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712748

1-5 - A.E.C. - D. G. Sturges
6. [illegible]
7. C. A. Bennett

HW-29603-Del

[redacted]

October 12, 1953

This document consists of [redacted] pages,

U. S. Atomic Energy Commission
Hanford Operations Office
Richland, Washington

Attention: D. G. Sturges, Chief
Operations Division

Classification Cancelled (Change to
Declassified With Deletions
By Authority of RLO-CG-4
[illegible] 5/15/91
[illegible] 5/16/91
[illegible] 5-16-91

Gentlemen:

DATA ON XENON RELEASES AT HANFORD

References:
1. HW-29472, "Information on Xenon Releases", to O. H. Greager and B. F. Butler from D. G. Sturges, dated March 13, 1953.
2. BW-28509, "The Activity of Xenon 131 and Xenon 133 at the Time of Dissolving at the Separation Plant", by C. V. Larrick and J. D. Erbman, dated June 25, 1953.
3. HW-31451, "Information on Xenon Released", to C. A. Bennett from H. R. Freitag, dated August 4, 1953.

Appended to this letter are data giving the individual releases of Xenon 131 ("31") and Xenon 133 ("33") from Hanford dissolvers over the period from July 1, 1952 to July 1, 1953. In addition, the cumulative amounts resulting from such dissolution are given as of the end of each month. All results are coded in the same manner as individual Krypton releases. Similar data for July, August, and September 1953 are presently being computed. Beginning October 1, 1953 these releases will be included in the routine release reports as indicated in reference [3].

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Both for convenience in computation, and in order to save the needless repetition of information concerning the exact time of release, the data have been grouped into periods corresponding to previously submitted reports on Krypton releases. Within each period the individual releases are serially numbered in exactly the order in which the necessary information appears in the reference documents.

Several important characteristics of these releases should be noted:

1. Xenon 131 is constantly being formed from the decay of Iodine 131, and this effect is still appreciable at the time of dissolution after normal "cooling" periods. Hence the computation of the amount of Xenon 131 present in the atmosphere as a result of Hanford dissolving must include allowance for this buildup as well as for decay. This makes it necessary to compute the net result from a given months operations as of the end of each succeeding month until it becomes negligible (about four months) and then sum these results to obtain the desired total.

2. The above is further complicated by the fact that Hanford separations areas are equipped with silver reactors which remove most of the iodine from the dissolver gases. This means that of the Xenon 131 present in the atmosphere at any given time due to Hanford operations, part was released at the time of dissolution and the rest at the time it was formed from Iodine 131 decay. Thus, in addition to the instantaneous release at the time of dissolution given in the individual releases, there is a more or less constant release at all other times which is reflected only in the cumulative figures.

3. The extreme variations in the release data for a given dissolver batch, which are also reflected to some extent in the cumulative figures, are due almost entirely to variations in "cooling" period, i.e., the time between discharge from a pile and dissolution. This is especially true of the short half-lived Xenon 133, where a twenty-five day decrease in cooling period will increase the amount released by a factor of about one hundred.

As in the Krypton release calculation, it is necessary to pro-rate the material from a given pile discharge to individual dissolver batches on a weight (or, what is equivalent, an exposure) basis. Hence the problem becomes that of determining the equilibrium power being produced by a given pile discharge during some comparatively short period (say 30 to 60 days) prior to discharge.

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U. S. Atomic Energy Commission
Attention: D. G. Sturges

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October 12, 1953

For material discharged since June, 1953 this has been done by obtaining for each pile discharge the sum over all tubes discharged of the factors relating the power of an individual tube to the power of the average tube in the pile. This coupled with records giving the number of effective pile tubes and the average operating power, enables the computation of the total power to be assigned to a given discharge. However, prior to this time, the factor summations were not obtained routinely. As a consequence, all releases from material discharged prior to June, 1953 (which includes all the appended data) were computed by (1) determining the average overall power for each discharge from records on total exposure and length of exposure, and (2) correcting these data by a factor of 1.35 based on those discharges for which both computations could be made. This correction factor is subject to change as additional information is obtained, but it is not expected that such changes will affect the release data by more than $\pm$ 10 per cent.

