DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

GHQ/SCAP Records (RG 331, National Archives and Records Service)

Description of contents

(1) Box no. 3050

(2) Folder title/number: (16)
Production Report from Nissin Chemical

(3) Date: Dec. 1949 - Dec. 1950

(4) Subject:

Classification	Type of record
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(5) Item description and comment:

Shikoku

(6) Reproduction: (Yes) No

(7) Film no. Sheet no.

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

List of Principal Production Since

(Unit: Metric Ton)

Products	1945	1946	1947	1948	1949	1950 Jan.	Feb.	
Ammonia	15,547	29,271	38,565	42,849	49,862	5,049	3,573	
Ammonium Sulphate	25,469	63,615	119,623	126,420	149,140	15,684	11,099	1
Calcium Superphosphate	2,851	17,668	41,740	53,858	76,378	2,197	8,141	
Crude Methanol	2,480	173	436	903	2,980	699	544	
Sulphuric Acid (98%)	47,261	78,516	100,740	103,187	129,833	12,003	10,843	1
Nitric Acid (50%)	16,144	12,569	12,976	20,557	20,710	2,189	1,496	
Nitric Acid (98%)	6,274	3,198	2,863	5,179	6,084	607	401	
Ammonium Nitrate	2,645	3,421	4,181	6,153	5,352	602	440	
Urea	24	159	115	221	587	73	50	
Ammonium Bicarbonate	27	651	919	1,695	2,709	384	292	
Ammonium Chloride	37	55	77	300	517	63	41	
Sodium Nitrite	166	68	47	180	271	37	31	
Ammonia Water (17%)	5,376	10,744	12,145	15,976	21,290	1,465	1,133	
Chlorsulphonic Acid	0	256	661	737	930	107	99	
Methanol	2,123	124	403	766	1,927	575	460	
Formaline	1,988	0	0	290	988	168	260	
Coke	47,107	61,516	70,329	92,644	101,396	9,612	7,767	
Crude Benzene	437	271	457	1,070	1,872	194	161	
Coal Tar	177	3,217	2,846	5,330	6,853	625	556	
Penicillin (unit:vial)	..300,000 Oxford unit/vial.				39,362	12,000	19,000	1

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

of Principal Production Since 1945

1948	1949	1950 Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
2,849	49,862	5,049	3,573	5,143	5,531	6,093	5,369	5,442	4,386	5,486	5,061
6,420	149,140	15,684	11,099	15,674	17,083	19,358	17,177	17,676	13,126	17,319	15,048
3,858	76,378	2,197	8,141	9,436	6,613	4,531	6,371	8,336	8,048	8,004	8,153
903	2,980	699	544	845	544	864	683	0	326	694	666
3,187	129,833	12,003	10,843	10,885	11,614	14,261	13,241	13,961	13,719	13,218	13,507
0,557	20,710	2,189	1,496	2,328	2,603	2,669	2,001	1,901	2,008	2,411	2,897
5,179	6,084	607	401	607	817	858	657	662	706	706	822
6,153	5,352	602	440	629	525	470	406	351	443	617	782
221	587	73	50	51	80	85	86	79	71	104	106
1,695	2,709	384	292	266	101	38	0	0	21	65	203
300	517	63	41	61	62	61	66	73	72	70	73
180	271	37	31	36	36	37	31	0	34	31	36
5,976	21,290	1,465	1,133	1,542	1,788	2,186	2,415	2,383	2,317	2,418	2,403
737	930	107	99	110	146	151	157	124	124	133	115
766	1,927	575	460	699	469	447	420	323	354	513	733
290	988	168	260	355	316	192	219	214	329	440	523
2,644	101,396	9,612	7,767	9,531	7,151	6,692	6,442	7,051	6,000	6,080	6,430
1,070	1,872	194	161	206	145	160	163	156	118	125	127
5,330	6,853	625	556	689	550	504	511	478	522	420	488
al.	39,362	12,000	19,000	16,000	21,000	22,000	23,500	23,000	25,000	19,000	25,000

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9 November 1950
Niihama Works,
Nissin Chemical Co. Ltd.

Operable Capacity of Ammonia Plant

Annual requirement of ammonia for other uses than ammonium Sulphate:-

	NH_3 Output (T/Y)	NH_3 Consumption (T/Y)		
		Amm. Sulphate	Ammonia Derivatives	Urea
Before Oct.	65,000	54,000(200,000*)	11,000	
On Oct.	67,500	55,500(205,000)	12,000	
On & After Nov.	74,000	55,500(205,000)	12,500	6,000(10,000**)

Remarks:-

* ... Ammonium Sulphate Output.

** ... Urea Output.
(The expansion program is now is progress and is to be completed by next summer)

Maximum number of working days per year (365 minus days shut down for maintenance and repairs):-

Before Oct. .... 289 days
On Oct. .... 300 "
On & After Nov. .... 330 "

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Operational index of H_2SO_4 plant & Percentag
of pyrite ore received against the requiremen

		H_2SO_4 Productive Capacity (A) T	Required Amount of Pyrite Ore (B) T	H_2SO_4 Actual Output (C) T
1949	Jan.-June	75,600	65,696	58,637
"	July-Dec.	78,400	68,130	71,196
1950	Jan.	14,400	12,500	12,003
"	Feb.	13,000	11,300	10,843
"	Mar.	14,400	12,500	10,885
"	Apr.	13,900	12,100	11,614
"	May	14,500	12,600	14,261
"	June	14,900	13,000	13,241
"	July	15,200	13,200	13,901
"	Aug.	15,200	13,200	13,719
"	Sept.	15,300	13,300	13,218
"	Oct.	15,800	13,700	13,507
"	Nov.	15,300	13,300	
"	Dec.	15,800	13,700	
Total		177,700	154,400	
1951	Jan.	16,300	14,200	
"	Feb.	14,600	12,700	
"	Mar.	16,300	14,200	
Total		47,200	41,100	

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ational index of H_2SO_4 plant & Percentage rite ore received against the requirement

9 November 1950
Niihama Works,
Nissin Chemical Co., Ltd.

ductive ty	Required Amount of Pyrite Ore (B)	H_2SO_4 Actual Output (C)	Amount of Ore Received (D)	C/A	D/B
T	T	T	T	%	%
00	65,696	58,637	54,033	77.6	82.2
00	68,130	71,196	61,403	90.8	90.1
00	12,500	12,003	9,034	83.4	72.3
00	11,300	10,843	9,464	83.4	83.8
00	12,500	10,885	8,396	75.6	67.2
00	12,100	11,614	12,147	83.6	100.4
00	12,600	14,261	11,086	98.4	88.0
00	13,000	13,241	12,058	88.9	92.8
00	13,200	13,901	12,027	91.5	91.1
00	13,200	13,719	11,924	90.3	90.3
00	13,300	13,218	11,900	86.4	89.5
00	13,700	13,507	12,265	85.5	89.5
00	13,300				
00	13,700				
00	154,400				
00	14,200				
00	12,700				
00	14,200				
00	41,100				

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Electric Power Situ

(From Jan. 1949 to Oct

(Unit: K.W.H.)

	Requested Allocation				
	Firm	Mid-night Firm	Special	Total (A)	Firm
1949					
Jan.-Mar.	36,887,580	-	1,751,600	38,639,180	26,743,500
April-June	46,594,592	-	5,435,115	52,029,707	36,122,300
July-Sept.	46,646,441	-	1,431,140	48,077,581	23,232,500
Oct.-Dec.	43,716,000	-	5,201,430	48,917,430	33,307,890
Total	173,844,613	-	13,819,285	187,663,898	119,406,190
1950					
Jan.-Mar.	37,975,100	-	-	37,975,100	27,693,000
April-June	43,680,000	7,022,745	-	50,702,745	29,825,300
July-Sept.	45,659,380	5,152,000	-	50,811,380	26,589,300
Oct.	17,480,848	-	-	17,480,848	12,079,500

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 17503

Electric Power Situation

(From Jan. 1949 to Oct. 1950)

Total (A)	Determined Allocation				B/A %		
	Firm	Mid-night Firm	Special	Total (B)		Firm	Mid-Fi
38,639,180	26,743,500	-	3,794,175	30,537,675	79	26,684,710	
52,029,707	36,122,300	-	6,201,850	42,324,150	81	36,122,300	
48,077,581	23,232,500	-	15,533,654	38,766,154	81	23,232,500	
48,917,430	33,307,890	-	3,500,000	36,807,890	75	33,288,940	
187,663,898	119,406,190	-	29,029,679	148,435,869	79	119,328,450	
37,975,100	27,693,000	-	-	27,693,000	73	27,693,000	
50,702,745	29,825,300	-	-	29,825,300	59	29,825,300	
50,811,380	26,589,300	2,354,000	[illegible]	28,943,300	57	26,589,300	2,35
17,480,848	12,079,500	-	-	12,079,500	69	12,079,500	

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

9 November 1950
Niihama Works,
Nissin Chemical Co., Ltd.

A	Actual Consumption						C/B %
	Firm	Mid-night Firm	Surpass Amount	Own Generated Power	Special	Total (C)	
9	26,684,710	-	-	255,860	3,622,075	30,562,645	100
1	36,122,300	-	-	118,540	6,201,850	42,442,690	100
1	23,232,500	-	-	1,043,595	14,461,115	38,737,210	100
5	33,288,940	-	-	145,970	1,145,450	34,580,360	94
9	119,328,450	-	-	1,563,965	25,430,490	146,322,905	99
3	27,693,000	-	76,106	2,294,174	5,137,130	35,200,410	127
9	29,825,300	-	389,162	8,123,211	10,881,051	49,218,724	165
7	26,589,300	2,354,000	626,121	3,935,518	12,043,870	45,548,809	157
9	12,079,500	-	279,310	-	2,869,200	15,228,010	126

Feb. 2, 1950

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec., Shikoku Civil Affairs Region
Takamatsu, Shikoku

FROM : Nissin Chemical Co., Ltd. 31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Niihama Works — Unit: Metric Ton

Products	Production in January			Schedule for Feb.
	Schedule	Actual Output	Ratio of Achievement(%)	
Ammonia	4,500	* 5,049	112.2	3,250
By-product Ammonia	25	27	108.0	20
Ammonia Water (17%)	2,000	1,465	73.2	1,800
Bottled Ammonia	100	103	103.2	90
Ammonium Sulphate	13,500	** 15,684	116.2	9,400
Calcium Superphosphate	2,755	2,197	79.7	7,800
Sulphuric Acid	12,000	12,003	100.0	10,700
Nitric Acid (50%)	1,970	* 2,189	112.1	1,480
Nitric Acid (98%)	550	607	110.4	400
Ammonium Nitrate	500	603	120.6	400
Ammonium Chloride	60	** 63	105.0	40
Ammonium Bicarbonate	350	* 384	109.7	250
Na-fluosilicate	-	0.4	-	8
Urea	60	** 73	121.7	40
Chlorsulphonic Acid	100	107	106.8	60
Crude Methanol	680	* 699	112.8	450
Pure Methanol	450	450	100.0	360
Formaline	160	168	105.0	240
Coke	9,360	* 9,612	102.7	7,700
# Penicillin(unit: vial)	10,635	12,000	112.8	14,884
Crude Benzene	200	194	96.9	166
Pure Benzene	80	48	60.4	83
Pure Toluene	12	23	188.4	12
Benzene (90%)	0	0	-	4
Solvent Naphtha	5	7	145.1	6
Coal Tar	610	625	102.5	500
Crude Naphthalene	37	50	133.9	30
Creosote Oil	60	73	121.9	50
Pitch (soft)	40	40	100.5	30

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Ammonium Bicarbonate	350	* 384	109.7	250
Na-fluosilicate	-	0.4	-	8
Urea	60	** 73	121.7	40
Chlorsulphonic Acid	100	107	106.8	60
Crude Methanol	680	* 699	112.8	450
Pure Methanol	450	450	100.0	360
Formaline	160	168	105.0	240
Coke	9,360	* 9,612	102.7	7,700
# Penicillin(unit: vial)	10,635	12,000	112.8	14,884
Crude Benzene	200	194	96.9	166
Pure Benzene	80	48	60.4	83
Pure Toluene	12	23	188.4	12
Benzene (90%)	0	0	-	4
Solvent Naphtha	5	7	145.1	6
Coal Tar	610	625	102.5	500
Crude Naphthalene	37	50	133.9	30
Creosote Oil	60	73	121.9	50
Pitch (soft)	40	49	122.7	30
Pitch (hard)	330	279	84.6	270

Remarks: * indicates the highest record of post war.
** indicates the highest record since the foundation of the plant.
# 300,000 Oxford unit per vial.

Kikumoto Works

Unit: Metric Ton

Products	Production in January			Schedule for Feb.
	Schedule	Actual Output	Ratio of Achievement(%)	
Alumina	700	567	80.9	0
Aluminum	260	273	104.9	235
Carbide	150	282	187.8	200
Cryolite	0	0	-	0
Artificial Graphite Electrode	0	0	-	0
Aluminum Floride	60	42	69.7	50
Anode Paste	300	326	108.5	300
Cathod Paste	0	4.6	-	65
Carbide Paste	38	57	151.0	50
Aluminum Sulphate	150	181	120.1	200
Recovered Cryolite	-	-	-	150

Y. Harada

Yoshishige Harada

Director of Nihama & Kikumoto Works, Nissin Chemical Co.,Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 115013

Mr Adm
inf

Mr. Ihara 12.
Mr. Sekiya R.S.
Initial & Return
Dec. 2, 1949
A

SUBJECT : Monthly Production Report

TO :

FROM : Niihama Works, Nissin Chemical Co., Ltd.
31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Unit: Metric Ton

Products	Production in November			Schedule for Dec.
	Schedule	Actual Output	Ratio of Achievement(%)	
Ammonia	4,500	4,599	102.2	4,250
By-product Ammonia	21	28	124.3	20
Ammonia Water	1,900	2,063	108.6	2,100
Bottled Ammonia	100	102	101.9	100
Ammonium Sulphate	13,700	13,815	100.8	12.700
Calcium Superphosphate	7,200	7,275	101.0	7,200
Sulphuric Acid	10,550	10;987	104.1	12,600
Nitric Acid (50%)	1,700	1,710	100.6	1,720
Nitric Acid (98%)	450	454	100.9	450
Ammonium Nitrate	500	503	100.5	500
Ammonium Chloride	60	60	100.0	55
Ammonium Bicarbonate	301	294	97.5	336
Na-fluosilicate	8	7.7	96.3	7
Urea	60	61	102.2	50
Chlorsulphonic Acid	100	108	107.9	100
Methanol	100	149	148.6	250
Formaline	80	86	106.9	104
Coke	9,210	8,687	94.3	9,550
*Penicillin (Unit: vial)	4,900	9,300	189.8	9,294
Crude Benzene	185	209	113.1	200

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDC NO. 17501 3

Products	Schedule	Actual Output	Ratio of Achievement(%)	for Dec.
Ammonia	4,500	4,599	102.2	4,250
By-product Ammonia	21	28	124.3	20
Ammonia Water	1,900	2,063	108.6	2,100
Bottled Ammonia	100	102	101.9	100
Ammonium Sulphate	13,700	13,815	100.8	12.700
Calcium Superphosphate	7,200	7,275	101.0	7,200
Sulphuric Acid	10,550	10;987	104.1	12,600
Nitric Acid (50%)	1,700	1,710	100.6	1,720
Nitric Acid (98%)	450	454	100.9	450
Ammonium Nitrate	500	503	100.5	500
Ammonium Chloride	60	60	100.0	55
Ammonium Bicarbonate	301	294	97.5	336
Na-fluosilicate	8	7.7	96.3	7
Urea	60	61	102.2	50
Chlorsulphonic Acid	100	108	107.9	100
Methanol	100	149	148.6	250
Formaline	80	86	106.9	104
Coke	9,210	8,687	94.3	9,550
*Penicillin (Unit: vial)	4,900	9,300	189.8	9,294
Crude Benzene	185	209	113.1	200
Pure Benzene	74	123	166.2	72
Pure Toluene	12	11	90.2	24
Benzene (90%)	4	0	-	2
Solvent Naphtha	5	89	177.6	5
Coal Tar	600	782	130.3	625
Crude Naphthalene	36	39	109.2	37
Creosote Oil	72	44	61.1	60
Pitch (Soft)	50	34	68.8	50
Pitch (Hard)	320	363	113.5	330

Remarks: * 300,000 Oxford unit per vial

Y. Harada
Yoshishige Harada

Director of Niihama Works,
Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Dec. 2, 1949

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec., Shikoku Civil Affairs Region
Takamatsu, Shikoku

FROM : Niihama Works, Nissin Chemical Co., Ltd.
31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Unit: Metric Ton

Products	Production in November			Schedule for Dec.
	Schedule	Actual Output	Ratio of Achievement(%)	
Ammonia	4,500	4,599	102.2	4,250
By-product Ammonia	21	28	124.3	20
Ammonia Water	1,900	2,063	108.6	2,100
Bottled Ammonia	100	102	101.9	100
Ammonium Sulphate	13,700	13,815	100.8	12.700
Calcium Superphosphate	7,200	7,275	101.0	7,200
Sulphuric Acid	10,550	10,987	104.1	12,600
Nitric Acid (50%)	1,700	1,710	100.6	1,720
Nitric Acid (98%)	450	454	100.9	450
Ammonium Nitrate	500	503	100.5	500
Ammonium Chloride	60	60	100.0	55
Ammonium Bicarbonate	301	294	97.5	336
Na-fluosilicate	8	7.7	96.3	7
Urea	60	61	102.2	50
Chlorsulphonic Acid	100	108	107.9	100
Methanol	100	149	148.6	250
Formaline	80	86	106.9	104
Coke	9,210	8,687	94.3	9,550
Penicillin (Unit: vial)	4,900	9,300	189.8	9,294
Crude Benzene	185	209	113.1	200
Pure Benzene	74	123	166.2	72

Bottled Ammonia	100	102	101.9	100
Ammonium Sulphate	13,700	13,815	100.8	12.700
Calcium Superphosphate	7,200	7,275	101.0	7,200
Sulphuric Acid	10,550	10,987	104.1	12,600
Nitric Acid (50%)	1,700	1,710	100.6	1,720
Nitric Acid (98%)	450	454	100.9	450
Ammonium Nitrate	500	503	100.5	500
Ammonium Chloride	60	60	100.0	55
Ammonium Bicarbonate	301	294	97.5	336
Na-fluosilicate	8	7.7	96.3	7
Urea	60	61	102.2	50
Chlorsulphonic Acid	100	108	107.9	100
Methanol	100	149	148.6	250
Formaline	80	86	106.9	104
Coke	9,210	8,687	94.3	9,550
*Penicillin (Unit: vial)	4,900	9,300	189.8	9,294
Crude Benzene	185	209	113.1	200
Pure Benzene	74	123	166.2	72
Pure Toluene	12	11	90.2	24
Benzene (90%)	4	0	-	2
Solvent Naphtha	5	89	177.6	5
Coal Tar	600	782	130.3	625
Crude Naphthalene	36	39	109.2	37
Creosote Oil	72	44	61.1	60
Pitch (Soft)	50	34	68.8	50
Pitch (Hard)	320	363	113.5	330

Remarks: * 300,000 Oxford unit per vial

Yoshishige Harada

Director of Niihama Works,
Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 113013

Electric Power Consumption & Production Plan

Specification	Jan.	Feb.	Mar.	April	May	June
Allotment KWH	10,044,000	9,072,000	9,590,400	12,960,000	13,392,000	12,960,000
Allotment(Mean) KW	13,500	13,500	6,700 13,500	18,000	18,000	18,000
Estimated Surplus Power Supply KWH	-	-	500,000	1,000,000	1,000,000	1,000,000
Total KWH	10,044,000	9,072,000	10,090,400	13,960,000	14,392,000	13,960,000
Estimated Peak KW	17,000	17,000	17,000	21,000	21,000	21,000
Average Power Factor %	85	85	85	83	83	83
Production Plan	Unit: Ton					
Amm. Sulphate	13,000	11,500	12,000	14,500	15,000	13,700
Sulphuric Acid (98%)	13,000	12,000	13,000	13,000	12,200	12,160
Ammonia						
Gas Method	4,360	3,850	3,955	4,525	4,625	4,275
Electrolysis Method	-	-	35	225	225	225
Total	4,360	3,850	3,990	4,750	4,850	4,500

Remarks : 1. Allotment for the period of periodical repair (3 days).

