K/EM-112

# AIR POLLUTION SAMPLING DATA (1957)

(From Box #6A-8-8-48)

Compiled by
S. G. Thornton
Environmental Management Division
OAK RIDGE K-25 SITE
for the Health Studies Agreement

April 1, 1995

**Oak Ridge K-25 Site**
**Oak Ridge, Tennessee 37831-7101**
**managed by MARTIN MARIETTA ENERGY SYSTEMS, INC.**
**for the U.S. DEPARTMENT OF ENERGY**
**under Contract DE-AC05-84OR21400**

This document has been approved for release to the public by: [signature] Technical Information Officer Oak Ridge K-25 Site 4/19/95 Date

*ChemRisk Document No. 1666*

TECHNICAL DIVISION
SPECIAL ANALYTICAL SERVICES DEPARTMENT

# AIR POLLUTION SAMPLING DATA SHEET

Date 11/21/57 No. AP- 30

Contaminant: URANIUM Absorbing Media: 225 ml $H_2O$

| | | | | |
|---|---|---|---|---|
| Sampling Method | Greenberg-Smith impinger. | | | |
| Location | FIXED POINT (1st Shift) | | | |
| Distance from K-601 | 800 yd | | Direction from K-601 | 103.5 |
| Time (start-end) | 1600 | 2400 | Duration (hrs.) | 8.0 |
| Flow (CFM start-end) | 1 | 1 | Volume (CF) | 480 |
| Total micrograms contaminant | 56.7 | | Concentration | 4 µg/m³ |

## Hourly Weather Conditions (Sampling Site)

| Time | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 |
|---|---|---|---|---|---|---|---|---|
| Wind Direction | 10 | 10 | 10 | 10 | 10 | 8 | 8 | 8 |
| Wind Velocity | 11 | 8 | 8 | 6 | 4 | 2 | 3 | 2 |

## Hourly Weather Conditions (W.B.)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Wind Direction | 9 | 9 | 12 | 11 | 14 | 14 | 13 | 16 |
| Wind Velocity | 7 | 10 | 4 | 1 | 5 | 4 | 1 | 3 |
| Temperature (F°) | 53 | 53 | 49 | 47 | 46 | 40 | 37 | 34 |
| Sky Cover (1 - 10) | | | | | | | | |
| Precipitation (inches) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Temp. Gradient | -3 | -2 | 0 | 0 | 1 | 3 | 3 | 3 |
| Dew Point | 40 | 42 | 35 | 32 | 31 | 32 | 32 | 31 |
| Relative Humidity | | | | | | | | |

## Observations and Miscellaneous Data

Odor Description

Major Effluent Sources and Approximate Flow Rates

| | | | | | | |
|---|---|---|---|---|---|---|
| | (1.) 1 lbs $F_2$ | (2.) 3 lbs $F_2$ | (3.) $F_2$ 11 lbs HF 10 lbs | (4.) 0 | (5.) 6 lbs $NO_2$ 4 lbs $F_2$, 1 lb HF | (6.) |
| (7.) 0 | (8.) | (9.) 1,480 lbs $SO_2$ | (10.) — | (11.) 26 lbs $F_2$ | (12.) 1.5 lbs $F_2$ | (13.) 0 |
| (14.) 0 | (15.) 0 | | | | | |

Remarks

Sampled By JEM Supervisor [signature] Date Released 12/4/57

TL-20 (7-57) NRC

TECHNICAL DIVISION
SPECIAL ANALYTICAL SERVICES DEPARTMENT

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# AIR POLLUTION SAMPLING DATA SHEET

Date 11/29/57 No. AP- 40

Contaminant: URANIUM Absorbing Media: 200 ml $H_2O$

Sampling Method: AIR IMPINGER Greenburg-Smith Impinger

Location: FP 1st Stage

| | | | | |
|---|---|---|---|---|
| Distance from K-601 | 800 yd | | Direction from K-601 | 03.5 |
| Time (start-end) | 1600 | 2400 | Duration (hrs.) | 8.00 |
| Flow (CFM start-end) | 1 | 1 | Volume (CF) | 480 |
| Total micrograms contaminant | 5.4 γ | | Concentration | 0.4 μg/M³ |

## Hourly Weather Conditions (Sampling Site)

| Time | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 |
|---|---|---|---|---|---|---|---|---|
| Wind Direction | | | | | | | | |
| Wind Velocity | | | | | | | | |

## Hourly Weather Conditions (W.B.)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Wind Direction | 10 | 9 | 10 | 10 | 11 | 11 | 14 | 0 |
| Wind Velocity | 7 | 2 | 5 | 4 | 2 | 12 | 12 | 0 |
| Temperature (F°) | 64 | 64 | 65 | 64 | 62 | 61 | 55 | 52 |
| Sky Cover (1 - 10) | | | | | | | | |
| Precipitation (inches) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Temp. Gradient | -2 | -1 | 0 | -1 | -1 | -1 | -1 | 2 |
| Dew Point | 50 | 51 | 52 | 53 | 54 | 53 | 41 | 40 |
| Relative Humidity | | | | | | | | |