The above discussion relates primarily to the possibility of a systematic bias in the release data. It should also be pointed out that while pile discharges at Hanford are (at least tubewise) comparatively homogeneous with respect to exposure, they are often quite heterogeneous with respect to power. Hence the precision of the individual Xenon release figures is much more affected than the precision of the Krypton releases by the necessity for prorating pile discharges to individual dissolver batches, and could be as large as $\pm$ 25 per cent.

Very truly yours,

C. A. Bennett

C. A. Bennett
Statistics Unit
PLANT AUXILIARY OPERATIONS DEPARTMENT

CA Bennett:de

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Period: First Half of July, 1952

Reference Document: 15-1607

No.	"31"	"33"	No.	"31"	"33"
1.	12.04	13.69	18	21.99	68.51
2	8.89	10.12	19	13.55	19.41
3	9.92	10.44	20	13.58	19.46
4	10.79	10.53	21	17.73	51.09
5	7.97	7.78	22	11.74	15.58
6	32.91	152.09	23	10.07	12.37
7	9.39	9.16	24	9.01	11.06
8	7.55	6.82	25	9.51	10.82
9	10.22	9.24	26	10.50	11.95
10	8.89	8.04	27	8.05	8.48
11	7.15	5.99	28	4.70	.80
12	21.27	38.42	29	3.86	.61
13	24.50	89.31	30	3.29	.52
14	17.56	29.35	31	4.20	.62
15	14.89	24.89	32	3.45	.47
16	20.83	75.95	33	3.97	.54
17	25.29	78.79	34	3.45	.47

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riod: Second Half of July, 1952

ference Document: 15-1613

No.	"31"	"33"	No.	"31"	"33"
1	2.94	.41	22	2.07	.22
2	16.53	27.64	23	18.38	41.90
3	2.93	.40	24	7.11	2.79
4	13.62	21.08	25	6.18	2.42
5	11.58	17.92	26	4.97	1.81
6	3.54	.42	27	6.72	2.44
7	4.43	1.19	28	11.97	7.39
8	3.08	.36	29	5.53	1.86
9	3.85	1.03	30	4.70	1.58
10	3.09	.77	31	9.85	5.64
11	2.47	.27	32	5.69	1.65
12	13.32	16.37	33	4.95	1.43
13	10.97	12.48	34	7.49	3.68
14	9.33	10.61	35	5.38	1.45
15	27.66	73.68	36	4.68	1.26
16	3.54	.70	37	3.98	1.07
17	2.97	.35	38	37.19	125.33
18	2.91	.54	39	3.76	.94
19	2.58	.30	40	30.68	95.57
20	22.79	56.16	41	24.77	71.36
21	2.34	.40			

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Period: First Half of August, 1952

Reference Document: 15-1616

No.	"31"	"33"	No.	"31"	"33"
1	12.07	5.10	27	5.41	1.16
2	9.93	3.89	28	10.33	6.88
3	11.45	4.49	29	17.47	50.33
4	9.95	3.90	30	13.99	9.32
5	8.44	3.31	31	14.09	37.54
6	16.19	34.15	32	11.51	7.11
7	8.01	2.91	33	9.25	5.30
8	13.35	26.05	34	18.07	44.53
9	10.22	3.44	35	14.90	33.98
10	8.40	2.63	36	12.67	28.89
11	10.75	19.42	37	11.86	6.29
12	7.15	2.24	38	10.55	5.19
13	24.77	97.73	39	9.75	4.80
14	21.55	85.00	40	9.17	4.51
15	8.65	2.32	41	8.28	4.08
16	8.67	2.33	42	7.80	3.84
17	7.52	2.02	43	15.38	30.02
18	7.54	2.03	44	24.52	23.94
19	6.40	1.72	45	23.21	20.98
20	17.39	63.40	46	20.19	18.26
21	6.41	1.72	47	20.17	18.23
22	7.73	1.79	48	17.16	15.51
23	21.17	65.97	49	17.18	15.53
24	14.78	10.63	50	12.68	22.90
25	6.72	1.55	51	10.20	17.05
26	12.85	9.24			

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Period: Second Half of August, 1952

Reference Documents: 15-1629

No.	"31"	"33"	No.	"31"	"33"
1	14.87	15.67	29	7.89	4.19
2	14.43	13.74	30	6.71	3.56
3	12.24	11.94	31	13.84	19.82
4	12.24	11.94	32	11.40	15.12
5	10.40	10.15	33	17.46	23.16
6	9.85	8.91	34	16.51	20.27
7	18.62	12.41	35	9.18	11.28
8	11.11	13.65	36	14.34	17.62
9	11.95	9.28	37	14.39	17.68
10	15.32	9.46	38	11.55	13.14
11	10.38	8.15	39	11.58	13.18
12	13.03	8.05	40	11.73	13.34
13	8.36	6.01	41	14.81	15.60
14	9.15	10.41	42	9.66	10.17
15	7.78	8.85	43	12.87	13.56
16	16.68	9.55	44	10.94	11.53
17	15.80	8.39	45	10.52	10.26
18	13.72	7.28	46	7.77	7.58
19	13.75	7.[illegible]	47	9.60	9.37
20	11.67	0.19	48	8.68	8.47
21	16.26	29.3[illegible]	49	9.96	9.00
22	11.6[illegible]	6.20	50	7.35	6.65
23	12.40	22.40	51	9.96	9.01
24	11.39	19.0[illegible]	52	8.61	7.21
25	10.14	[illegible].26	53	8.20	6.87
26	[illegible].33	4.77	54	7.73	6.52
27	7.09	4.06	55	6.97	5.83
28	9.9[illegible]	5.49			

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Period: First Half of September, 1952

Reference Document: 15-1640

No.	"31"	"33"	No.	"31"	"33"
1	6.24	4.49	14	9.09	4.82
2	10.67	7.11	15	7.47	3.63
3	8.77	5.42	16	8.60	4.23
4	11.30	8.13	17	7.07	3.22
5	9.82	7.06	18	6.01	2.74
6	7.46	4.61	19	6.01	2.74
7	8.35	6.00	20	20.28	19.80
8	10.72	7.14	21	16.71	15.11
9	8.82	5.45	22	14.19	12.83
10	10.15	6.27	23	3.32	.61
11	7.90	4.63	24	2.73	.47
12	8.34	4.78	25	2.19	.35
13	7.10	4.06			

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Period: Second Half of September, 1952

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Reference Document: 15-1649

No.	"31"	"33"	No.	"31"	"33"
1	16.27	11.70	19	7.31	3.33
2	15.43	10.29	20	6.20	2.83
3	13.38	8.92	21	6.21	2.83
4	11.37	7.58	22	7.89	6.61
5	13.42	8.95	23	7.51	2.84
6	10.79	6.67	24	6.86	5.75
7	4.13	1.11	25	6.53	2.56
8	14.56	9.00	26	5.51	4.23
9	13.77	7.89	27	5.25	1.91
10	3.39	.85	28	13.71	10.64
11	11.98	6.86	29	11.91	9.25
12	11.98	6.86	30	12.96	9.32
13	2.89	.72	31	9.59	6.90
14	10.19	5.83	32	11.27	8.10
15	9.64	5.12	33	9.07	6.04
16	8.86	4.36	34	12.25	8.17
17	7.71	3.79	35	10.65	7.10
18	8.86	4.37	36	8.57	5.29

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Period: First Half of October, 1952

Reference Document: BM-26025

No.	"31"	"33"	No.	"31"	"33"
1	9.07	1.46	12	5.62	2.56
2	7.88	3.88	13	5.43	.86
3	10.03	6.69	14	4.72	.75
4	6.34	2.89	15	5.53	.88
5	7.81	4.47	16	3.79	.56
6	6.28	3.33	17	4.54	.67
7	8.50	4.51	18	3.86	.57
8	7.00	3.44	19	18.41	30.78
9	8.05	3.96	20	13.60	22.74
10	7.00	3.44	21	15.17	23.47
11	5.95	2.92			

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Period: Second Half of October, 1952