2. Estimated surplus power supply is the presumption of 1949 results.

3. Average power factor will be reduced from April when the operation of Hydro electrolysis Commence.

Comparison of Electric Power Charge

Specification	100 % Allotment		85 % Allotment		70 % Allotment	
	Amount of Charge (1,000 Yen)	Per KWH (Yen)	Amount of Charge (1,000 Yen)	Per KWH (Yen)	Amount of Charge (1,000 Yen)	Per KWH (Yen)
Jan. 1950	(10,044,000 KWH)					
Revised Charge	12,158	1.211	23,725	2.362	35,006	3.485
Present Charge	10,340	1.029				
Balance	1,818	182	13,385	1.333	24,666	2.456
Feb. 1950	(9,072,000 KWH)					
Revised Charge	11,664	1.286	21,957	2.420	32,018	3.529
Present Charge	9,552	1.653				
Balance	2,112	233	12,405	1.367	22,466	2.476
Mar. 1950	(10,090,400 KWH)					
Revised Charge	12,092	1.198	23,061	2.285	33,769	3.347
Present Charge	9,548	946				
Balance	2,544	252	13,513	1.339	24,221	2.401
Jan.- Mar. 1950	(29,206,400 KWH)					
Revised Charge	35,915	1.230	68,744	2.354	100,793	3.451
Present Charge	29,440	1.008				
Balance	6,475	222	39,304	1.346	71,353	2.443

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Charge Rise Ratio	122.0 %		233.5 %		342.4 %	
Apr. 1950	(13,960,000 KWH)					
Revised Charge	15,736	1.127	30,715	2.200	45,318	3.246
Present Charge	12,171	872				
Balance	3,565	255	18,544	1.328	33,147	2.374
May 1950	(14,392,000 KWH)					
Revised Charge	15,907	1.105	31,466	2.186	46,622	3.239
Present Charge	12,489	863				
Balance	3,418	237	18,977	1.313	34,133	2.371
Jun. 1950	(13,960,000 KWH)					
Revised Charge	15,736	1.127	30,715	2.200	45,318	3.246
Present Charge	12,171	872				
Balance	3,565	255	18,544	1.328	33,147	2.374
Apr.- Jun. 1950	(42,312,000 KWH)					
Revised Charge	47,378	1.120	92,897	2.196	137,258	3.244
Present Charge	36,832	870				
Balance	10,546	250	56,005	1.326	100,426	2.374

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Charge Rise Ratio	128.7 %		252.4 %		372.9 %	
Jan.- Jun. 1950	(71,518,400 KWH)					
Revised Charge	83,293	1.165	161,640	2.260	238,051	3.329
Present Charge	66,272	927				
Balance	17,021	238	95,308	1.333	171,779	2.402
Charge Rise Ratio	125. 7 %		243.8 %		359.1 %	

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Estimation of Rise in Manufacturing Cost for Amm. Sulphate

Month	Allotment 100%	Allotment 85%	Allotment 70%
Jan. 1950	94 Yen	692 Yen	1,275 Yen
Feb. 1950	121	709	1,285
Mar. 1950	139	736	1,321
Jan.-Mar.(Average)	117	712	1,293
April 1950	176	918	1,640
May 1950	163	905	1,629
June 1950	179	931	1,664
April-June(Average)	172	918	1,644
Jan.-June(Average)	147	823	1,483

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 75013

Mr Adm

Jan. 5, 1950

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec., Shikoku Civil Affairs Region
Takamatsu, Shikoku

FROM : Nissin Chemical Co., Ltd.
31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Niihama Works

Unit: Metric Ton

Products	Production in December, 1949			Schedule for Jan.
	Schedule	Actual Output	Ratio of Achievement (%)	
Ammonia	4,250	4,613	108.5	4,500
By-product Ammonia	20	35	175.0	25
Ammonia Water (17%)	2,100	2,171	103.4	2,000
Bottled Ammonia	100	104	103.6	100
Ammonium Sulphate	12,700	13,798	108.6	13,500
Calcium Superphosphate	7,200	7,249	100.7	2,755
Sulphuric Acid	12,600	12,950	102.8	12,000
Nitric Acid (50%)	1,720	1,842	107.1	1,970
Nitric Acid (98%)	600	611	101.8	550
Ammonium Nitrate	450	453	100.7	500
Ammonium Chloride	55	58	105.5	60
Ammonium Bicarbonate	336	351	101.6	350
Na-fluosilicate	7	11	158.6	-
Urea	50	64	128.0	60
Chlorsulphonic Acid	100	103	102.6	100
Methanol	250	225	90.0	450
Formaline	104	116	111.5	160
Coke	9,550	9,165	96.0	9,360
		(A) 9,000		5,635
*Penicillin (unit: vial)	9,294	(B) 5,000	150.6	5,000
Crude Benzene	200	212	105.7	200
Pure Benzene	72	138	191.7	80
Pure Toluene	24	13	55.9	12
Benzene (90%)	2	-	-	-
Solvent Naphtha	5	9	174.5	5
Coal Tar	625	661	105.8	610
Crude Naphthalene	37	72	194.8	37
Creosote Oil	60	107	178.0	60

Ammonium Chloride	55	58	105.5	60
Ammonium Bicarbonate	336	351	101.6	350
Na-fluosilicate	7	11	158.6	-
Urea	50	64	128.0	60
Chlorsulphonic Acid	100	103	102.6	100
Methanol	250	225	90.0	450
Formaline	104	116	111.5	160
Coke	9,550	9,165	96.0	9,360
		(A) 9,000		5,635
*Penicillin (unit: vial)	9,294	(B) 5,000	150.6	5,000
Crude Benzene	200	212	105.7	200
Pure Benzene	72	138	191.7	80
Pure Toluene	24	13	55.9	12
Benzene (90%)	2	-	-	-
Solvent Naphtha	5	9	174.5	5
Coal Tar	625	661	105.8	610
Crude Naphthalene	37	72	194.8	37
Creosote Oil	60	107	178.0	60
Pitch (soft)	50	36	72.1	40
Pitch (hard)	330	394	119.3	330

Remarks: *300,000 Oxford unit per vial
(A) Crystalline procaine penicillin in oil
(B) Crystalline procaine penicillin in water

Kikumoto Works

Unit: Metric Ton

Products	Production in December, 1949			Schedule for Jan.
	Schedule	Actual Output	Ratio of Achievement (%)	
Alumina	1,200	1,180	98.3	900
Aluminum	293	300	102.3	260
Carbide	200	384	192.0	200
Cryolite	0	0		0
Artificial Graphite Electrode	9	0		0
Aluminum Floride	60	62	103.3	60
Anode Paste	300	293	97.6	300
Cathod Paste	0	3		0
Carbide Paste	38	26	69.6	38
Sulphuric Acid Band	100	136	136.0	100

Yoshishige Harada

Director of Niihama & Kikumoto Works, Nissin Chemical Co., Ltd.

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 173013

Dec. 5, 1949

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larson
Chief of Economic Sec., Shikoku Civil Affairs Region
Takamatsu, Shikoku

FROM : Nissin Chemical Co., Ltd.
31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Niihama Works — Unit: Metric Ton

Products	Production in November			Schedule for Dec.
	Schedule	Actual Output	Ratio of Achievement(%)	
Ammonia	4,500	4,599	102.2	4,250
By-product Ammonia	21	28	124.3	20
Ammonia Water	1,900	2,063	108.6	2,100
Bottled Ammonia	100	102	101.9	100
Ammonium Sulphate	13,700	13,815	100.8	12,700
Calcium Superphosphate	7,200	7,275	101.0	7,200
Sulphuric Acid	10,550	10,987	104.1	12,600
Nitric Acid (50%)	1,700	1,710	100.6	1,720
Nitric Acid (98%)	450	454	100.9	450
Ammonium Nitrate	500	503	100.5	500
Ammonium Chloride	60	60	100.0	55
Ammonium Bicarbonate	301	294	97.5	336
Na-fluosilicate	8	7.7	96.3	7
Urea	60	61	102.2	50
Chlorsulphonic Acid	100	108	107.9	100
Methanol	100	149	148.6	250
Formaline	80	86	106.9	104
Coke	9,210	8,687	94.3	9,550
* Penicillin (Unit: vial)	4,900	9,300	189.8	9,294
Crude Benzene	185	209	113.1	200
Pure Benzene	74	123	166.2	72
Pure Toluene	12	11	90.2	24
Benzene (90%)	4	0	-	2
Solvent Naphtha	5	89	177.6	25
Coal Tar	600	782	130.3	625
Crude Naphthalene	36	39		

Nitric Acid (50%)	1,700	1,720	100.9	450
Nitric Acid (98%)	450	454	100.5	500
Ammonium Nitrate	500	503	100.0	55
Ammonium Chloride	60	60	97.5	336
Ammonium Bicarbonate	301	294	96.3	7
Na-fluosilicate	8	7.7	102.2	50
Urea	60	61	107.9	100
Chlorsulphonic Acid	100	108	148.6	250
Methanol	100	149	106.9	104
Formaline	80	86	94.3	9,550
Coke	9,210	8,687	189.8	9,294
* Penicillin (Unit: vial)	4,900	9,300	113.1	200
Crude Benzene	185	209	166.2	72
Pure Benzene	74	123	90.2	24
Pure Toluene	12	11	-	2
Benzene (90%)	4	0	177.6	25
Solvent Naphtha	5	89	130.3	625
Coal Tar	600	782	109.2	37
Crude Naphthalene	36	39	61.1	60
Creosote Oil	72	44	68.8	50
Pitch (Soft)	50	34	113.5	330
Pitch (Hard)	320	363		

Remarks: * 300,000 Oxford unit per vial

Unit: Metric Ton

Kikumoto Works

Products	Production in November			Schedule for Dec.
	Schedule	Actual Output	Ratio of Achievement (%)	
Alumina	1,200	1,214	101	1,200
Aluminum	300	(320)	107	293
Carbide	200	244	122	200
Cryolite	10	17	170	0
Artificial Graphite Electrode	0	1	-	0
Aluminum Floride	50	55	110	60
Anode Paste	300	308	103	300
Cathod Paste	10	2	20	0
Carbide Paste	0	14	-	0
Sulphuric Acid Band	150	161	107	100

Remarks: ( ) indicates rough estimate.

Y. Harada

Yoshishige Harada
Director of Niihama & Kikumoto Works, Nissin Chemical Co., Ltd.

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Monthly Production Chart of 1949

Products	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Ammonia	3,549	3,049	2,830	4,482	4,726	4,407	4,624	4,303	3,822	4,858	4,599
Coke	7,506	6,829	8,229	8,744	9,028	8,892	8,566	8,731	7,765	9,256	8,687
Sulphuric Acid (98%)	6,741	8,896	9,567	9,350	11,904	12,179	12,265	12,187	11,916	10,891	10,987
Ammonium Sulphate	9,548	8,122	8,331	13,710	14,826	13,519	14,528	13,009	11,226	14,708	13,815
Ammonium Nitrate	556	510	401	306	406	402	352	504	457	503	503
Nitric Acid (98%)	503	579	506	640	570	509	406	550	357	400	454
Nitric Acid (50%)	2,070	2,000	1,342	1,771	1,929	1,607	1,692	1,595	1,450	1,703	1,710
Ammonia Water (17%)	1,417	1,513	1,297	1,818	1,629	1,944	1,666	1,900	1,987	1,884	2,063
Calcium Superphosphate	6,018	6,100	6,037	4,788	4,562	6,565	6,600	6,647	8,808	7,728	7,275
Sodium Nitrite	20	36	26	31	47	21	2	-	-	-	-
Na-fluosilicate	-	-	-	-	-	-	-	-	7	-	8
Chlorsulphonic Acid	30	7	11	80	120	85	115	86	16	107	108
Ammonium Chloride	2	36	25	45	46	45	52	43	35	61	60
Urea	8	37	30	41	71	49	56	60	48	62	61
Ammonium Bicarbonate	162	160	152	230	217	208	224	235	182	270	294
Pure Benzene	18	19	25	63	87	92	91	72	70	67	123
Pitch (hard)	110	125	376	372	418	399	293	316	197	234	363
Pitch (soft)	12	29	75	114	89	32	48	59	57	54	34
Methanol (refined)	34	74	105	120	192	174	144	55	261	396	149
* Amorphous Penicillin (vial)	7,843	10,573	8,609	11,090	6,983	14,473	17,686	-	-	-	-
** Procaine Penicillin	-	-	-	-	-	-	2,500	2,062	7,000	4,200	9,300

Remarks: * 100,000 Oxford unit per vial
** 300,000 Oxford unit per vial

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Introduction

of

The Niihama Works

The Nissin Chemical Co., Ltd.

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1. Name of Company and Plants

Name of Company and Address: The Nissin Chemical Co., Ltd.

Head Office : 22, 5-chome, Kitahama, Higashi-ku, Osaka.

Tokyo Branch Office: 2-chome, Nihombashi-honcho, Tokyo

Name of Plants: Niihama Works

Kikumoto Works

Wakayama Works

Osaka Works

Kasugade Plant

Torishima Plant

Higashiyodogawa Plant

Tsurusaki Plant

Okayama Plant

2. Capital

Authorized capital	¥ 1,000,000,000.-
Paid-up capital	¥ 1,000,000,000.-

3. Executive Officers

President	M. Doi
Chief Managing Director	J. Hiraiwa
Managing Director	Y. Tajiri
	Y. Harada
	Y. Taniguchi
Director	K. Oya
	Y. Noguchi
	S. Masai
	S. Tajima
	S. Kawashima

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4. Outline of the Niihama Works

a. Plant location

31, Otsu, Niihama, Ehime Pref.

b. Executives

Director:	Yoshishige HARADA
Vice Director	S. Suzuki
	K. Ohsumi
Manager of General Affairs Dept.	R. Kagata
Manager of Personnel Affairs Dept.	K. Ichiki
Head of Engineering & Construction Dept.	S. Ishida
Head of 1st Mfg. Dept.	J. Shioya
Head of 2nd Mfg. Dept.	H. Ueno
Manager of Business Dept.	M. Mitsushima

c. Area

Compounds	149.33 acres
Buildings	43.00 acres

d. Number of Employees (as of 30 Nov., 1949)

	Clerks	Engineers	Labourers	Total
Male	274	568	4,937	5,779
Female	1	1	503	505
Total	275	569	5,440	6,284

e. History of the Niihama Works

This plant was set out in Niihama as an enterprise of the Sumitomo Sohonten (former Sumitomo Company, Partnership Ltd.) in 1913 for the purpose of manufacturing sulphuric acid and calcium superphosphate with the object of solving two problems at the same time, one for eliminating the injurious effects of

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poisonous gas being generated in the smelting process of Bessi Copper Mine as a step of welfare work for the people in this vicinity and the other for exploiting the waste gas. Later, the organization of the works was revised in 1924 and was renamed to the Sumitomo Fertilizer Works, Ltd. with the capital of ¥ 3,000,000. At first, our lines of production were merely sulphuric acid and calcium superphosphate.

In 1925, with the increased output of sulphuric acid we set about the construction of nitrogen plant under the patent licence and the technical guidance of the Nitrogen Engineering Corp. of the United States of America in order to meet the requirement for nitrogenous fertilizer.

Thus we commenced production of ammonium sulphate and various other ammonia derivatives with the increased capital of ¥ 10,000,000.- as a synthetic plant of chemical fertilizers.

With the expansion of the scope of our enterprise, the name of the Fertilizer Works became unsuitable for expressing the actual state of affairs of our company, Thereupon, in 1934 it was renamed to the Sumitomo Chemical Co., Ltd. and simultaneously the capital was increased to ¥ 20,000,000.-.

We embarked upon the mamufacture of contact sulphuric acid, nitric acid, ammonium nitrate, urea, ammonium carbonate, various ammonia derivatives, methanol and formalin and contributed our share towards the development of various industries such as celluloid, mines, pharmaceuticals, etc. Thus the works firmly established the organization as a synthetic plant centering around chemical fertilizers. Later as the result of the favourable expansion of the production, the capital was increased to ¥ 40,000,000.---- and then to ¥ 80,000,000.-

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After the surrender, in accordance with the instruction of dissection of Zaibatsu on January 21, 1946, our company started the operation under the new name of "Nissin Chemical Co., Ltd.", separated from the Sumitomo Honsha, Ltd. Although the damage of our works during the wartime was comparatively slight, the equipments had been superannuated due to the over-running and difficulty in repairing since the out-break of war.

