

AMERICAN NUCLEAR CORPORATION

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February 16, 1994

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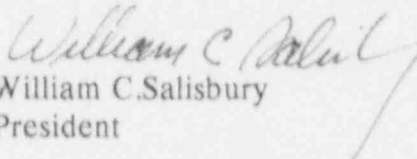
Mr. Mohammad Haque
Branch Chief
U.S. Nuclear Regulatory Commission
Division of Low-Level Waste Management
and Decommissioning, NMSS (5E2)
11555 Rockville Pike
Rockville, Maryland 20850

Dear Mr. Haque:

In accordance with the license conditions of Source Materials License, SUA-667 and in compliance with Title 10 CFR 40.65, American Nuclear Corporation submits the Semi-Annual Report for the second half of 1993.

If you have any questions, please do not hesitate to contact me.

Sincerely,


William C. Salisbury
President

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Enclosure (5)

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SEMI-ANNUAL REPORT
ON
RADIOACTIVE EFFLUENT PER
10 CFR 40.65
AMERICAN NUCLEAR CORPORATION

July - December 1993

AMERICAN NUCLEAR CORPORATION
Gas Hills Project

Environmental TLD Summary For The 1st & 2nd Quarters 1993

All Readings in mR

| Sample Number | First Quarter | Second Quarter | Total | Average per Quarter | Sample Location |
|---------------|--------------------|----------------|-------|---------------------|---------------------------------------|
| 2 | 74 | 56 | 130 | 65.0 | upwind restricted area boundary |
| 3 | NO SAMPLE REQUIRED | | | | Puddle Springs Ranch |
| 4 | 78 | 66 | 144 | 72.0 | downwind restricted area boundary |
| 5 | 38 | 31 | 69.0 | 34.5 | NE corner of restricted area boundary |
| 6 | NO SAMPLE REQUIRED | | | | LOCO Shop |
| 7 | 30 | 14 | 44.0 | 22.0 | Office |
| 8 | 23 | 14 | 37.0 | 18.5 | Control |

TLD1293.doc

AMERICAN NUCLEAR CORPORATION
Gas Hills Project

Environmental TLD Summary For The 3rd & 4th Quarters 1993

All Readings in mR

| Sample Number | Third Quarter | Fourth Quarter | Total | Average per Quarter | Sample Location |
|---------------|--------------------|----------------|-------|---------------------|---------------------------------------|
| 2 | 70 | 74 | 144 | 72.0 | upwind restricted area boundary |
| 3 | NO SAMPLE REQUIRED | | | | Puddle Springs Ranch |
| 4 | 78 | 78 | 156 | 78.0 | downwind restricted area boundary |
| 5 | 44 | 41 | 85.0 | 42.5 | NE corner of restricted area boundary |
| 6 | NO SAMPLE REQUIRED | | | | LOCO Shop |
| 7 | 34 | 32 | 66.0 | 33.0 | Office |
| 8 | 13 | 12 | 25.0 | 12.5 | Control |

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AMERICAN NUCLEAR CORPORATION
Gas Hills Project

Soil Sample Results For Spring 1993

Same Location As The Low Volume Air Samples

| Sample Location | Radionuclide | Concentration uCi/gm | Error Estimate +/- uCi/gm | LLD uCi/gm |
|--|--------------|-------------------------|------------------------------|--------------------|
| 2 upwind restricted area boundary background | Radium 226 | 5.5×10^{-6} | 0.2×10^{-6} | 4×10^{-8} |
| | Lead 210 | 4.9×10^{-6} | 0.9×10^{-6} | 4×10^{-8} |
| | U natural | 9.1×10^{-6} | NA | 4×10^{-8} |
| 3 Puddle Springs Ranch | Radium 226 | NO SAMPLE REQUIRED | | |
| | Lead 210 | NO SAMPLE REQUIRED | | |
| | U natural | NO SAMPLE REQUIRED | | |
| 4 downwind restricted area boundary | Radium 226 | 2.1×10^{-6} | 0.1×10^{-6} | 4×10^{-8} |
| | Lead 210 | 1.2×10^{-6} | 0.4×10^{-6} | 4×10^{-8} |
| | U natural | 2.4×10^{-6} | NA | 4×10^{-8} |
| 5 NE corner of restricted area boundary | Radium 226 | 3.0×10^{-6} | 0.1×10^{-6} | 4×10^{-8} |
| | Lead 210 | 0.9×10^{-6} | 0.2×10^{-6} | 4×10^{-8} |
| | U natural | 3.5×10^{-6} | NA | 4×10^{-8} |
| 6 LOCO Shop Background | Radium 226 | NO SAMPLE REQUIRED | | |
| | Lead 210 | NO SAMPLE REQUIRED | | |
| | U natural | NO SAMPLE REQUIRED | | |