Reference Documents: HW-26251

No.	"32"	"33"	No.	"32"	"33"
1	10.16	2.95	21	6.85	2.49
2	8.35	2.25	22	8.76	2.96
3	7.10	1.91	23	7.62	2.57
4	8.11	2.58	24	6.13	1.92
5	8.35	2.25	25	7.33	4.53
6	6.72	1.67	26	6.38	3.94
7	8.59	1.99	27	5.12	2.93
8	7.07	1.52	28	8.85	3.22
9	6.01	1.29	29	7.27	2.45
10	13.31	14.03	30	10.54	5.59
11	11.57	12.19	31	5.85	1.83
12	7.26	1.34	32	8.68	4.27
13	6.32	1.17	33	7.38	3.64
14	5.08	.87	34	9.44	4.30
15	8.35	6.99	35	8.22	3.74
16	6.86	1.18	36	6.98	3.19
17	5.64	.90	37	7.49	2.17
18	9.79	3.84	38	6.15	1.66
19	4.80	.77	39	4.94	1.23
20	8.06	2.93	40	8.17	3.73

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Period: First Half of November, 1952

Reference Document: NI-26407

No.	"31"	"33"	No.	"31"	"33"
1	5.90	1.18	22	12.85	8.57
2	5.15	1.02	23	2.87	.40
3	7.08	3.23	24	9.48	7.36
4	4.14	.76	25	11.17	7.45
5	5.59	1.03	26	8.99	5.55
6	5.71	2.41	27	11.23	6.43
7	4.86	.90	28	10.90	5.79
8	3.91	.67	29	9.24	4.91
9	5.28	.90	30	9.47	5.03
10	4.35	.69	31	7.86	4.17
11	4.99	.80	32	8.05	4.27
12	3.49	.52	33	10.31	5.03
13	4.11	.61	34	12.69	7.84
14	3.49	.52	35	8.48	3.87
15	6.40	1.72	36	11.03	6.82
16	5.57	1.50	37	7.21	3.29
17	4.48	1.12	38	9.38	5.80
18	11.78	9.87	39	12.01	6.88
19	4.10	.61	40	25.93	50.60
20	3.57	.53	41	9.88	5.25
21	23.36	11.34	42	8.40	4.46

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Period: Second Half of November, 1952

Reference Document: HW-26587

No.	"31"	"33"	No.	"31"	"33"
1	11.36	6.03	19	2.85	.66
2.	22.52	43.95	20	10.78	5.30
3	9.88	5.25	21	8.67	3.96
4	19.14	37.36	22	2.48	.53
5	7.95	3.91	23	10.33	4.05
6	11.71	4.60	24	8.50	3.09
7	9.64	3.51	25	40.90	174.60
8	8.70	2.94	26	7.25	2.63
9	8.19	2.98	27	35.57	151.83
10	7.16	2.24	28	28.65	113.02
11	6.09	1.91	29	18.21	6.62
12	7.52	2.18	30	13.45	4.89
13	6.19	1.67	31	9.38	3.17
14	5.26	1.42	32	8.17	2.76
15	3.97	1.07	33	6.57	2.06
16	3.51	.88	34	8.19	2.56
17	3.26	.82	35	7.25	2.10
18	12.99	6.10	36	50.99	295.71

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Period: First Half of December, 1952

Reference Document: BI-26710

No.	"31"	"33"	No.	"31"	"33"
1	8.90	2.79	18	26.00	69.26
2	7.73	2.42	19	5.41	.55
3	43.91	257.67	20	20.97	51.65
4	6.22	1.81	21	3.99	.41
5	35.48	192.26	22	5.96	1.28
6	10.66	2.47	23	5.19	1.12
7	7.88	1.83	24	4.41	.95
8	41.06	175.27	25	4.66	.64
9	39.91	133.77	26	4.06	.56
10	28.85	113.78	27	24.17	47.16
11	36.90	134.50	28	4.29	.51
12	30.45	102.61	29	3.45	.48
13	6.01	1.11	30	19.92	35.98
14	25.89	87.23	31	3.53	.39
15	5.23	.97	32	16.96	30.59
16	4.44	.82	33	3.00	.33
17	29.90	79.64			

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Period: Second Half of December, 1952