However, in the light of the importance of chemical fertilizer for the increased production of food-stuffs as well as for the stabilization of our livelihood, the rehabilitation work of our plants was started immediately after the surrender with the permission for reconversion into peace industry by the 91st Military Government Headquarters Headquarters Company (Predecessor of Ehime Civil Affairs Team) on May 10, 1946.

In October of the same year the output of ammonium sulphate already surpassed 10,000 tons in monthly production and in May of this year reached as much as 14,826 tons which made the highest record since the foundation of the plant. The proportion of ammonium sulphate output of our company as against the total national production is around 14% at present. The present capital is ¥ 1,000,000,000.-.

f. Plants designated for reparation

The following plants are designated for reparation and under conservation.

Name of plants	Date of designation
Contact Sulphuric Acid Plant	August 13, 1946 SCAPIN-1132
Caustic Soda Plant	August 13, 1946 SCAPIN-1129
Synthetic Rubber Plant	October 10, 1946 SCAPIN-1217

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HISTORY OF THE KIKUMOTO WORKS

THE NISSIN CHEMICAL CO., LTD.

1. From the time of Establishment up to the War's End.

History of Aluminum reduction of this plant dates back as far as to 1932, when the project of aluminum manufacture was set up in the light of its importance that came to be well recognized and the experiment was started in 1933. As the result of continuous two years test for mass production, we reached a practicable plan. According to this plan the process from raw material up to alumina was to be carried out by the then Sumitomo Chemical Co., Ltd. while electrolysis of alumina and manufacture of electrode was to be performed by the newly established Sumitomo Aluminum Reduction Co., Ltd. Thus, the construction work of necessary plants of these two companies had been set about and immediately after they were completed in February, 1936, operation commenced.

Thereafter, with the transition of the current situations the raw material was shifted from the domestic ore to bauxite and the alumina plant was removed to the present location. Moreover, with several expansion and reinforcement of those plants such as alumina reduction, electrode and fluoride, the peak productive capacity had once reached 54,000 tons for alumina and 25,000 tons for aluminum in 1944, thus its full capacity had been displayed though it was so short a period.

What with the transference of a part of equipments to Korea and Manchuria and what with the damage of plants caused by air-raids during the war, present capacity is reduced to

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30,000 tons for alumina and 15,000 tons for aluminum.

2. After the Surrender.

With the termination of the war, all the Japanese industries had been prostrated or driven into confusion. Aluminum Manufacture too could not be an exception to it, thus all our plants were entirely stopped with dim prospect of circumstances in September, 1945. In March, 1946 operation of refining furnace and electrolytic furnace was resumed although on a small scale.

While, utilizing a part of idle facilities, manufacture of carbode, artificial graphite electrode and common salt was started and at the same time a conversion of facilities was contemplated. In the meantime, the operation of electrolytic furnaces had temporality been forced to suspend due to the keen shortage of raw materials though that of refining furnaces was carried on.

In May 1948 resumption of aluminum manufacture became assured with the bauxite supply from abroad through the good offices of G.H.Q., thus the road was paved for the future activities of our plant.

In August 1949 an approval for the repairing of facilities for 12,000 tons per year manufacture of aluminum (respectively 6,000 tons for 1st term and 2nd term) was granted by the competent authorities and now increased production is being planned.

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Outline Expansion of Manufactu

Alumina Plant			Electrolysis and Refining Plan		
Date	Description	Annual production capacity	Date	Description	pr c
Jan. '33	Trial manufacture was commenced with Korean Alu-material.		Jan. '33	Trial electrolytic aluminum manufac-ture was commenced.	
			Jan. '34	Sumitomo Aluminum Reduction Co., Ltd. was established.	
			Jan. '35	Construction of No.1 refining plant was started.	
Jan. '36	Operation of alumina test plant was started.		Mar. '36	Operation of above was started. Re-search on electro- was commenced.	
Mar. '38	No.1 plant con-struction plan was set up		June '38	Reinforcement of No.1 refining plant.	
Mar. '39	No.2 plant con-struction plan was set up.				
Mar. '40	Operation of No.1 plant was started.	18,000 t	Mar. '40	Operation of No.2 refining plant was started.	

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Outline Expansion of Manufacturing Equipments (1)

Electrolysis and Refining Plants				Electrode Plants	
e	Description	Annual productive capacity	Date	Desription	Annual productive capacity
'33	Trial electrolytic aluminum manufacture was commenced.				
'34	Sumitomo Aluminum Reduction Co., Ltd. was established.				
'35	Construction of No.1 refining plant was started.		May '35	Maufacture of anode block and paste for furnace building was started.	
'36	Operation of above was started. Research on electro- was commenced.	1,500 t			
'38	Reinforcement of No.1 refining plant.	1,500 t			
			'39	Manufacture of anode paste was started upon enlargement of manufacturing equipment.	
'40	Operation of No.2 refining plant was started.	8,000 t	'40	Reinforcement of equipment and cathod block manufacturing equipment are completed.	

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Alumina Plant			Electrolysis and Refining Pl		p
Date	Description	Annual productive capacity	Date	Description	
			Mar. '41	Operation of refining furnace was successful on industrial scale.	
			Aug. '41	Operation of No.3 refining plant was started.	
Nov. '42	Operation of No.2 plant was started.				
'43	No.3 and No.4 plants were completed by reinforcement.	24,000 t 12,000 t			
			Mar. '41	No.2 refining plant was reinforced.	
	Total	54,000 t		Total	

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Electrolysis and Refining Plants			Electrode Plant		
Date	Description	Annual productive capacity	Date	Description	Annual productive capacity
Mar. '41	Operation of refining furnace was successful on industrial scale.				
Aug. '41	Operation of No.3 refining plant was started.	10,000 t			
Mar. '41	No.2 refining plant was reinforced.	4,000 t	'44	Manufacture of natural graphite electrode was started.	
	Total	25,000 t	'45	Manufacture of artificial graphite electrode was started. Paste Baked electrode (Artificial) (graphite) (electrode)	 14,400 t 3,600 t 11,320 t

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Outline Expansion of Manufacturing Equipments (2)

Carbide plant			Change of Management	
Date	Description	Daily production capacity	Date	Description
June'45	Construction of small-sized electrolytic furnace was commenced.		June'34	Sumitomo Aluminum Reduction Co., Ltd. was established.
Nov.'45	Operation of 3-phase electric furnace was started.		July'44	The above entrusted the Sumitomo Chemical Co., Ltd. with its management and the former was renamed to the Light Metal Mfg. Works of the latter. where a consistent operation from alumina was started.
Oct.945	Electrolytic furnace of No.3 refining plant was remodeled and operation of clock type furnace was started.			
Apr.'46	Construction of No.2 furnace was planned to meet the increased demand for carbide for sale.		Feb.'46	The Sumitomo Chemical Co., Ltd. was renamed to the Nissin Chemical Co., Ltd. and the works was also renamed to the Kikumoto plant to the Niihama works of the company.
June'46	Operation of the No.2 furnace was started.	9 T		
Sept.'46	Construction of No.1 furnace was commenced.		Mar.'47	The Kikumoto plant was renamed to the 2nd manufacturing Dept. of the Niihama Works of the company.
Dec.'46	Operation of the above was started.	15 T		
Mar.'48	Trsnsformer of No.1 furnace was reinforced to 4,000 KVA		Aug.'48	The 2nd manufacturing Dept. of the Niihama Works was renamed to the Kikumoto plant of the Niihama Works.
May '48	Transformer of No.2 furnace was reinforced to 3,000 KVA.			
	Total	24 T	July'49	The Kikumoto Plant was renamed to the Kikumoto Works of the company

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Export for Nov.
(As of Nov. 21)

Name of Merchandise	Date	Quantity(T)	Destination	Exporting Agency
Ammonium Bicarbonate	Nov. 5	5	India	Tokyo Sangyo K.K.
"	Nov.21	5	Formosa	Takeda Yakuhin Kogyo K.K.

Remark: Price is unknown

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Required and Shipped-in Quantity of Pyrite Ore for Nov.
(As of Nov. 15)

Name of Mine	Required(T)	Shipped-in(T)	Ratio(%)	Remarks
Takagoshi, Ehime, Sasaren, Shirataki, (Rich Copper Content)	690*			* Converted into Iron Concentrate
Besshi (Iron Concentrate)	3,800	2,320	52	** Content of sulphur: 4,298
Sasaren "	400	306	76	
Yanahara "	3,000	1,543	51	
Matsuo "	1,200			
Hanaoka "	700			
T o t a l	9,790**	4,169	43	

Mr. Caden
inf.

Allocated and Shipped-in Quantity of Phosphate Rock for Nov.
(As of Nov. 15)

Producing District	Allocated(T)	Shipped-in(T)	Ratio(%)
Florida U.S.A	1,500	(1,500) *	0
Angaur	200		0
Total	1,700	(1,500)	

Remarks: (1) * indicates allocation for October.
(2) 1,500 tons Florida rock are due in Kobe on Nov. 21 per Lena.
(3) 200 tons Angaur rock are due in Osaka on Nov. 30 per Pacific.

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Introduction

of

The Niihama Works

The Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

1. Name of Company and Plants

Name of Company and Address: The Nissin Chemical Co., Ltd.

Head Office : 22 5-chome, Kitahama, Higashi-ku, Osaka.

Tokyo Branch Office: 2-chome, Nihombashi-honcho, Tokyo

Name of Plants: Niihama Works

Kikumoto Works

Wakayama Works

Osaka Works

Kasugade Plant

Torishima Plant

Higashiyodogawa Plant

Tsurusaki Plant

Okayama Plant

2. Capital

Authorized capital	¥ 400,000,000.-
Paid-up capital	¥ 400,000,000.-

3. Executive Officers

President	M. Doi
Chief Managing Director	J. Hiraiwa
Managing Director	Y. Tajiri
	Y. Harada
	Y. Taniguchi
	K. Oya
	Y. Noguchi
Director	S. Masai
	S. Tajima
	S. Kawashima

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

4. Outline of the Niihama Works

a. Plant location

31, Otsu, Niihama, Ehime Pref.

b. Executives

Director:	Yoshishige HARADA
Vice Director	S. Suzuki
	K. Ohsumi
Manager of General Affairs Dept.	R. Kagata
Manager of Personnel Affairs Dept.	K. Ichiki
Head of Engineering & Construction Dept.	S. Ishida
Head of 1st Mfg. Dept.	J. Shioya
Head of 2nd Mfg. Dept	H. Ueno
Manager of Business Dept.	M. Mitsushima

c. Area

Compounds	149.33 acres
Buildings	43.00 acres

d. Number of Employees (as of 30 Nov., 1949)

	Clerks	Engineers	Labourers	Total
Male	274	568	4,937	5,779
Female	1	1	503	505
Total	275	569	5,440	6,284

e. History of the Niihama Works

This plant was set out in Niihama as an enterprise of the Sumitomo Sohonten (former Sumitomo Company, Partnership Ltd.) in 1913 for the purpose of manufacturing sulphuric acid and calcium superphosphate with the object of solving two problems

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

at the same time, one for eliminating the injurious effects of poisonous gas being generated in the smelting process of Bessi Copper Mine as a step of welfare work for the people in this vicinity and the other for exploiting the waste gas. Later, the organization of the works was revised in 1924 and was renamed to the Sumitomo Fertilizer Works, Ltd. with the capital of ¥ 3,000,000. At first, our lines of production were merely sulphuric acid and calcium superphosphate.

In 1925, with the increased output of sulphuric acid we set about the construction of nitrogen plant under the patent licence and the technical guidance of the Nitrogen Engineering Corp. of the United States of America in order to meet the requirement for nitrogenous fertilizer.

Thus we commenced production of ammonium sulphate and various other ammonia derivatives with the increased capital of ¥ 10,000,000.- as a synthetic plant of chemical fertilizers.

With the expansion of the scope of our enterprise, the name of the Fertilizer Works became unsuitable for expressing the actual state of affairs of our company. Thereupon, in 1934 it was renamed to the Sumitomo Chemical Co., Ltd. and simultaneously the capital was increased to ¥ 20,000,000.-

We embarked upon the manufacture of contact sulphuric acid, nitric acid, ammonium nitrate, urea, ammonium carbonate, various ammonia derivatives, methanol and formalin and contributed our share towards the development of various industries such as celluloid, mines, pharmaceuticals, etc. Thus the works firmly established the organization as a synthetic plant centering around chemical fertilizers. Later as the result of the favourable expansion of the production, the capital was increased to ¥ 40,000,000.---- and then to ¥ 80,000,000.-

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

After the surrender, in accordance with the instruction of dissection of Zaibatsu on January 21, 1946, our company started the operation under the new name of "Nissin Chemical Co., Ltd.", separated from the Sumitomo Honsha, Ltd. Although the damage of our works during the wartime was comparatively slight, the equipments had been superannuated due to the over-running and difficulty in repairing since the out-break of war.

However, in the light of the importance of chemical fertilizer for the increased production of food-stuffs as well as for the stabilization of our livelihood, the rehabilitation work of our plants was started immediately after the surrender with the permission for reconversion into peace industry by the 91st Military Government Headquarters Headquarters Company (Predecessor of Ehime Civil Affairs Team) on May 10, 1946.

In October of the same year the output of ammonium sulphate already surpassed 10,000 tons in monthly production and in May of this year reached as much as 14,826 tons which made the highest record since the foundation of the plant. The proportion of ammonium sulphate output of our company as against the total national production is around 14% at present. The present capital is ¥ 400,000,000.-.

f. Plants designated for reparation

The following plants are designated for reparation and under conservation.

Name of plants	Date of designation
Contact Sulphuric Acid Plant	August 13, 1946 SCAPIN-1132
Caustic Soda Plant	August 13, 1946 SCAPIN-1129
Synthetic Rubber Plant	October 10, 1946 SCAPIN-1217

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 113013

Monthly Production Chart of 1949

(Unit: Metric Ton)

Products	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Ammonia	3,549	3,049	2,830	4,482	4,726	4,407	4,624	4,303	3,822	4,858	4,599
Coke	7,506	6,829	8,229	8,744	9,028	8,892	8,566	8,731	7,765	9,256	8,687
Sulphuric Acid (98%)	6,741	8,896	9,567	9,350	11,904	12,179	12,265	12,187	11,916	10,891	10,987
Ammonium Sulphate	9,548	8,122	8,331	13,710	14,826	13,519	14,528	13,009	11,226	14,708	13,815
Ammonium Nitrate	556	510	401	306	406	402	352	504	457	503	503
Nitric Acid (98%)	503	579	506	640	570	509	406	550	357	400	454
Nitric Acid (50%)	2,070	2,000	1,342	1,771	1,929	1,607	1,692	1,595	1,450	1,703	1,710
Ammonia Water (17%)	1,417	1,513	1,297	1,818	1,629	1,944	1,666	1,900	1,987	1,884	2,063
Calcium Superphosphate	6,018	6,100	6,037	4,788	4,562	6,565	6,600	6,647	6,808	7,728	7,275
Sodium Nitrite	20	36	26	31	47	21	2	-	-	-	-
Na-fluosilicate	-	-	-	-	-	-	-	-	7	-	8
Chlorsulphonic Acid	30	7	11	80	120	85	115	86	16	107	108
Ammonium Chloride	2	36	25	45	46	45	52	43	35	61	60
Urea	8	37	30	41	71	49	56	60	48	62	61
Ammonium Bicarbonate	162	160	152	230	217	208	224	235	182	270	294
Pure Benzene	18	19	25	63	87	92	91	72	70	67	123
Pitch (hard)	110	125	376	372	418	399	293	316	197	234	363
Pitch (soft)	12	29	75	114	89	32	48	59	57	54	34
Methanol (refined)	34	74	105	120	192	174	144	55	261	396	149
* Amosphous Penicillin (vial)	7,843	10,573	8,609	11,090	6,983	14,473	17,686	-	-	-	-
**Procaine Penicillin	-	-	-	-	-	-	2,500	2,062	7,000	4,200	9,300

Remarks: * 100,000 Oxford unit per vial
** 300,000 Oxford unit per vial

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 13013

Monthly Production Chart of 1949

(Unit: Metric Ton)

Products	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Ammonia	3,549	3,049	2,830	4,482	4,726	4,407	4,624	4,303	3,822	4,858	4,599
Coke	7,506	6,829	8,229	8,744	9,028	8,892	8,566	8,731	7,765	9,256	8,687
Sulphuric Acid (98%)	6,741	8,896	9,567	9,350	11,904	12,179	12,265	12,187	11,916	10,891	10,987
Ammonium Sulphate	9,548	8,122	8,331	13,710	14,826	13,519	14,528	13,009	11,226	14,708	13,815
Ammonium Nitrate	556	510	401	306	406	402	352	504	457	503	503
Nitric Acid (98%)	503	579	506	640	570	509	406	550	357	400	454
Nitric Acid (50%)	2,070	2,000	1,342	1,771	1,929	1,607	1,692	1,595	1,450	1,703	1,710
Ammonia Water (17%)	1,417	1,513	1,297	1,818	1,629	1,944	1,666	1,900	1,987	1,884	2,063
Calcium Superphosphate	6,018	6,100	6,037	4,788	4,562	6,565	6,600	6,647	6,808	7,728	7,275
Sodium Nitrite	20	36	26	31	47	21	2	-	-	-	-
Na-fluosilicate	-	-	-	-	-	-	-	-	7	-	8
Chlorsulphonic Acid	30	7	11	80	120	85	115	86	16	107	108
Ammonium Chloride	2	36	25	45	46	45	52	43	35	61	60
Urea	8	37	30	41	71	49	56	60	48	62	61
Ammonium Bicarbonate	162	160	152	230	217	208	224	235	182	270	294
Pure Benzene	18	19	25	63	87	92	91	72	70	67	123
Pitch (hard)	110	125	376	372	418	399	293	316	197	234	363
Pitch (soft)	12	29	75	114	89	32	48	59	57	54	34
Methanol (refined)	34	74	105	120	192	174	144	55	261	396	149
* Amosphous Penicillin (vial)	7,843	10,573	8,609	11,090	6,983	14,473	17,686	-	-	-	-
**Procaine Penicillin	-	-	-	-	-	-	2,500	2,062	7,000	4,200	9,300

Remarks: * 100,000 Oxford unit per vial
** 300,000 Oxford unit per vial

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 115013

Introduction

of

The Niihama Works

The Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

1. Name of Company and Plants

Name of Company and Address: The Nissin Chemical Co., Ltd.