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AMERICAN NUCLEAR CORPORATION
Gas Hills Project

Vegetation Sample Results For 1993

| Sample Location | Radionuclide | Concentration uCi/kg | Error Estimate +/- uCi/kg | LLD uCi/kg | |
|-----------------|--------------|-------------------------|------------------------------|-----------------------|--------------------|
| #1 June 1993 | Radium 226 | 1.3×10^{-5} | 0.07×10^{-5} | 5×10^{-8} | |
| | September | Radium 226 | 6.1×10^{-5} | 0.19×10^{-5} | 5×10^{-8} |
| | June | Lead 210 | 8.2×10^{-5} | 0.74×10^{-5} | 1×10^{-6} |
| | September | Lead 210 | 7.7×10^{-5} | 0.5×10^{-5} | 1×10^{-6} |
| #2 June 1993 | Radium 226 | 9.8×10^{-6} | 0.72×10^{-6} | 5×10^{-8} | |
| | September | Radium 226 | 3.5×10^{-5} | 0.10×10^{-5} | 5×10^{-8} |
| | June | Lead 210 | 10.0×10^{-5} | 1.0×10^{-5} | 1×10^{-6} |
| | September | Lead 210 | 4.6×10^{-6} | 2.0×10^{-6} | 1×10^{-6} |
| #3 June 1993 | Radium 226 | 7.4×10^{-6} | 0.53×10^{-6} | 5×10^{-8} | |
| | September | Radium 226 | 2.4×10^{-5} | 0.1×10^{-5} | 5×10^{-8} |
| | June | Lead 210 | 13.0×10^{-5} | 1.0×10^{-5} | 1×10^{-6} |
| | September | Lead 210 | 6.0×10^{-5} | 0.4×10^{-5} | 1×10^{-6} |

VEGALL93.doc

AMERICAN NUCLEAR CORPORATION
Gas Hills Project

First Quarter 1993 Water Results

| Sample Location | Type | Radionuclide | Concentration uCi/ml | Error Estimate +/- uCi/ml | LLD uCi/ml |
|-----------------|---------|--------------|-------------------------|------------------------------|---------------------|
| Well #TP2-2 | Ground | Radium 226 | combined | | |
| | | Radium 228 | 46.3×10^{-9} | 3.5×10^{-9} | 1×10^{-9} |
| | | Thorium 230 | $<2.0 \times 10^{-10}$ | | 2×10^{-10} |
| | | Gross Alpha | 14.2×10^{-9} | 3.8×10^{-9} | 1×10^{-9} |
| | | U natural | 9.8×10^{-8} | NA | 2×10^{-10} |
| Well #TP2-3 | Ground | Radium 226 | combined | | |
| | | Radium 228 | 41.2×10^{-9} | 3.5×10^{-9} | 1×10^{-9} |
| | | Thorium 230 | $<2.0 \times 10^{-10}$ | | 2×10^{-10} |
| | | Gross Alpha | 9.1×10^{-9} | 13.0×10^{-9} | 1×10^{-9} |
| | | U natural | 7.2×10^{-7} | NA | 2×10^{-10} |
| Well #R-4 | Ground | Radium 226 | combined | | |
| | | Radium 228 | 62.1×10^{-9} | 4.4×10^{-9} | 1×10^{-9} |
| | | Thorium 230 | 147×10^{-9} | 14.7×10^{-9} | 2×10^{-10} |
| | | Gross Alpha | 181×10^{-9} | 13.5×10^{-9} | 1×10^{-9} |
| | | U natural | 1.7×10^{-6} | NA | 2×10^{-10} |
| Willow Springs | Surface | Radium 226 | SHORT LIST REQUIRED | | |
| | | Thorium 230 | | | |
| | | Lead 210 | | | |
| | | Polonium 210 | | | |
| | | U natural | | | |

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AMERICAN NUCLEAR CORPORATION
Gas Hills Project

Second Quarter 1993 Water Results

| Sample Location | Type | Radionuclide | Concentration uCi/ml | Error Estimate +/- uCi/ml | LLD uCi/ml |
|-----------------|---------|--------------|-------------------------|------------------------------|---------------------|
| Well #TP2-2 | Ground | Radium 226 | combined | | |
| | | Radium 228 | SHORT LIST REQUIRED | | 1×10^{-9} |
| | | Thorium 230 | | | 2×10^{-10} |
| | | Gross Alpha | | | 1×10^{-9} |
| | | U natural | | | 2×10^{-10} |
| Well #TP2-3 | Ground | Radium 226 | combined | | |
| | | Radium 228 | SHORT LIST REQUIRED | | 1×10^{-9} |
| | | Thorium 230 | | | 2×10^{-10} |
| | | Gross Alpha | | | 1×10^{-9} |
| | | U natural | | | 2×10^{-10} |
| Well #R-4 | Ground | Radium 226 | combined | | |
| | | Radium 228 | SHORT LIST REQUIRED | | 1×10^{-9} |
| | | Thorium 230 | | | 2×10^{-10} |
| | | Gross Alpha | | | 1×10^{-9} |
| | | U natural | | | 2×10^{-10} |
| Willow Springs | Surface | Radium 226 | SHORT LIST REQUIRED | | |
| | | Radium 228 | | | |
| | | Thorium 230 | | | |
| | | Gross Alpha | | | |
| | | U natural | | | |

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AMERICAN NUCLEAR CORPORATION
Gas Hills Project

Third Quarter 1993 Water Results

| Sample Location | Type | Radionuclide | Concentration uCi/ml | Error Estimate +/- uCi/ml | LLD uCi/ml |
|-----------------|---------|--------------|-------------------------|------------------------------|---------------------|
| Well #TP2-2 | Ground | Radium 226 | combined | | |
| | | Radium 228 | 18.8×10^{-9} | 1.6×10^{-9} | 1×10^{-9} |
| | | Thorium 230 | $<2.0 \times 10^{-10}$ | | 2×10^{-10} |
| | | Gross Alpha | 17.9×10^{-9} | 4.2×10^{-9} | 1×10^{-9} |
| | | U natural | 7.9×10^{-8} | NA | 2×10^{-10} |
| Well #TP2-3 | Ground | Radium 226 | combined | | |
| | | Radium 228 | 12.2×10^{-9} | 1.3×10^{-9} | 1×10^{-9} |
| | | Thorium 230 | $<2.0 \times 10^{-10}$ | | 2×10^{-10} |
| | | Gross Alpha | 11.9×10^{-9} | 3.40×10^{-9} | 1×10^{-9} |
| | | U natural | 7.2×10^{-7} | NA | 2×10^{-10} |
| Well #R-4 | Ground | Radium 226 | combined | | |
| | | Radium 228 | 46.7×10^{-9} | 3.2×10^{-9} | 1×10^{-9} |
| | | Thorium 230 | 33.9×10^{-9} | 3.7×10^{-9} | 2×10^{-10} |
| | | Gross Alpha | 81.6×10^{-9} | 9.0×10^{-9} | 1×10^{-9} |
| | | U natural | 1.0×10^{-6} | NA | 2×10^{-10} |
| Willow Springs | Surface | Radium 226 | SHORT LIST REQUIRED | | |
| | | Thorium 230 | | | |
| | | Lead 210 | | | |
| | | Polonium 210 | | | |
| | | U natural | | | |

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AMERICAN NUCLEAR CORPORATION
Gas Hills Project

Fourth Quarter 1993 Water Results

| Sample Location | Type | Radionuclide | Concentration uCi/ml | Error Estimate +/- uCi/ml | LLD uCi/ml |
|-----------------|---------|--------------|-------------------------|------------------------------|-----------------------|
| Well #TP2-2 | Ground | Radium 226 | combined | | |
| | | Radium 228 | SHORT LIST REQUIRED | | 1 x 10 ⁻⁹ |
| | | Thorium 230 | | | 2 x 10 ⁻¹⁰ |
| | | Gross Alpha | | | 1 x 10 ⁻⁹ |
| | | U natural | | | 2 x 10 ⁻¹⁰ |
| Well #TP2-3 | Ground | Radium 226 | combined | | |
| | | Radium 228 | SHORT LIST REQUIRED | | 1 x 10 ⁻⁹ |
| | | Thorium 230 | | | 2 x 10 ⁻¹⁰ |
| | | Gross Alpha | | | 1 x 10 ⁻⁹ |
| | | U natural | | | 2 x 10 ⁻¹⁰ |
| Well #R-4 | Ground | Radium 226 | combined | | |
| | | Radium 228 | SHORT LIST REQUIRED | | 1 x 10 ⁻⁹ |
| | | Thorium 230 | | | 2 x 10 ⁻¹⁰ |
| | | Gross Alpha | | | 1 x 10 ⁻⁹ |
| | | U natural | | | 2 x 10 ⁻¹⁰ |
| Willow Springs | Surface | Radium 226 | SHORT LIST REQUIRED | | |
| | | Radium 228 | | | |
| | | Thorium 230 | | | |
| | | Gross Alpha | | | |
| | | U natural | | | |

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AMERICAN NUCLEAR CORPORATION
 Gas Hills Project
 Report Date: February 9, 1994

QUARTERLY WATER QUALITY
 1st, 2nd, 3rd, & 4th Quarters 1993

| Well I.D. | TP-2-2 | TP-2-2 | TP-2-2 | TP-2-2 |
|---------------------------|---------|----------|----------|----------|
| Type | Ground | Ground | Ground | Ground |
| Water Level (ft) | 40.36 | 39.87 | 39.89 | 40.14 |
| Quarter | First | Second | Third | Fourth |
| Lab I.D. | 93-7963 | 93-16351 | 93-36385 | 93-54997 |
| PARAMETERS (mg/l): | | | | |
| Sulfate | 811 | 748 | 673 | 741 |
| Chloride | 30.5 | 32.6 | 31.3 | 30.0 |
| Nitrate | 6.50 | 2.20 | 5.51 | 2.74 |
| TDS | 1439 | 1496 | 1424 | 1370 |
| pH | 7.22 | 7.27 | 7.85 | 6.95 |
| Be | <0.05 | | <0.05 | |
| Cd | <0.01 | | <0.01 | |
| CN | <0.005 | | <0.005 | |
| Ni | <0.05 | | <0.05 | |
| Se | <0.001 | | <0.001 | |
| V | <0.10 | | <0.10 | |
| U, mg/l | 0.145 | | 0.116 | |
| Ra226, pCi/l | 13.6 | | 17.8 | |
| Ra226 +/- | 1.0 | | 1.6 | |
| Ra228, pCi/l | 32.7 | | <1.0 | |
| Ra228 +/- | 2.5 | | | |
| Th230, pCi/l | <0.2 | | <0.2 | |
| Th230 +/- | | | | |
| Gross Alpha, pCi/l | 14.2 | | 17.9 | |
| Gross Alpha +/- | 3.8 | | 4.2 | |

AMERICAN NUCLEAR CORPORATION
 Gas Hills Project
 Report Date:

