

ALLIED CORRESPONDENCE

PGWE

TELEPHONE (415) 781-4211

'85 JUL 29 P12 08

DOCKET
BRANCH

B509300053 B50723
PDR ADOCK 05000133
R PDR

ENCLOSURE

INSTALLATION: HUMBOLDT BAY

LOCATION: 4 MI SW EUREKA, CA

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1983
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: ~~4~~3
TYPE: BWR
DOCKET NO.: 58-133
COOLING WATER SOURCE: HUMBOLDT BAY

LICENSEE: PACIFIC GAS & ELECTRIC
LICENSED POWER (MWT): 228.88
INITIAL CRITICALITY: 02/16/63

AIRBORNE EFFLUENTS

NUCLIDES RELEASED
CO-60
SR-90
SB-125
CS-134
CS-137
UNIDENTIFIED

ACTIVITY (CI)

1.63E-04
3.38E-06
<4.73E-06
1.13E-06
1.81E-04
~~4.10E-05~~ 2.24E-5

LIQUID EFFLUENTS

NUCLIDES RELEASED
CO-60
SR-90
CS-134
CS-137
UNIDENTIFIED

ACTIVITY (CI)

8.45E-03
2.22E-04
7.27E-03
1.58E-01
<7.83E-05

TOTAL AIRBORNE TRITIUM RELEASE <4.88E-02
TOTAL LIQUID TRITIUM RELEASE 5.38E-02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)
VOLUME OF DILUTION WATER USED DURING PERIOD

LITERS 7.48E+05
LITERS 9.65E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION=HUMBOLDT BAY

LOCATION 4 MI SW EUREKA, CA

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT FOR 1983
SUPPLEMENTAL INFORMATION

UNIT NUMBER 1-3

TYPE BWR

DOCKET NO. 58-133

COOLING WATER SOURCE HUMBOLDT BAY

LICENSEE PACIFIC GAS & ELECTRIC

LICENSED POWER (MWT) 22#

INITIAL CRITICALITY #2/16/63

MAXIMUM PERMISSIBLE CONCENTRATIONS(MICROCURIES/ML)

MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY

FISSION AND ACTIVATION GASES

DUE TO THE LONG DECAY TIME SINCE OPERATION (SHUTDOWN JULY 2, 1976) NO DETECTABLE RELEASES OF FISSION AND ACTIVATION GASES CAN BE EXPECTED. ACCORDINGLY, THESE RADIONUCLIDES ARE NOT REPORTED.

IODINES

CHARCOAL CARTRIDGES ARE REMOVED FROM THE STACK SAMPLING SYSTEM WEEKLY AND, AFTER 48 HOUR DECAY, ARE ANALYZED FOR I-131 AND I-133 (INTRINSIC GERMANIUM DETECTOR). DUE TO THE LONG DECAY TIME SINCE OPERATION (SHUTDOWN JULY 2, 1976) NO DETECTABLE RELEASES OF RADIOACTIVE IODINES CAN BE EXPECTED. ACCORDINGLY, THESE RADIONUCLIDES ARE NOT REPORTED.

PARTICULATES

FILTER PAPERS ARE REMOVED FROM THE STACK SAMPLING SYSTEM WEEKLY AND, AFTER 48 HOURS DECAY, ARE ANALYZED FOR GROSS ALPHA (INTERNAL PROPORTIONAL COUNTER) AND THE CONCENTRATION OF GAMMA EMITTING NUCLIDES (INTRINSIC GERMANIUM DETECTOR). ALL STATISTICALLY SIGNIFICANT PEAKS ARE IDENTIFIED. THE FILTERS FOR EACH QUARTER ARE ANALYZED FOR RADIOACTIVE STRONTIUM (ALL SR-90 DUE TO DECAY TIME). THE ERROR OF THE REPORTED RELEASE VALUES IS ESTIMATED BASED ON UNCERTAINTY IN SAMPLE FLOW RATE, STACK FLOW RATE, DETECTOR CALIBRATION, AND TYPICAL SAMPLE COUNTING STATISTICS.

LIQUID EFFLUENTS

LIQUID WASTE BATCH SAMPLES WERE GAMMA SPECTRUM COUNTED AND COUNTED FOR GROSS BETA RADIOACTIVITY. ALL STATISTICALLY IMPORTANT PEAKS WERE IDENTIFIED. QUARTERLY COMPOSITES OF ALL BATCHES WERE ANALYZED FOR GROSS ALPHA, TRITIUM AND RADIOACTIVE STRONTIUM (SR-90). THE ERROR OF THE REPORTED RELEASE VALUES IS ESTIMATED BASED ON UNCERTAINTY IN SAMPLE VOLUME, BATCH VOLUME, DETECTOR CALIBRATION, AND TYPICAL SAMPLE COUNTING STATISTICS.