | Ci   | 1.12E-01      | 1.50E-01       | NA            | NA             |
| Xe-131m           | Ci   | 1.20E-01      | <LLD           | NA            | NA             |
| Xe-133m           | Ci   | 3.76E-03      | <LLD           | NA            | NA             |
| Total for Period  | Ci   | 3.36E+01      | 4.47E+01       | NA            | NA             |
| NUCLIDES RELEASED |      |               |                |               |                |
| 2. Iodines        | UNIT | FIRST QUARTER | SECOND QUARTER | FIRST QUARTER | SECOND QUARTER |
| I-131             | Ci   | 1.09E-03      | 8.68E-04       | NA            | NA             |
| I-133             | Ci   | 4.40E-03      | 2.79E-03       | NA            | NA             |
| I-135             | Ci   | 4.94E-03      | <LLD           | NA            | NA             |
| Total for period  | Ci   | 1.04E-02      | 3.66E-03       | NA            | NA             |
| NUCLIDES RELEASED |      |               |                |               |                |
| 3. Particulates   | UNIT | FIRST QUARTER | SECOND QUARTER | FIRST QUARTER | SECOND QUARTER |
| Sr-89             | Ci   | 8.31E-05      | 1.37E-04       | NA            | NA             |
| Sr-90             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Cs-134            | Ci   | <LLD          | <LLD           | NA            | NA             |
| Cs-137            | Ci   | 4.24E-05      | <LLD           | NA            | NA             |
| Ba-140            | Ci   | <LLD          | 1.44E-04       | NA            | NA             |
| La-140            | Ci   | <LLD          | <LLD           | NA            | NA             |
| Cr-51             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Mn-54             | Ci   | <LLD          | 3.55E-05       | NA            | NA             |
| Co-58             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Co-60             | Ci   | 3.34E-04      | 2.60E-04       | NA            | NA             |
| Mo-99             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Ag-110m           | Ci   | <LLD          | <LLD           | NA            | NA             |
| Total for Period  | Ci   | 4.60E-04      | 5.77E-04       | NA            | NA             |

**ATTACHMENT A (Page 3 of 5)**

**EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT**

REACTOR VENTILATION GASEOUS EFFLUENTS

CONTINUOUS MODE

BATCH MODE

| NUCLIDES RELEASED | UNIT | FIRST QUARTER | SECOND QUARTER | FIRST QUARTER | SECOND QUARTER |
|-------------------|------|---------------|----------------|---------------|----------------|
| 1. Fission gases  |      |               |                |               |                |
| Kr-85             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Kr-85m            | Ci   | <LLD          | <LLD           | NA            | NA             |
| Kr-87             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Kr-88             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Xe-133            | Ci   | 4.51E-01      | <LLD           | NA            | NA             |
| Xe-135            | Ci   | <LLD          | <LLD           | NA            | NA             |
| Xe-135m           | Ci   | <LLD          | <LLD           | NA            | NA             |
| Xe-138            | Ci   | <LLD          | <LLD           | NA            | NA             |
| AR-41             |      | <LLD          | <LLD           | NA            | NA             |
| Total for Period  | Ci   | 4.51E-01      | <LLD           | NA            | NA             |
| NUCLIDES RELEASED |      |               |                |               |                |
| 2. Iodines        | UNIT | FIRST QUARTER | SECOND QUARTER | FIRST QUARTER | SECOND QUARTER |
| I-131             | Ci   | 4.02E-04      | 1.18E-05       | NA            | NA             |
| I-133             | Ci   | <LLD          | <LLD           | NA            | NA             |
| I-135             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Total for period  | Ci   | 4.02E-04      | 1.18E-05       | NA            | NA             |
| NUCLIDES RELEASED |      |               |                |               |                |
| 3. Particulates   | UNIT | FIRST QUARTER | SECOND QUARTER | FIRST QUARTER | SECOND QUARTER |
| Sr-89             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Sr-90             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Cs-134            | Ci   | <LLD          | <LLD           | NA            | NA             |
| Cs-137            | Ci   | 1.31E-05      | <LLD           | NA            | NA             |
| Ba-140            | Ci   | <LLD          | <LLD           | NA            | NA             |
| La-140            | Ci   | <LLD          | <LLD           | NA            | NA             |
| Cr-51             | Ci   | 2.18E-04      | <LLD           | NA            | NA             |
| Mn-54             | Ci   | 1.11E-04      | 2.89E-05       | NA            | NA             |
| Co-58             | Ci   | 8.99E-06      | <LLD           | NA            | NA             |
| Fe-59             | Ci   | 8.92E-06      | <LLD           | NA            | NA             |
| Co-60             | Ci   | 9.22E-04      | 3.92E-04       | NA            | NA             |
| Mo-99             | Ci   | <LLD          | <LLD           | NA            | NA             |
| Ag-110m           | Ci   | <LLD          | <LLD           | NA            | NA             |
| Total for Period  | Ci   | 1.28E-03      | 4.21E-04       | NA            | NA             |

