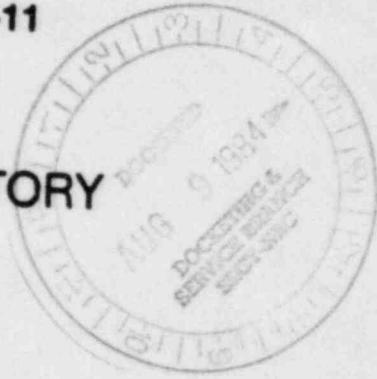


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ENVIRONMENTAL MEASUREMENTS LABORATORY

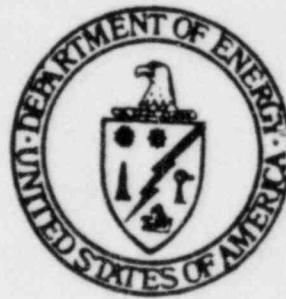
ENVIRONMENTAL REPORT

PREPARED BY
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AND LAWRENCE E. TOONKEI
ENVIRONMENTAL STUDIES DIVISION

EML-405

DCO2 014CPA

SEPTEMBER 1, 1981 THROUGH MARCH 1, 1982



MAY 1, 1982

NUCLEAR REGULATORY COMMISSION

Docket No. 50-352/353 Official Exh. No. 160
In the matter of DECO-Lemacock 1a2

| | |
|---|--|
| Staff _____ | IDENTIFIED <input checked="" type="checkbox"/> |
| Applicant <input checked="" type="checkbox"/> | RECEIVED <input type="checkbox"/> |
| Intervenor _____ | REJECTED <input type="checkbox"/> |
| Conting Offr _____ | DATE 6/19/84 |
| Contractor _____ | Witness _____ |
| Other _____ | _____ <i>Mary Semon</i> |

Reporter _____

ENVIRONMENTAL MEASUREMENTS LABORATORY

U.S. DEPARTMENT OF ENERGY

NEW YORK, N.Y. 10014

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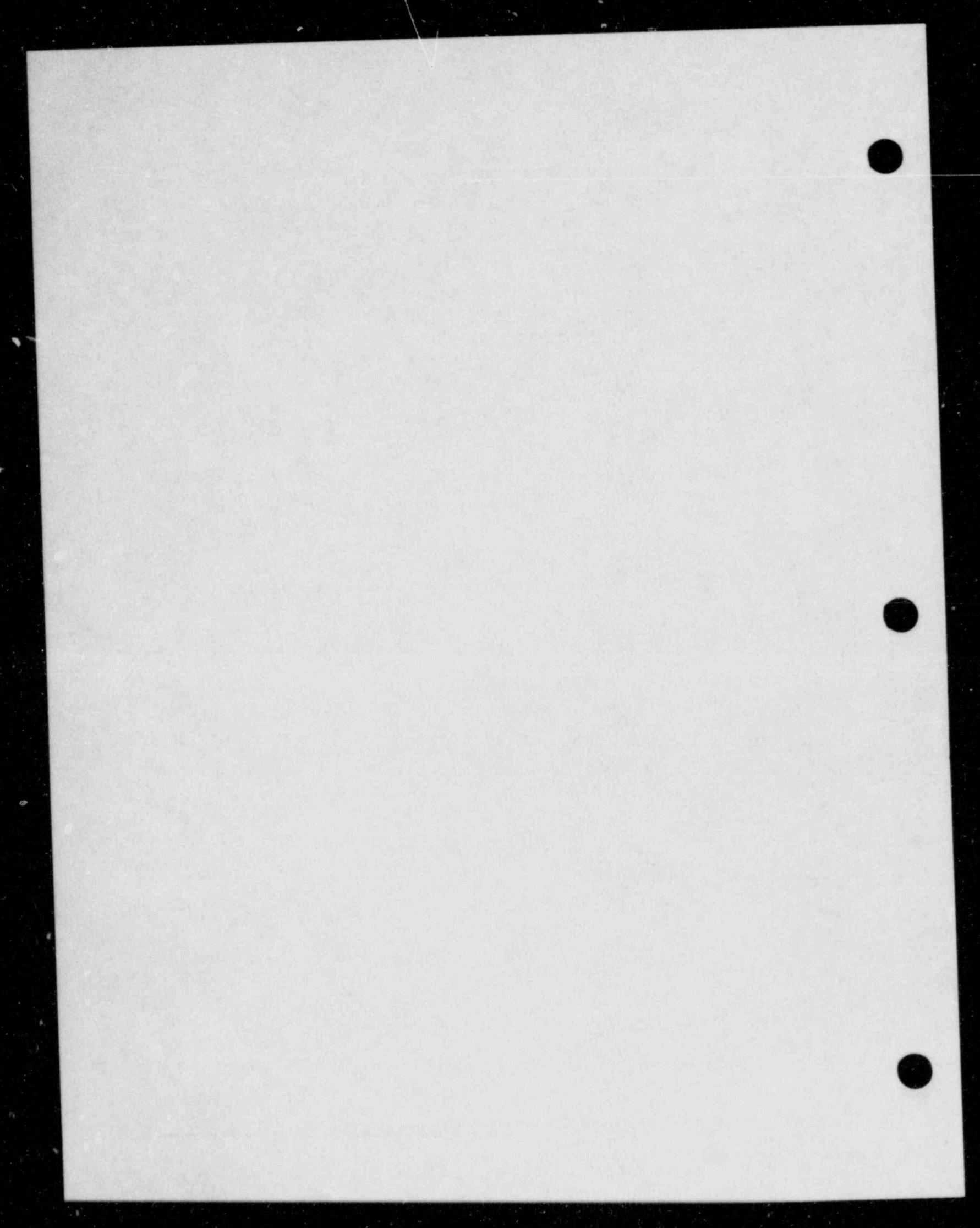
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STRONTIUM-90 IN NEW YORK CITY TAP WATER
(pCi per liter)

