DECLASSIFIED E.O. 12065 SECTION 3 102, NRS No.

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

Description of contents

(1) Box no. 3013

(2) Folder title/number: (6)
Toyo Soda Kogyo K.K. - Soda Ash Plant, Tonda Plant

(3) Date: Oct. 1946 - Apr. 1951

(4) Subject:

Classification	Type of record
9230, 9621	a, c, e

(5) Item description and comment:
i) Yamaguchi
ii) Includes Contents Lists

(6) Reproduction: (Yes) No

(7) Film no. Sheet no.

(Compiled by *National Diet Library*)

DECLASSIFIED - EXCEPTIONS - SECTION 3 (c), EXECUTIVE ORDER 12958

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Name: Toyo Soda K.K. Code No. 45-16

Date 23 January 1951

SECTION I
INVENTORY DATA

1.	Total items originally inventoried:	1752
2.	Originally inventoried items not available for allocation:	
a.	EX items	
	(1) Originally inventoried EX	0
	(2) Subsequently deleted from EX classification	0
	(3) Total (line a(1) less line d(2))	0
b.	Subsequently released from custody	0
	(1) Woodworking*	0
	(2) Others*	0
c.	Destroyed SP*	0
d.	Subsequent losses from fire, theft, etc.*	0
e.	Released from dispersed location*	0
f.	Shipped to TID*	0
g.	Removed under PD*	0
h.	Removed on allocation	0
i.	RELEASED BY CCAR	2
3.	Total deduction from original inventory	1750
4.	Item missed from original inventory-subsequently picked up	0
5.	Adjusted original inventory total (line 1 less line 3, plus line 4)	1750
6.	Subsequent additions to inventory	
a.	Returned PD'd items*	0
b.	Added on evaluation	0
c.		
d.		
7.	Inventory total	1750
8.	"U" items	INTEGRATED FACILITIES
9.	Total items available for allocation (line 7 less line 8)	0

SECTION II
MISCELLANEOUS

1. Non-inventoried items shipped to TID 0
2. Items inventoried under other plant code numbers 0 (Not included in line 9, SEC I)
3. Authorized transformer capacity — KW
4. EX items subsequent to original inventory 88

* See reverse side

DECLASSIFIED E.O. 12065 SECTION 3 (b), NARS DATE

SECTION 1A

DATE	SUBJECT	ISSUING HEADQUARTERS & INDORSEMENTS
June 1950	List of Reparations Machines at Privately Owned Plant	Toyo Soda Mfg. Co.,Ltd.

1A

4/10/50

DECLASSIFIED E.O. 11652 SECRET 5(E),(H) or 6

LIST OF REPARATIONS MACHINES AT PRIVATELY OWNED PLANT

AS OF JUNE 1950

Code Number : 45-16

Name of Plant : Toyo Soda Mfg. Co., Ltd. . Tonda Plant

Address of Plant: 4560 Tonda-cho Tsuno-gun Yamaguchi Pref.

Item Number	Inventory Number	Name of Machine	Remarks
1. Chemical Manufacturing			
A. Equipment.			
	I-A-1-1 No. 1	Lime kiln,	
	" No. 2	"	
	" No.3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	I-A-1-2-No. 1	Lime Slaker	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 8	"	
	I-A-2-1-No. 1	Brine Purifier	
	" No. 2	" (Dissolving Tanks).	
	" No.3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	" No. 9	"	
	" No.10	"	
	" No.11	"	
	" No.12	"	
	" No.13	"	
	" No.14	"	
	" No.15	"	
	I-A-2-2-No. 1	Brine Settler	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	" No. 9	"	
	" No.10	"	

MANUFACTURING AND INDUSTRY FILE 45-16 Sec. IA

Item Number	Inventory Number	Name of Machine	Remarks
	I-A-3-1-No. 1	Ammonia Absorber	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	I-A-3-2-No. 1	Salt Satulator	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	I-A-3-3-No. 1	Bag Filter	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	" No. 9	"	
	" No.10	"	
	" No.11	"	
	" No.12	"	
	" No.13	"	
	" No.14	"	
	" No.15	"	
	" No.16	"	
	I-A-4-1-No. 1	Ammonia Still	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	I-A-4-2-No. 1	Decomposer of fixed Ammonia	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	I-A-4-3-No. 1	Ammonia gas cooler	
	" No. 1	"	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	

Item Number	Inventory Number	Name of Machine	Remarks
I-A-5-1	No. 1	Carbonating Tower	
"	No. 2	"	
"	No. 3	"	
"	No. 4	"	
"	No. 5	"	
"	No. 6	"	
"	No. 7	"	
"	No. 8	"	
"	No. 9	"	
I-A-5-2	No. 1	Gas Washer	
"	No. 2	"	
"	No. 3	"	
"	No. 4	"	
"	No. 5	"	
"	No. 6	"	
"	No. 7	"	
"	No. 8	"	
"	No. 9	"	
I-A-5-3	No. 1	Settley of dill. amm. brine	
"	No. 2	"	
"	No. 3	"	
"	No. 4	"	
I-A-6	No. 1	Rotary Filter	
"	No. 2	"	
"	No. 3	"	
"	No. 4	"	
"	No. 5	"	
"	No. 6	"	
"	No. 7	"	
"	No. 8	"	
"	No. 9	"	
"	No.10	"	
"	No.11	"	
"	No.12	"	
"	No.13	"	
"	No.14	"	
"	No.15	"	
"	No.16	"	
I-A-7-1	No.1	Bicarbonate Decomposer (calciner)	
"	No. 2	"	
"	No. 3	"	
"	No. 4	"	
"	No. 5	"	
"	No. 6	"	

DECLASSIFIED E.O. 12065 SECTION 3 (E)(1)(D) NSC NO.

Item Number	Inventory Number	Name of Machine	Remarks
	I-A-7-1-No. 7	Bicarbonate Decomposer (calciner)	
	" No. 8	"	
	" No. 9	"	
	" No.10	"	
	" No.11	"	
	" No.12	"	
	" [illegible]	"	
	" [illegible]	"	
	" [illegible]	"	
	" [illegible]	"	
	I-A-7-2-No. 1	Converter to Soda Ash	
	" No. 2	"	
	" No. 3	"	
	I-A-8-1-No. 1	Caustisizers	
	" No. 2	"	
	" No. 3	"	
	I-A-8-2-No. 1	Dorr Thickner	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
From	I-A-9-1-No. 1	Evaporators, Vacuum	
To	No. 60	"	
	I-A-9-2-No. 1	Rotary Filter	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	I-A-9-3-No. 1	Thickner for Salt	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
From	I-A-10- No. 1	Caustic Pot	
To	No.102	"	
	I-A-11	All other machinery and equipment (except that listed above)	
	I-A-11-1-No. 1	Sip Hoist of lime stone	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	

DECLASSIFIED E.O. 12065 SECTION 3 (E), NARS Date

Item Number	Inventory Number	Name of Machine	Remarks
	I-A-11-2-No. 1	Fan for lime kiln	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	I-A-11-3-No.1	Pan Conveyer	
	I-A-11-4-No. 1	Belt Conveyer	
	" No. 2	"	
	I-A-11-5-No. 1	Reservoir of milk of lime	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	" No. 9	"	
	" No.10	"	
	I-A-11-6-No. 1	Reservoir of Brine	
	" No. 2	"	
	" No. 3	"	
	"		
	I-A-11-7-No. 1	Elevator	
	I-A-11-8-No. 1	Belt Conveyor	
	I-A-11-9-No. 1	Reservoir of milk of lime	
	" No. 2	"	
	I-A-11-10-No. 1	Rotary sieve of lime	
	" No. 2	"	
	I-A-11-11-No. 1	Reservoir of Ammonical Liquor	
	" No. 2	Reservoir " of liquor	
	I-A-11-12-No. 1	Crane	
	I-A-11-13-No. 1	Reservoir of conc. Amm. Brine	
		Amm. Brine "	