ATTACHMENT A (Page 4 of 5)

**EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT**  
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

| A. FISSION & ACTIVATION GASES   | UNIT        | FIRST QUARTER        | SECOND QUARTER       | Est.Total Error % |
|---|-------------|----------------------|----------------------|-------------------|
| 1. Total Release (not including tritium, gases & alpha)                 | Ci          | 1.54E-03             | 2.29E-03             | 5.6               |
| 2. Average diluted concentration during batch discharges for the period | μCi/mL      | 2.05E-10             | 1.89E-10             |                   |
| 3. Percent of applicable limit*   | WB %<br>O % | 1.51E-03<br>6.38E-04 | 2.47E-03<br>1.06E-03 |                   |
| 4. Maximum diluted concentration during batch discharges                | μCi/mL      | 5.34E-10             | 1.53E-10             |                   |
| B. TRITIUM  |             |                      |                      |                   |
| 1. Total Release  | Ci          | 6.10E00              | 6.99E00              | 4.0               |
| 2. Average diluted concentration during batch discharges for the period | μCi/mL      | 8.11E-07             | 5.78E-07             |                   |
| 3. Percent of applicable limit  | %           | 2.70E-02             | 1.93E-02             |                   |
| C. DISSOLVED & ENTRAINED GASES  |             |                      |                      |                   |
| 1. Total Release  | Ci          | 1.49E-04             | 6.38E-05             | 5.6               |
| 2. Average diluted concentration during batch discharges for the period | μCi/mL      | 1.98E-11             | 5.27E-12             |                   |
| 3. Percent of applicable limit  | %           | 9.91E-06             | 2.64E-06             |                   |
| D. GROSS ALPHA ACTIVITY   |             |                      |                      |                   |
| 1. Total Release  | Ci          | <LLD                 | <LLD                 | 14.8              |
| 2. Average diluted concentration during batch discharges for the period | μCi/mL      | <LLD                 | <LLD                 |                   |
| E. VOLUME OF WASTE RELEASED (prior to dilution)                         | Liters      | 1.68E+06             | 1.30E+06             |                   |
| F. VOLUME OF DILUTION WATER USED DURING BATCH DISCHARGES                | Liters      | 7.52E+09             | 1.21E+10             |                   |
| G. TOTAL VOLUME OF DILUTION WATER USED DURING PERIOD (quarter)          | Liters      | 2.78E+11             | 4.24E+11             |                   |

\*Whole Body/Organ (ODCM)

ATTACHMENT A (Page 5 of 5)

EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT

LIQUID EFFLUENTS

CONTINUOUS MODE

BATCH MODE

| NUCLIDES RELEASED           | UNIT | FIRST<br>QUARTER | SECOND<br>QUARTER | FIRST<br>QUARTER | SECOND<br>QUARTER |
|-----------------------------|------|------------------|-------------------|------------------|-------------------|
| Sr-89                       | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Sr-90                       | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Cs-134                      | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Cs-137                      | Ci   | <LLD             | <LLD              | 2.13E-04         | 4.53E-04          |
| I-131                       | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Co-60                       | Ci   | <LLD             | <LLD              | 1.03E-03         | 6.54E-04          |
| Co-58                       | Ci   | <LLD             | <LLD              | 9.59E-05         | <LLD              |
| Fe-59                       | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Zn-65                       | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Mn-54                       | Ci   | <LLD             | <LLD              | 2.02E-04         | 5.35E-05          |
| Cr-51                       | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Zr-95                       | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Nb-95                       | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Mo-99                       | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Ag-110m                     | Ci   | <LLD             | <LLD              | <LLD             | 4.94E-05          |
| Ba-140                      | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| La-140                      | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |
| Fe-55                       | Ci   | <LLD             | <LLD              | <LLD             | 1.07E-03          |
| Sb-124                      | Ci   | <LLD             | <LLD              | <LLD             | 1.16E-05          |
|                             |      |                  |                   |                  |                   |
|                             |      |                  |                   |                  |                   |
| Total for Period<br>(above) | Ci   | <LLD             | <LLD              | 1.54E-03         | 2.29E-03          |
| Xe-133                      | Ci   | <LLD             | <LLD              | 1.49E-04         | 6.38E-05          |
| Xe-135                      | Ci   | <LLD             | <LLD              | <LLD             | <LLD              |

Prepared by:

Date:

Approved by:

Date: