Commonwealth Edison Company
LaSalle Generating Station
2601 North 21st Road
Marseilles, IL 61341-9757
Tel 815-357-6761

D00

ComEd

February 15, 1995

U.S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Attn: Chief Reactor Support Programs Branch

Dear Sir:

Enclosed is the Semi-annual Radioactive Effluent Report for July through December, 1994 for LaSalle County Nuclear Station, Docket Numbers 50-373 and 50-374.

Two copies of the report are provided for your use. Two copies will be forwarded to the Document Control Desk and one copy to the Senior Resident Inspector.

Sincerely,

D.J. Ray
Station Manager
LaSalle County Station

DJR/TG/mkl

Attachment

cc: Document Control Desk, U.S. NRC (2)
Illinois Department of Nuclear Safety
American Nuclear Insurers
INPO
U.S. EPA
Murray and Trettel, Inc.
Teledyne Isotopes Midwest Laboratory
Chemistry Support (Downers Grove)
NRC Senior Resident Inspector (LaSalle)
Site Quality Verification (LaSalle)
Central File
Illini State Park
EP File: EPG-01-R09

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FEB 22 1995

LASALLE COUNTY NUCLEAR POWER STATION
UNITS ONE AND TWO
DOCKET NUMBERS 50-373 AND 50-374

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

| | | | Third Quarter | Fourth Quarter | Estimated Total Error % |
|---|---|---|---|---|---|
| A. | Fission and Activation Gases | | | | |
| 1. | Total release | Ci | 3.68E-03 | 3.69E-03 | 36 |
| 2. | Average release rate for period | uCi/sec | 4.68E-04 | 4.69E-04 | |
| B. | Iodines | | | | |
| 1. | Total iodine-131 | Ci | 8.44E-04 | 2.52E-04 | 35 |
| 2. | Average release rate for period | uCi/sec | 1.07E-04 | 3.21E-05 | |
| C. | Particulates | | | | |
| 1. | Particulates with T1/2 >8 days | Ci | 2.62E-03 | 1.99E-05 | |
| 2. | Average release rate for period | uCi/sec | 3.33E-04 | 2.50E-06 | 29 |
| 3. | Gross alpha radioactivity (estimate) | Ci | <1.00E-11 | <1.00E-11 | |
| D. | Tritium | | | | |
| 1. | Total release | Ci | 3.31E+01 | 3.87E+01 | 19 |
| 2. | Average release rate for period | uCi/sec | 4.21E+00 | 4.92E+00 | |

"<" indicates activity of sample is less than LLD given in uci/ml

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

GASEOUS EFFLUENTS-ELEVATED RELEASE
Unit 1 and Unit 2 Continuous Mode

| Nuclides Released | | July | August | September | Third Quarter |
|---|---|---|---|---|---|
| 1. Fission Gases | | | | | |
| Ar-41 | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Kr-85 | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Kr-85m | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Kr-87 | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Kr-88 | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Xe-133 | Ci | 4.13E-04 | <1.00E-06 | 2.55E-03 | 2.96E-03 |
| Xe-133m | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Xe-135 | Ci | 1.00E-04 | <1.00E-06 | 7.15E-04 | 7.15E-04 |
| Xe-135m | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Xe-138 | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Total for period | Ci | 4.13E-04 | <1.00E-06 | 3.27E-03 | 3.68E-03 |
| 2. Iodines | | | | | |
| I-131 | Ci | <1.00E-11 | 3.00E-05 | <1.00E-11 | 3.00E-05 |
| I-132 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| I-133 | Ci | 6.83E-05 | 3.96E-04 | 3.50E-04 | 8.14E-04 |
| I-134 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| I-135 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Total for period | Ci | 6.83E-05 | 4.26E-04 | 3.50E-04 | 8.44E-04 |
| 3. Particulates | | | | | |
| Cr-51 | Ci | <1.00E-11 | 3.88E-04 | <1.00E-11 | 3.88E-04 |
| Mn-54 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Co-58 | Ci | <1.00E-11 | 3.69E-05 | <1.00E-11 | 3.69E-05 |
| Fe-59 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Co-60 | Ci | 1.52E-03 | 4.35E-04 | <1.00E-11 | 1.96E-03 |
| Zn-65 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Sr-89 (Estimate) | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Sr-90 (Estimate) | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Nb-95 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Mo-99 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Cs-134 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Cs-137 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Ba-140 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| La-140 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Ce-141 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Ce-144 | Ci | <1.00E-11 | 7.82E-05 | 1.62E-04 | 2.40E-04 |
| Total for period | Ci | 1.52E-03 | 9.38E-04 | 1.62E-04 | 2.62E-03 |

"<" indicates activity of sample is less than LLD given uci/ml

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

GASEOUS EFFLUENTS-ELEVATED RELEASE
Unit 1 and Unit 2 Continuous Mode

| Nuclides Released | | October | November | December | Fourth Quarter |
|---|---|---|---|---|---|
| 1. Fission Gases | | | | | |
| Ar-41 | Ci | 2.54E-05 | <1.00E-06 | <1.00E-06 | 2.54E-05 |
| Kr-85 | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Kr-85m | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Kr-87 | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Kr-88 | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Xe-133 | Ci | 1.16E-08 | <1.00E-06 | 3.36E-03 | 3.36E-03 |
| Xe-133m | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Xe-135 | Ci | 8.97E-07 | <1.00E-06 | 3.00E-04 | 3.01E-04 |
| Xe-135m | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Xe-138 | Ci | <1.00E-06 | <1.00E-06 | <1.00E-06 | <1.00E-06 |
| Total for period | Ci | 2.63E-05 | <1.00E-06 | 3.66E-03 | 3.69E-03 |
| 2. Iodines | | | | | |
| I-131 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| I-132 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| I-133 | Ci | <1.00E-11 | 2.52E-04 | <1.00E-11 | 2.52E-04 |
| I-134 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| I-135 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Total for period | Ci | <1.00E-11 | 2.52E-04 | <1.00E-11 | 2.52E-04 |
| 3. Particulates | | | | | |
| Cr-51 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Mn-54 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Co-58 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Fe-59 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Co-60 | Ci | <1.00E-11 | 1.99E-05 | <1.00E-11 | 1.99E-05 |
| Zn-65 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Sr-89 (Estimate) | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Sr-90 (Estimate) | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Nb-95 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Mo-99 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Cs-134 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Cs-137 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Ba-140 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| La-140 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Ce-141 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Ce-144 | Ci | <1.00E-11 | <1.00E-11 | <1.00E-11 | <1.00E-11 |
| Total for period | Ci | <1.00E-11 | 1.99E-05 | <1.00E-11 | 1.99E-05 |

"<" indicates activity of sample is less than LLD given uci/ml

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994

UNIT ONE

LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

| | | | Third Quarter | Fourth Quarter | ESTIMATED TOTAL ERROR% |
|---|---|---|---|---|---|
| A. | Fission and Activation Products | | | | |
| 1. | Total release (not including tritium, gases, alpha) | Ci | 0.00E+00 | 4.37E-03 | 9% |
| 2. | Average concentration released | uCi/ml | N/A | 6.99E-05 | |
| 3. | Maximum concentration released | uCi/ml | N/A | 6.99E-05 | |
| B. | Tritium | | | | |
| 1. | Total release | Ci | 0.00E+00 | 1.45E-01 | 8% |
| 2. | Average concentration released | uCi/ml | N/A | 4.34E-03 | |
| C. | Dissolved Noble Gases | | | | |
| 1. | Total release | Ci | 0.00E+00 | 0.00E+00 | 7% |
| 2. | Average concentration released | uCi/ml | N/A | N/A | |
| D. | Gross Alpha Radioactivity | | | | |
| 1. | Total release | Ci | 0.00E+00 | 2.31E-07 | N/A |
| 2. | Average concentration released | uCi/ml | N/A | <3.69E-09 | |
| E. | Volume of Waste Released (prior to dilution) | liters | 0.00E+00 | 6.26E+04 | |
| F. | Volume of Dilution Water | liters | 0.00E+00 | 5.93E+07 | |

"<" indicates activity of sample is less than LLD given in uCi/ml

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

UNIT ONE BATCH MODE

LIQUID EFFLUENTS

| Nuclides Released | | July | August | September | Third Quarter |
|---|---|---|---|---|---|
| Cr-51 | Ci | | | | |
| Mn-54 | Ci | No | No | No | No |
| Fe-55 | Ci | Releases | Releases | Releases | Releases |
| Co-58 | Ci | | | | |
| Fe-59 | Ci | | | | |
| Co-60 | Ci | | | | |
| Zn-65 | Ci | | | | |
| Sr-8 | Ci | | | | |
| Sr-90 | Ci | | | | |
| Nb-95 | Ci | | | | |
| Zr-95 | Ci | | | | |
| Mo-99 | Ci | | | | |
| Tc-99m | Ci | | | | |
| I-131 | Ci | | | | |
| Cs-134 | Ci | | | | |
| Cs-137 | Ci | | | | |
| Ba-140 | Ci | | | | |
| La-140 | Ci | | | | |
| Ce-141 | Ci | | | | |
| Ce-144 | Ci | | | | |
| Total for period | Ci | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Xe-131m | Ci | | | | |
| Xe-133m | Ci | | | | |
| Xe-133 | Ci | | | | |
| Xe-135m | Ci | | | | |
| Xe-135 | Ci | | | | |

"<" indicates activity of sample is less than LLD given in uCi/ml

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

UNIT ONE BATCH MODE

LIQUID EFFLUENTS

| Nuclides Released | | October | November | December | Fourth Quarter |
|---|---|---|---|---|---|
| Cr-51 | Ci | <5.00E-07 | No | No | <5.00E-07 |
| Mn-54 | Ci | 1.83E-04 | Releases | Releases | 1.83E-04 |
| Fe-55 | Ci | 2.03E-03 | | | 2.03E-03 |
| Fe-59 | Ci | <5.00E-07 | | | <5.00E-07 |
| Co-60 | Ci | 2.15E-03 | | | 2.15E-03 |
| Zn-65 | Ci | <5.00E-07 | | | <5.00E-07 |
| Sr-89 | Ci | 8.20E-08 | | | 8.20E-08 |
| Sr-90 | Ci | 4.82E-08 | | | 4.82E-08 |
| Zr-95 | Ci | <5.00E-07 | | | <5.00E-07 |
| Mo-99 | Ci | <5.00E-07 | | | <5.00E-07 |
| I-131 | Ci | <1.00E-06 | | | <1.00E-06 |
| Cs-134 | Ci | <5.00E-07 | | | <5.00E-07 |
| Cs-137 | Ci | 1.14E-05 | | | 1.14E-05 |
| Ba-140 | Ci | <5.00E-07 | | | <5.00E-07 |
| La-140 | Ci | <5.00E-07 | | | <5.00E-07 |
| Ce-141 | Ci | <5.00E-07 | | | <5.00E-07 |
| Ce-144 | Ci | <5.00E-07 | | | <5.00E-07 |
| Total for period | Ci | 4.37E-03 | 0.00E+00 | 0.00E+00 | 4.37E-03 |
| Xe-131m | Ci | <1.00E-05 | | | <1.00E-05 |
| Xe-133m | Ci | <1.00E-05 | | | <1.00E-05 |
| Xe-133 | Ci | <1.00E-05 | | | <1.00E-05 |
| Xe-135m | Ci | <1.00E-05 | | | <1.00E-05 |
| Xe-135 | Ci | <1.00E-05 | | | <1.00E-05 |

"<" indicates activity of sample is less than LLD given in uCi/ml

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

UNIT TWO

LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

| | | | Third Quarter | Fourth Quarter |
|---|---|---|---|---|
| A. | Fission and Activation Products | | | |
| 1. | Total release (not including tritium, gases, alpha) | Ci | 0.00E+00 | 0.00E+00 |
| 2. | Average concentration released | uCi/ml | N/A | N/A |
| 3. | Maximum concentration released | uCi/ml | N/A | N/A |
| B. | Tritium | | | |
| 1. | Total release | Ci | 0.00E+00 | 0.00E+00 |
| 2. | Average concentration released | uCi/ml | N/A | N/A |
| C. | Dissolved Noble Gases | | | |
| 1. | Total release | Ci | 0.00E+00 | 0.00E+00 |
| 2. | Average concentration released | uCi/ml | N/A | N/A |
| D. | Gross Alpha Radioactivity | | | |
| 1. | Total release | Ci | 0.00E+00 | 0.00E+00 |
| 2. | Average concentration released | uCi/ml | N/A | N/A |
| E. | Volume of Waste Released | liters | 0.00E+00 | 0.00E+00 |
| F. | Volume of Dilution Water | liters | 0.00E+00 | 0.00E+00 |

"<" indicates activity of sample is less than LLD given in uCi/ml

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

UNIT TWO BATCH MODE

LIQUID EFFLUENTS

| Nuclides Released | | July | August | September | Third Quarter |
|---|---|---|---|---|---|
| Cr-51 | Ci | | | | |
| Mn-54 | Ci | No | No | No | No |
| Fe-55 | Ci | Releases | Releases | Releases | Releases |
| Co-58 | Ci | | | | |
| Fe-59 | Ci | | | | |
| Co-60 | Ci | | | | |
| Zn-65 | Ci | | | | |
| Sr-89 | Ci | | | | |
| Sr-90 | Ci | | | | |
| Nb-95 | Ci | | | | |
| Zr-95 | Ci | | | | |
| Mo-99 | Ci | | | | |
| Tc-99m | Ci | | | | |
| I-131 | Ci | | | | |
| Cs-134 | Ci | | | | |
| Cs-137 | Ci | | | | |
| Ba-140 | Ci | | | | |
| La-140 | Ci | | | | |
| Ce-141 | Ci | | | | |
| Ce-144 | Ci | | | | |
| Total for period | Ci | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Xe-131m | Ci | | | | |
| Xe-133m | Ci | | | | |
| Xe-133 | Ci | | | | |
| Xe-135m | Ci | | | | |
| Xe-135 | Ci | | | | |

"<" indicates activity of sample is less than LLD given in uCi/ml

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

UNIT TWO BATCH MODE

LIQUID EFFLUENTS

| Nuclides Released | | October | November | December | Fourth Quarter |
|---|---|---|---|---|---|
| Cr-51 | Ci | No | No | No | No |
| Mn-54 | Ci | Releases | Releases | Releases | Releases |
| Fe-55 | Ci | | | | |
| Co-58 | Ci | | | | |
| Fe-59 | Ci | | | | |
| Co-60 | Ci | | | | |
| Zn-65 | Ci | | | | |
| Sr-89 | Ci | | | | |
| Sr-90 | Ci | | | | |
| Nb-95 | Ci | | | | |
| Zr-95 | Ci | | | | |
| Mo-99 | Ci | | | | |
| Tc-99m | Ci | | | | |
| I-131 | Ci | | | | |
| Cs-134 | Ci | | | | |
| Cs-137 | Ci | | | | |
| Ba-140 | Ci | | | | |
| La-140 | Ci | | | | |
| Ce-141 | Ci | | | | |
| Ce-144 | Ci | | | | |
| Total for period | Ci | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Xe-131m | Ci | | | | |
| Xe-133m | Ci | | | | |
| Xe-133 | Ci | | | | |
| Xe-135m | Ci | | | | |
| Xe-135 | Ci | | | | |

"<" indicates activity of sample is less than LLD given in uCi/ml

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

MAXIMUM DOSES RESULTING FROM RELEASES

| | | | Third Quarter | Fourth Quarter |
|---|---|---|---|---|
| A. | Gaseous Effluents (Units One and Two) | | | |
| 1. | Gamma air | mrad | 3.79E-09 | 2.53E-09 |
| 2. | Beta air | mrad | 1.29E-09 | 1.10E-09 |
| 3. | Total body | mrem | 2.85E-09 | 1.90E-09 |
| 4. | Skin | mrem | 3.40E-09 | 2.28E-09 |
| 5. | Organ (infant thyroid) | mrem | 0.00E+00 | 0.00E+00 |
| B. | Liquid Effluents (Unit One) | | | |
| 1. | Total body | mrem | 0.00E+00 | 5.84E-06 |
| 4. | Internal organ (adult liver) | mrem | 0.00E+00 | 1.51E-05 |
| C. | Liquid Effluents (Unit Two) | | | |
| 1. | Total body | mrem | 0.00E+00 | 0.00E+00 |
| 4. | Internal organ | mrem | 0.00E+00 | 0.00E+00 |

COMPLIANCE STATUS

| | | | | |
|---|---|---|---|---|
| A. | Gaseous Effluents (Units One and Two) | | | |
| 1. | Gamma air | % of Tech. Spec. Limit | 0.00 | 0.00 |
| 2. | Beta air | % of Tech. Spec. Limit | 0.00 | 0.00 |
| 3. | Total body | % of Tech. Spec. Limit | 0.00 | 0.00 |
| 4. | Skin | % of Tech. Spec. Limit | 0.00 | 0.00 |
| 5. | Organ | % of Tech. Spec. Limit | 0.00 | 0.00 |

The maximum dose resulting from releases include nuclides with half-lives less than eight days.

| | | | | |
|---|---|---|---|---|
| B. | Liquid Effluents (Unit One) | | | |
| 1. | Total body | % of Tech. Spec. Limit | 0.00 | 0.00 |
| 2. | Internal organ | % of Tech. Spec. Limit | 0.00 | 0.00 |
| C. | Liquid Effluents (Unit Two) | | | |
| 1. | Total body | % of Tech. Spec. Limit | 0.00 | 0.00 |
| 2. | Internal organ (adult liver) | % of Tech. Spec. Limit | 0.00 | 0.00 |

The maximum dose resulting from releases include nuclides with half-lives less than eight days.

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

| | | July | August | September | Third Quarter |
|---|---|---|---|---|---|
| 1. | Spent resins, filter sludges, evaporator bottoms, etc. | NO SHIPMENTS | NO SHIPMENTS | NO SHIPMENTS | N/A |
| | a. Quantity shipped cu.m. | | | | |
| | b. Total activity Ci | | | | |
| | c. Major nuclides (estimate %) | | | | |
| | d. Container type | | | | |
| | e. Container volume cu.m. | | | | |
| | f. Solidification agent | | | | |
| 2. | Dry compressible waste, contaminated equipment, etc. | | | | |
| | a. Quantity shipped cu.m. | | | | |
| | b. Total activity Ci | | | | |
| | c. Major nuclides (estimate %) | | | | |
| | d. Container type | | | | |
| | e. Container volume cu.m. | | | | |

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

| | | | July | August | September | Third Quarter |
|---|---|---|---|---|---|---|
| 3. | Other | | | | | |
| | a. Quantity shipped | cu.m. | NO SHIPMENTS | NO SHIPMENTS | NO SHIPMENTS | N/A |
| | b. Total activity | Ci | | | | |
| | c. Major nuclides (estimate %) | | | | | |
| | d. Container type | | | | | |
| | e. Container volume | cu.m. | | | | |
| 4. | Irradiated Components | | | | | |
| | a. Number of shipments | | | | | |
| | b. Mode of Transportation | | | | | |
| | c. Destination | | | | | |
| 5. | Solid Waste Disposition | | | | | |
| | a. Number of Shipments | | | | | |
| | b. Mode of Transportation5 | | | | | |
| | c. Destination | | | | | |

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

| | | October | November | December | Fourth Quarter |
|---|---|---|---|---|---|
| 1. | Spent resins, filter sludges, evaporator bottoms, etc. | NO SHIPMENTS | NO SHIPMENTS | NO SHIPMENTS | N/A |
| | a. Quantity shipped cu.m. | | | | |
| | b. Total activity Ci | | | | |
| | c. Major nuclides | | | | |
| | d. Container type | | | | |
| | e. Container volume cu.m. | | | | |
| | f. Solidification agent | | | | |
| 2. | Dry compressible waste, contaminated equipment, etc. | | | | |
| | a. Quantity shipped cu.m. | | | | |
| | b. Total activity Ci | | | | |
| | c. Major nuclides (estimate %) | | | | |
| | d. Container type | | | | |
| | e. Container volume cu.m. | | | | |

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

| | | | October | November | December | Fourth Quarter |
|---|---|---|---|---|---|---|
| 3. | Other | | | | | |
| | a. Quantity shipped | cu.m. | NO SHIPMENTS | NO SHIPMENTS | NO SHIPMENTS | N/A |
| | b. Total activity | Ci | | | | |
| | c. Major nuclides (estimate %) | | | | | |
| | d. Container type | | | | | |
| | e. Container volume | cu.m. | | | | |
| 4. | Irradiated Components | | | | | |
| | a. Number of shipments | | | | | |
| | b. Mode of Transportation | | | | | |
| | c. Destination | | | | | |
| 5. | Solid Waste Disposition | | | | | |
| | a. Number of Shipments | | | | | |
| | b. Mode of Transportation | | | | | |
| | c. Destination | | | | | |

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

Supplemental Information

1. Regulatory Limits

a. Gaseous Effluents

1) The air dose due to noble gases released in gaseous effluents, from each reactor unit, from the site shall be limited to the following:

a) During any calendar quarter: Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation, and

b) During any calendar year: Less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

2) The dose to an individual from radioiodines and radioactive materials in particulate form, and radionuclides, other than noble gases, with half-lives greater than eight days in gaseous effluents released, from each reactor unit, from the site shall be limited to the following:

a) During any calendar quarter: Less than or equal to 7.5 mRems to any organ, and

b) During any calendar year: Less than or equal to 15 mRems to any organ.

b. Liquid Effluents

1) The dose or dose commitment to an individual from radioactive materials in liquid effluents released, from each reactor unit, from the site shall be limited:

a) During any calendar quarter to less than or equal to 1.5 mRem to the total body and to less than or equal to 5 mRem to any organ, and

b) During any calendar year to less than or equal to 3 mRem to the total body and to less than or equal to 10 mRem to any organ.

c. Total Dose

1) The dose or dose commitment to any member of the public, due to releases or radioactivity and radiation, from uranium fuel cycle sources shall be limited to less than or equal to 25 mRem to the body or any organ (except the thyroid, which shall be limited to less than or equal to 75 mRem) over 12 consecutive months.

2. Allowable Concentrations

a. Gaseous Effluents

1) The dose rate due to radioactive materials released in gaseous effluents from the site shall be limited to the following:

a) For noble gases: Less than or equal to 500 mRem/year to the total body and less than or equal to 3000 mRem/year to the skin, and

b) For all radioiodines and for all radioactive materials in particulate form, and radionuclides, other than noble gases, with half-lives greater than eight days: Less than or equal to 1500 mRem/year to any organ via the inhalation pathway.

b. Liquid Effluents

1) The concentration of radioactive material released from the site shall be limited to the concentrations specified in 10 CFR Part 20, Appendix B, Table II, Column 2 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to the following:

| Nuclide | DWC (µci/ml) |
|---|---|
| Kr-85m | 2.00E-04 |
| Kr-85 | 5.00E-04 |
| Kr-87 | 4.00E-05 |
| Kr-88 | 9.00E-05 |
| Ar-41 | 7.00E-05 |
| Xe-131m | 7.00E-04 |
| Xe-133m | 5.00E-04 |
| Xe-133 | 6.00E-04 |
| Xe-135m | 2.00E-04 |
| Xe-135 | 2.00E-04 |

3. Average Energy

a. Not Applicable.

4. Measurements and Approximations of Total Radioactivity

a. Gaseous Effluents

1) Containment Vent and Purge System is sampled by grab sample which is analyzed for principal gamma emitters and H-3.

2) Main Vent Stack is sampled by grab sample which is analyzed for principal gamma emitters and H-3.

3) Standby Gas Treatment System is sampled by grab sample which is analyzed for principal gamma emitters.

4) All release types as listed in 1 and 2 above, at the vent stack and as listed in 3 above, at the Standby Gas Treatment System whenever there is a flow, are continuously sampled by charcoal, particulate and composite samples which are analyzed for iodines, principal gamma emitters, gross alpha, Sr-89 and Sr-90. Noble gases, gross beta and gamma are continuously monitored by noble gas monitors for the vent stack and the standby gas treatment system.

b. Liquid Effluents

1) Batch waste release tanks are sampled each batch for principal gamma emitters, I-131, dissolved and entrained noble gases, H-3, gross alpha, Sr-89, Sr-90 and Fe-55.

2) Continuous releases are sampled continuously in proportion to the rate of flow of the effluent stream and by grab sample. Samples are analyzed for principal gamma emitters, I-131, dissolved and entrained noble gases, H-3, gross alpha, Sr-89, Sr-90 and Fe-55.

5. Batch Releases

a. Gaseous

| | | | |
|---|---|---|---|
| 1) | Number of batch releases: | None | |
| 2) | Total time period for batch releases: | | N/A |
| 3) | Maximum time period for a batch release: | | N/A |
| 4) | Average time period for batch releases: | | N/A |
| 5) | Minimum time period for a batch release: | | N/A |

b. Liquid

| | | | |
|---|---|---|---|
| 1) | Number of batch releases: | | 1 |
| 2) | Total time period for batch releases: | Min. | 570 |
| 3) | Maximum time period for a batch release: | Min. | 570 |
| 4) | Average time period for batch releases: | Min. | 570 |
| 5) | Minimum time period for a batch release: | Min. | 570 |
| 6) | Average stream flow during periods of release of effluent into a flowing stream: | gpm | 5.88E+06 |

6. Abnormal Releases

a. Gaseous

1) Number of releases: None

2) Total activity released: N/A

b. Liquid

1) Number of releases: None

2) Total activity released: N/A

7. Process Control Program

There were no changes to the Process Control Program.

8. Effluent Monitoring Instrumentation timeclocks.

There were no timeclocks for the effluent monitoring instrumentation exceeded.

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1994)

METEOROLOGICAL DATA

(See following pages.)

CECo LASALLE STATION
375 ft. WIND SPEED and WIND DIRECTION

July-September 1994
375-33 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2183
VALUES ARE PERCENT OCCURRENCE

| SPEED | WIND DIRECTION CLASSES | | | | | | | | | | | | | | | | | STABILITY CLASSES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CLASS | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL | EU | MU | SU | N | SS | MS | ES | TOTAL |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| MU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | .00 | | | | | | |
| C SU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | .00 | | | | | |
| A N | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | .00 | | | | |
| L SS | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | .00 | | | |
| M MS | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | .00 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | .00 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | .00 |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| MU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .05 | | .05 | | | | | | |
| 1 SU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | | | .05 | | | | | |
| - N | .09 | .14 | .05 | .00 | .00 | .00 | .05 | .09 | .09 | .00 | .00 | .09 | .00 | .05 | .09 | .09 | .82 | | | | .82 | | | | |
| 3 SS | .05 | .09 | .05 | .00 | .00 | .05 | .09 | .00 | .05 | .00 | .09 | .05 | .00 | .00 | .05 | .05 | .60 | | | | | .60 | | | |
| MS | .05 | .00 | .00 | .05 | .05 | .00 | .05 | .00 | .09 | .00 | .00 | .00 | .00 | .05 | .00 | .00 | .32 | | | | | | .32 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .05 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .14 | | | | | | | .14 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1.97 |
| EU | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .09 | .00 | .00 | .00 | .00 | .00 | .14 | .14 | | | | | | | |
| MU | .00 | .09 | .05 | .00 | .00 | .00 | .00 | .05 | .18 | .14 | .09 | .00 | .00 | .14 | .09 | .00 | .82 | | .82 | | | | | | |
| 4 SU | .05 | .18 | .14 | .14 | .14 | .05 | .18 | .18 | .23 | .05 | .18 | .09 | .18 | .05 | .05 | .00 | 1.88 | | | 1.88 | | | | | |
| - N | .37 | .37 | .55 | .09 | .41 | .60 | .69 | .32 | .32 | .23 | .46 | .60 | .41 | .41 | .50 | .37 | 6.69 | | | | 6.69 | | | | |
| 7 SS | .23 | .23 | .05 | .14 | .14 | .14 | .14 | .14 | .09 | .09 | .18 | .00 | .23 | .14 | .14 | .00 | 2.06 | | | | | 2.06 | | | |
| MS | .05 | .18 | .14 | .00 | .14 | .14 | .27 | .00 | .00 | .00 | .00 | .09 | .05 | .14 | .00 | .00 | 1.19 | | | | | | 1.19 | | |
| ES | .18 | .00 | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .05 | .00 | .14 | .05 | .00 | .00 | .00 | .46 | | | | | | | .46 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 13.24 |
| EU | .00 | .18 | .27 | .00 | .00 | .00 | .00 | .05 | .05 | .09 | .00 | .00 | .00 | .00 | .00 | .90 | .64 | .64 | | | | | | | |
| MU | .18 | .27 | .23 | .18 | .00 | .00 | .00 | .14 | .50 | .69 | .27 | .37 | .14 | .05 | .00 | .05 | 3.07 | | 3.07 | | | | | | |
| 8 SU | .18 | .18 | .09 | .00 | .00 | .00 | .00 | .18 | .55 | .27 | .18 | .27 | .37 | .32 | .09 | .18 | 2.89 | | | 2.89 | | | | | |
| - N | .37 | .60 | .92 | .32 | .23 | .37 | .37 | .23 | .32 | .46 | .46 | .37 | .87 | 1.19 | .55 | .69 | 8.29 | | | | 8.29 | | | | |
| 1 SS | .18 | .32 | .32 | .00 | .23 | .37 | .18 | .23 | .14 | .18 | .23 | .46 | .27 | .32 | .32 | .00 | 3.76 | | | | | 3.76 | | | |
| 2 MS | .23 | .14 | .00 | .05 | .00 | .23 | .09 | .18 | .18 | .23 | .46 | .32 | .14 | .05 | .37 | .27 | 2.93 | | | | | | 2.93 | | |
| ES | .00 | .05 | .30 | .00 | .00 | .05 | .00 | .18 | .14 | .05 | .23 | .14 | .05 | .09 | .05 | .14 | 1.15 | | | | | | | 1.15 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 22.72 |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .23 | .05 | .00 | .00 | .00 | .00 | .00 | .27 | .27 | | | | | | | |
| 1 MU | .05 | .09 | .00 | .05 | .09 | .00 | .00 | .00 | .05 | .78 | .50 | .32 | .05 | .00 | .00 | .23 | 2.20 | | 2.20 | | | | | | |
| 3 SU | .14 | .05 | .00 | .09 | .18 | .00 | .05 | .00 | .05 | .37 | .46 | .50 | .09 | .00 | .41 | .73 | 3.11 | | | 3.11 | | | | | |
| - N | .32 | .37 | .82 | .73 | .73 | .32 | .27 | .41 | .46 | .82 | .55 | 1.42 | 1.24 | 1.51 | 1.19 | .82 | 12.00 | | | | 12.00 | | | | |
| 1 SS | .50 | .37 | .14 | .05 | .41 | .37 | .37 | .37 | .55 | .78 | .27 | .50 | .18 | .27 | .41 | .55 | 6.09 | | | | | 6.09 | | | |
| 8 MS | .14 | .14 | .00 | .00 | .18 | .55 | .55 | .41 | .37 | .32 | .55 | .41 | .37 | .41 | 1.33 | .82 | 6.55 | | | | | | 6.55 | | |
| ES | .09 | .00 | .00 | .00 | .00 | .05 | .05 | .78 | .46 | .27 | .18 | .27 | .14 | .05 | .46 | .18 | 2.98 | | | | | | | 2.98 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 33.21 |

CECo LASALLE STATION
375 ft. WIND SPEED and WIND DIRECTION

July-September 1994
375-33 ft. DIFFERENTIAL TEMPERATURE

| SPEED CLASS | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL | EU | MU | SU | N | SS | MS | ES | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| 1 MU | .00 | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .09 | .05 | .18 | .14 | .00 | .00 | .05 | .09 | .64 | | .64 | | | | | | |
| 9 SU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .09 | .05 | .14 | .05 | .32 | .05 | .73 | | | .73 | | | | | |
| - N | .18 | .09 | .05 | .05 | .09 | .18 | .60 | .32 | .64 | 1.01 | .50 | .37 | .78 | .09 | .41 | .32 | 5.68 | | | | 5.68 | | | | |
| 2 SS | .27 | .18 | .00 | .05 | .23 | .23 | .50 | .55 | .64 | .27 | .64 | .50 | .27 | .32 | .32 | .37 | 5.36 | | | | | 5.36 | | | |
| 4 MS | .23 | .05 | .00 | .00 | .00 | .14 | .14 | .18 | .41 | .46 | .46 | .55 | .18 | .23 | .27 | .00 | 3.30 | | | | | | 3.30 | | |
| ES | .00 | .18 | .00 | .00 | .00 | .00 | .18 | .32 | .46 | .18 | .37 | .46 | .14 | .00 | .09 | .00 | 2.38 | | | | | | | 2.38 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 18.09 |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| 6 MU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | .00 | | | | | | |
| 7 SU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | .00 | | | | | |
| N | .00 | .00 | .00 | .00 | .00 | .09 | .05 | .00 | .05 | .27 | .00 | .09 | .18 | .00 | .05 | .00 | .78 | | | | .78 | | | | |
| 2 SS | .05 | .14 | .00 | .00 | .09 | .00 | .18 | .32 | .18 | 1.19 | 1.05 | .32 | .05 | .23 | .00 | .00 | 3.80 | | | | | 3.80 | | | |
| 4 MS | .09 | .00 | .00 | .00 | .00 | .14 | .27 | .00 | .46 | 1.24 | 1.97 | .14 | .09 | .14 | .00 | .00 | 4.54 | | | | | | 4.54 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .05 | .27 | .55 | .46 | .27 | .00 | .00 | .00 | .00 | 1.65 | | | | | | | 1.65 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 10.77 |
| TOT | 4.26 | 4.67 | 3.89 | 1.97 | 3.39 | 4.08 | 5.36 | 5.77 | 8.11 | 11.41 | 11.27 | 9.30 | 6.64 | 6.28 | 7.60 | 6.00 | 100.00 | 1.05 | 6.78 | 8.66 | 34.26 | 21.67 | 18.83 | 8.75 | 100.00 |

Wind Direction by Stability

| N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL | -STABILITY CLASSES- |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .00 | .18 | .32 | .00 | .00 | .00 | .00 | .05 | .05 | .32 | .14 | .00 | .00 | .00 | .00 | .00 | 1.05 | Extremely Unstable |
| .23 | .46 | .27 | .23 | .14 | .00 | .00 | .18 | .82 | 1.65 | 1.10 | .82 | .18 | .18 | .14 | .37 | 6.78 | Moderately Unstable |
| .37 | .41 | .23 | .23 | .32 | .05 | .23 | .41 | .82 | .73 | .92 | .92 | .78 | .41 | .87 | .96 | 8.66 | Slightly Unstable |
| 1.33 | 1.56 | 2.38 | 1.19 | 1.47 | 1.56 | 2.02 | 1.37 | 1.88 | 2.79 | 1.97 | 2.93 | 3.48 | 3.25 | 2.79 | 2.29 | 34.26 | Neutral |
| 1.28 | 1.33 | .55 | .23 | 1.10 | 1.15 | 1.47 | 1.60 | 1.65 | 2.52 | 2.47 | 1.83 | 1.01 | 1.28 | 1.24 | .96 | 21.67 | Slightly Stable |
| .78 | .50 | .14 | .09 | .37 | 1.19 | 1.37 | .78 | 1.51 | 2.24 | 3.44 | 1.51 | .82 | 1.01 | 1.97 | 1.10 | 18.83 | Moderately Stable |
| .27 | .23 | .00 | .00 | .00 | .14 | .27 | 1.37 | 1.37 | 1.15 | 1.24 | 1.28 | .37 | .14 | .60 | .32 | 8.75 | Extremely Stable |

Wind Direction by Wind Speed

| N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL | -WIND SPEED CLASSES- |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | C A L M |
| .18 | .23 | .09 | .05 | .05 | .05 | .18 | .18 | .27 | .05 | .14 | .14 | .00 | .09 | .14 | .14 | 1.97 | 0.8 - 3.5 mph |
| .87 | 1.05 | .96 | .37 | .82 | .96 | 1.28 | .69 | .82 | .55 | 1.01 | .92 | .92 | .87 | .78 | .37 | 13.24 | 3.6 - 7.5 mph |
| 1.15 | 1.74 | 1.83 | .55 | .46 | 1.01 | .64 | 1.19 | 1.88 | 1.97 | 1.83 | 1.92 | 1.83 | 2.02 | 1.37 | 1.33 | 22.72 | 7.6 - 12.5 mph |
| 1.24 | 1.01 | .96 | .92 | 1.60 | 1.28 | 1.28 | 1.97 | 1.92 | 3.57 | 2.57 | 3.44 | 2.06 | 2.24 | 3.80 | 3.34 | 33.21 | 12.6 - 18.5 mph |
| .69 | .50 | .05 | .09 | .37 | .55 | 1.42 | 1.37 | 2.24 | 2.02 | 2.24 | 2.06 | 1.51 | .69 | 1.47 | .82 | 18.09 | 18.6 - 24.5 mph |
| .14 | .14 | .00 | .00 | .09 | .23 | .55 | .37 | .96 | 3.25 | 3.48 | .82 | .32 | .37 | .05 | .00 | 10.77 | > 24.5 mph |