DECLASSIFIED E.O. 11652 SECTION 3 (E)(1) MAR 8, 1978

Item Number	Inventory Number	Name of Machine	Remarks
	I-A-11-14-No.1	Settle of tower liquid	
	" No.2	"	
	I-A-11-15-No. 1	Belt Conveyer	
	" No. 2	"	
	I-A-11-16-No. 1	Dissolving tank of bicarbonate	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	I-A-11-17-No. 1	Reservoir of filtrate	
	" No. 2	"	
	I-A-11-18-No. 1	Drain Tank	
	I-A-11-19-No. 1	Reservoir of dill. Amm. brine	
	"	"	
	I-A-11-20-No. 1	Crane	
	I-A-11-21-No. 1	Belt conveyer of $NaHCO_3$	
	" No. 2	"	
	I-A-11-22-No. 1	Mixer of Soda Ash	
	I-A-11-23-No. 1	Dissolving tank of Bicarbonate	
	I-A-11-24-No. 1	Reservoir of Soda Ash	
	" No. 2	"	
	I-A-11-25-No. 1	Crane	
	I-A-11-26-No. 1	Gas Cooler	
	" No. 2	"	
	" No. 3	"	
	I-A-11-27-No. 1	Gas washer	
	" No. 2	"	
	" No. 3	"	

DECLASSIFIED E.O. 11652 SECTION 3 (E)(1) NND 760050

Item Number	Inventory Number	Name of Machine	Remarks
	I-A-11-28-No. 1	Gas producer	
	" No. 2	"	
	I-A-11-29-No. 1	Gas duct of Gas producer	
	" No. 2	"	
	I-A-11-30-No. 1	Bicarbonate dissolver	
	" No. 2	"	
	" No. 3	"	
	I-A-11-31-No. 1	Gas cooler	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	I-A-11-32-No. 1	Drain Tank	
	I-A-11-33-No. 1	Gas washer of ammonia gas	
	" No. 2	"	
	" No. 3	"	
	I-A-11-34-No. 1	Drain separator	
	I-A-11-35-No. 1	Receiver of Soda Ash solution	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	I-A-11-36-No. 1	Mixing tank of Soda Ash and lime	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	I-A-11-37-No. 1	Mud washing tank	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	" No. 9	"	
	" No.10	"	

DECLASSIFIED E.O. 12065 SECTION 3 (E)(1)(D) NSC LETTER

Item Number	Inventory Number	Name of Machine	Remarks
	I-A-11-38-No. 1	Filter Press	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	I-A-11-39-No. 1	Reservoir of caustic Solution	
	I-A-11-40-No. 1	Settling tank of caustic solution	
	" No. 2	"	
	I-A-11-41-No. 1	Dissolving tank of Na_2CO_3 crystal	
	" No. 2	"	
	I-A-11-42-No. 1	Reservoir of caustic solution	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	I-A-11-43-No. 1	Crane	
	I-A-11-44-No. 1	Screw conveyer of soda	
	I-A-11-45-No. 1	Dissolving tank of soda	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	I-A-11-46-No. 1	Filter press	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	

DECLASSIFIED E.O. 12065 SECTION 3 (E)(2) NARS DATE 1-31-80

Item Number	Inventory Number	Name of Machine	Remarks
	I-A-11-47-No. 1	Reservoir of caustic solution	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	I-A-11-48-No. 1	Alumina separator	
	" No. 2	"	
	I-A-11-49-No. 1	Reservoir of Drain	
	I-A-11-50-No. 1	Crane	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	I-A-11-51-No. 1	Erner of pulverized coal	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	I-A-11-52-No. 1	Trolley Hoist	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	I-A-11-53-No. 1	Induced fan	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	I-A-11-54-No. 1	Recovery tank of caustic residue	
	I-A-11-55-No. 1	Reservoir of conc. caustic liquor	
	" No. 2	"	
	I-A-11-56-No. 1	Head tank of sea water	

DECLASSIFIED E.O. 11652 SECTION 3 (E)(2), MAR 8 1978

Item Number	Inventory Number	Name of Machine	Remarks
	I-A-11-57-No. 1	Gib crane	
	I-A-11-58-No. 1	Automatic weigher	
	I-A-11-59-No. 1	Belt conveyer	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	" No. 6	"	
	" No. 7	"	
	" No. 8	"	
	I-A-11-60-No. 1	Underground conveyer	
	I-A-11-61-No. 1	Derric unloader	
	I-A-11-62-No. 1	Belt conveyer	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	I-A-11-63-No. 1	Gib crane	
	" No. 2	"	
	" No. 3	"	
	I-A-11-64-No. 1	Automatic weigher	
	" No. 2	"	
	" No. 3	"	
	I-A-11-65-No. 1	Reservoir of lime stone	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	I-A-11-66-No. 1	Belt conveyer	
	" No. 2	"	
	" No. 3	"	
	" No. 4	"	
	" No. 5	"	
	I-A-11-67-No. 1	Giratry crusher	
	I-A-11-68-No. 1	Winch	
	I-A-11-69-No. 1	Endless conveyer	

DECLASSIFIED E.O. 11652 SECTION 3 (E)(2) NARS Date

Item Number	Inventory Number	Name of Machine	Remarks
	I-A-11-70-No. 1	Weigher	
	I-A-11-71-No. 1	Under ground belt conveyer	
	" No. 2	"	
	" No. 3	"	
	I-A-11-72-No. 1	Wherf	
	" No. 2	"	
	I-A-11-73-No. 1	Gib crane	
From	I-A-11-74-No. 1	Belt conveyer	
To	" No.11	"	
	I-A-11-75-No. 1	Automatic weigher	
	" No. 2	"	

II. Electrical Machinary and Apparatus

A. Electrical Rotating Equip.

II-A-1-Generator

II-A-1-No. 1		A.C. Turbo Generater
"	No. 2	"
"	No. 3	"
"	No. 4	"
"	No. 5	"
"	No. 6	"
"	No. 7	"
"	No. 8	"
From II-A-2	No. 1	Motor
To "	No.639	"
From II-A-3	No. 1	Motor Generator
To "	No.13	"

B. Prime electric power transmission and distribution

From II-B-1	No. 1	Transformer
To "	No.77	"

DECLASSIFIED E.O. 11652 SECTION 3 (E)(2) NARS DATE

Item Number	Inventory Number	Name of Machine	Remarks
	II-B-2-No.1	Switches Boxes	
	2	"	
	3	"	
	4	"	
	5	"	
	6	Oil circuit breaker	
	7	"	
	8	"	
	9	Switch Cubicles	
	10	"	
	11	"	
	12	"	
	13	"	
	14	"	
	15	Switch Boxes	
	16	Switch Cubicles	
	17	"	
	18	"	
	19	"	
	20	Switch Cubicles	
	21	"	
	22	"	
	23	"	
	24	"	
	25	Oil circuit breaker	
	26	"	
	27	"	
	28	"	
	29	"	
	30	"	
	31	"	
	32	"	
	33	"	
	34	"	
	35	"	
	36	"	
	37	"	
	38	"	
	39	"	
	40	"	
	41	"	
	42	"	
	43	"	
	44	Switch Boxes	
	45	"	
	46	"	
	47	"	
	48	"	
	49	"	
	50	"	
	51	"	