Reference Documents: HW-26871

No.	"31"	"33"	No.	"31"	"33"
1	3.64	.35	27	3.28	.31
2	3.64	.35	28	12.24	11.07
3	3.16	.30	29	2.79	.27
4	3.16	.30	30	10.41	9.4[illegible]
5	2.69	.26	31	2.32	.[illegible]
6	2.69	.26	32	1.9[illegible]	.14
7	19.50	27.93	33	1.62	.12
8	16.95	24.29	34	[illegible].34	.34
9	14.41	20.65	35	2.90	.30
10	3.18	.26	36	2.47	.25
11	2.65	.22	37	11.94	8.59
12	2.77	.23	38	3.15	.30
13	2.30	.19	39	9.83	6.56
14	2.35	.19	40	2.74	.26
15	1.85	.14	41	2.33	.22
16	17.50	21.49	42	5.44	.75
17	14.41	16.40	43	4.73	.65
18	2.71	.21	44	4.02	.55
19	3.84	.42	45	7.49	4.29
20	12.25	13.94	46	5.14	.66
21	2.35	.18	47	4.23	.50
22	1.89	.13	48	4.64	.51
23	3.16	.32	49	4.03	.44
24	2.69	.28	50	3.99	.43
25	14.86	14.51	51	3.24	.33
26	3.77	.36			

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Period: First Half of January, 1953.

Reference Document: HW-27012

No.	"31"	"33"	No.	"31"	"33"
1	3.48	.29	18	1.95	.12
2	4.36	.48	19	48.67	129.64
3	2.86	.22	20	40.13	98.87
4	3.79	.42	21	46.16	113.72
5	2.43	.19	22	34.10	84.01
6	3.05	.31	23	38.05	86.73
7	6.95	1.50	24	32.33	73.70
8	6.04	1.30	25	7.22	1.44
9	4.86	.97	26	5.94	1.10
10	5.47	.87	27	5.05	.94
11	4.76	.76	28	9.52	2.76
12	3.83	.57	29	7.82	2.11
13	3.42	.38	30	6.65	1.79
14	3.94	.43	31	7.64	1.64
15	2.75	.28	32	6.28	1.25
16	2.79	.18	33	5.34	1.07
17	2.43	.16			

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Period: Second Half of January, 1953

Reference Document: BM-27114

No.	"31"	"33"	No.	"31"	"33"
1	2.36	.12	15	4.05	.70
2	2.05	.11	16	5.18	.83
3	1.74	.09	17	4.51	.72
4	2.12	.10	18	3.83	.61
5	7.50	1.50	19	2.85	.22
6	1.74	.08	20	14.80	12.40
7	6.17	1.14	21	2.48	.19
8	1.48	.07	22	4.90	.46
9	5.24	.97	23	12.18	9.46
10	5.79	1.07	24	1.99	.14
11	5.03	.93	25	3.92	.40
12	4.27	.79	26	10.35	8.04
13	5.47	.84	27	3.14	.30
14	4.76	.82			

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Periods: First Half of February, 1953
Second Half of February, 1953
Reference Document: HW-27547

No.	"31"	"33"	No.	"31"	"33"
1	3.31	.31	30	3.25	.29
2	2.72	.24	31	4.50	.83
3	2.31	.20	32	2.27	.19
4	4.64	.59	33	3.70	.64
5	4.04	.52	34	3.14	.54
6	3.43	.44	35	2.91	.22
7	11.42	3.85	36	2.15	.16
8	9.93	3.35	37	2.25	1.13
9	8.43	2.85	38	7.93	1.09
10	15.07	7.42	39	2.81	.31
11	12.39	5.66	40	5.76	.73
12	10.53	4.80	41	2.31	.24
13	7.12	3.25	42	5.54	.71
14	5.85	2.48	43	1.96	.20
15	4.98	2.11	44	2.58	.94
16	5.38	1.16	45	2.22	.75
17	4.43	.88	46	2.01	.68
18	11.54	2.30	47	6.86	.87
19	3.77	.75	48	5.01	.35
20	8.53	1.70	49	3.71	.26
21	10.84	2.01	50	1.44	.36
22	4.81	.89	51	4.79	.57
23	7.58	1.30	52	5.74	.54
24	3.74	.60	53	1.90	.13
25	2.85	.39	54	4.25	.40
26	4.27	.30	55	1.65	.11
27	2.98	.20	56	1.40	.09
28	4.85	.37	57	6.57	.84
29	3.99	.27	58	4.59	.54

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1086022

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Period: First Half of March, 1953

