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Health and Safety Division

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Site Survey Branch

ACTIVITY REPORT - SITE SURVEY BRANCH - MARCH 1961

HSSS:GW

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MONITORING

General: The total number of samples collected during March were as follows:

| Air Samples | | | | Water Samples | |
|---|---|---|---|---|---|
| Low Vol. | High Vol. | Fallout | Film Badges | On-Site | Off-Site |
| 109 | 44 | 174 | 366 | 70 | 26 |

The maximum gross beta activity detected at the Idaho Falls station was less than 0.2 uuc/m$^3$.

CPP: Rala run #054 was made on March 21-22, 1961 with approximately 0.7 curies of iodine-131 released to the atmosphere from March 21 to March 27, 1961.

SL-1: Gamma radiation surveys were made on March 8 and March 29 at 28 locations outside the SL-1 area. Results of these surveys indicate the decrease in dose rate can be approximated by the equation

$$A = A_o \exp\left(\frac{-.693\ t}{T_{\frac{1}{2}}}\right)$$

where $A_o$ is the activity on January 5
$T_{\frac{1}{2}}$ is 31 days
$t$ is number of days since January 5

ANP: IET Test #26, which started on December 23, 1960, was terminated on March 30, 1961. For the entire test a total of 2420 curies of 10 minute aged mixed fission products were released during 399 hours of operation above the minimum design power level.

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Maximum effluent release rate was 18.5 curies/hour of 10 minute aged fission products. Approximately 5 curies of iodine-131 and .005 curies of strontium were discharged to the atmosphere during the test.

ETR: The GE-ANP 6-3 experiment has been cancelled indefinately.

INSPECTIONS

Inspection of X-ray operations during March were as follows:

EOCR: 3 inspections
SPERT-4: 2 inspections

All inspections indicated that adequate safety precautions were being taken.

DESIGN REVIEWS

Approximately 15 sets of plans for proposed facilities were reviewed by the Health Physics Section.

WASTE MANAGEMENT SECTION

Research: Contract AT(10-1)1054 was completed with the exception of clean-up around wells. Five thousand, eight hundred and sixty five feet of hole was drilled involving three new wells in the vicinity of the ICPP and sixteen in the vicinity of MTR-ETR pond. Additional work on several existing wells was also performed.

Details of work reported by the USGS is quoted as follows:

Hydrological Studies: Water level recorders were operated on 7 NRTS wells during the month and 25 weekly measurements of water were made in 25 regularly observed site wide wells.

Borehole Geophysical Studies: Geophysical logging was concentrated in the MTR-ETR and ICPP areas, although logging was performed in several other wells on the site. USGS #4 at the NE corner of the site and USGS #19 at the NW corner of the site were logged. Removal of the recorder and recorder shelters on these wells was necessary and the instruments were reinstalled after logging was completed.

(continued)

An interim report on the "Hydrology of Waste Disposal" was received from USGS for review.

Waste Disposal: Waste disposal during February 1961 was as follows:

| Liquid | | Air | Solid | |
|---|---|---|---|---|
| Activity Curies | Volume Gallons | Activity Curies | Activity Curies | Volume Cubic Ft. |
| 221 | 41,167,400 | 29,859 | 1,799 | 16,139 |

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