Item Number	Inventory Number	Name of Machine	Remarks
	II-B-2-No.52	Switch Boxes	
	53	"	
	54	Oil Circuit Breaker	
	55	"	
	56	Switch Boxes	
	57	"	
	58	Switch Cubicles	
	59	"	
	60	"	
	61	"	
	62	"	
	63	"	
	64	"	
	65	"	
	66	"	
	67	"	
	68	"	
	69	"	
	70	"	
	71	"	
	72	"	
	73	"	
	74	"	
	75	"	
	76	"	
	77	"	
	78	"	
	79	"	
	80	"	
	81	"	
	82	"	
	83	"	
	84	"	
	85	"	
	86	"	
	87	"	
	88	"	
	89	"	
	90	"	
	91	"	
	92	"	
	93	"	
	94	"	
	95	"	
	96	"	
	97	"	
	98	"	
From	II-B-2-No.99	Oil Circuit Breaker	
To	II-B-2-No.134	"	
	II-B-2-No.135	Switch Box	

DECLASSIFIED E.O. 12065 SECTION 3 (b), NARS Date

Item Number	Inventory Number	Name of Machine	Remarks
III. General purpose industrial machinery and equip.			
III-A. Engines, Turbines and Boilers			
	III-A-1	Steam engines	
	III-A-2 No.1	Steam turbine	
	" No.2	"	
	" No.3	"	
	" No.4	"	
	" No.5	"	
	" No.6	"	
	" No.7	"	
	" No.8	"	
	III-A-3-No.1	Boiler power	
	" No.2	"	
	" No.3	"	
	" No.4	"	
	" No.5	"	
	" No.6	"	
	" No.7	"	
	" No.8	"	
	" No.9	"	
	III-A-4	Internal combustion engines	
	III-A-5	All other machinery and equipment	
From	III-A-5-No.1	Feed water softner	
	" No.2	"	
From	" No.3	Fan	
To	No.29	"	
	III-A-5-No.30	Coal bunker	
	" No.31	"	
	" No.32	"	
	" No.33	"	
	" No.34	"	
	" No.35	"	
	" No.36	"	
	" No.37	"	
	" No.38	"	
	" No.39	Skip hoist	
	" No.40	"	

DECLASSIFIED E.O. 12065 SECTION 3 NLE/NARS Date

Item Number	Inventory Number	Name of Machine	Remarks
	III-A-5-No.41	Belt Conveyer	
	" No.42	"	
	" No.43	"	
	" No.44	"	
	" No.45	"	
	" No.46	Water tank	
	" No.47	"	
	" No.48	"	
	" No.49	"	
	" No.50	"	
	" No.51	"	
	" No.52	"	
	" No.53	"	
	" No.54	"	
	" No.55	"	
	" No.56	"	
	" No.57	"	
III-B-1. Compressor & Dry Vacuum Pumps.			
	III-B-1-1-No.1	Compressor	
	" No.2	"	
	" No.3	"	
	" No.4	"	
	III-B-1-2-No.1	Compressor	
	" No.2	"	
	" No.3	"	
	" No.4	"	
	" No.5	"	
	" No.6	"	
	III-B-1-3-No.1	Vacuum pump	
	" No.2	"	
	" No.3	"	
	" No.4	"	
	III-B-1-4-No.1	Compressor	
	" No.2	"	
	" No.3	"	
	" No.4	"	
	" No.5	"	
	" No.6	"	
	" No.7	"	
	" No.8	"	
	" No.9	"	
	" No.10	"	
	III-B-1-5-No.1	"	
	" No.2	"	
	" No.3	"	
	" No.4	"	
	" No.5	"	
	" No.6	"	
	" No.7	"	

Item Number	Inventory Number	Name of Machine	Remarks
	III-B-1-5-No.8	Compressor	
	" No.9	"	
	" No.10	"	
	III-B-1-6-No.1	Vacuum pump	
	" No.2	"	
	" No.3	"	
	" No.4	"	
	From III-B-2-No.1	Pump	
	To " No.233	"	
Piping Equip.	Inventory Number None	pipes	
		Dia(inch) 1x466 (meter)	
		" 2x3,223	
		" 3x5,735	
		" 4x5,050	
		" 6x9,370	
		" 8x4,719	
		" 10x829	
		" 12x1,530	
		" 14x82	
		" 16x1,202	
		" 18x83	
		" 20x 523	
		" 24x311	
		" 28x126	
		" 30x96	
		" 43x18	
		Valves	
		(Dia inch) Number of valves	
		1 109	
		2 117	
		3 197	
		4 231	
		6 159	
		8 104	
		10 75	
		12 70	
		14 11	
		16 33	
		18 1	
		20 21	
		24 17	
		30 1	
		Cocks	
		1 105	
		2 315	
		3 269	
		4 582	
		6 294	
		8 37	

SECTION 1B

DATE	SUBJECT	ISSUING HEADQUARTERS & INDORSEMENTS
Dec. 50	Summary of Toyo Soda Co. Ltd.	Toyo Soda Co Ltd