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual Avg. |
|------|------|------|------|------|------|------|------|------|-------|------|------|------|-------------|
| 1954 | * | * | * | * | * | * | * | 0.05 | * | 0.05 | 0.09 | 0.07 | 0.06 |
| 1955 | 0.07 | 0.11 | 0.03 | 0.11 | 0.05 | 0.10 | * | 0.13 | 0.07 | 0.23 | 0.07 | 0.12 | 0.10 |
| 1956 | 0.14 | 0.07 | * | 0.26 | 0.08 | 0.05 | 0.22 | 0.13 | 0.13 | 0.20 | 0.23 | 0.19 | 0.15 |
| 1957 | 0.18 | * | 0.26 | 0.18 | 0.01 | 0.15 | 0.24 | 0.27 | 0.12 | 0.05 | 0.08 | 0.06 | 0.14 |
| 1958 | 0.20 | 0.20 | 0.03 | 0.03 | 0.04 | 0.38 | 0.09 | 0.14 | 0.13 | 0.05 | 0.07 | 0.29 | 0.14 |
| 1959 | 0.30 | 0.11 | 0.13 | * | * | 0.71 | * | 0.61 | 0.78 | 0.65 | * | 0.63 | 0.49 |
| 1960 | 0.70 | 0.60 | 0.60 | 0.27 | 0.59 | 0.42 | 0.51 | 0.46 | 0.47 | 0.33 | 0.34 | 0.34 | 0.47 |
| 1961 | 0.36 | 0.31 | 0.37 | 0.35 | 0.32 | 0.33 | 0.30 | 0.34 | 0.18 | 0.31 | 0.30 | 0.34 | 0.32 |
| 1962 | 0.37 | 0.42 | 0.73 | 0.74 | 0.54 | 0.51 | 0.88 | 0.82 | 1.05 | 0.87 | 0.84 | 0.82 | 0.72 |
| 1963 | 0.94 | 0.52 | 1.03 | 1.07 | 1.23 | 1.23 | 2.14 | 1.76 | 1.88 | 1.40 | 2.20 | 2.02 | 1.45 |
| 1964 | 1.62 | 1.86 | 1.59 | 1.98 | 1.96 | 1.98 | 1.98 | 1.68 | 1.54 | 1.61 | 1.92 | 1.80 | 1.79 |
| 1965 | 1.62 | 1.58 | 1.32 | 1.64 | 1.34 | 1.73 | 1.44 | 1.36 | 1.38 | 1.30 | 1.10 | 1.01 | 1.45 |
| 1966 | 1.90 | 1.45 | 1.54 | 0.58 | 1.19 | 1.62 | 0.92 | 0.86 | 0.82 | 0.76 | 0.80 | 0.86 | 1.11 |
| 1967 | 0.71 | 0.76 | 0.55 | 0.61 | 0.50 | 0.70 | 0.55 | 0.55 | 0.61 | 0.58 | 0.68 | 0.45 | 0.60 |
| 1968 | 0.59 | 0.56 | 0.50 | 0.51 | 0.55 | 0.60 | 0.54 | 0.46 | 0.48 | 0.68 | 0.72 | 0.77 | 0.58 |
| 1969 | 0.58 | 0.68 | 0.56 | 0.54 | 0.69 | 0.66 | 0.74 | 0.74 | 0.85 | 0.76 | 0.78 | 0.90 | 0.71 |
| 1970 | 0.84 | 0.65 | 0.64 | 0.67 | 0.59 | 0.65 | 0.72 | 0.64 | 0.64 | 0.62 | 0.70 | 0.68 | 0.67 |
| 1971 | 0.75 | 0.66 | 0.64 | 0.63 | 0.63 | 0.54 | 0.51 | 0.72 | 0.74 | 0.72 | 0.74 | 0.61 | 0.66 |
| 1972 | 0.65 | 0.59 | 0.54 | 0.56 | 0.54 | 0.59 | 0.51 | 0.46 | 0.60 | 0.54 | 0.53 | 0.60 | 0.56 |
| 1973 | 0.52 | 0.52 | 0.54 | 0.44 | 0.44 | 0.50 | 0.52 | 0.47 | 0.55 | 0.48 | 0.61 | 0.54 | 0.51 |
| 1974 | 0.55 | 0.52 | 0.49 | 0.55 | 0.54 | 0.44 | 0.50 | 0.42 | 0.42 | 0.53 | 0.52 | 0.50 | 0.50 |
| 1975 | 0.47 | 0.56 | 0.66 | 0.46 | 0.46 | 0.45 | 0.43 | 0.41 | 0.42 | 0.42 | 0.38 | 0.48 | 0.47 |
| 1976 | 0.28 | 0.24 | 0.26 | 0.36 | 0.43 | 0.38 | 0.46 | 0.36 | 0.32 | 0.23 | lost | 0.22 | 0.32 |
| 1977 | lost | 0.33 | 0.24 | 0.26 | 0.28 | 0.30 | 0.31 | 0.30 | 0.30 | 0.34 | 0.34 | 0.35 | 0.30 |
| 1978 | 0.28 | 0.25 | 0.25 | 0.26 | 0.27 | 0.29 | 0.34 | 0.32 | 0.32 | 0.24 | 0.26 | 0.28 | 0.28 |
| 1979 | 0.32 | 0.34 | 0.32 | 0.34 | 0.33 | 0.36 | 0.34 | 0.30 | 0.30 | 0.30 | 0.32 | 0.38 | 0.33 |
| 1980 | 0.29 | 0.34 | 0.30 | 0.20 | 0.29 | 0.27 | 0.28 | 0.32 | 0.26 | 0.30 | 0.28 | 0.29 | 0.28 |
| 1981 | 0.26 | 0.29 | 0.32 | 0.32 | lost | 0.34 | 0.34 | 0.34 | 0.34 | 0.32 | * | * | 0.32 |

