Corrected per Ltr dtd 3-7-72

Results of the analyses performed in the first half of 1971 on surface water, bottom sediment and slime samples and inadvertently left out of the last report are given in Tables 19-21.

B. Airborne Radioactivity

1. Gaseous Wastes

The total quantity of gaseous radioactive wastes discharged from the Dresden Station during the reporting period was as follows: noble gases 595,640 Ci[1/], 60% of which came from Units 2/3; iodines 6.418 Ci, the majority of which (96%) came from the Dresden Units 2/3 chimney; and particulates 0.506 Ci, majority of which (80%) also came from Dresden Units 2/3. Gaseous wastes released from the station are summarized in Table 22.

During the reporting period, gaseous wastes were discharged from the Unit 1 chimney at the following rates: noble gases 19,017 μCi/sec; iodines 0.014 μCi/sec; and particulates 0.005 μCi/sec. These rates of release were 3.4% of release limits for the noble gases and 0.8% of release limits for iodine plus particulates as set forth in the Technical Specifications. Unit 1 release rate data are presented in Table 23.

Gaseous radioactive wastes released from Units 2 and 3 were discharged from the Units 2/3 chimney at the following rates: noble gases 22,412 μCi/sec; iodines 0.389 μCi/sec; and particulates 0.026 μCi/sec. Their percentages of release limits for the reporting period were 2.5% for noble gases and 9.7% for iodines and particulates. Average discharge rates through the Units 2 and 3 ventilation ducts were 0.001 μCi/sec for both iodines and particulates for both ducts. Percentage limit for the iodines plus particulates out the Dresden Units 2/3 vent stack was less than 3.4%. Gaseous release rate data are shown in Table 24.

During the second half of 1971, gaseous wastes were released from Dresden Station at levels far below the limiting conditions for operation given in the Technical Specifications. The noble gas release rate averaged 5.9% of the Technical Specification limit; for iodines plus particulates the release rate averaged less than 13.9% of the limit. Dresden Station average release rate data are presented in Table 25. The maximum monthly average release rate for noble gases occurred in July, August and September when noble gases were released at 9.5% of their limit.

1/ Includes radioactivity from all known contributors.

TABLE 22

Gaseous Waste Summary: Total Curies Discharged
Unit 1 and Units 2/3
July - December 1971

Month	Noble Gases 1/		Iodine 2/				Particulates 3/				Tritium Released from Unit #2/3
	Unit #1 Chimney	Units #2, 3 Chimney	Unit #1 Chimney	Units #2, 3 Chimney	Vent Stack Unit #2	Vent Stack Unit #3	Unit #1 Chimney	Units #2, 3 Chimney	Vent Stack Unit #2	Vent Stack Unit #3	
July	103,700	63,000	0.072	0.935	0.003	<0.001	0.005	0.241	0.003	<0.001	1.61
August	104,200	62,440	0.102	0.592	0.001	<0.001	0.054	0.024	0.003	<0.001	1.56
September	31,000	70,840	0.047	0.959	0.003	<0.001	0.013	0.029	0.003	<0.001	1.24
October	Unit shutdown whole month	49,120	<0.001	1.334	0.003	<0.001	<0.001	0.029	0.002	<0.001	0.51
November	Unit shutdown whole month	52,070	<0.001	1.420	0.002	<0.001	0.003	0.041	0.005	0.001	0.86
December	Unit shutdown whole month	59,270	0.001	0.940	0.002	0.002	0.006	0.040	0.003	0.001	2.82
Total	238,900	356,740	0.222	6.180	0.014	0.002	0.081	0.404	0.019	0.002	8.60
Station Total	595,640		6.418				0.506				≥ 8.60 4/

1/ Values are based on results of analyses of daily grab samples.

2/ Based on results of analyses of composite samples.

3/ Based on results of analyses of composite samples.

4/ Quantity of tritium released from Unit 1 chimney is not known.

TABLE 23

Average Gaseous Waste Discharge Rates
Unit 1
Dresden Nuclear Power Station
July - December 1971

Month	Average Discharge Rate (μCi/sec) 1/			Percent of Release Limit	
	Noble Gases	Iodines	Particulates	Noble Gases 2/	Iodine and Particulates 3/
July	38,700	0.027	0.002	6.9	1.2
August	38,900	0.038	0.020	6.9	2.4
September	36,500	0.018	0.005	6.5	1.0
October	Unit shutdown whole month	<0.001	<0.001	Unit shutdown whole month	<0.1
November	" "	0.001	0.001	" "	0.1
December	" "	<0.001	0.002	" "	0.1
3rd Quarter	38,033	0.028	0.009	6.8	1.5
4th Quarter	0	0.001	0.001	0	<0.1
Semiannual	19,017	0.014	0.005	3.4	<0.8

1/ Total curies discharged (Table 22) ÷ total time period (seconds).

2/ Average Discharge Rate in Ci/sec (from this table) x 100 ÷ Tech. Spec. Limit (0.56 Ci/sec).

3/ Average Discharge Rate of Iodine plus particulates in Ci/sec (from this table) x 100 ÷ Tech. Spec. Limit (2.4×10^{-6} Ci/sec).

TABLE 25

Average Gaseous Waste Discharge Rates
Unit 1 and Units 2/3
Dresden Nuclear Power Station
July - December 1971

	Average Discharge Rate (μCi/sec) 1/			Total Percent of Release Limits 2/	
	Noble Gases	Iodines	Particulates	Noble Gases	Iodines and Particulates
July	62,222	0.376	0.092	9.5	≤ 14.7
August	62,000	0.348	0.029	9.5	≤ 11.0
September	63,830	0.388	0.016	9.5	≤ 13.2
October	18,350	0.498	0.011	2.0	≤ 15.2
November	20,080	0.549	0.002	2.3	≤ 17.4
December	22,120	0.351	0.003	2.5	≤ 11.9
3rd Quarter	62,674	0.371	0.046	9.5	≤ 12.9
4th Quarter	20,183	0.466	0.005	2.2	≤ 14.9
Semiannual	41,429	0.419	0.026	5.9	≤ 13.9

1/ Sum of average release rates from Unit No. 1 and Unit No. 2/3 chimneys and Unit No. 2/3 vent stack from Tables 23 and 24.

2/ Sum of individual factors involved in total Dresden Station release rate limits from Tables 23 and 24.