1B

DECLASSIFIED - NSC MEMO 11/2/78

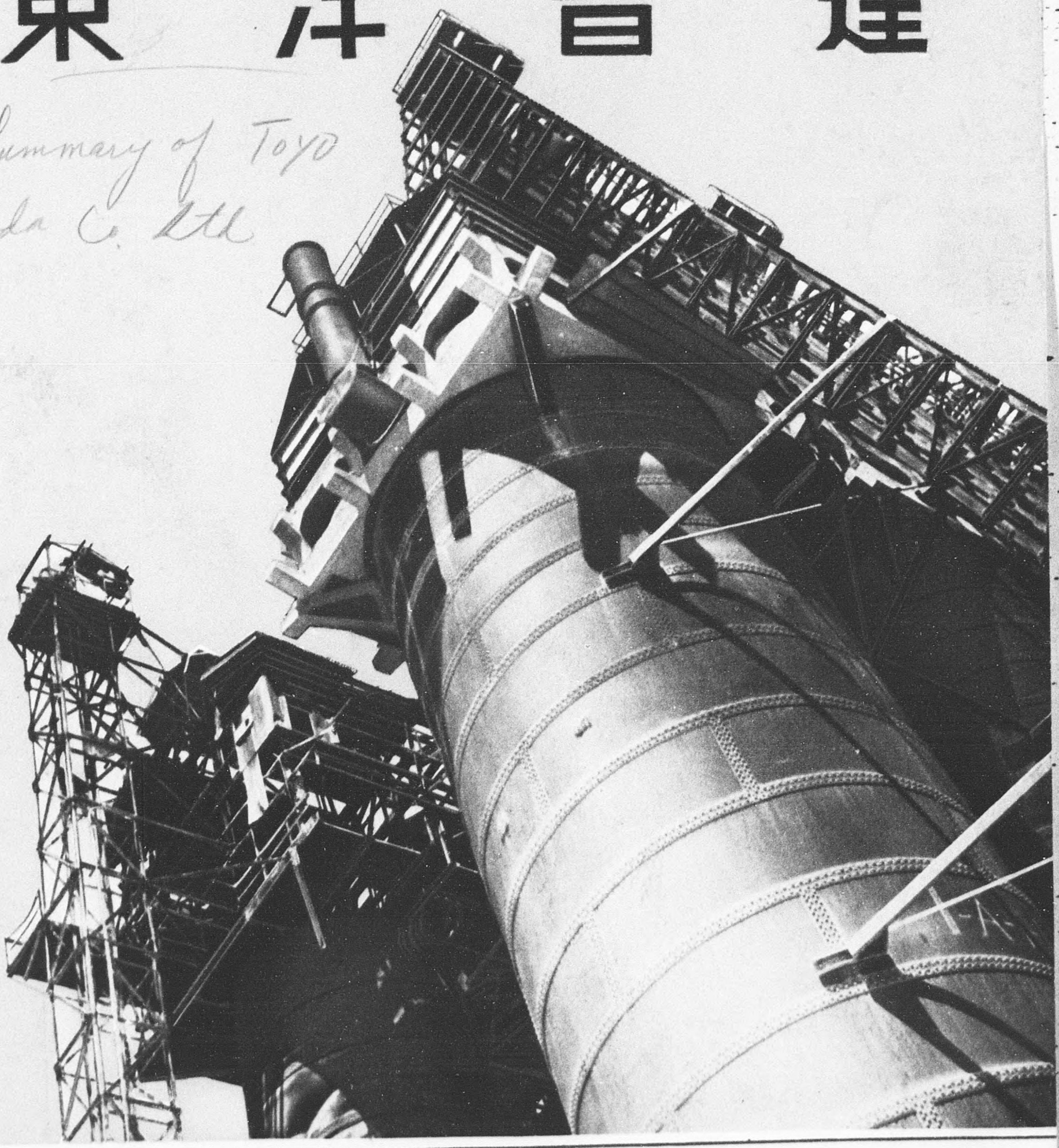
アンモニア法ソーダ・電解法ソーダ

45-16
Sec. IB

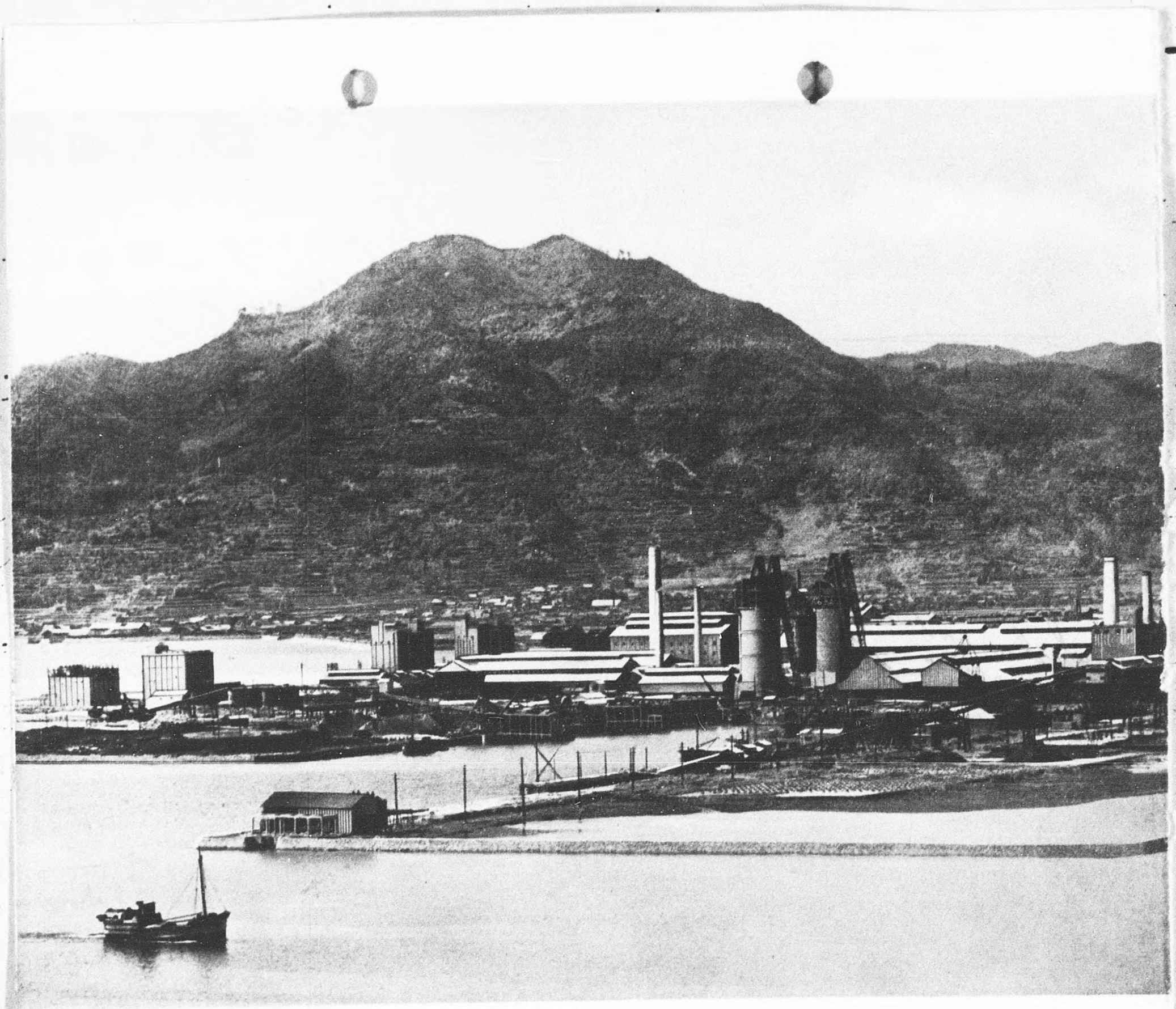
綜合経営

東洋曹達

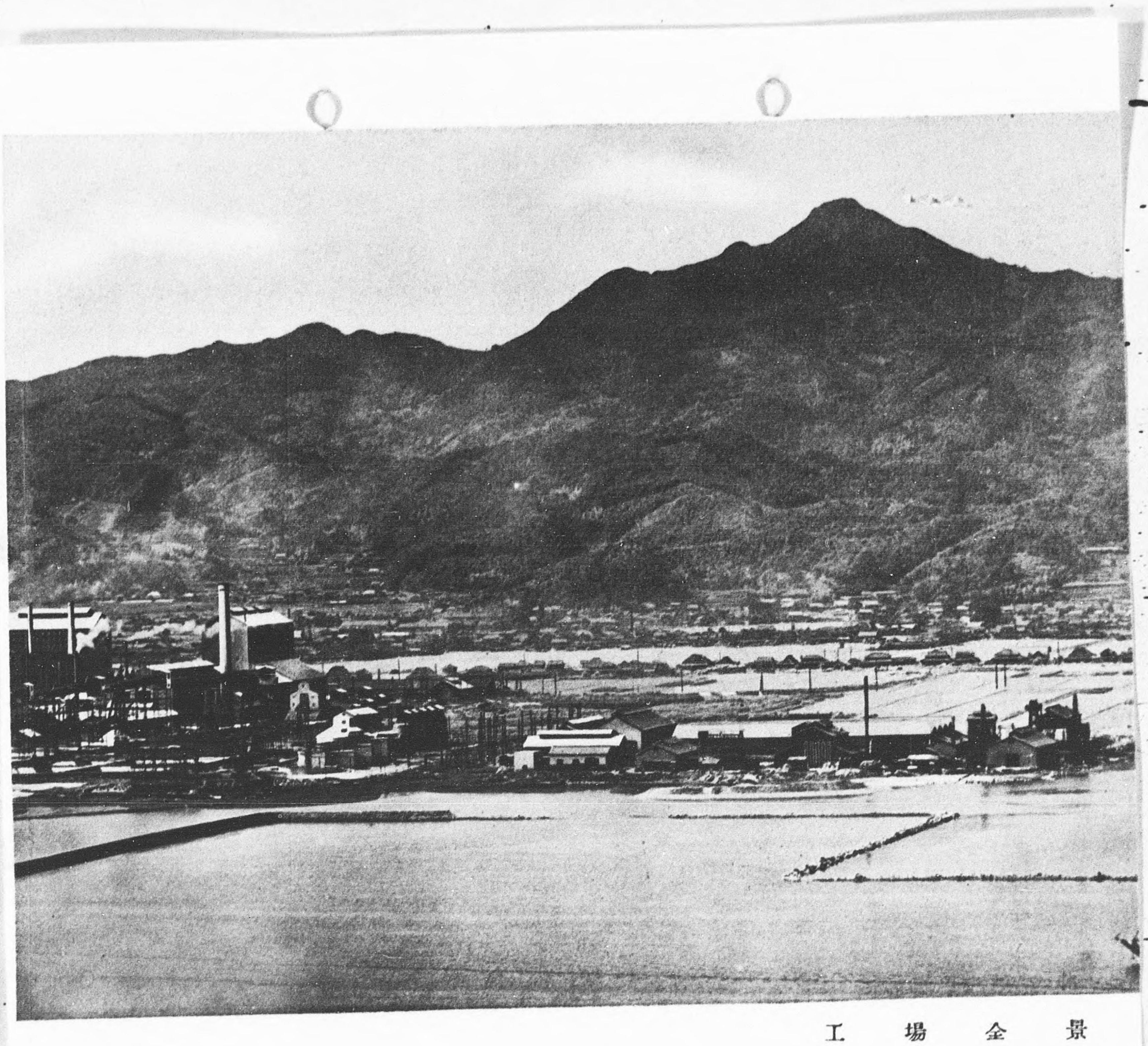
Summary of Toyo Soda C. Ltd



December 1950



本社及工場	山口縣都濃郡富田町4560番地 （電話）德山局 247, 248　富田局 230, 231, 232
東京支社	東京都港區芝田村町２丁目８番地（櫻田館） （電話）銀座（57）1963, 7254, 7280, 7336