QUARTERLY WATER QUALITY
 1st, 2nd, 3rd, & 4th Quarters 1993

| Well I.D. | TP-2-3 | TP-2-3 | TP-2-3 | TP-2-3 |
|--------------------|---------|----------|----------|----------|
| Type | Ground | Ground | Ground | Ground |
| Water Level (ft) | 109.98 | 109.55 | 109.78 | 109.54 |
| Quarter | First | Second | Third | Fourth |
| Lab I.D. | 93-7964 | 93-16352 | 93-36386 | 93-54998 |
| PARAMETERS (mg/l): | | | | |
| Sulfate | 1354 | 801 | 1231 | 1330 |
| Chloride | 61.6 | 33.3 | 63.8 | 71.0 |
| Nitrate | 13.4 | 2.1 | 14.4 | 8.3 |
| TDS | 2050 | 1541 | 2204 | 2258 |
| pH | 7.33 | 7.25 | 7.80 | 7.04 |
| Be | <0.05 | | <0.05 | |
| Cd | <0.01 | | <0.01 | |
| CN | <0.005 | | <0.005 | |
| Ni | <0.05 | | <0.05 | |
| Se | 0.007 | | <0.001 | |
| V | <0.10 | | <0.10 | |
| U, mg/l | 0.116 | | 1.060 | |
| Ra226, pCi/l | 8.8 | | 11.0 | |
| Ra226 +/- | 0.8 | | 1.3 | |
| Ra228, pCi/l | 32.4 | | <1.0 | |
| Ra228 +/- | 2.7 | | | |
| Th230, pCi/l | <0.2 | | <0.2 | |
| Th230 +/- | | | | |
| Gross Alpha, pCi/l | 9.1 | | 11.9 | |
| Gross Alpha +/- | 3.0 | | 3.4 | |

AMERICAN NUCLEAR CORPORATION
 Gas Hills Project
 Report Date:

QUARTERLY WATER QUALITY
 1st, 2nd, 3rd, & 4th Quarters 1993

| Well I.D. | Willow Springs | Willow Springs | Willow Springs | Willow Springs |
|---------------------------|----------------|----------------|----------------|----------------|
| Type | Surface | Surface | Surface | Surface |
| Water Level (ft) | NA | NA | NA | NA |
| Quarter | First | Second | Third | Fourth |
| Lab I.D. | | 93-16354 | | 93-55000 |
| PARAMETERS (mg/l): | | | | |
| Sulfate | No Sample | 1915 | No Sample | 1763 |
| Chloride | Required | 143 | Required | 133 |
| Nitrate | | 3.70 | | 6.89 |
| TDS | | 3430 | | 3622 |
| pH | | 7.45 | | 7.38 |

Be
 Cd
 CN
 Ni
 Se
 V

U, mg/l
 Ra226, pCi/l
 Ra226 +/-
 Ra228, pCi/l
 Ra228 +/-
 Th230, pCi/l
 Th230 +/-
 Gross Alpha, pCi/l
 Gross Alpha +/-

AMERICAN NUCLEAR CORPORATION
 Gas Hills Project
 Report Date:

QUARTERLY WATER QUALITY
 1st, 2nd, 3rd, & 4th Quarters 1993

| Well I.D. | R-4 | R-4 | R-4 | R-4 |
|---------------------------|---------|----------|----------|----------|
| Type | Ground | Ground | Ground | Ground |
| Water Level (ft) | 56.39 | Pumping | Pumping | 56.35 |
| Quarter | First | Second | Third | Fourth |
| Lab I.D. | 93-7965 | 93-16353 | 93-36387 | 93-54999 |
| PARAMETERS (mg/l): | | | | |
| Sulfate | 5843 | 6414 | 5508 | 5627 |
| Chloride | 341 | 343 | 314 | 300 |
| Nitrate | 4.50 | 0.70 | 0.49 | 1.38 |
| TDS | 8433 | 8401 | 8506 | 8519 |
| pH | 3.58 | 3.14 | 3.31 | 3.83 |
| Be | 0.16 | | 0.15 | |
| Cd | 0.08 | | 0.08 | |
| CN | <0.005 | | 0.007 | |
| Ni | 2.49 | | 2.63 | |
| Se | 0.063 | | 0.123 | |
| V | 0.45 | | 0.14 | |
| U, mg/l | 2.440 | | 1.540 | |
| Ra226, pCi/l | 32.6 | | 44.6 | |
| Pa226 +/- | 1.5 | | 2.5 | |
| Ra228, pCi/l | 29.5 | | 2.1 | |
| Ra228 +/- | 2.9 | | 0.7 | |
| Th230, pCi/l | 147 | | 33.9 | |
| Th230 +/- | 14.7 | | 3.7 | |
| Gross Alpha, pCi/l | 181 | | 82 | |
| Gross Alpha +/- | 13.5 | | 9.0 | |