## Observations and Miscellaneous Data

Odor Description

Major Effluent Sources and Approximate Flow Rates

Remarks

Sampled By [illegible] Supervisor [illegible] Date Released 12/12/57

TL-20 (7-57) NRC

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TECHNICAL DIVISION
SPECIAL ANALYTICAL SERVICES DEPARTMENT

# AIR POLLUTION SAMPLING DATA SHEET

Date 12/16/57 No. AP- 60

Contaminant: URANIUM Absorbing Media: $H_2O$ 200 ml

| | | | | |
|---|---|---|---|---|
| Sampling Method | GREENBURG IMPINGER | | | |
| Location | G 1st Shift | | | |
| Distance from K-601 | 1000 yd | | Direction from K-601 | 01.2 |
| Time (start-end) | 1600 | 2400 | Duration (hrs.) | 8.00 |
| Flow (CFM start-end) | 1 | 1 | Volume (CF) | 480 |
| Total micrograms contaminant | 21.6 γ | | Concentration | 1.6 μg/m³ |

## Hourly Weather Conditions (Sampling Site)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | | | | | | | | |
| Wind Direction | | | | | | | | |
| Wind Velocity | | | | | | | | |

## Hourly Weather Conditions (W.B.)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Wind Direction | | | | | | | | |
| Wind Velocity | | | | | | | | |
| Temperature (F°) | | | | | | | | |
| Sky Cover (1 - 10) | | | | | | | | |
| Precipitation (inches) | | | | | | | | |
| Temp. Gradient | | | | | | | | |
| Dew Point | | | | | | | | |
| Relative Humidity | | | | | | | | |

## Observations and Miscellaneous Data

Odor Description

Major Effluent Sources and Approximate Flow Rates

Remarks

Sampled By JEM Supervisor Kwasnoski Date Released 1/2/58

TL-20 (7-57) NRC

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TECHNICAL DIVISION
SPECIAL ANALYTICAL SERVICES DEPARTMENT

# AIR POLLUTION SAMPLING DATA SHEET

Date 12/23/57 No. AP- 70

Contaminant: URANIUM Absorbing Media:

| | | | | |
|---|---|---|---|---|
| Sampling Method | Impinger G.S. | | | |
| Location | Fixed Point | | | |
| Distance from K-601 | 800 yds. | | Direction from K-601 | 03.5 |
| Time (start-end) | 1600 | 0000 | Duration (hrs.) | 8.0 |
| Flow (CFM start-end) | 1 | 1 | Volume (CF) | 480.0 |
| Total micrograms contaminant | 43.7 | | Concentration | 3.0 μg/M³ |

## Hourly Weather Conditions (Sampling Site)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | | | | | | | | |
| Wind Direction | | | | | | | | |
| Wind Velocity | | | | | | | | |

## Hourly Weather Conditions (W.B.)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Wind Direction | | | | | | | | |
| Wind Velocity | | | | | | | | |
| Temperature (F°) | | | | | | | | |
| Sky Cover (1 - 10) | | | | | | | | |
| Precipitation (inches) | | | | | | | | |
| Temp. Gradient | | | | | | | | |
| Dew Point | | | | | | | | |
| Relative Humidity | | | | | | | | |

## Observations and Miscellaneous Data

Odor Description

Major Effluent Sources and Approximate Flow Rates

Remarks

Sampled By JEM Supervisor T Kwasowski Date Released 1/10/58

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TECHNICAL DIVISION
SPECIAL ANALYTICAL SERVICES DEPARTMENT

# AIR POLLUTION SAMPLING DATA SHEET

Date: 12/31/57 No. AP- 80

Contaminant: URANIUM Absorbing Media: $H_2O$

Sampling Method: GREENBERG IMPINGER

Location: F

| | | | | |
|---|---|---|---|---|
| Distance from K-601 | 1200 yd | | Direction from K-601 | 05.5 |
| Time (start-end) | 1600 | 2400 | Duration (hrs.) | 800 |
| Flow (CFM start-end) | / | / | Volume (CF) | 480 |
| Total micrograms contaminant | 23.8 | | Concentration | 2.0 μg/m³ U |

**Hourly Weather Conditions (Sampling Site)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | | | | | | | | |
| Wind Direction | | | | | | | | |
| Wind Velocity | | | | | | | | |

**Hourly Weather Conditions (W.B.)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Wind Direction | | | | | | | | |
| Wind Velocity | | | | | | | | |
| Temperature (F°) | | | | | | | | |
| Sky Cover (1 - 10) | | | | | | | | |
| Precipitation (inches) | | | | | | | | |
| Temp. Gradient | | | | | | | | |
| Dew Point | | | | | | | | |
| Relative Humidity | | | | | | | | |

**Observations and Miscellaneous Data**

Odor Description

Major Effluent Sources and Approximate Flow Rates

Remarks

Sampled By [illegible] Supervisor [illegible] Date Released 1/22/58

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