大阪支店	大阪市東區北濱２丁目90番地（日產生命館） （電話）北濱（23）3137, 3138, 3139
資本金	公稱 60,000,000圓　　拂込 60,000,000圓 昭和25年12月上旬 120,000,000圓增資完了豫定
工場敷地	約 20 萬坪
建物總坪數	約 2 萬坪
從業員	約 1,200 名



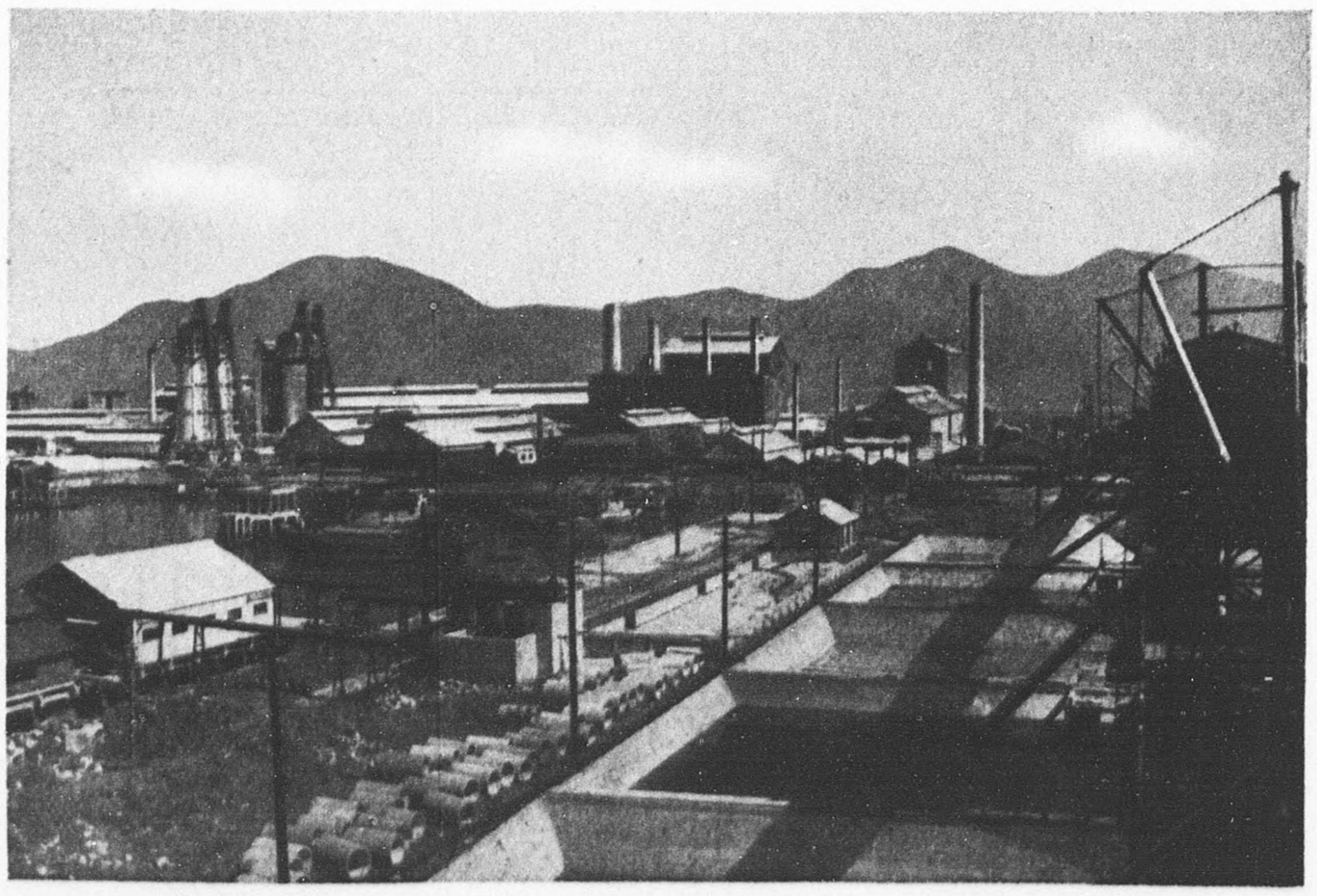
工場全景

役員

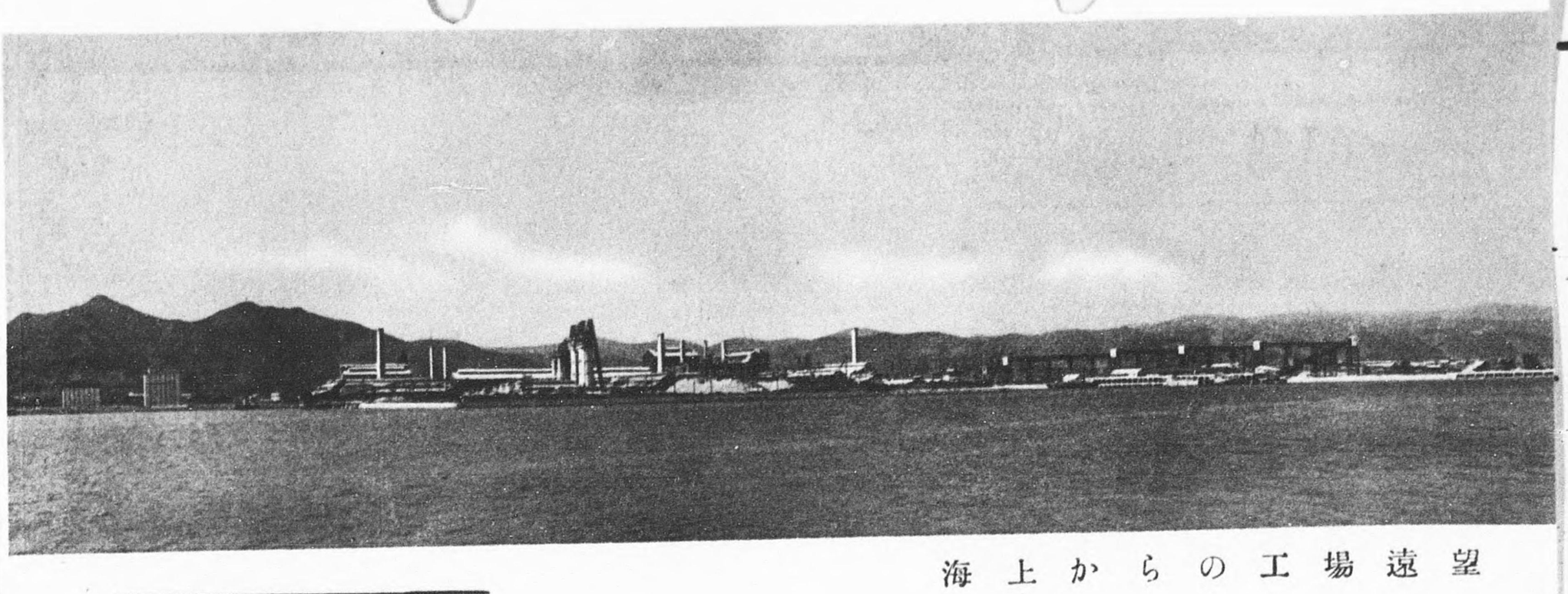
長役	甫義巽午藏二人三義雄豐人
社締	敬信辰甚啓武省正俊久富
役取	永口田田内伯口谷村倉村邊
締務	貞山原石古佐河草今小北渡
專常取	
取取	
締締	
務務	
役役	
役役	
役役