CECo LASALLE STATION
375 ft. WIND SPEED and WIND DIRECTION

October-December 1994
375-33 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2185
VALUES ARE PERCENT OCCURRENCE

| SPEED | WIND DIRECTION CLASSES | | | | | | | | | | | | | | | | | STABILITY CLASSES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CLASS | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL | EU | MU | SU | N | SS | MS | ES | TOTAL |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| MU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | .00 | | | | | | |
| C SU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | .00 | | | | | |
| A N | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | .00 | | | | |
| L SS | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | .00 | | | |
| M MS | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | .00 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | .00 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | .00 |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| MU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | .00 | | | | | | |
| 1 SU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | .00 | | | | | |
| - N | .00 | .05 | .00 | .05 | .00 | .09 | .05 | .05 | .05 | .05 | .00 | .00 | .00 | .00 | .00 | .05 | .41 | | | | .41 | | | | |
| 3 SS | .05 | .05 | .14 | .18 | .09 | .00 | .09 | .00 | .05 | .00 | .05 | .09 | .09 | .05 | .00 | .00 | .92 | | | | | .92 | | | |
| MS | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .09 | .00 | .14 | | | | | | .14 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .09 | .00 | .09 | .00 | .00 | .00 | .18 | | | | | | | .18 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1.65 |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| MU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | .00 | | | | | | |
| 4 SU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | .00 | | | | | |
| - N | .46 | .46 | .41 | .27 | .09 | .32 | .32 | .18 | .14 | .27 | .18 | .05 | .05 | .27 | .09 | .46 | 4.03 | | | | 4.03 | | | | |
| 7 SS | .14 | .05 | .14 | .09 | .18 | .09 | .18 | .05 | .14 | .05 | .14 | .05 | .09 | .09 | .14 | .09 | 1.69 | | | | | 1.69 | | | |
| MS | .00 | .00 | .00 | .00 | .09 | .23 | .09 | .05 | .00 | .14 | .09 | .09 | .09 | .00 | .09 | .05 | 1.01 | | | | | | 1.01 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .09 | .05 | .00 | .00 | .00 | .05 | .00 | .09 | .27 | | | | | | | .27 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 7.00 |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| MU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | .00 | | | | | | |
| 8 SU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | .00 | | | | | |
| - N | .50 | 1.01 | .78 | .69 | .82 | .55 | .64 | .18 | .05 | .73 | .23 | .18 | .14 | .27 | 1.14 | 1.28 | 9.20 | | | | 9.20 | | | | |
| 1 SS | .50 | .55 | .82 | .41 | .37 | .46 | .32 | .05 | .05 | .00 | .18 | .05 | .46 | .18 | .18 | .09 | 4.67 | | | | | 4.67 | | | |
| 2 MS | .05 | .18 | .23 | .00 | .05 | .23 | .14 | .14 | .05 | .05 | .05 | .09 | .00 | .05 | .18 | .23 | 1.69 | | | | | | 1.69 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .14 | .14 | .05 | .05 | .00 | .00 | .18 | .14 | .69 | | | | | | | .69 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 16.25 |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| 1 MU | .00 | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | | .05 | | | | | | |
| 3 SU | .00 | .00 | .00 | .09 | .00 | .00 | .00 | .00 | .00 | .09 | .00 | .00 | .00 | .00 | .00 | .00 | .18 | | | .18 | | | | | |
| - N | .78 | .37 | 1.78 | .59 | 1.05 | .78 | .23 | .32 | .46 | .82 | .59 | .14 | .50 | .96 | 1.60 | 1.33 | 12.31 | | | | 12.31 | | | | |
| 1 SS | .55 | .41 | .41 | .41 | .64 | .14 | .23 | .27 | .18 | .50 | .32 | .23 | .41 | .55 | .73 | .32 | 6.32 | | | | | 6.32 | | | |
| 0 MS | .09 | .27 | .32 | .05 | .00 | .18 | .23 | .09 | .14 | .18 | .05 | .18 | .18 | .18 | .23 | .23 | 2.61 | | | | | | 2.61 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .14 | .18 | .18 | .05 | .05 | .05 | .00 | .00 | .09 | .78 | | | | | | | .78 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 22.24 |

CECo LASALLE STATION
375 ft. WIND SPEED and WIND DIRECTION

October-December 1994
375-33 ft. DIFFERENTIAL TEMPERATURE

| SPEED | WIND DIRECTION CLASSES | | | | | | | | | | | | | | | | STABILITY CLASSES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CLASS | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL | EU | MU | SU | N | SS | MS | ES | TOTAL |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| 1 MU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | .00 | | | | | | |
| 9 SU | .00 | .00 | .00 | .00 | .14 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .09 | .05 | .00 | .00 | .27 | | | .27 | | | | | |
| - N | .18 | .32 | .73 | 1.46 | 1.10 | .46 | .41 | .50 | 1.01 | 1.14 | .69 | .37 | .50 | 1.42 | 1.24 | .46 | 11.99 | | | | 11.99 | | | | |
| 2 SS | .00 | .18 | .05 | .41 | .64 | 1.10 | .50 | .32 | .92 | .73 | .50 | .09 | .46 | .41 | .37 | .18 | 6.86 | | | | | 6.86 | | | |
| 4 MS | .23 | .60 | .00 | .09 | .27 | .41 | .37 | .14 | .18 | .14 | .23 | .05 | .55 | .59 | .32 | .09 | 3.66 | | | | | | 3.66 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .00 | .09 | .27 | .37 | .18 | .37 | .14 | .05 | .05 | .00 | .41 | 1.92 | | | | | | | 1.92 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 24.71 |
| EU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | | | | |
| G MU | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | .00 | | | | | | |
| T SU | .05 | .05 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .09 | .00 | .00 | .27 | | | .27 | | | | | |
| N | .18 | .05 | .14 | .32 | 1.05 | .18 | .00 | .37 | .82 | 1.19 | .32 | .92 | .92 | .64 | .87 | .14 | 8.10 | | | | 8.10 | | | | |
| 2 SS | .09 | .00 | .00 | .27 | .50 | .41 | .59 | .87 | 1.83 | 3.20 | 1.46 | .37 | 1.37 | .78 | .32 | .09 | 12.17 | | | | | 12.17 | | | |
| 4 MS | .00 | .00 | .00 | .00 | .09 | .69 | .18 | .18 | .82 | 1.19 | .96 | .09 | .55 | .32 | .05 | .00 | 5.13 | | | | | | 5.13 | | |
| ES | .00 | .00 | .00 | .00 | .00 | .05 | .27 | .55 | .50 | .18 | .32 | .23 | .18 | .14 | .00 | .05 | 2.47 | | | | | | | 2.47 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 28.15 |
| TOT | 3.84 | 3.98 | 5.95 | 5.49 | 7.19 | 6.36 | 5.03 | 4.71 | 8.15 | 11.21 | 6.91 | 3.48 | 6.86 | 7.14 | 7.83 | 5.86 | 100.00 | .00 | .05 | .73 | 46.04 | 32.63 | 14.23 | 6.32 | 100.00 |