*Samples not collected



THE ^{137}Cs TO ^{80}Sr RATIO IN NEW YORK CITY TAP WATER

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual Avg. |
|------|------|------|------|------|------|------|------|------|-------|------|--------------------------|------|-------------|
| 1965 | 0.08 | 0.10 | 0.09 | 0.13 | 0.18 | 0.12 | 0.19 | 0.15 | 0.12 | * | 0.18 | 0.11 | 0.13 |
| 1966 | 0.23 | * | 0.13 | 0.14 | 0.18 | 0.17 | 0.24 | 0.21 | 0.12 | 0.09 | 0.14 | 0.07 | 0.16 |
| 1967 | 0.06 | 0.05 | 0.07 | 0.10 | 0.12 | 0.08 | 0.09 | 0.09 | 0.06 | 0.10 | 0.15 | 0.13 | 0.09 |
| 1968 | 0.09 | 0.06 | 0.07 | 0.11 | 0.13 | 0.12 | 0.14 | 0.12 | 0.11 | 0.08 | 0.08 | 0.07 | 0.10 |
| 1969 | 0.08 | 0.06 | 0.08 | * | 0.08 | 0.10 | 0.08 | 0.09 | 0.10 | 0.09 | 0.08 | 0.08 | 0.08 |
| 1970 | 0.05 | 0.06 | 0.07 | * | 0.10 | 0.13 | 0.1* | 0.14 | 0.13 | 0.14 | 0.14 | 0.11 | 0.11 |
| 1971 | 0.09 | 0.09 | 0.10 | 0.11 | 0.13 | * | 0.16 | 0.13 | 0.12 | 0.11 | 0.11 | 0.09 | 0.11 |
| 1972 | 0.12 | 0.11 | 0.10 | 0.08 | 0.10 | 0.10 | 0.10 | * | * | * | 0.09 | 0.07 | 0.10 |
| 1973 | 0.07 | | 0.10 | | 0.06 | 0.11 | 0.07 | 0.08 | 0.07 | 0.08 | 0.05 | 0.08 | 0.08 |
| 1974 | 0.08 | 0.06 | 0.07 | 0.09 | 0.11 | 0.17 | 0.11 | 0.13 | 0.13 | 0.10 | 0.09 | 0.08 | 0.10 |
| 1975 | 0.08 | 0.10 | * | 0.08 | 0.10 | 0.09 | 0.10 | 0.08 | 0.07 | * | * | * | 0.09 |
| 1976 | * | * | * | 0.04 | 0.05 | 0.05 | 0.04 | 0.05 | 0.04 | 0.06 | lost ^{80}Sr | 0.09 | 0.05 |
| 1977 | lost | 0.13 | lost | 0.06 | 0.08 | 0.15 | 0.10 | 0.10 | 0.14 | 0.16 | 0.17 | 0.13 | 0.12 |
| 1978 | 0.14 | 0.14 | 0.21 | 0.24 | 0.17 | 0.25 | * | * | * | * | * | * | * |
| 1979 | * | * | * | * | * | * | * | 0.12 | 0.08 | 0.09 | 0.08 | 0.07 | |
| 1980 | 0.09 | 0.06 | 0.06 | 0.05 | * | 0.09 | 0.08 | 0.06 | 0.09 | 0.07 | 0.09 | 0.14 | 0.08 |
| 1981 | 0.08 | 0.09 | 0.10 | 0.08 | lost | 0.14 | 0.13 | 0.10 | * | * | * | * | |

 ^{80}Sr analysis