沿　革

當社はアンモニア法によつて、ソーダ灰及び苛性ソーダを製造する目的で昭和10年2月に設立せられ、逐年生産を擴張して本邦四大アンモニア法ソーダ工場の一として業界に重きを爲した　昭和17年には海水から直接臭素を製造する本邦唯一の畫期的臭素工場の建設に成功、次いで昭和18年には電解法ソーダ製造工場を建設した　昭和19年には軍需省の要請によつて水酸化アルミニウムの製造を行つたが、昭和20年8月終戰と共に之を中止し、直ちにアンモニア法ソーダ及び電解法ソーダを中心とする平和産業部門の生産復興に邁進したが、不幸にして昭和21年8月アンモニア法工場及び電解法工場が賠償指定を受けた爲、アンモニア法工場は昭和21年12月以降操業を停止し施設の保全管理に專心し、電解法工場はG・H・Qの許可を得て引續き操業し、之を契機として鹽化物及び臭素化合物等化學藥品えの進出を圖つた　其後賠償問題の好轉に伴い、昭和25年4月待望のアンモニア法工場正式操業の許可を得て生産を再開し玆に本邦唯一のアンモニア法及び電解法を併有するソーダ工場として業界に進出するに至つた　尙アンモニア法ソーダ合理化の方策として、鹽化アンモニウム聯產の計畫等無機、有機兩分野に亘る綜合化學工業の體制の强化に努めてゐる



原鹽倉庫から工場中心部を望む



海上からの工場遠望

工場の特長

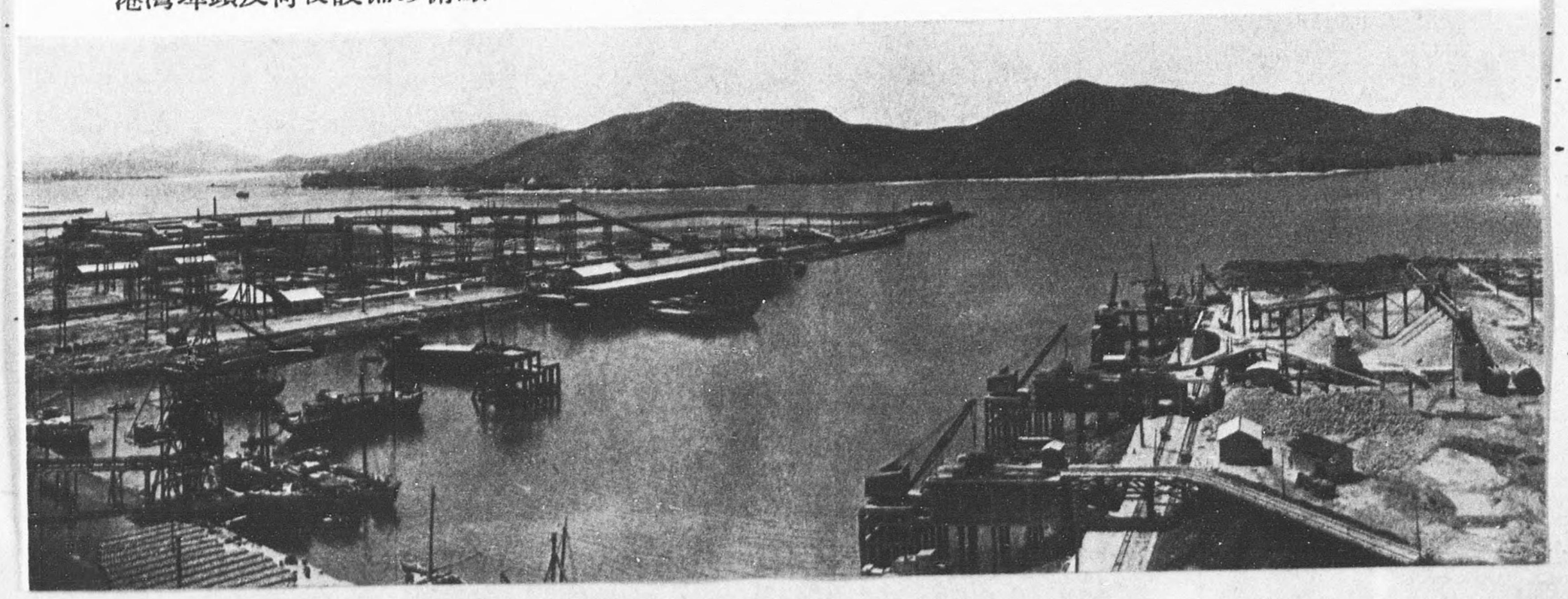
（イ） 工場は山陽線周防富田驛から南方約 1.5 粁の海岸にある　同驛から專用引込線があつて國有鐵道に連絡して居り、工場の南側は瀬戸內海有數の良港に面して一萬瓲級及び三千瓲級の船舶を繫留荷揚げをすることの出來る埠頭設備を持つて居る　原料の一である石灰石は大分縣津久見港から、石炭は九州及び宇部から海路により、各岸壁の荷役設備によつて工場に取り入れられる　主要原料である鹽は、地中海、紅海、ジヤワ、佛印、臺灣、北支等から本船で直接前記の埠頭で短時間に荷揚げすることが出來る　尙製品の大需要地は瀬戸內海沿岸の各地であり、原材料及製品の輸送上に極めて優秀な位置にある

（ロ） 曹達工業は良質な淸水を多量使用するものであるが、當工場は約 3 粁の北方富田川畔に水源地を有して居り豊富低廉な淸水を使用することが出來る

（ハ） アンモニア法ソーダ工場で出來る多量の石炭灰及び苛性化廢泥の處理はアンモニア法ソーダ工場の立地條件の一つであるが、當社は約15萬坪に及ぶ埋立豫定地を持つて居るので、殘滓は單にパイプにより埋立地に廢棄することによつて處理することが出來る

（ニ） 各製造工場の關聯性
當工場はアンモニア法、電解法兩製造部門を主體として各工場相互に有機的關聯性を持つて居る　當社はアンモニア法工場の動力として 35,000kw の自家發電設備を有して、同工場所要の蒸汽を利用して自家發電をして居り、其の餘剩電力は電解苛性ソーダの製造に使用される　尙電解工場の鹽素によつて海水から臭素を製造して居る