Wind Direction by Stability

| N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL | -STABILITY CLASSES- |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | Extremely Unstable |
| .00 | .00 | .00 | .05 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .05 | Moderately Unstable |
| .05 | .05 | .00 | .14 | .14 | .00 | .00 | .00 | .00 | .09 | .00 | .00 | .14 | .14 | .00 | .00 | .73 | Slightly Unstable |
| 2.11 | 2.24 | 3.84 | 3.39 | 4.12 | 2.38 | 1.65 | 1.60 | 2.52 | 4.21 | 2.01 | 1.65 | 2.11 | 3.57 | 4.94 | 3.71 | 46.04 | Neutral |
| 1.33 | 1.24 | 1.56 | 1.78 | 2.43 | 2.20 | 1.92 | 1.56 | 3.16 | 4.49 | 2.65 | .87 | 2.88 | 2.06 | 1.74 | .78 | 32.63 | Slightly Stable |
| .37 | .46 | .55 | .14 | .50 | 1.74 | 1.05 | .59 | 1.19 | 1.69 | 1.37 | .50 | 1.37 | 1.14 | .96 | .59 | 14.23 | Moderately Stable |
| .00 | .00 | .00 | .00 | .00 | .05 | .41 | .96 | 1.28 | .73 | .87 | .46 | .37 | .23 | .18 | .78 | 6.32 | Extremely Stable |

Wind Direction by Wind Speed

| N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL | -WIND SPEED CLASSES- |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | C A L M |
| .05 | .09 | .14 | .23 | .09 | .09 | .18 | .05 | .09 | .05 | .14 | .09 | .18 | .05 | .09 | .05 | 1.65 | 0.8 - 3.5 mph |
| .59 | .50 | .55 | .37 | .37 | .64 | .59 | .27 | .37 | .50 | .41 | .18 | .23 | .41 | .32 | .69 | 7.00 | 3.6 - 7.5 mph |
| 1.05 | 1.74 | 1.83 | 1.10 | 1.24 | 1.24 | 1.10 | .37 | .27 | .92 | .50 | .37 | .59 | .50 | 1.69 | 1.74 | 16.25 | 7.6 - 12.5 mph |
| 1.42 | 1.05 | 2.52 | 1.19 | 1.69 | 1.10 | .73 | .82 | .96 | 1.78 | 1.01 | .59 | 1.14 | 1.69 | 2.56 | 1.97 | 22.24 | 12.6 - 18.5 mph |
| .41 | .50 | .78 | 1.97 | 2.15 | 1.97 | 1.37 | 1.24 | 2.47 | 2.20 | 1.78 | .64 | 1.65 | 2.52 | 1.92 | 1.14 | 24.71 | 18.6 - 24.5 mph |
| .32 | .09 | .14 | .64 | 1.65 | 1.33 | 1.05 | 1.97 | 3.98 | 5.77 | 3.07 | 1.60 | 3.07 | 1.97 | 1.24 | .27 | 28.15 | > 24.5 mph |

FAILURE TO PERFORM THE MONTHLY SOURCE CHECK OF THE OFFGAS PRETREATED LOG AND LINEAR PROCESS RADIATION MONITOR ON TIME

DESCRIPTION AND CAUSE OF EVENT:

A monthly source check of the OFFGAS (O/G) pretreat log and linear process radiation monitor (PRM) was performed late. This source check is required to be performed once every 31 days. This surveillance is performed by the Radiation Protection Department (RPD), using the General Surveillance Tracking Program (GSRV) printout as a schedule.

In the latter part of August 1994, the GSRV printout format for the RPD was changed. The change that occurred was the GSRV printout to the RPD would be a single printout and would include all of the Health Physics (HP) surveillances, and the HP Department surveillances.

Prior to this change there were two printouts, an HP printout and an HPD printout. The HPD printout contained all the RPD surveillances. This printout was approximately five pages in length and would include the surveillances for the O/G pretreat log and linear RPMs. These surveillance are unit specific, that is listed by each unit specifically, Unit 1, Unit 2 or Unit 0. Unit 0 is used to indicate the surveillance applies for both Unit 1 and Unit 2.

The HP printout contained all the surveillances due on the RPD instruments. This printout for a six week period is approximately 50 pages in length. These items would be associated with Unit 0 since they are performed for both Unit 1 and Unit 2. When both GSRV and Electronic Work Control System (EWCS) reports were combined, the resulting printout was approximately 55 pages in length. The first 50 pages being Unit 0 surveillances, and the last five pages being specific to Unit 1 and Unit 2 surveillances.

All GSRV/EWCS surveillance printouts are unit specific and in date due order. All the items are printed first in date due order specific to Unit 0, then items for Unit 1 are printed in date due order, and finally items for Unit 2 are printed in date due order. The RP Department GSRV Coordinator only went through the first 40 pages of the GSRV to sign off the required items. He was unaware that the GSRV/EWCS paperwork had been changed and the last five pages of the report were specific surveillances for Unit 1 and 2.

On September 20, 1994 it was discovered that the monthly source check of the O/G pretreat log and linear PRMs had not been performed. The monthly source check was immediately scheduled, and on September 26, 1994 both units passed satisfactorily. The missed surveillance for the monthly source check should have been performed within 24 hours once it was discovered that it had been missed.

CORRECTIVE ACTIONS:

1. The monthly source check was immediately scheduled, and on September 26, 1994 both units passed satisfactorily. (This item is complete).

2. Revise the current ODCM to provide specific guidance concerning any missed surveillances. Action Item Record (AIR) 373-200-94-0215401 has been generated and will track completion of the ODCM revision. The AIR due date is July 15, 1995, this item will be completed then.

3. Include this event and investigation in the next Semiannual Effluent Report. Action Item Record (AIR) 373-200-94-0215402 has been generated and will track completion of this commitment. Submission of this report will complete this item.

4. A memo was generated November 11, 1994 to communicate this event and the revised GSRV/EWCS format to the personnel in each department responsible for GSRV surveillance tracking. (This item complete).