Reference Document: HW-27600

No.	"31"	"33"
1	3.49	.75
2	7.02	1.12
3	2.87	.57
4	4.90	.73
5	2.44	.49
6	5.85	.64
7	4.09	.42
8	5.23	.72
9	13.37	9.62
10	3.65	.47
11	3.30	.23
12	11.01	7.34
13	8.87	5.48
14	2.31	.15
15	5.83	.55
16	4.31	.41
17	5.51	.48
18	7.72	1.06
19	4.07	.36
20	9.66	1.79
21	10.73	5.70
22	5.40	.69
23	9.34	4.96
24	7.51	3.70
25	6.75	1.16
26	3.36	.54
27	8.62	1.37
28	8.15	1.21
29	2.76	.41
30	6.03	.89
31	6.03	.89
32	2.22	.31
33	7.61	1.04
34	5.31	.68
35	3.28	.15
36	2.01	.24
37	2.29	.10
38	1.73	.19
39	1.92	.05
40	1.42	.04
41	1.57	.17
42	1.82	.64
43	1.34	.03

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1086023

DECLASSIFIED

Period: Second Half of March, 1953

Reference Document: BM-27732

No.	"31"	"33"	No.	"31"	"33"
1	9.06	1.34	17	3.36	.34
2	5.11	.39	18	6.11	.54
3	6.33	.87	19	10.04	1.60
4	1.36	.12	20	4.27	.35
5	3.78	.29	21	7.01	1.04
6	6.32	.69	22	19.54	22.23
7	1.14	.02	23	9.16	2.87
8	4.67	.51	24	17.01	19.35
9	.85	.02	25	6.77	2.12
10	30.70	51.32	26	13.68	14.41
11	4.81	.53	27	9.26	2.15
12	25.31	39.16	28	6.47	1.39
13	3.95	.40	29	11.54	3.05
14	7.16	.85	30	8.07	2.17
15	21.52	33.29	31	15.33	4.80
16	5.29	.63	32	11.32	3.54

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1086624

DECLASSIFIED

Period: First Half of April, 1953

Reference Document: HW-21018

No.	"31"	"33"	No.	"31"	"33"
1	12.31	3.31	14	16.95	6.65
2	9.10	2.45	15	7.14	1.42
3	6.88	1.48	16	22.41	8.15
4	5.09	1.10	17	16.56	6.03
5	6.88	1.48	18	7.86	1.25
6	4.81	.96	19	5.49	.81
7	4.49	2.57	20	7.88	1.17
8	8.32	13.91	21	5.51	.76
9	30.49	16.19	22	10.92	2.73
10	7.06	11.79	23	7.63	1.77
11	22.55	11.97	24	9.82	1.69
12	24.24	10.25	25	6.86	1.09
13	10.21	2.19			

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1066025

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Period: Second Half of April, 1953

Reference Document: HW-28132

No.	"31"	"33"	No.	"31"	"33"
1	10.43	2.24	23	60.17	219.33
2	7.30	1.46	24	14.05	3.78
3	9.86	1.97	25	48.49	163.39
4	6.89	1.28	26	9.82	2.45
5	5.99	.82	27	7.87	1.97
6	4.18	.53	28	62.35	194.22
7	7.10	1.77	29	11.71	3.95
8	5.83	1.35	30	8.47	2.46
9	4.96	1.15	31	51.40	148.06
10	5.97	3.17	32	6.26	1.82
11	55.85	279.44	33	8.19	2.56
12	9.35	2.01	34	43.65	125.74
13	10.20	2.55	35	10.39	3.25
14	7.54	1.88	36	7.68	2.41
15	6.53	1.30	37	11.24	3.26
16	42.82	182.78	38	53.21	131.11
17	13.37	3.88	39	8.32	2.41
18	13.65	3.96	40	11.73	3.41
19	72.94	287.73	41	46.24	113.93
20	9.34	2.52	42	8.20	2.21
21	10.09	2.93	43	37.24	84.88
22	11.25	3.03			

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Period: First Half of May, 1953