港灣埠頭及荷役設備の俯瞰



DECLASSIFIED E.O. 12065 SECTION 3 NSC MEMO

工 場 の 規 模

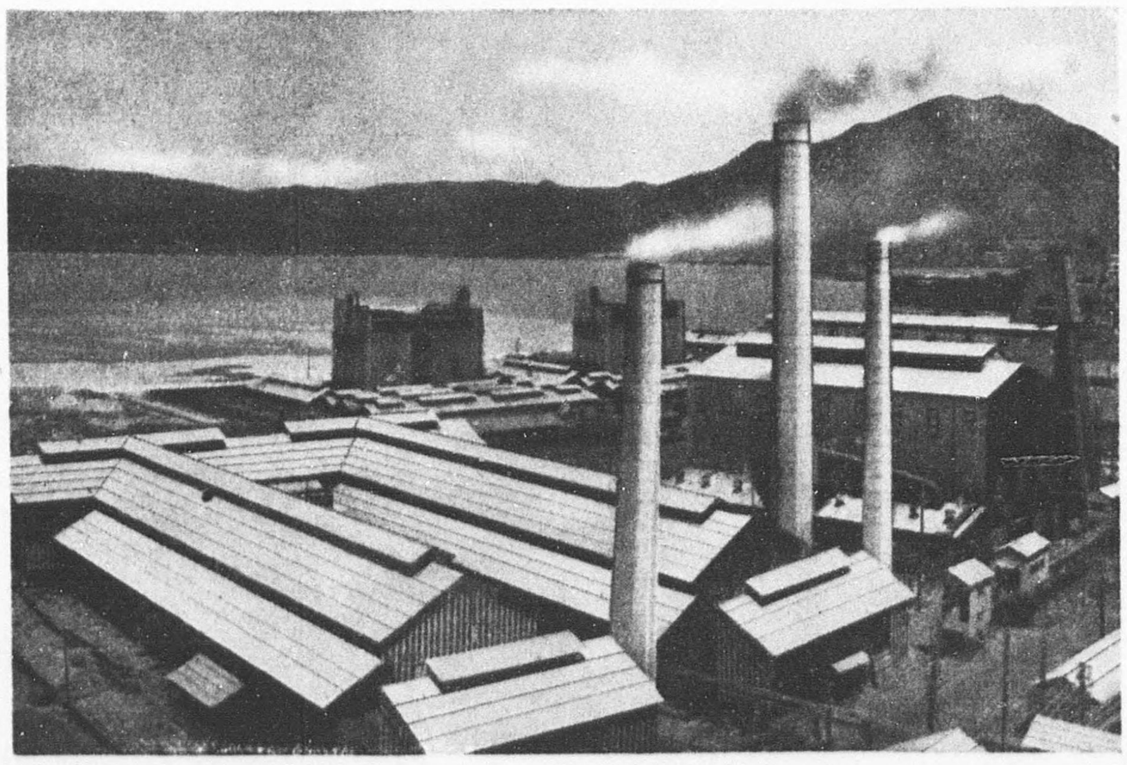
1) 工 場 建 坪

アンモニア法ソーダ工場	6,363 坪
電解法ソーダ工場	2,935 坪
臭 素 工 場	1,997 坪
發 電 所	1,825 坪
工 作 工 場	1,312 坪
倉 庫	1,502 坪
福 利 施 設	1,612 坪
其他工場及施設	2,657 坪
合 計	20,203 坪