Head Office : 22, 5-chome, Kitahama, Higashi-ku, Osaka.

Tokyo Branch Office: 6, 2-chome, Nihombashi-honcho, Chuo-ku, Tokyo.

Name of Plants : Niihama Works
Kikumoto Works
Wakayama Works
Osaka Works
Kasugade Plant
Torishima Plant
Higashiyodogawa Plant
Tsurusaki Plant
Okayama Plant

2. Capital

Authorized capital ¥ 1,000,000,000.-

Paid-up capital ¥ 1,000,000,000.-

3. Excutive Officers

President M. Doi

Chief Managing Director J. Hiraiwa

Managing Director Y. Tajiri
Y. Harada
Y. Taniguchi
K. Oya
S. Masai
Y. Noguchi

Director S. Tajima
K. Kawashima

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175015

4. Outline of the Niihama Works

a. Plant location

31, Otsu, Niihama, Ehime Pref.

b. Executives

Director:	Yoshishige HARADA
Vice Director	S. Suzuki
	K. Ohsumi
Manager of General Affairs Dept.	R. Kagata
Manager of Personnel Affairs Dept.	K. Ichiki
Head of Engineering & Construction Dept.	S. Ishida
Head of 1st Mfg. Dept.	J. Shioya
Head of 2nd Mfg. Dept.	H. Ueno
Manager of Business Dept.	M. Mitsushima

c. Area

Compounds	149.33 acres
Buildings	43.00 acres

d. Number of Employees (as of 31 Jan. 1951)

	Clerks	Engineers	Labourers	Total
Male	268	614	4,467	5,349
Female	1	0	346	347
Total	269	614	4,813	5,696

e. History of the Niihama Works

This plant was set out in Niihama as an enterprise of the Sumitomo Sohonten (former Sumitomo Company, Partnership Ltd.) in 1913 for the purpose of manufacturing sulphuric acid and calcium superphosphate with the object of solving two problems at the same time, one for eliminating the injurious effects of

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

poisonous gas being generated in the smelting process of Bessi Copper Mine as a step of welfare work for the people in this vicinity and the other for exploiting the waste gas. Later, the organization of the works was revised in 1924 and was renamed to the Sumitomo Fertilizer Works, Ltd. with the capital of ¥ 3,000,000. At first, our lines of production were merely sulphuric acid and calcium superphosphate.

In 1925, with the increased output or sulphuric acid we set about the construction of nitrogen plant under the patent licence and the technical guidance of the Nitrogen Engineering Corp. of the United States of America in order to meet the requirement for nitrogenous fertilizer.

Thus we commenced production of ammonium sulphate and various other ammonia derivatives with the increased capital of ¥ 10,000,000.- as a synthetic plant of chemical fertilizers.

With the expansion of the scope of our enterprise, the name of the Fertilizer Works became unsuitable for expressing the actual state of affairs of our company. Thereupon, in 1934 it was renamed to the Sumitomo Chemical Co., Ltd. and simultaneously the capital was increased to ¥ 20,000,000.-.

We embarked upon the manufacture of contact sulphuric acid, nitric acid, ammonium nitrate, urea, ammonium carbonate, various ammonia derivatives, methanol and formalin and contributed our share towards the development of various industries such as celluloid, mines, pharmaceuticals, etc. Thus the works firmly established the organization as a synthetic plant centering around chemical fertilizers. Later as the result of the favourable expansion of the production, the capital was increased to ¥ 40,000,000. ---- and then to ¥ 80,000,000.-.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 115015

After the surrender, in accordance with the instruction of dissection of Zaibatsu on January 21, 1946, our company started the operation under the new name of "Nissin Chemical Co., Ltd.", separated from the Sumitomo Honsha, Ltd. Although thedamage of our works during the wartime was comparatively slight, the equipments had been superannuated due to the over-running and difficulty in repairing since the out-break of war.

However, in the light of the importance of chemical fertilizer for the increased production of food-stuffs as well as for the stabilization of our livelihood, the rehabilitation work of our plants was started immediately after the surrender with the permission for reconversion into peace industry by the 91st Military Government Headquarters, Headquarters Company (Predecessor of Ehime Civil Affairs Team) on May 10, 1946.

In October of the same year the output of ammonium sulphate already surpassed 10,000 tons in monthly production and in May of this year reached as much as 19,358 tons which made the highest record since the foundation of the plant. The proportion of ammonium sulphate output of our company as against the total national production is around 15% at present. The present capital is ¥ 1,000,000,000.-.

f. Plants designated for reparation

The following plants are designated for reparation and under conservation.

Name of plants	Date of designation
Contact Sulphuric Acid Plant	August 13, 1946 SCAPIN-1132
Caustic Soda Plant	August 13, 1946 SCAPIN-1129
Synthetic Rubber Plant	October 10, 1946 SCAPIN-1217

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Main Products of Our Works

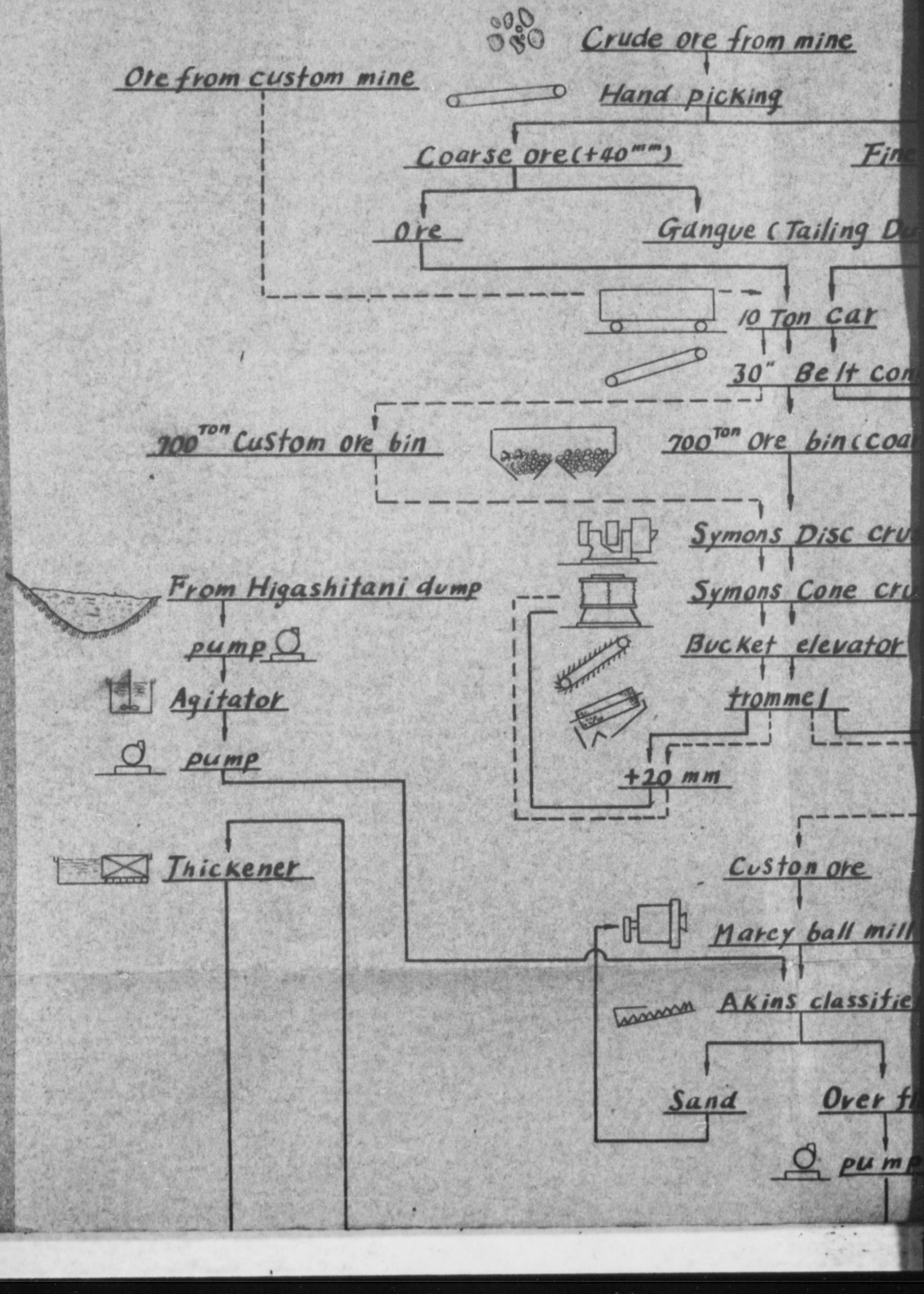
Unit : Metric Ton

Product	1950 Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1951 Jan.
Sulphuric Acid (98%)													
Sulphuric Acid (98%)	12,003	10,843	10,885	11,614	14,261	13,241	13,901	13,719	13,218	13,507	12,563	13,472	14,114
Liquid Ammonia	5,049	3,573	5,143	5,531	6,093	5,369	5,442	4,386	5,486	5,061	5,059	5,245	5,727
Ammonium Sulphate	15,684	11,099	15,674	17,083	19,358	17,177	17,676	13,126	17,319	15,048	15,212	14,702	16,567
Calcium Superphosphate	2,197	8,141	9,436	6,613	4,531	6,372	8,336	8,048	8,004	8,153	8,068	8,048	8,017
Nitric Acid (50%)	2,189	1,496	2,328	2,603	2,669	2,001	1,901	2,008	2,411	2,897	3,122	3,979	4,491
Nitric Acid (98%)	607	401	607	817	858	657	662	706	706	822	805	1,076	947
Ammonium Nitrate	603	440	629	525	470	406	351	448	453	570	701	403	644
Ammonium Chloride	63	41	61	62	61	66	73	72	70	73	55	61	73
Ammonium Bicarbonate	384	292	266	101	38	0	0	21	65	41	15	304	165
Sodium Nitrite	37	31	36	36	37	31	0	34	31	36	46	56	63
Ammonia Water (17%)	1,464	1,133	1,542	1,788	2,186	2,415	2,383	2,317	2,418	2,403	1,659	2,831	2,204
Urea	73	50	51	80	85	86	. 79	71	104	111	110	127	127
Coke	9,612	7,767	9,531	7,151	6,692	6,442	7,051	6,000	6,080	6,430	6,802	8,246	8,553
Chlorsulphonic Acid	107	99	110	146	151	157	124	124	143	115	132	147	137
Pure Methanol	450	447	551	339	348	319	323	354	513	733	796	806	902
Formaline	168	260	355	316	192	219	214	329	440	523	506	541	496
Pure Benzene	48	73	99	47	89	96	96	77	1107	87	79	90	121
Pure Toluene	23	10	0	24	8.5	14	13	11	12	15	25	15	10
Solvent Naphtha	7.3	4.3	2.1	6.2	7.1	6.9	3.9	6.4	7.2	7.1	5.5	6	6
Coal Tar	625	556	689	550	504	511	478	522	420	488	459	543	548
Pitch	279	251	469	210	270	213	189	214	326	217	170	293	290
Creosote Oil	73	68	73	52	44	56	58	45	51	70	34	43	40
Crude Naphthalene	50	39	42	48	36	20	12	20	37	39	39	45	64
#Penicillin (vial)	12,000	19,000	16,000	21,000	22,000	23,500	23,000	25,000	19,000	25,000	30,160	26,000	-

Remarks : # 300,000 Oxford unit per vial.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175015