Reference Document: HW-28266

No.	"31"	"33"	No.	"31"	"33"
1	12.73	3.18	17	27.03	30.74
2	8.91	2.06	18	17.14	5.78
3	8.65	1.73	19	12.66	4.27
4	6.39	1.28	20	21.74	22.90
5	45.36	88.50	21	14.63	4.94
6	9.73	3.54	22	14.11	4.09
7	6.82	2.30	23	10.23	3.20
8	37.36	67.47	24	10.43	3.03
9	8.71	2.73	25	24.73	20.72
10	30.07	90.26	26	10.52	2.83
11	5.76	1.55	27	21.51	18.02
12	17.91	8.17	28	14.24	3.83
13	13.25	6.05	29	17.31	13.44
14	18.80	7.38	30	12.11	3.26
15	32.83	40.33	31	8.47	2.12
16	13.15	4.78			

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1086027

DECLASSIFIED

Period: Second Half of May, 1953

Reference Document: HW-28376

No.	"31"	"33"
1	11.25	2.24
2	7.86	1.46
3	22.37	9.46
4	16.53	6.99
5	15.15	4.08
6	11.19	3.01
7	12.17	2.62
8	9.00	1.93
9	16.19	5.07
10	11.33	3.29
11	16.18	5.06
12	11.96	3.74
13	15.30	4.44
14	11.31	3.28
15	12.71	4.29
16	11.05	3.73
17	7.10	1.91
18	5.25	1.22
19	6.14	1.53
20	8.88	2.78
21	4.70	1.09
22	6.63	1.66
23	5.18	1.20
24	5.73	1.33
25	4.39	.94
26	44.69	94.25
27	38.84	81.91
28	29.65	53.54

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1086028

Period: First Half of June, 1953

Reference Document: BM-28708

No.	"31"	"33"	No.	"31"	"33"
1	38.34	64.08	20	8.49	2.29
2	31.61	48.90	21	6.28	1.69
3	25.47	36.49	22	19.42	15.07
4	31.07	38.16	23	6.28	1.69
5	11.96	3.47	24	15.64	11.25
6	11.78	3.42	25	10.70	3.35
7	26.99	33.16	26	19.96	13.31
8	8.36	2.25	27	11.48	3.09
9	8.23	2.22	28	7.48	2.17
10	21.72	24.70	29	17.37	11.58
11	26.39	25.76	30	8.48	2.28
12	8.91	1.78	31	11.06	3.46
13	21.72	19.64	32	8.18	2.56
14	9.12	1.57	33	13.98	8.64
15	18.44	16.68	34	6.68	1.44
16	6.74	1.16	35	11.94	3.74
17	6.23	1.15	36	4.67	.93
18	23.61	19.78	37	8.82	2.76
19	8.49	2.29			

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Period: Second Half of June, 1953

Reference Document: NP-23766

No.	"31"	"33"	No.	"31"	"33"
1	16.92	8.98	23	9.42	2.02
2	8.56	1.98	24	6.96	1.49
3	14.72	7.82	25	31.04	82.68
4	6.33	1.47	26	25.14	61.94
5	11.85	5.83	27	12.42	4.19
6	8.01	1.38	28	20.71	47.21
7	5.91	1.02	29	8.68	2.72
8	10.98	5.01	30	13.07	4.76
9	8.17	1.40	31	16.72	35.25
10	9.49	4.02	32	9.15	3.09
11	5.71	.91	33	17.42	7.95
12	8.57	3.63	34	23.98	50.53
13	12.92	3.23	35	12.18	5.16
14	9.55	2.39	36	19.78	38.59
15	25.73	12.66	37	19.73	9.00
16	19.01	9.36	38	14.59	6.66
17	6.50	2.19	39	16.81	32.81
18	24.95	11.39	40	13.06	4.75
19	23.47	9.93	41	12.38	4.18
20	17.46	7.39	42	9.14	3.08
21	17.36	7.35	43	9.14	3.08
22	44.25	127.45			

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1086030

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CUMULATIVE IODINE RELEASES

As Of the End Of	"31"	"33"
July 1952	429.28*	374.64
August 1952	683.96*	319.97
September 1952	404.44	91.86
October 1952	324.72	69.89
November 1952	475.28	562.44
December 1952	397.86	117.00
January 1953	260.55	56.42
February 1953	196.77	12.74
March 1953	292.68	81.92
April 1953	779.66	1082.49
May 1953	554.73	254.57
June 1953	725.20	367.10

*Contribution of April and May operations estimated.

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