AMERICAN NUCLEAR CORPORATION:
PERIMETER AIR SAMPLING PROGRAM

GAS HILLS PROJECT

REPORT DATE: February 9, 1994

SAMPLE LOCATION: Corrals #2

| Quarter Units | Radionuclide | Conc. uCi/ml | Error Est. uCi/ml | L.L.D. uCi/ml | MPC uCi/ml | % MPC % |
|---------------------------------|-------------------------------|-----------------|------------------------|------------------|---------------|------------|
| 92-15523 First Quarter 1993 | U-nat | <1.00E-16 | N/A | 1.00E-16 | 5.00E-12 | <2.00E-03 |
| | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 1.00E-16 | 3.13E-17 | 1.00E-16 | 3.00E-12 | 3.33E-03 |
| | Pb-210 | 2.23E-14 | 2.23E-15 | 2.00E-15 | 4.00E-12 | 5.58E-01 |
| | Air Volume in mls 6.08E+09 | Rn-222 | Background 2.20E-09 | | 2.00E-10 | 3.00E-09 |
| 93-24213 Second Quarter 1993 | U-nat | 2.14E-15 | N/A | 1.00E-16 | 5.00E-12 | 4.28E-02 |
| | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 2.39E-16 | 4.22E-17 | 1.00E-16 | 3.00E-12 | 7.98E-03 |
| | Pb-210 | 7.15E-15 | 6.33E-16 | 2.00E-15 | 4.00E-12 | 1.79E-01 |
| | Air Volume in mls 6.75E+09 | Rn-222 | Background 2.80E-09 | | 2.00E-10 | 3.00E-09 |
| 93-42454 Third Quarter 1993 | U-nat | 7.00E-16 | N/A | 1.00E-16 | 5.00E-12 | 1.40E-02 |
| | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 5.21E-16 | 5.96E-17 | 1.00E-16 | 3.00E-12 | 1.74E-02 |
| | Pb-210 | 5.05E-15 | 6.25E-16 | 2.00E-15 | 4.00E-12 | 1.26E-01 |
| | Air Volume in mls 6.38E+09 | Rn-222 | Background 3.70E-09 | | 2.00E-10 | 3.00E-09 |
| 94-0575 Fourth Quarter 1993 | U-nat | 4.14E-16 | N/A | 1.00E-16 | 5.00E-12 | 8.28E-03 |
| | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 2.94E-16 | 4.01E-17 | 1.00E-16 | 3.00E-12 | 9.80E-03 |
| | Pb-210 | 1.83E-14 | 1.68E-15 | 2.00E-15 | 4.00E-12 | 4.58E-01 |
| | Air Volume in mls 7.11E+09 | Rn-222 | Background 3.00E-09 | | 2.00E-10 | 3.00E-09 |

MPC from CFR10 Part 20 - Appendix B - Table II - Insoluble

AMERICAN NUCLEAR CORPORATION:
PERIMETER AIR SAMPLING PROGRAM

GAS HILLS PROJECT

REPORT DATE: February 9, 1994

SAMPLE LOCATION: NECORA #5

| Quarter Units | Radionuclide | Conc. uCi/ml | Error Est. uCi/ml | L.L.D. uCi/ml | MPC uCi/ml | % MPC % |
|---------------------|-------------------------------|-----------------|---------------------------------|------------------|---------------|------------|
| 93-15525 | U-nat | <1.00E-16 | N/A | 1.00E-16 | 5.00E-12 | <2.00E-03 |
| First Quarter 1993 | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 2.18E-15 | 1.08E-16 | 1.00E-16 | 3.00E-12 | 7.26E-02 |
| | Pb-210 | 2.05E-14 | 2.38E-15 | 2.00E-15 | 4.00E-12 | 5.12E-01 |
| | Air Volume in mls 5.28E+09 | Rn-222 | Above Background <Background | | 2.00E-10 | 3.00E-09 |
| 93-24215 | U-nat | 7.82E-16 | N/A | 1.00E-16 | 5.00E-12 | 1.56E-02 |
| Second Quarter 1993 | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 1.19E-16 | 3.40E-17 | 1.00E-16 | 3.00E-12 | 3.97E-03 |
| | Pb-210 | 7.61E-15 | 7.31E-16 | 2.00E-15 | 4.00E-12 | 1.90E-01 |
| | Air Volume in mls 5.59E+09 | Rn-222 | Above Background <Background | | 2.00E-10 | 3.00E-09 |
| 93-42455 | U-nat | 1.18E-15 | N/A | 1.00E-16 | 5.00E-12 | 2.37E-02 |
| Third Quarter 1993 | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 1.15E-15 | 1.43E-16 | 1.00E-16 | 3.00E-12 | 3.82E-02 |
| | Pb-210 | 1.39E-14 | 9.68E-16 | 2.00E-15 | 4.00E-12 | 3.47E-01 |
| | Air Volume in mls 5.30E+09 | Rn-222 | Above Background <Background | | 2.00E-10 | 3.00E-09 |
| 94-0574 | U-nat | 1.33E-15 | N/A | 1.00E-16 | 5.00E-12 | 2.67E-02 |
| Fourth Quarter 1993 | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 1.04E-15 | 7.76E-17 | 1.00E-16 | 3.00E-12 | 3.47E-02 |
| | Pb-210 | 1.68E-14 | 1.80E-15 | 2.00E-15 | 4.00E-12 | 4.19E-01 |
| | Air Volume in mls 6.12E+09 | Rn-222 | Above Background 2.00E-10 | | 2.00E-10 | 3.00E-09 |