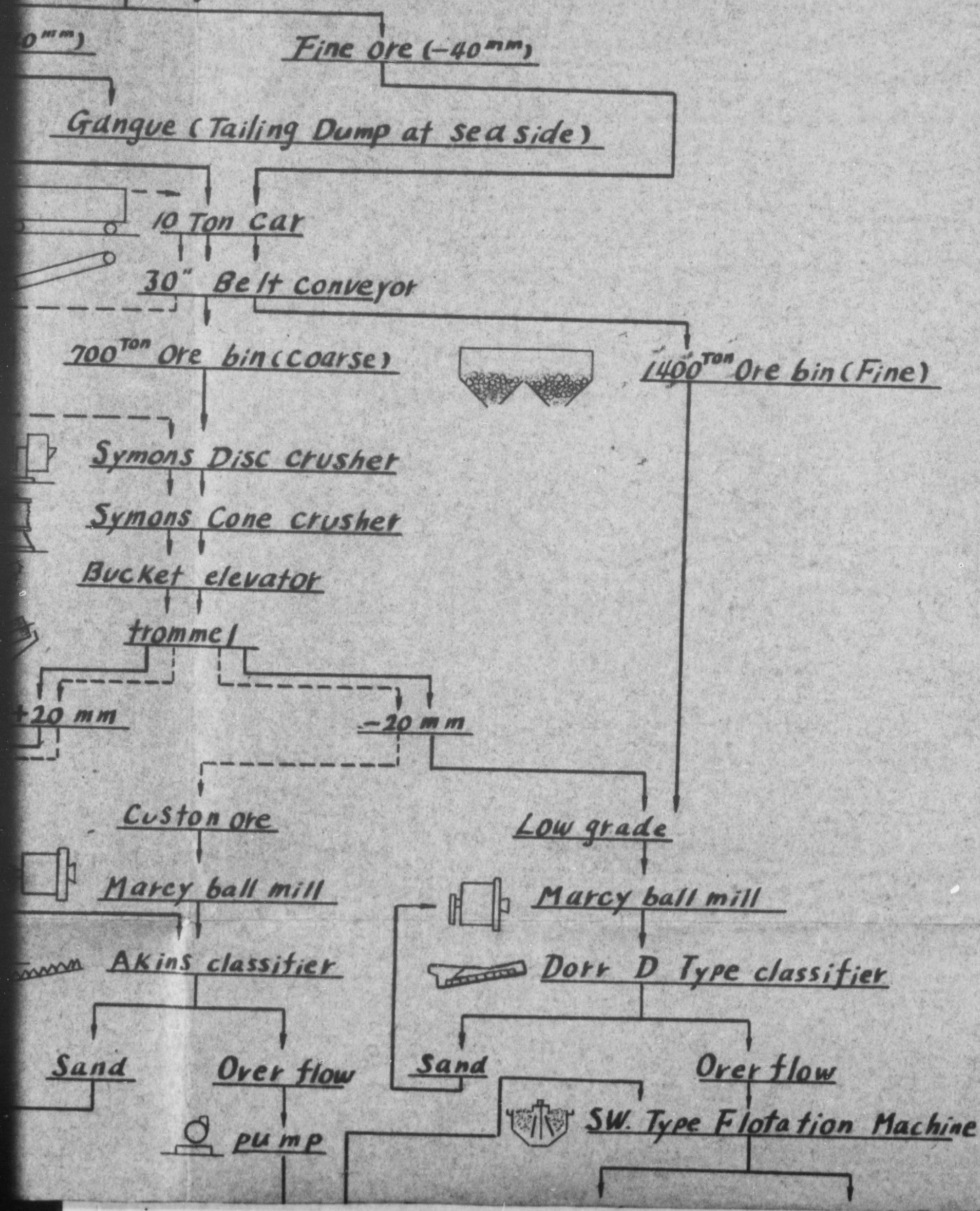
FLOW SHEET OF NIIHAMA FI



DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 115015

IHAMA FLOTATION PLANT

Oct 1950



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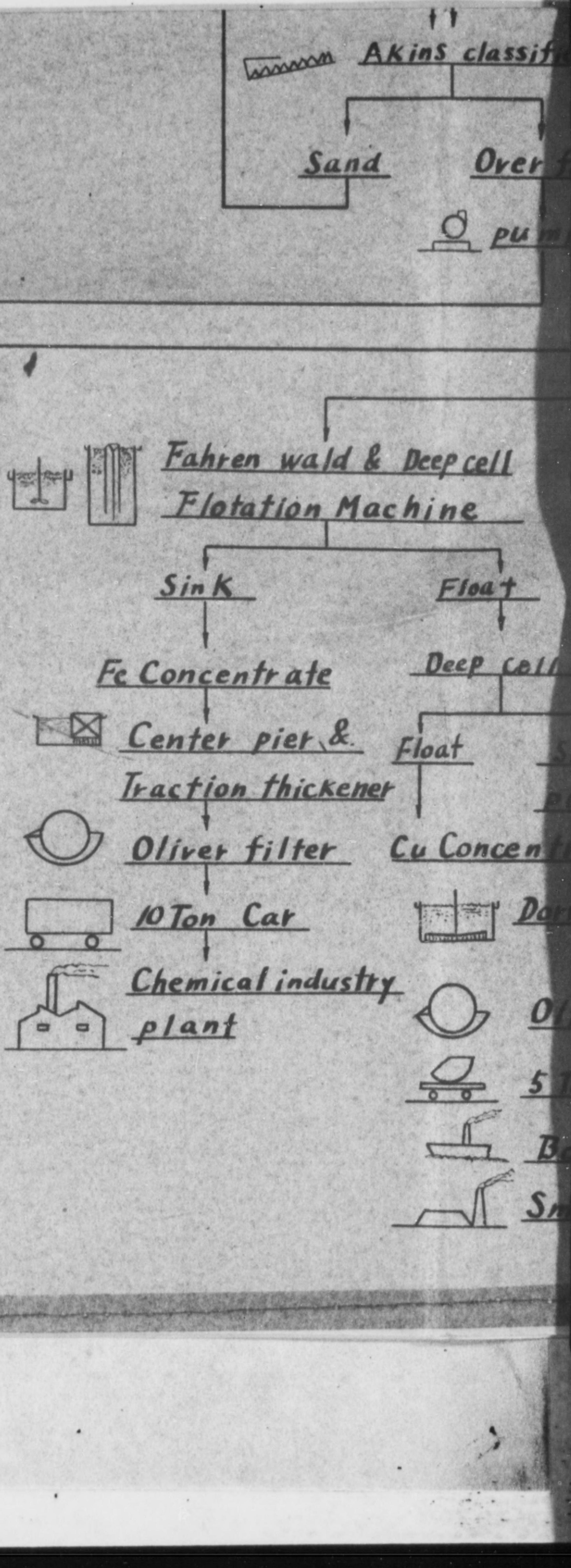
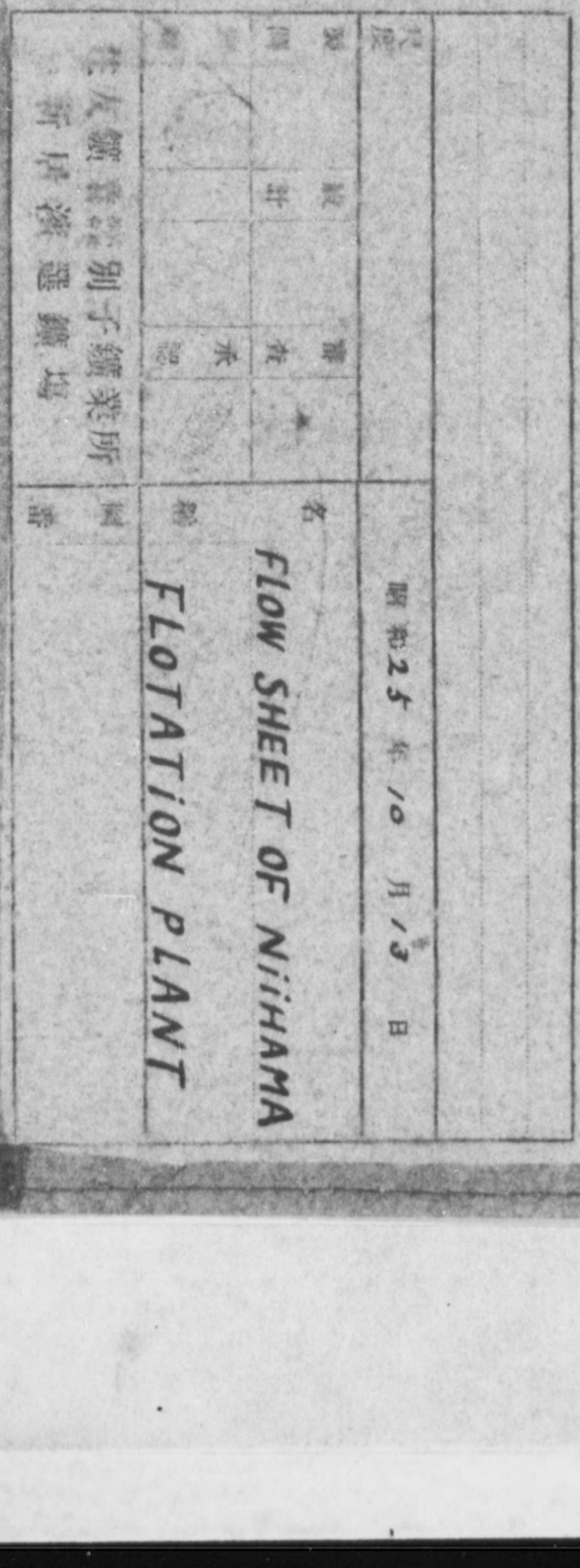




作成	審査	承認					

別子鉱業所 製錬部 選鉱課

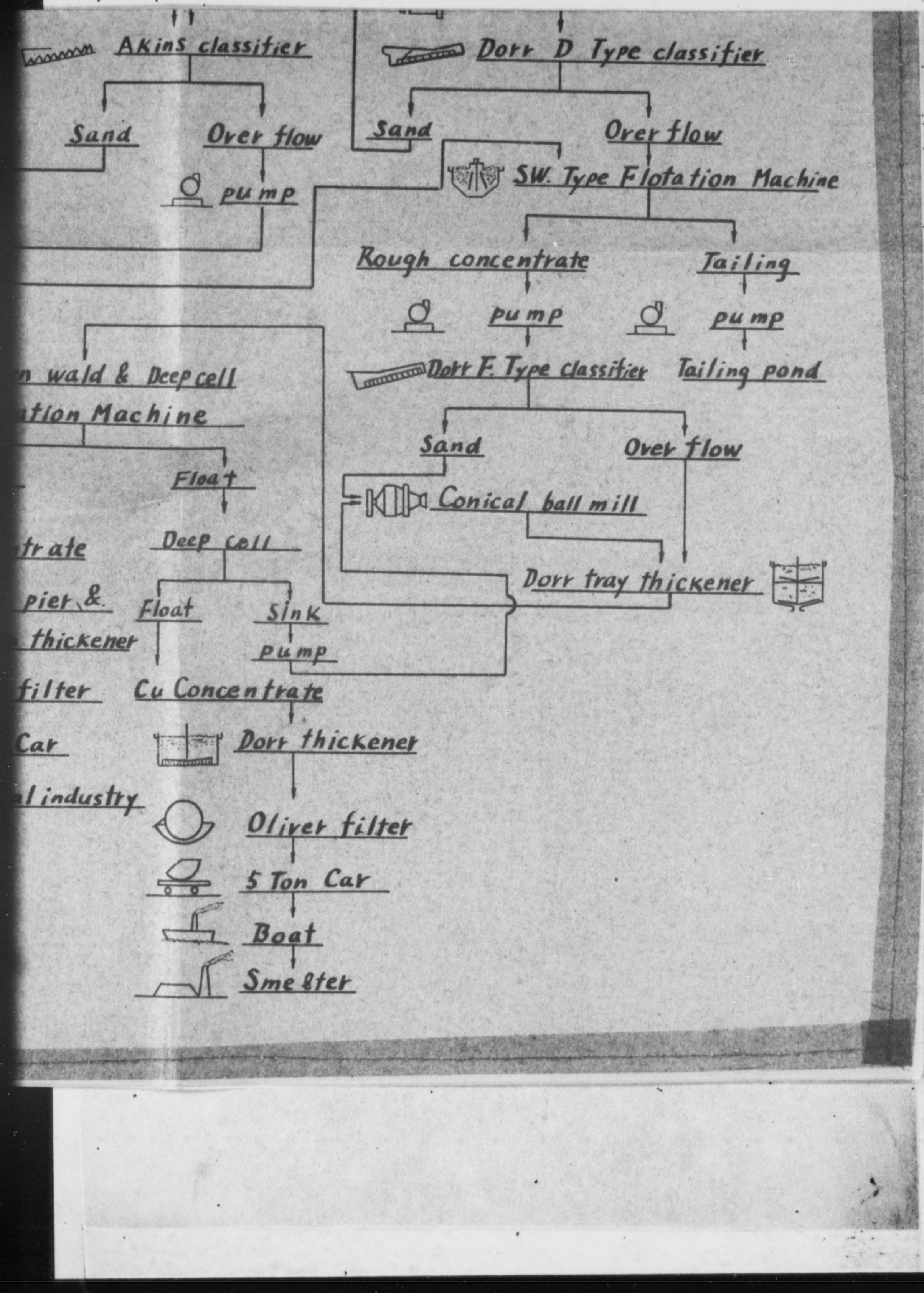
昭和25年10月13日

名 FLOW SHEET OF NIIHAMA

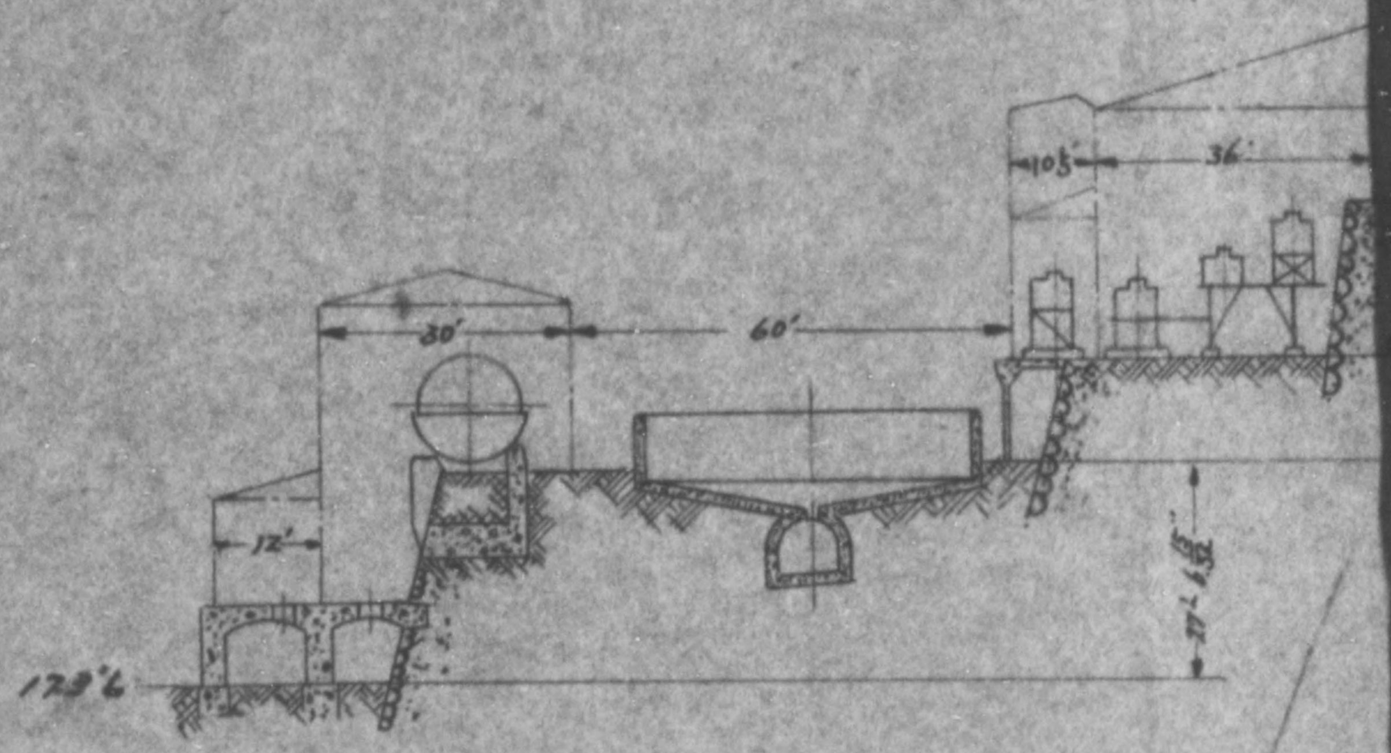
称 FLOTATION PLANT

図番

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 115015



DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175015



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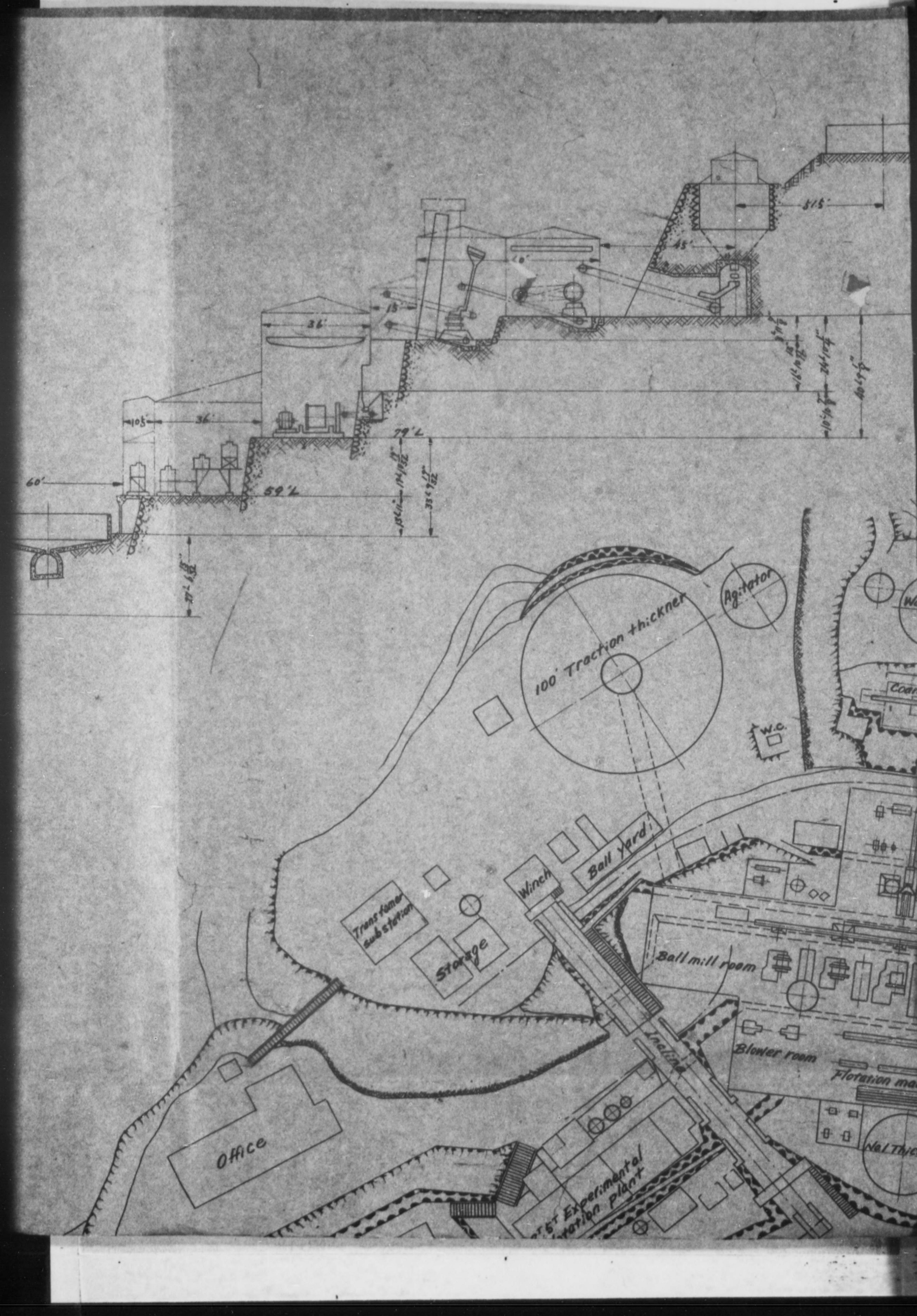

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 115013

Well

Water pump

Agitator

Water tank

Coarse ore bin

Fine ore bin

No 2 Conveyor

W.C.

Crushing room

No 5 Thickner

Tray thickner

No 6 Thickner

Blower room

Flotation machine room

No 1 Thickner

No 2 Thickner

No 3 Thickner

No 4 Thickner

130

120

110

80

70

60

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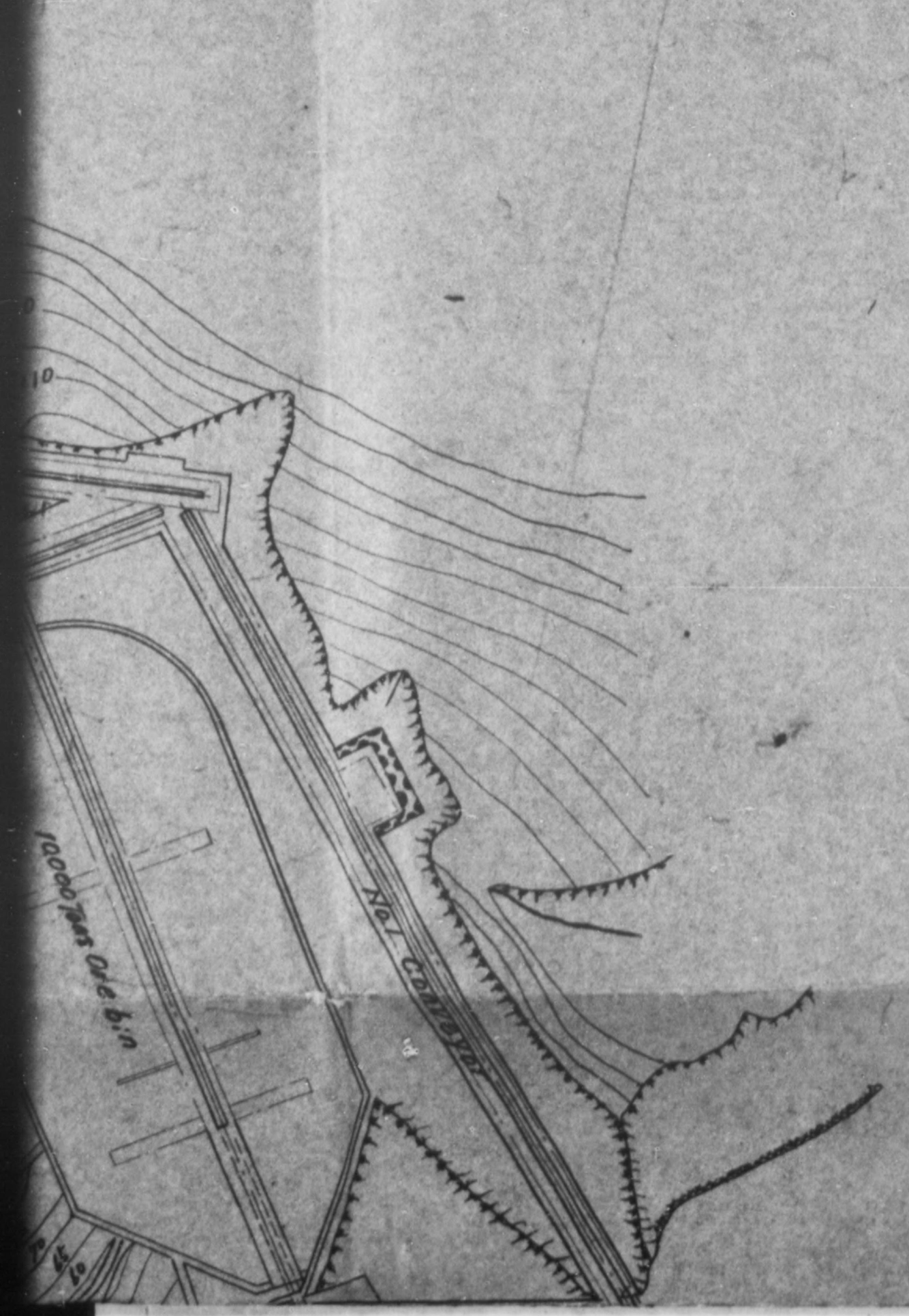
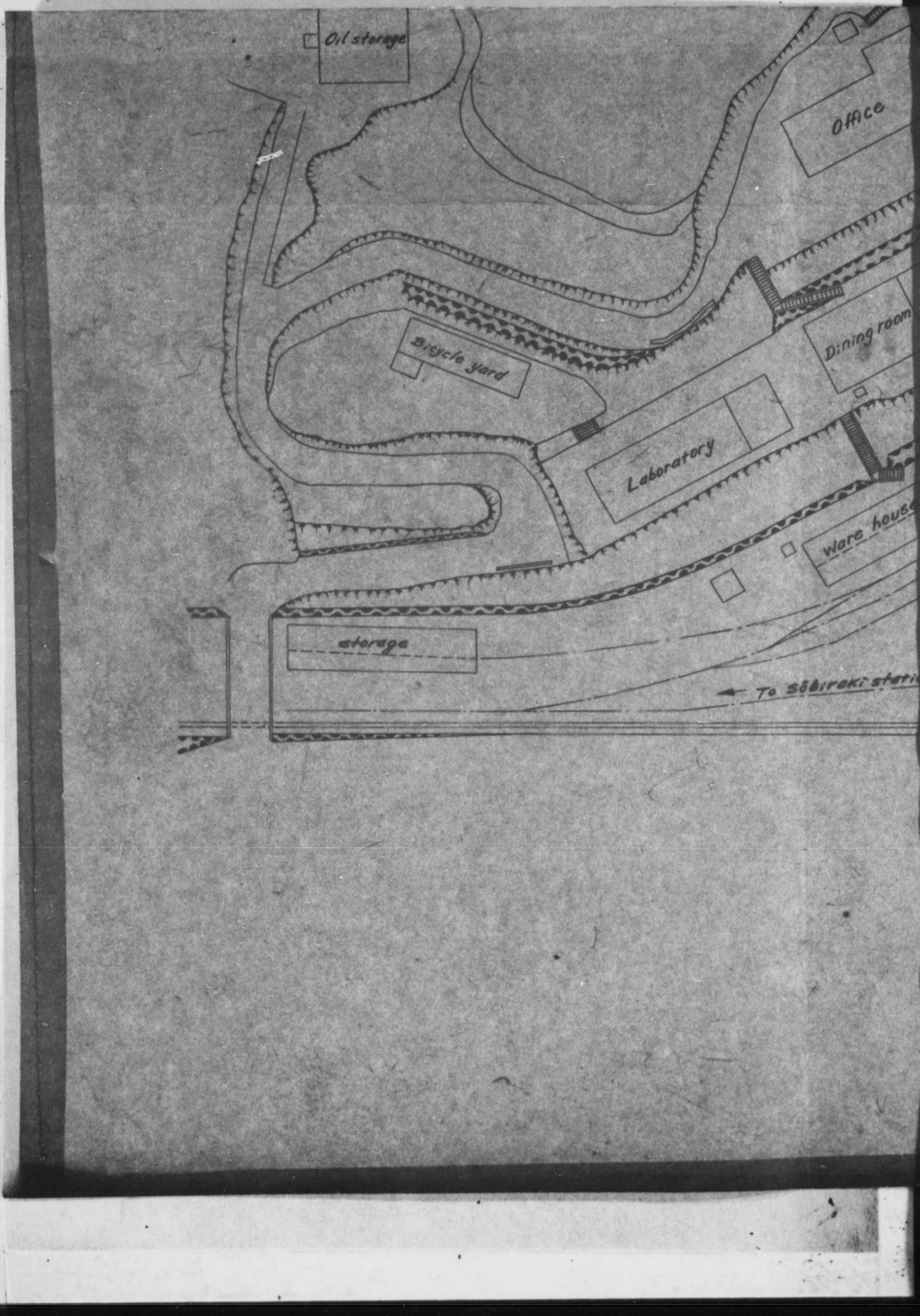


DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013



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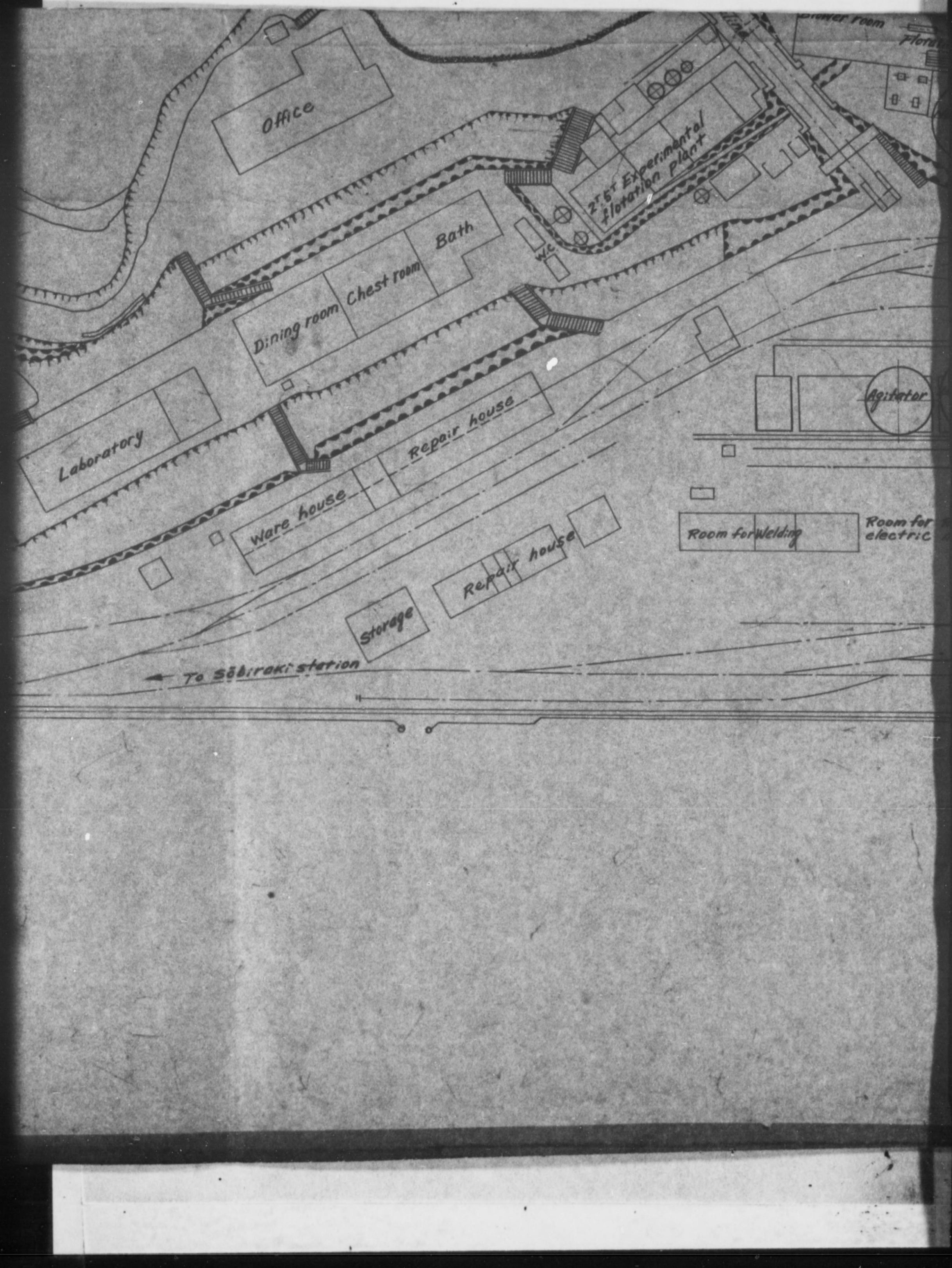

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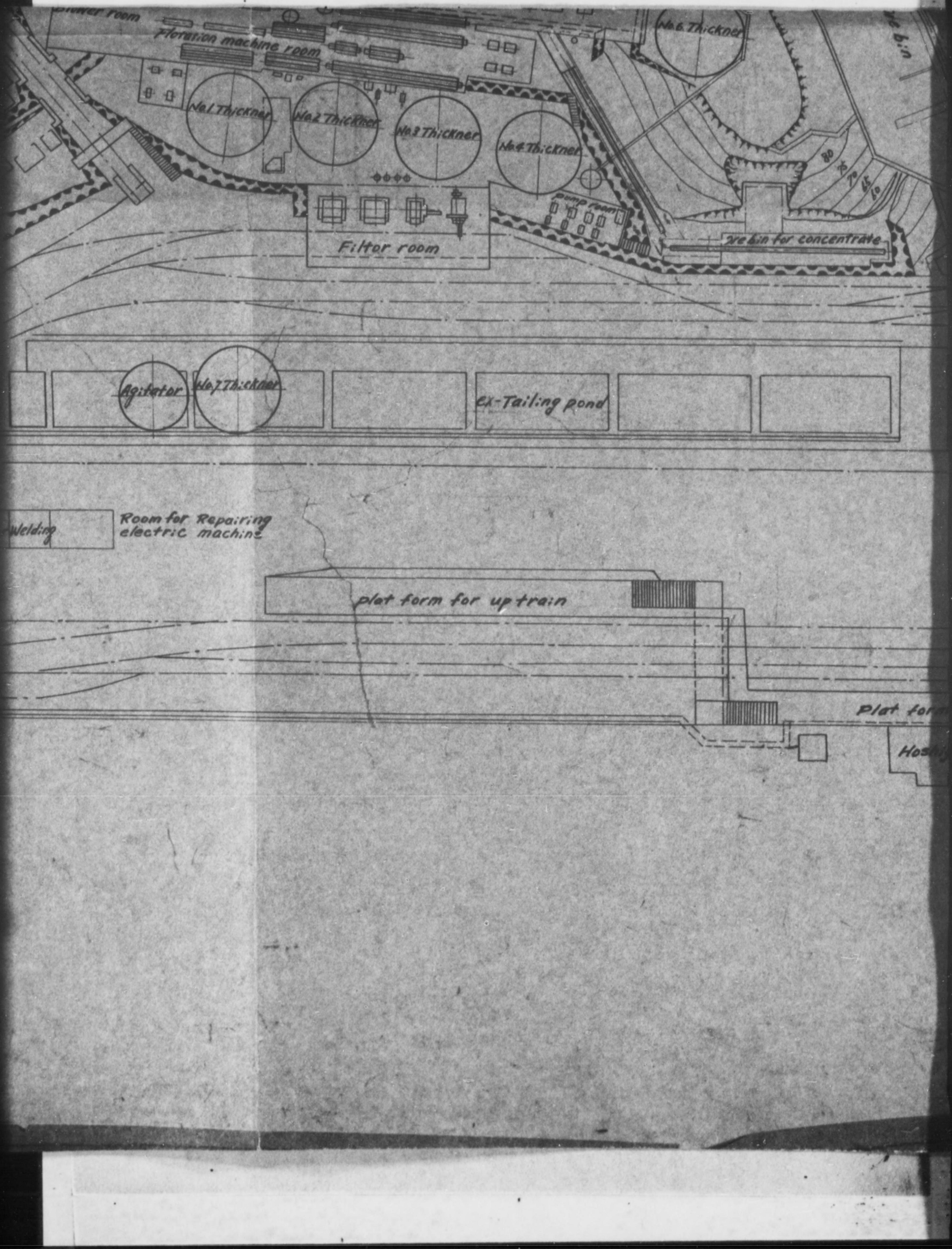
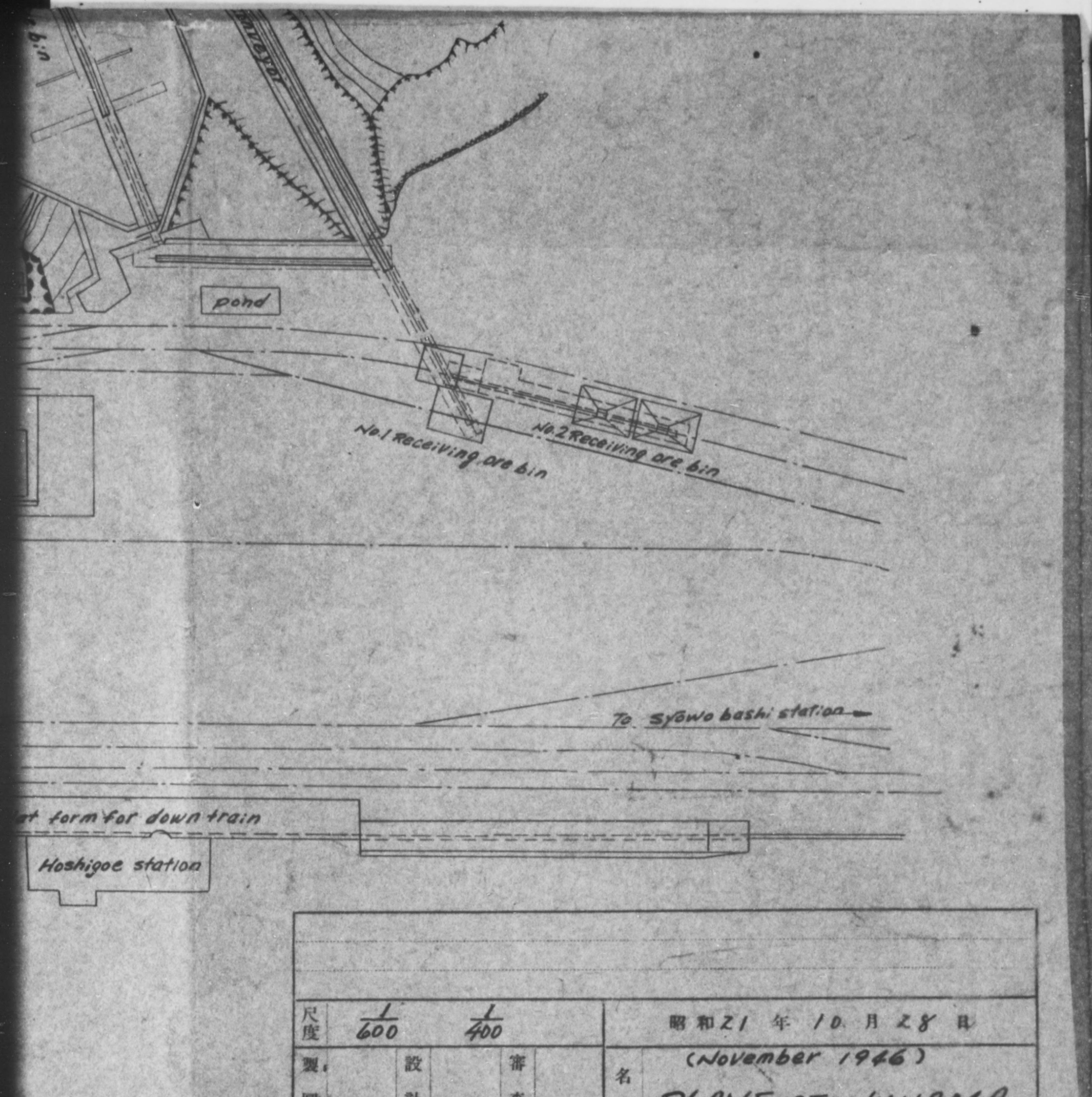


DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013



尺度	1/600		1/400		昭和21年10月28日 (November 1946)
製図		設計		審査	名稱 PLANE OF NiiHAMA FLOTATION PLANT
寫圖	内良		岡	承認	
住友鑛業株式會社 別子鑛業所 新居濱選鑛場					圖番 000125

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Operation of the Flotation Plant

The ore produced at Besshi Mine is cupriferous pyrite whose contents are chalcopyrite and iron pyrite. So we extract these useful contents and discard the waste rock at our plant.

Then we separate these useful contents into two kinds. The copper pyrite thus separated is sent to Shisakajima Smelter, and the iron pyrite is sent to Nisshin Chemical Company for the manufacture of chemical fertiliser.

Besides, we purchase custom ores from such mines as Sazare, Ehime, Kotsu, Shirataki and so on extant in Shikoku district which belong to other companies, and treat them here. The grade of Besshi ores is : Cu 1.4% : S 15% while that of custom ores is Cu 1-3% S 25 - 45%.

1. First process : Separation of useless rock from useful ores.

Microscopic examination has proved that it is necessary to crush and grind the feed to such an extent that about 60% of it is -200 mesh, in order to separate useless rock from useful ores.

(200 mesh $\doteq$ 0.074 mm)

For this purpose the feed ore undergoes two stages of operation.

The first stage of crushing is subdivided into two parts. The feed ore is crushed into small lumps of 40mm dia. at first by Symons Disk Crusher, then they are made smaller ones of -20mm dia. by Symons Cone Crusher.

These are sifted in the Trommel with openings of 20mm, and the big lumps remaining in it are sent back again to the cone crusher where they are crushed again.

The second stage consists in grinding the crushed ores into podwer so that the sulphide and waste rock may be perfectly separated. The ores thus ground are treated here instead of sieves, by classifiers which classify them into suitable sizes : the bigger ones are sent back to undergo grinding again.

		Feed ore,	Discharged ore
Crushing	1st process : Symons Disk Crusher	+ 40 - 100mm	-40mm

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2nd process : Symons Cone Crusher -40mm -20mm

Crinding.... : Marcy Ball Mill -20mm + 48mesh 20%
+ 100mesh 55%
+ 200mesh 70%

Consumption of ball : .....1.3 kg/ton of ore

Durability of liner : .....5,000 hours

Density of pulp overflowing from classifier .....35% Solid

Size of pulp overflowing from classifier ,.....(+ 65mesh 2%
(-200mesh 65%

Circulating load of classifier .....150 - 200 %

2. Second process : Separation of sulphide and waste rock by means of floatation.

Separation of ores from waste rock is carried out by floatation method. And this kind of separation is called Bulk Flotation. In order to do this we use South Western type floatation machine and Deep Cell.

This is a contrivance to blow air into the floatation machine by blower and as collector we put ethyl xanthate into the pulp.

Thus we extract sulphide from the pulp by making it adhere to the surface of the bubbles. So the deposited pulp is sent to the seashore as useless tailings by means of sand pump through the pipe, and there it is thrown away to reclaim the ground.

Bulk flotation :

Pulp (water 75% in weight
(ore 25%

P.H. : 7.5

Time for flotation : 30 min.

Quantity of frother : 75 g/t of feed ore

Quantity of collector : 180 g/t of feed ore

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		(Cu. 3.5%
Rough concentrate grade		(S. 45%
Tailings grade	(Cu.	0.1%
	(S.	1.2%

3. Third Process :

The principal operation of this plant which consists in separating the ores extracted at the second process into chalcopyrite and iron pyrite, is called differential flotation.

The ores extracted at the second process, which stick on to the surface of the bubbles contain chalcopyrite and iron pyrite.

The grinding operation at the first process only aims at separating ores from the waste rock. So the fine ores ground at this process contains both chalcopyrite and iron pyrite. Therefore it is necessary to grind them once for the second time in order to separate the two completely.

This operation is called "secondary grinding". After this chalcopyrite is separated from iron pyrite by Fahren Wald Flotation Machine and Deep Cell.

For Fahrenwald Flotation Machine we use an impeller to make bubbles while we use a blower for that purpose as to the Deep Cell. Both frother and collector are added to it as in the former process.

The frother is used to make bubbles while the collector is for collecting the mineral ingredients. When slaked lime is added to the pulp to alkalify it, the copper pyrite sticks to the surface of the bubbles and floats because the alkali produces no effect upon it, but the iron pyrite is repressed by it therefore it remains in the pulp without sticking to the bubbles.

Thus the two are separated.

Size of ore contained in the overflowing pulp from the classifier in the secondary grinding. -200 mesh 95%

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Pulp dendity of feed ore in differential floatation

20 % Solid

Time needed 30 minutes

Quantity of frother added 100 g/t of differential feed ore

collector 50 g/t "

Slaked lime 6 kg/t "

P.H. 10.9

4. Fourth Process : Thinckening and dehydration of the reclaimed pulp containing minerals.

The pulp containing copper pyrite and iron pyrite extracted in the preceding process i s separately conducted into a thickener where copper or iron pyrite is settled and thickened.. The upper layer is turned into pure water.

The pulp thickened in this way is next sent by a pump to the filter.

For filtering the copper pyrite (which is called at our plant copper concentrate) we use Besshi Type Filter and Oliver Filter.

For the iron pyrite (which is called iron concentrate at our plant) we use Oliver Filter.

The pulp dehydrated by this means is our product.

	Cu	S
Cu concentrate grade	13%	40%
Fe concentrate grade	0.27	45%
Pulp density at thickener spigot	70%	Solid
Moisture content of Cu. concentrate	13%	
Moisuture content of Fe. concentrate	13%	

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 17503

Electric Power Situatio

(From Jan. 1949 to Oct. 19

(Unit: K.W.H.)

	Requested Allocation				Det	
	Firm	Mid-night Firm	Special	Total (A)	Firm	Mid-night Firm
1949						
Jan.-Mar.	36,887,580	-	1,751,600	38,639,180	26,743,500	
April-June	46,594,592	-	5,435,115	52,029,707	36,122,300	
July-Sept.	46,646,441	-	1,431,140	48,077,581	23,232,500	
Oct.-Dec.	43,716,000	-	5,201,430	48,917,430	33,307,890	
Total	173,844,613	-	13,819,285	187,663,898	119,406,190	
1950						
Jan.-Mar.	37,975,100	-	-	37,975,100	27,693,000	
April-June	43,680,000	7,022,745	-	50,702,745	29,825,300	
July-Sept.	45,659,380	5,152,000	-	50,811,380	26,589,300	2,3
Oct.	17,480,848	-	-	17,480,848	12,079,500	

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

ectric Power Situation

Jan. 1949 to Oct. 1950)

	Determined Allocation					A		
l	Firm	Mid-night Firm	Special	Total (B)	B/A %	Firm	Mid-night Firm	Su Am
,180	26,743,500	-	3,794,175	30,537,675	79	26,684,710	-	
,707	36,122,300	-	6,201,850	42,324,150	81	36,122,300	-	
,581	23,232,500	-	15,533,654	38,766,154	81	23,232,500	-	
,430	33,307,890	-	3,500,000	36,807,890	75	33,288,940	-	
,898	119,406,190	-	29,029,679	148,435,869	79	119,328,450	-	
,100	27,693,000	-	-	27,693,000	73	27,693,000	-	7
,745	29,825,300	-	-	29,825,300	59	29,825,300	-	38
,380	26,589,300	2,354,000	-	28,943,300	57	26,589,300	2,354,000	62
,848	12,079,500	-	-	12,079,500	69	12,079,500	-	27

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

9 November 1950
Niihama Works,
Nissin Chemical Co., Ltd.

Actual Consumption						
Firm	Mid-night Firm	Surpass Amount	Own Generated Power	Special	Total (C)	C/B %
26,684,710	-	-	255,860	3,622,075	30,562,645	100
36,122,300	-	-	118,540	6,201,850	42,442,690	100
23,232,500	-	-	1,043,595	14,461,115	38,737,210	100
33,288,940	-	-	145,970	1,145,450	34,580,360	94
119,328,450	-	-	1,563,965	25,430,490	146,322,905	99
27,693,000	-	76,106	2,294,174	5,137,130	35,200,410	127
29,825,300	-	389,162	8,123,211	10,881,051	49,218,724	165
26,589,300	2,354,000	626,121	3,935,518	12,043,870	45,548,809	157
12,079,500	-	279,310	-	2,869,200	15,228,010	126

Operational index of H_2SO_4 plant & Percentage of pyrite ore received against the requirement

9 November 1950
Niihama Works,
Nissin Chemical Co., Ltd.

	H_2SO_4 Productive Capacity (A)	Required Amount of Pyrite Ore (B)	H_2SO_4 Actual Output (C)	Amount of Ore Received (D)	C/A	D/B
	T	T	T	T	%	%
1949 Jan.-June	75,600	65,696	58,637	54,033	77.6	82.2
" July-Dec.	78,400	68,130	71,196	61,403	90.8	90.1
1950 Jan.	14,400	12,500	12,003	9,034	83.4	72.3
" Feb.	13,000	11,300	10,843	9,464	83.4	83.8
" Mar.	14,400	12,500	10,885	8,396	75.6	67.2
" Apr.	13,900	12,100	11,614	12,147	83.6	100.4
" May	14,500	12,600	14,261	11,086	98.4	88.0
" June	14,900	13,000	13,241	12,058	88.9	92.8
" July	15,200	13,200	13,901	12,027	91.5	91.1
" Aug.	15,200	13,200	13,719	11,924	90.3	90.3
" Sept.	15,300	13,300	13,218	11,900	86.4	89.5
" Oct.	15,800	13,700	13,507	12,265	85.5	89.5
" Nov.	15,300	13,300				
" Dec.	15,800	13,700				
Total	177,700	154,400				
1951 Jan.	16,300	14,200				
" Feb.	14,600	12,700				
" Mar.	16,300	14,200				
Total	47,200	41,100				

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Operational index of H_2SO_4 plant & Percentage of pyrite ore received against the requirement

9 November 1950
Niihama Works,
Nissin Chemical Co., Ltd.

	H_2SO_4 Productive Capacity (A)	Required Amount of Pyrite Ore (B)	H_2SO_4 Actual Output (C)	Amount of Ore Received (D)	C/A	D/B
	T	T	T	T	%	%
1949 Jan.-June	75,600	65,696	58,637	54,033	77.6	82.2
" July-Dec.	78,400	68,130	71,196	61,403	90.8	90.1
1950 Jan.	14,400	12,500	12,003	9,034	83.4	72.3
" Feb.	13,000	11,300	10,843	9,464	83.4	83.8
" Mar.	14,400	12,500	10,885	8,396	75.6	67.2
" Apr.	13,900	12,100	11,614	12,147	83.6	100.4
" May	14,500	12,600	14,261	11,086	98.4	88.0
" June	14,900	13,000	13,241	12,058	88.9	92.8
" July	15,200	13,200	13,901	12,027	91.5	91.1
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" Sept.	15,300	13,300	13,218	11,900	86.4	89.5
" Oct.	15,800	13,700	13,507	12,265	85.5	89.5
" Nov.	15,300	13,300				
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Total	177,700	154,400				
1951 Jan.	16,300	14,200				
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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

9 November 1950
Niihama Works,
Nissin Chemical Co. Ltd.

Operable Capacity of Ammonia Plant

Annual requirement of ammonia for other uses than ammonium Sulphate:-

	NH_3 Output (T/Y)	NH_3 Consumption (T/Y)		
		Amm. Sulphate	Ammonia Derivatives	Urea
Before Oct.	65,000	54,000(200,000*)	11,000	
On Oct.	67,500	55,500(205,000)	12,000	
On & After Nov.	74,000	55,500(205,000)	12,500	6,000(10,000**)

Remarks:-

* ... Ammonium Sulphate Output.

** ... Urea Output.
(The expansion program is now is progress and is to be completed by next summer)

Maximum number of working days per year (365 minus days shut down for maintenance and repairs):-

Before Oct. .... 289 days
On Oct. .... 300 "
On & After Nov. .... 330 "

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

List of Principal Production Since 1945

(Unit: Metric Ton)

Products	1945	1946	1947	1948	1949	1950 Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Ammonia	15,547	29,271	38,565	42,849	49,862	5,049	3,573	5,143	5,531	6,093	5,369	5,442	4,386	5,486	5,061
Ammonium Sulphate	25,469	63,615	119,623	126,420	149,140	15,684	11,099	15,674	17,083	19,358	17,177	17,676	13,126	17,319	15,048
Calcium Superphosphate	2,851	17,668	41,740	53,858	76,378	2,197	8,141	9,436	6,613	4,531	6,371	8,336	8,048	8,004	8,153
Crude Methanol	2,480	173	436	903	2,980	699	544	845	544	864	683	0	326	694	666
Sulphuric Acid (98%)	47,261	78,516	100,740	103,187	129,833	12,003	10,843	10,885	11,614	14,261	13,241	13,901	13,719	13,218	13,507
Nitric Acid (50%)	16,144	12,569	12,976	20,557	20,710	2,189	1,496	2,328	2,603	2,669	2,001	1,901	2,008	2,411	2,897
Nitric Acid (98%)	6,274	3,198	2,863	5,179	6,084	607	401	607	817	858	657	662	706	706	822
Ammonium Nitrate	2,645	3,421	4,181	6,153	5,352	602	440	629	525	470	406	351	448	617	782
Urea	24	159	115	221	587	73	50	51	80	85	86	79	71	104	106
Ammonium Bicarbonate	27	651	919	1,695	2,709	384	292	266	101	38	0	0	21	65	203
Ammonium Chloride	37	55	77	300	517	63	41	61	62	61	66	73	72	70	73
Sodium Nitrite	166	68	47	180	271	37	31	36	36	37	31	0	34	31	36
Ammonia Water (17%)	5,376	10,744	12,145	15,976	21,290	1,465	1,133	1,542	1,788	2,186	2,415	2,383	2,317	2,418	2,403
Chlorsulphonic Acid	0	256	661	737	930	107	99	110	146	151	157	124	124	133	115
Methanol	2,123	124	403	766	1,927	575	460	699	469	447	420	323	354	513	733
Formaline	1,988	0	0	290	988	168	260	355	316	192	219	214	329	440	523
Coke	47,107	61,516	70,329	92,644	101,396	9,612	7,767	9,531	7,151	6,692	6,442	7,051	6,000	6,080	6,430
Crude Benzene	437	271	457	1,070	1,872	194	161	206	145	160	163	156	118	125	127
Coal Tar	177	3,217	2,846	5,330	6,853	625	556	689	550	504	511	478	522	420	488
Penicillin (unit:vial)	..300,000 Oxford unit/vial.				39,362	12,000	19,000	16,000	21,000	22,000	23,500	23,000	25,000	19,000	25,000

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Dec. 4, 1950

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec. Shikoku Civil Affairs Region
Takamatsu, Kagawa-ken.

FROM : Nissin Chemical Co., Ltd. 31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Niihama Works

Unit: Metric Ton

Products	Production in November			Schedule for Dec.
	Schedule	Actual Output	Ratio of Achievement(%)	
Ammonia	5,250	5,059	96.4	5,200
By-product Ammonia	20	17	85.2	25
Ammonia Water (17%)	-	1,659	-	-
Bottled Ammonia	130	129	99.4	150
Ammonium Sulphate	15,400	15,212	98.8	14,500
Calcium Superphosphate	8,000	8,068	100.9	8,000
Sulphuric Acid (98%)	13,000	12,563	96.6	13,000
Nitric Acid (50%)	3,030	3,122	103.0	3,480
Nitric Acid (98%)	760	805	105.9	857
Ammonium Nitrate	700	701	100.1	400
Ammonium Chloride	60	55	91.3	60
Urea	100	111	111.3	100
Chlorsulphonic Acid	120	132	109.7	130
Crude Methanol	820	875	106.7	970
Pure Methanol	700	796	113.7	825
Formaline	500	506	101.2	500
Coke	6,200	6,802	109.7	7,800

Niihama Works

Unit: Metric Ton

Products	Production in November			Schedule for Dec.
	Schedule	Actual Output	Ratio of Achievement (%)	
Ammonia	5,250	5,059	96.4	5,200
By-product Ammonia	20	17	85.2	25
Ammonia Water (17%)	-	1,659	-	-
Bottled Ammonia	130	129	99.4	150
Ammonium Sulphate	15,400	15,212	98.8	14,500
Calcium Superphosphate	8,000	8,068	100.9	8,000
Sulphuric Acid (98%)	13,000	12,563	96.6	13,000
Nitric Acid (50%)	3,030	3,122	103.0	3,480
Nitric Acid (98%)	760	805	105.9	857
Ammonium Nitrate	700	701	100.1	400
Ammonium Chloride	60	55	91.3	60
Urea	100	111	111.3	100
Chlorsulphonic Acid	120	132	109.7	130
Crude Methanol	820	875	106.7	970
Pure Methanol	700	796	113.7	825
Formaline	500	506	101.2	500
Coke	6,200	6,802	109.7	7,800
*Penicillin (unit: vial)	29,400	30,160	102.6	34,000
Crude Benzene	124	136	109.4	160
Pure Benzene	90	79	87.5	106
Pure Toluene	12	25	209.8	12
Solvent Naphtha	6	5.5	92.1	6
Coal Tar	410	459	112.0	515
Crude Naphthalene	30	39	130.6	35
Creosote Oil	45	34	75.4	55
Pitch (soft)	40	50	124.1	40
Pitch (hard)	210	170	80.8	260

Remarks : * 300,000 Oxford unit per vial.

Yoshishige Harada

Director of Niihama Works,
Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG No. 175013

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 17503

Operational index of H_2SO_4 plant & Py
of pyrite ore received against the req

	H_2SO_4 Productive Capacity (A) T	Required Amount of Pyrite Ore (B) T	H_2SO_4 Output (C)
1949 Jan.-June	75,600	65,696	58,6
" July-Dec.	78,400	68,130	71,1
1950 Jan.	14,400	12,500	12,0
" Feb.	13,000	11,300	10,8
" Mar.	14,400	12,500	10,6
" Apr.	13,900	12,100	11,6
" May	14,500	12,600	14,2
" June	14,900	13,000	13,2
Total	85,100	74,000	72,8
" July	15,200	13,200	13,3
" Aug.	15,200	13,200	13,7
" Sept.	15,300	13,300	13,2
" Oct.	15,800	13,700	13,3
" Nov.	15,300	13,300	* 12,5
" Dec.	15,800	13,700	** 13,0
Total	92,600	80,400	79,8
1951 Jan.	16,300	14,200	-
" Feb.	14,600	12,700	-
" Mar.	16,300	14,200	-
Total	47,200	41,100	-

Remark : The * marked figures are our estimation for No
our presumption for Dec.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Operational index of H_2SO_4 plant & Percentage of pyrite ore received against the requirement

29 November 1950
Niihama Works,
Nissin Chemical Co., Ltd.

H_2SO_4 Productive Capacity (A) T	Required Amount of Pyrite Ore (B) T	H_2SO_4 Actual Output (C) T	Amount of Ore Received (D) T	C/A %	D/B %
75,600	65,696	58,637	54,033	77.6	82.2
78,400	68,130	71,196	61,403	90.8	90.1
14,400	12,500	12,005	8,326	83.4	66.6
13,000	11,300	10,843	9,339	83.4	82.4
14,400	12,500	10,885	8,295	75.6	66.3
13,900	12,100	11,614	11,288	83.6	93.1
14,500	12,600	14,261	9,850	98.4	78.1
14,900	13,000	13,241	12,628	88.9	97.2
85,100	74,000	72,847	52,726	85.5	80.7
15,200	13,200	13,901	11,225	91.5	85.2
15,200	13,200	13,719	12,329	90.3	93.6
15,300	13,300	13,218	10,744	86.4	80.8
15,800	13,700	13,507	12,265	85.5	89.5
15,300	13,300	* 12,540	10,384	82.0	77.8
15,800	13,700	** 13,000	12,386	82.3	90.3
92,600	80,400	79,885	69,333	86.1	85.9
16,300	14,200	-	-	-	-
14,600	12,700	-	-	-	-
16,300	14,200	-	-	-	-
47,200	41,100	-	-	-	-

* marked figures are our estimation for Nov. and ** marked ones are presumption for Dec.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

mr Adm A

Mr Ustaszewski call

Mr Sekuya

Mr

* File

10/7/50

Oct. 3, 1950

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec. Shikoku Civil Affairs Region
Takamatsu, Kagawa-ken.

FROM : Nissin Chemical Co., Ltd. 31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Niihama Works

Unit: Metric Ton

Products	Production in September			Schedule for Oct.
	Schedule	Actual Output	Ratio of Achievement(%)	
Ammonia	5,450	5,486	100.7	5,250
By-product Ammonia	20	16	81.3	21
Ammonia Water (17%)	2,200	2,418	109.9	650
Bottled Ammonia	100	65	65.4	110
Ammonium Sulphate	17,000	17,319	101.9	16,000
Calcium Superphosphate	8,000	8,004	100.1	8,000
Sulphuric Acid (98%)	13,000	13,218	101.7	13,500
Nitric Acid (50%)	2,400	2,411	100.5	2,540
Nitric Acid (98%)	700	706	100.9	790
Ammonium Nitrate	420	453	107.7	440
Ammonium Chloride	70	70	100.0	60
Urea	100	104	104.1	100
Chlorsulphonic Acid	120	143	119.1	

Niihama Works

Unit: Metric Ton

Products	Production in September			Schedule for Oct.
	Schedule	Actual Output	Ratio of Achievement(%)	
Ammonia	5,450	5,486	100.7	5,250
By-product Ammonia	20	16	81.3	21
Ammonia Water (17%)	2,200	2,418	109.9	650
Bottled Ammonia	100	65	65.4	110
Ammonium Sulphate	17,000	17,319	101.9	16,000
Calcium Superphosphate	8,000	8,004	100.1	8,000
Sulphuric Acid (98%)	13,000	13,218	101.7	13,500
Nitric Acid (50%)	2,400	2,411	100.5	2,540
Nitric Acid (98%)	700	706	100.9	790
Ammonium Nitrate	420	453	107.7	440
Ammonium Chloride	70	70	100.0	60
Urea	100	104	104.1	100
Chlorsulphonic Acid	120	143	119.4	100
Crude Methanol	770	694	90.1	830
Pure Methanol	500	513	102.6	670
Formaline	450	440	97.9	450
Coke	6,057	6,080	100.3	6,260
#Penicillin (unit: vial)	23,400	19,000	81.2	25,000
Crude Benzene	122	125	102.3	126
Pure Benzene	85	107	125.5	90
Pure Toluene	12	12	100.0	12
Solvent Naphtha	6	7.2	119.7	6
Coal Tar	390	420	107.7	400
Crude Naphthalene	20	37	184.1	30
Creosote Oil	47	51	107.6	45
Pitch (soft)	30	23	75.6	} 240
Pitch (hard)	204	326	159.9	

Remarks : #300,000 Oxford unit per vial.

Y. Harada

Yoshishige Harada

Director of Niihama Works,
Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Apr. 2, 1950

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec., Shikoku Civil Affairs Region
Takamatsu, Shikoku

FROM : Nissin Chemical Co., Ltd. 31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Niihama Works — Unit: Metric Ton

Products	Production in March			Schedule for Apr.	
	Schedule	Actual Output	Ratio of Achievement(%)		
Ammonia	5,000	5,143	102.9	5,010	
By-product Ammonia	25	24	96.0	25	
Ammonia Water (17%)	1,700	1,542	90.7	2,000	
Bottled Ammonia	100	103	103.2	120	
Ammonium Sulphate	15,500	15,674	101.1	15,200	← Red. of Sulfuric acid due to delay in delivery of pyrite
Calcium Superphosphate	11,900	9,436	79.3	6,600	←
Sulphuric Acid	11,000	10,885	99.0	11,000	
Nitric Acid (50%)	2,050	2,328	113.6	2,285	
Nitric Acid (98%)	600	607	101.1	705	
Ammonium Nitrate	500	629	125.8	500	
Ammonium Chloride	60	61	101.3	60	
Ammonium Bicarbonate	250	266	106.5	100	
Na-flucsilicate	11	10	91.9	-	
Urea	70	51	72.4	70	
Chlorsulphonic Acid	110	110	100.0	120	
Crude Methanol	840	845	100.6	720	
Pure Methanol	550	551	100.2	500	
Formaline	330	355	107.6	308	
Coke	9,450	9,531	100.9	9,140	
*Penicillin(unit: vial)	15,745	16,000	101.6	18,190	
Methyl Chloride	2	1	64.8	2	
Crude Benzene	195	206	105.8	195	
Pure Benzene	88	99	112.5	88	
Pure Toluene	14	0	0	12	
Solvent Naphtha	7.5	2	28.6	7	
Coal Tar	640	689	107.7	620	

Ammonium Nitrate	500	629	125.8	500
Ammonium Chloride	60	61	101.3	60
Ammonium Bicarbonate	250	266	106.5	100
Na-fluosilicate	11	10	91.9	-
Urea	70	51	72.4	70
Chlorsulphonic Acid	110	110	100.0	120
Crude Methanol	840	845	100.6	720
Pure Methanol	550	551	100.2	500
Formaline	330	355	107.6	308
Coke	9,450	9,531	100.9	9,140
*Penicillin(unit: vial)	15,745	16,000	101.6	18,190
Methyl Chloride	2	1	64.8	2
Crude Benzene	195	206	105.8	195
Pure Benzene	88	99	112.5	88
Pure Toluene	14	0	0	12
Solvent Naphtha	7.5	2	28.6	7
Coal Tar	640	689	107.7	620
Crude Naphthalene	50	42	83.6	60
Creosote Oil	64	73	114.0	60
Pitch (soft)	50	50	100.8	50
Pitch (hard)	345	469	135.9	330

Remarks: * 300,000 Oxford unit per vial.

Kikumoto Works

Unit: Metric Ton

Products	Production in March			Schedule for Apr.
	Schedule	Actual Output	Ratio of Achievement(%)	
Alumina	0	0	0	800
Aluminum	293	285	97.2	328
High Purity Aluminum	-	4	-	12
Carbide	450	504	112.0	500
Cryolite	50	31	62.0	0
Artificial Graphite Electrode	0	3	0	0
Aluminum Floride	0	6	0	0
Anode Paste	300	295	98.3	200
Cathod Paste	0	20	0	0
Carbide Paste	50	21	42.0	20
Aluminum Sulphate	200	252	126.0	125
Recovered Cryolite	120	143	119.1	0

Yoshishige Harada
Director of Niihama & Kikumoto
Works, Nissin Chemical Co., Ltd.

of pyrite

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 115013

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 175013

Apr. 2, 1950

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec., Shikoku Civil Affairs Region
Takamatsu, Shikoku

FROM : Nissin Chemical Co., Ltd. 31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Niihama Works

Unit: Metric Ton

Products	Production in March			Schedule for Apr.
	Schedule	Actual Output	Ratio of Achievement(%)	
Ammonia	5,000	5,143	102.9	5,010
By-product Ammonia	25	24	96.0	25
Ammonia Water (17%)	1,700	1,542	90.7	2,000
Bottled Ammonia	100	103	103.2	120
Ammonium Sulphate	15,500	15,674	101.1	15,200
Calcium Superphosphate	11,900	9,436	79.3	6,600
Sulphuric Acid	11,000	10,885	99.0	11,000
Nitric Acid (50%)	2,050	2,328	113.6	2,285
Nitric Acid (98%)	600	607	101.1	705
Ammonium Nitrate	500	629	125.8	500
Ammonium Chloride	60	61	101.3	60
Ammonium Bicarbonate	250	266	106.5	100
Na-fluosilicate	11	10	91.9	-
Urea	70	51	72.4	70
Chlorsulphonic Acid	110	110	100.0	120
Crude Methanol	840	845	100.6	720
Pure Methanol	550	551	100.2	500
Formaline	330	355	107.6	308
Coke	9,450	9,531	100.9	9,140
*Penicillin(unit: vial)	15,745	16,000	101.6	18,190
Methyl Chloride	2	1	64.8	2
Crude Benzene	195	206	105.8	195
Pure Benzene	88	99	112.5	88
Pure Toluene	14	0	0	12
Solvent Naphtha	7.5	2	28.6	7

Nitric Acid (98%)	660	667	101.1	705
Ammonium Nitrate	500	629	125.8	500
Ammonium Chloride	60	61	101.3	60
Ammonium Bicarbonate	250	266	106.5	100
Na-fluosilicate	11	10	91.9	-
Urea	70	51	72.4	70
Chlorsulphonic Acid	110	110	100.0	120
Crude Methanol	840	845	100.6	720
Pure Methanol	550	551	100.2	500
Formaline	330	355	107.6	308
Coke	9,450	9,531	100.9	9,140
*Penicillin(unit: vial)	15,745	16,000	101.6	18,190
Methyl Chloride	2	1	64.8	2
Crude Benzene	195	206	105.8	195
Pure Benzene	88	99	112.5	88
Pure Toluene	14	0	0	12
Solvent Naphtha	7.5	2	28.6	7
Coal Tar	640	689	107.7	620
Crude Naphthalene	50	42	83.6	60
Creosote Oil	64	73	114.0	60
Pitch (soft)	50	50	100.8	50
Pitch (hard)	345	469	135.9	330

Remarks: * 300,000 Oxford unit per vial.

Kikumoto Works

Unit: Metric Ton

Products	Production in March			Schedule for Apr.
	Schedule	Actual Output	Ratio of Achievement(%)	
Alumina	0	0	0	800
Aluminum	293	285	97.2	328
High Purity Aluminum	-	4	-	12
Carbide	450	504	112.0	500
Cryolite	50	31	62.0	0
Artificial Graphite Electrode	0	3	0	0
Aluminum Floride	0	6	0	0
Anode Paste	300	295	98.3	200
Cathod Paste	0	20	0	0
Carbide Paste	50	21	42.0	20
Aluminum Sulphate	200	252	126.0	125
Recovered Cryolite	120	143	119.1	0

Yoshishige Harada
Director of Niihama & Kikumoto Works, Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 150 13

Tokuya

Mar. 2, 1950

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec., Shikoku Civil Affairs Region
Takamatsu, Shikoku

FROM : Nissin Chemical Co., Ltd. 31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Niihama Works

Unit: Metric Ton

Products	Production in February			Schedule for Mar.
	Schedule	Actual Output	Ratio of Achievement (%)	
Ammonia	3,250	3,573	109.9	5,000
By-product Ammonia	20	21	104.0	25
Ammonia Water (17%)	1,800	1,133	62.9	1,700
Bottled Ammonia	90	54	60.4	100
Ammonium Sulphate	9,400	11,099	118.1	15,500
Calcium Superphosphate	7,800	8,141	104.4	11,900
Sulphuric Acid	10,700	10,843	101.3	11,000
Nitric Acid (50%)	1,480	1,496	101.1	2,050
Nitric Acid (98%)	400	401	101.2	600
Ammonium Nitrate	400	440	110.0	500
Ammonium Chloride	40	41	101.4	60
Ammonium Bicarbonate	250	292	116.6	250
Na-fluosilicate	8	6	74.3	11
Urea	40	50	125.4	70
Chlorsulphonic Acid	60	99	164.7	110
Crude Methanol	450	544	120.9	840
Pure Methanol	360	447	124.2	550
Formaline	240	260	108.2	330
Coke	7,700	7,767	101.9	9,450
Penicillin(unit: vial)	14,884	19,000	127.7	15,745
Crude Benzene	166	161	96.8	195
Pure Benzene	83	73	87.4	88
Benzene (90%)	4	0	-	-
Pure Toluene	12	10	85.6	14
Solvent Naphtha	6	4	72.1	7.5
	500	556	111.2	640

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDC NO. 1501 3

Nitric Acid (60%)	1,200	[illegible]	[illegible]	[illegible]
Nitric Acid (98%)	400	401	101.3	500
Ammonium Nitrate	400	440	110.0	500
Ammonium Chloride	40	41	101.4	60
Ammonium Bicarbonate	250	292	116.6	250
Na-fluosilicate	8	6	74.3	11
Urea	40	50	125.4	70
Chlorsulphonic Acid	60	99	164.7	110
Crude Methanol	450	544	120.9	840
Pure Methanol	360	447	124.2	550
Formaline	240	260	108.2	330
Coke	7,700	7,767	101.9	9,450
≠ Penicillin(unit: vial)	14,884	19,000	127.7	15,745
Crude Benzene	166	161	96.8	195
Pure Benzene	83	73	87.4	88
Benzene (90%)	4	0	-	-
Pure Toluene	12	10	85.6	14
Solvent Naphtha	6	4	72.1	7.5
Coal Tar	500	556	111.2	640
Crude Naphthalene	30	39	130.1	50
Creosote Oil	50	68	135.2	64
Pitch (soft)	30	31	101.9	50
Pitch (hard)	270	251	92.8	345

Remarks: ≠ 300,000 Oxford unit per vial.

Unit: Metric Ton

Kikumoto Works

Products	Production in February			Schedule for Mar.
	Schedule	Actual Output	Ratio of Achievement (%)	
Alumina	0	0	0	0
Aluminum	235	242	102.5	293
Carbide	200	302	151.0	450
Cryolite	0	0	0	50
Artificial Graphite Electrode	0	0	0	0
Aluminum Floride	50	48	96.0	0
Anode Paste	300	237	79.0	300
Cathod Paste	0	7	-	-
Carbide Paste	50	26	52.0	50
Aluminum Sulphate	200	240	120.0	200
Recovered Cryolite	150	100	66.6	120

Y. Harada

Yoshishige Harada

Director of Nihama & Kikumoto Works, Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 15013

Mar. 2, 1950

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec., Shikoku Civil Affairs Region
Takamatsu, Shikoku

FROM : Nissin Chemical Co., Ltd. 31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Unit: Metric Ton

Niihama Works

Products	Production in February			Schedule for Mar.
	Schedule	Actual Output	Ratio of Achievement(%)	
Ammonia	3,250	3,573	109.9	5,000
By-product Ammonia	20	21	104.0	25
Ammonia Water (17%)	1,800	1,133	62.9	1,700
Bottled Ammonia	90	54	60.4	100
Ammonium Sulphate	9,400	11,099	118.1	15,500
Calcium Superphosphate	7,800	8,141	104.4	11,900
Sulphuric Acid	10,700	10,843	101.3	11,000
Nitric Acid (50%)	1,480	1,496	101.1	2,050
Nitric Acid (98%)	400	401	101.2	600
Ammonium Nitrate	400	440	110.0	500
Ammonium Chloride	40	41	101.4	60
Ammonium Bicarbonate	250	292	116.6	250
Na-fluosilicate	8	6	74.3	11
Urea	40	50	125.4	70
Chlorsulphonic Acid	60	99	164.7	110
Crude Methanol	450	544	120.9	840
Pure Methanol	360	447	124.2	550
Formaline	240	260	108.2	330
Coke	7,700	7,767	101.9	9,450
Penicillin(unit: vial)	14,884	19,000	127.7	15,745
Crude Benzene	166	161	96.8	195
Pure Benzene	83	73	87.4	88
Benzene (90%)	4	0	-	-
Pure Toluene	12	10	85.6	14
Solvent Naphtha	6	4	72.1	7.5
Coal Tar	500	556	111.2	640

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 1/5013

Ammonium Chloride	40	41	102.4	50
Ammonium Bicarbonate	250	292	116.6	250
Na-fluosilicate	8	6	74.3	11
Urea	40	50	125.4	70
Chlorsulphonic Acid	60	99	164.7	110
Crude Methanol	450	544	120.9	840
Pure Methanol	360	447	124.2	550
Formaline	240	260	108.2	330
Coke	7,700	7,767	101.9	9,450
Penicillin(unit: vial)	14,884	19,000	127.7	15,745
Crude Benzene	166	161	96.8	195
Pure Benzene	83	73	87.4	88
Benzene (90%)	4	0	-	-
Pure Toluene	12	10	85.6	14
Solvent Naphtha	6	4	72.1	7.5
Coal Tar	500	556	111.2	640
Crude Naphthalene	30	39	130.1	50
Creosote Oil	50	68	135.2	64
Pitch (soft)	30	31	101.9	50
Pitch (hard)	270	251	92.8	345

Remarks: ≠ 300,000 Oxford unit per vial.

Kikumoto Works

Unit: Metric Ton

Products	Production in February			Schedule for Mar.
	Schedule	Actual Output	Ratio of Achievement (%)	
Alumina	0	0	0	0
Aluminum	235	242	102.5	293
Carbide	200	302	151.0	450
Cryolite	0	0	0	50
Artificial Graphite Electrode	0	0	0	0
Aluminum Floride	50	48	96.0	D
Anode Paste	300	237	79.0	300
Cathod Paste	0	7	-	-
Carbide Paste	50	26	52.0	50
Aluminum Sulphate	200	240	120.0	200
Recovered Cryolite	150	100	66.6	120

Y. Harada

Yoshishige Harada
Director of Nihama & Kikumoto
Works, Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 1501 3

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 1501 3

Feb. 4, 1950

SUBJECT : Monthly Production Report

TO : Mr. Carl. A. Larsen
Chief of Economic Sec. Shikoku Civil Affairs Region
Takamatsu, Kagawa-ken.

FROM : Nissin Chemical Co., Ltd. 31 Otsu, Niihama, Ehime-ken

Monthly Production Report

Niihama Works

Unit: Metric Ton

Products	Production in January			Schedule for Feb.
	Schedule	Actual Output	Ratio of Achievement (%)	
Ammonia	5,800	5,727	99	4,600
By-Product Ammonia	23	23	100	21
Ammonia Water (17%)	-	2,204	-	2,300
Bottled Ammonia	120	119	99	110
Ammonium Sulphate	16,300	16,567	102	13,000
Calcium Superphosphate	8,000	8,017	100	8,000
Sulphuric Acid (98%)	13,900	14,114	102	12,500
Nitric Acid (50%)	4,100	4,491	110	3,200
Nitric Acid (98%)	860	947	110	800
Ammonium Nitrate Powder	600	644	107	360
Breeze	820	867	106	600
Urea	100	127	127	80
Chlorsulphonic Acid	130	136	105	110
Crude Methanol	1,010	1,158	115	750
Ammonium Chloride	70	73	104	40
Pure Methanol	860	902		

Products	Schedule	Actual Output	Achievement (%)	for Feb.
Ammonia	5,800	5,727	99	4,600
By-Product Ammonia	23	23	100	21
Ammonia Water (17%)	-	2,204	-	2,300
Bottled Ammonia	120	119	99	110
Ammonium Sulphate	16,300	16,567	102	13,000
Calcium Superphosphate	8,000	8,017	100	8,000
Sulphuric Acid (98%)	13,900	14,114	102	12,500
Nitric Acid (50%)	4,100	4,491	110	3,200
Nitric Acid (98%)	860	947	110	800
Ammonium Nitrate				
Powder	600	644	107	360
Breeze	820	867	106	600
Urea	100	127	127	80
Chlorsulphonic Acid	130	136	105	110
Crude Methanol	1,010	1,158	115	750
Ammonium Chloride	70	73	104	40
Pure Methanol	860	902	105	800
Formaline	500	496	99	410
Coke	7,790	8,553	110	7,300
Compound Fertilizer	-	831	-	750
Crude Benzene	160	168	105	150
Pure Benzene	123	121	76	112
Pure Toluene	14	10	71	12
Solvent Naphtha	8	6	75	10
Coal Tar	515	548	106	504
Crude Naphthalene	36	64	178	35
Creosote Oil	50	40	80	50
Pitch (soft)	50	34	68	50
Pitch (hard)	260	290	112	250

Y. Harada

Yoshishige Harada

Director of Niihama Works,
Nissin Chemical Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDC NO. 175013