MPC from CFR10 Part 20 - Appendix B - Table II - Insoluble

AMERICAN NUCLEAR CORPORATION:
PERIMETER AIR SAMPLING PROGRAM

GAS HILLS PROJECT

REPORT DATE: February 9, 1994

SAMPLE LOCATION: Well 13, #4

| Quarter Units | Radionuclide | Conc. uCi/ml | Error Est. uCi/ml | L.L.D. uCi/ml | MPC uCi/ml | % MPC % |
|---------------------------------|-------------------------------|-----------------|---------------------------------|------------------|---------------|------------|
| 93-15524 First Quarter 1993 | U-nat | <1.00E-16 | N/A | 1.00E-16 | 5.00E-12 | <2.00E-03 |
| | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 1.29E-15 | 7.32E-17 | 1.00E-16 | 3.00E-12 | 4.29E-02 |
| | Pb-210 | 4.57E-14 | 2.88E-15 | 2.00E-15 | 4.00E-12 | 1.14E+00 |
| | Air Volume in mls 6.49E+09 | Rn-222 | Above Background <Background | | 2.00E-10 | 3.00E-09 |
| 93-24214 Second Quarter 1993 | U-nat | 9.27E-16 | N/A | 1.00E-16 | 5.00E-12 | 1.85E-02 |
| | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 1.00E-16 | 2.85E-17 | 1.00E-16 | 3.00E-12 | 3.33E-03 |
| | Pb-210 | 8.02E-15 | 6.56E-16 | 2.00E-15 | 4.00E-12 | 2.00E-01 |
| | Air Volume in mls 6.66E+09 | Rn-222 | Above Background <Background | | 2.00E-10 | 3.00E-09 |
| 93-42456 Third Quarter 1993 | U-nat | 4.88E-16 | N/A | 1.00E-16 | 5.00E-12 | 9.76E-03 |
| | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 1.10E-15 | 8.37E-17 | 1.00E-16 | 3.00E-12 | 3.67E-02 |
| | Pb-210 | 1.11E-14 | 7.53E-16 | 2.00E-15 | 4.00E-12 | 2.78E-01 |
| | Air Volume in mls 6.81E+09 | Rn-222 | Above Background 4.00E-10 | | 2.00E-10 | 3.00E-09 |
| 94-0576 Fourth Quarter 1993 | U-nat | 5.51E-16 | N/A | 1.00E-16 | 5.00E-12 | 1.10E-02 |
| | Th-230 | <1.00E-16 | N/A | 1.00E-16 | 8.00E-14 | <1.25E-01 |
| | Ra-226 | 6.62E-16 | 7.88E-17 | 1.00E-16 | 3.00E-12 | 2.21E-02 |
| | Pb-210 | 1.78E-14 | 1.84E-15 | 2.00E-15 | 4.00E-12 | 4.45E-01 |
| | Air Volume in mls 6.03E+09 | Rn-222 | Above Background <Background | | 2.00E-10 | 3.00E-09 |

MPC from CFR10 Part 20 - Appendix B - Table II - Insoluble