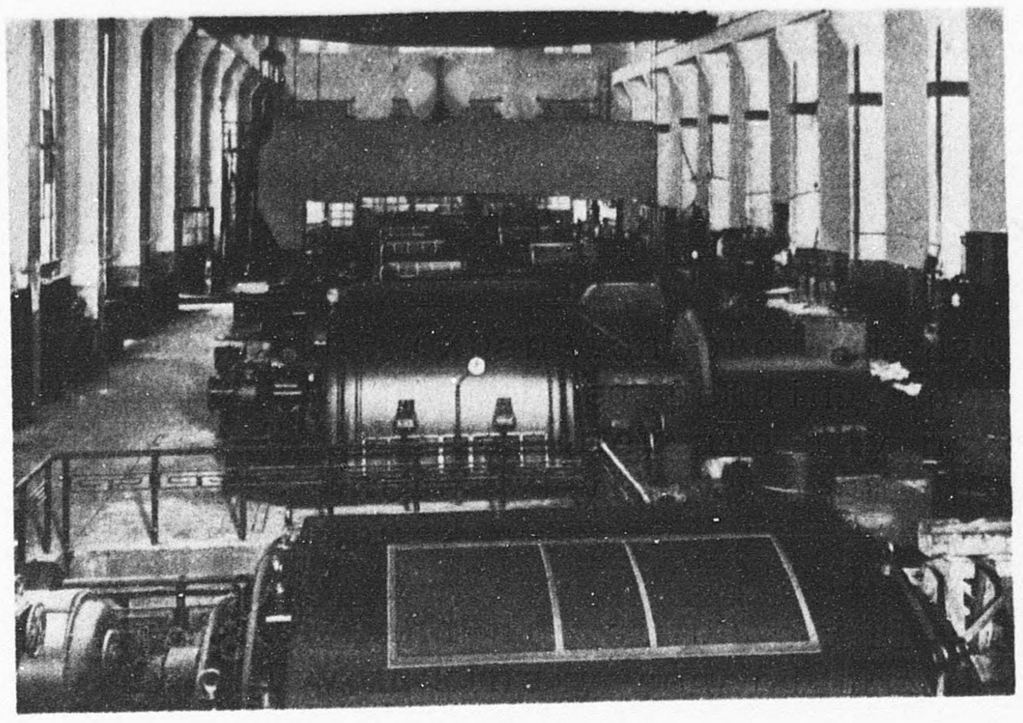
2) 自家發電能力　毎時 35,000 kw

3) 繫 船 設 備　一萬瓲級船舶繫船埠頭　1ヶ所
　　三千瓲級　同　1ヶ所

4) 荷 役 設 備　原鹽荷役設備　毎時 250瓲
　　石灰石荷役設備　毎時 90瓲
　　石炭荷役設備　毎時 105瓲



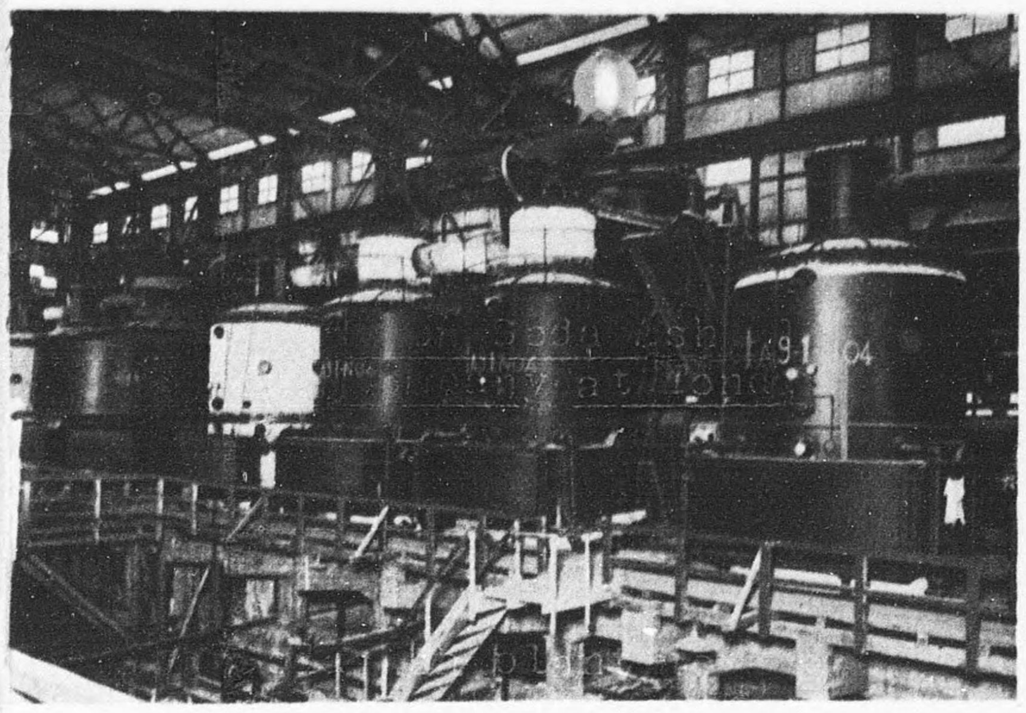
苛性ソーダ仕上工場及び第二發電所



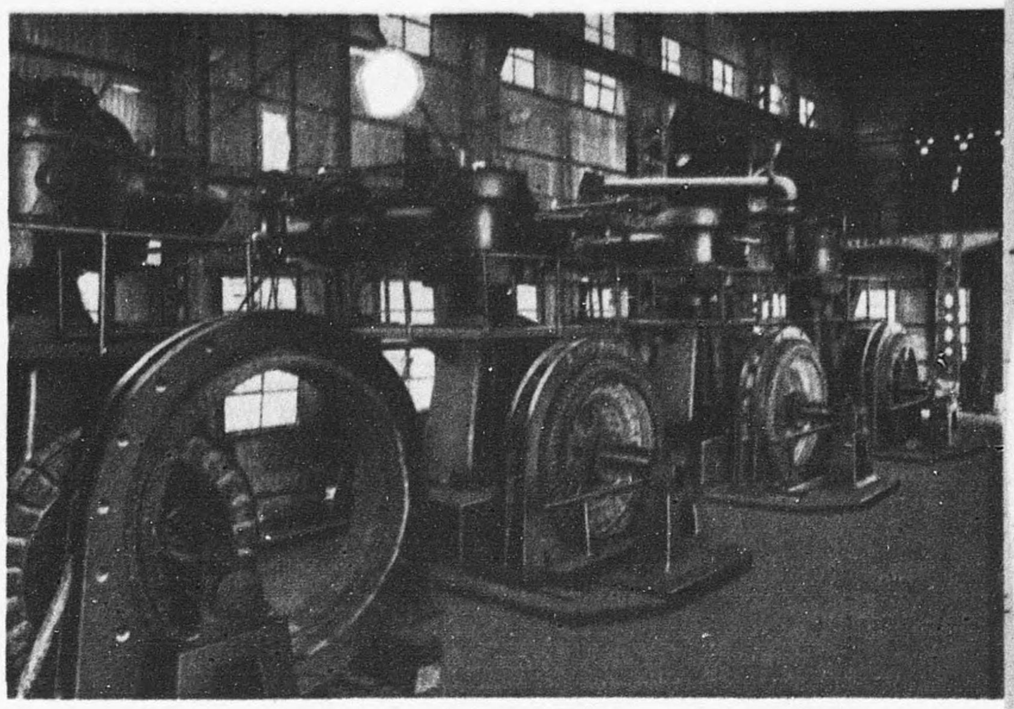
發電所内部

生 産 能 力

品 名	月産能力
ソ ー ダ 灰	6,000 瓲
ア法液體苛性ソーダ	9,600 瓲
ア法固型苛性ソーダ	6,000 瓲
電解法苛性ソーダ	416 瓲
珪 酸 ソ ー ダ	1,360 瓲
合 成 鹽 酸	885 瓲
クロールスルホン酸	150 瓲
鹽 化 亞 鉛	30 瓲
鹽 化 メ チ ル	2 瓲
晒 粉	182 瓲
B H C	20 瓲
鹽 化 ベ ン ジ ル	6 瓲
フ エ ニ ー ル 醋 酸	2 瓲
臭 素	60 瓲
臭 化 エ チ ル	10 瓲
鹽 化 アンモニウム(試驗工場)	30 瓲



ア法工場苛性ソーダ蒸發罐の一部



ア法工場炭酸ガス壓縮機の一部

製造方法

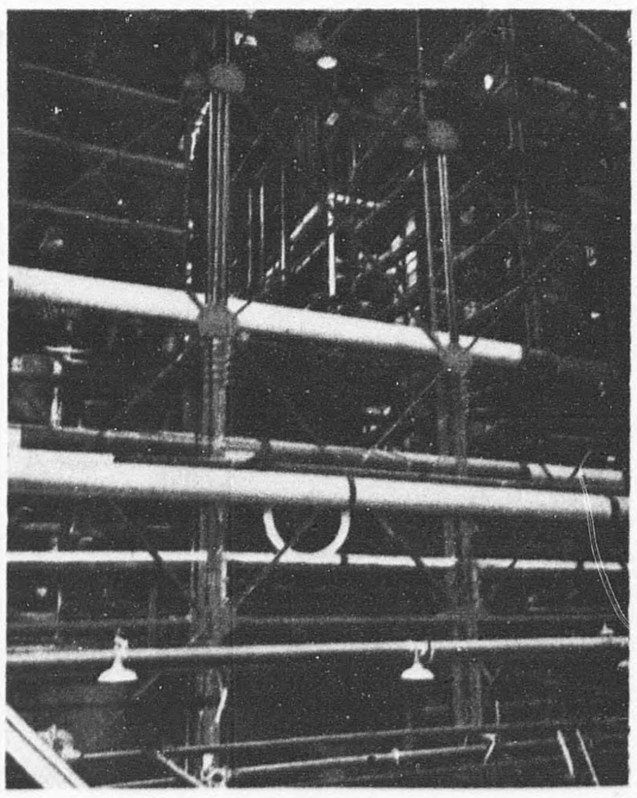
アンモニア法ソーダ製造方法

本船から工場埠頭に揚げられ倉庫に送り込まれた原鹽（食鹽）は溶解槽で溶されて鹹水（食鹽水）となり、次で製精されて不純物（主としてカルシウム、マグネシウム）を除去する。

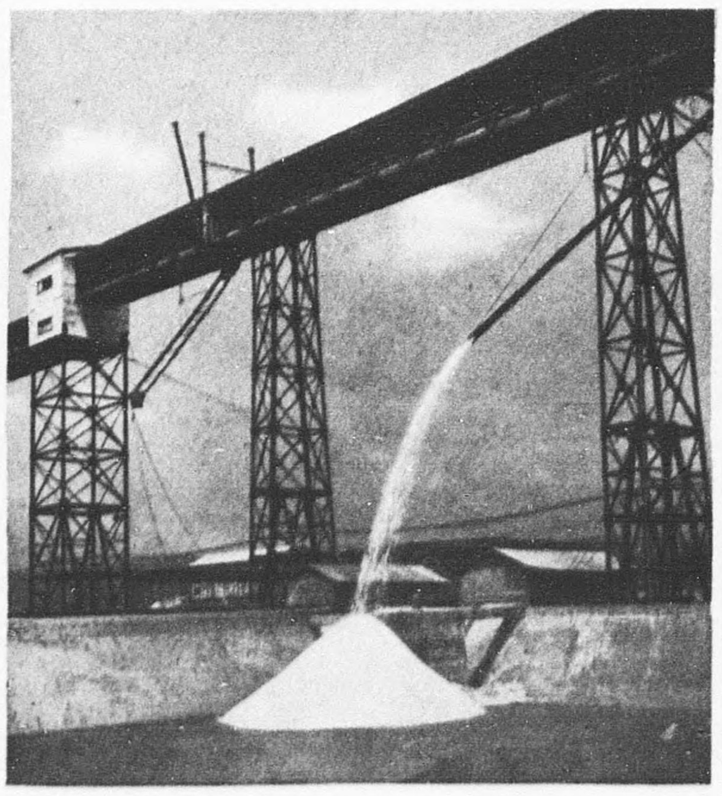
この精製鹹水にアンモニアを吸收させ、次に炭化塔（ソルベー塔）で炭酸ガスを吹込むと鹹水中のソーダ分は重曹の結晶となり、鹽素分は鹽化アンモニウムの溶液となる。分離された重曹の結晶は粗重曹であつて之を焙燒すれば無水炭酸ソーダ所謂ソーダ灰となる。尙粗重曹を水に溶して加熱すると炭酸ソーダの溶液となるから之に石灰乳を入れて加熱すると苛性ソーダの溶液になる。

之を蒸發罐で煮詰めて苛性ソーダ分約45%にしたものが液體苛性ソーダで、尙之を水分の無くなるまで煮詰めたものが固型苛性ソーダである。

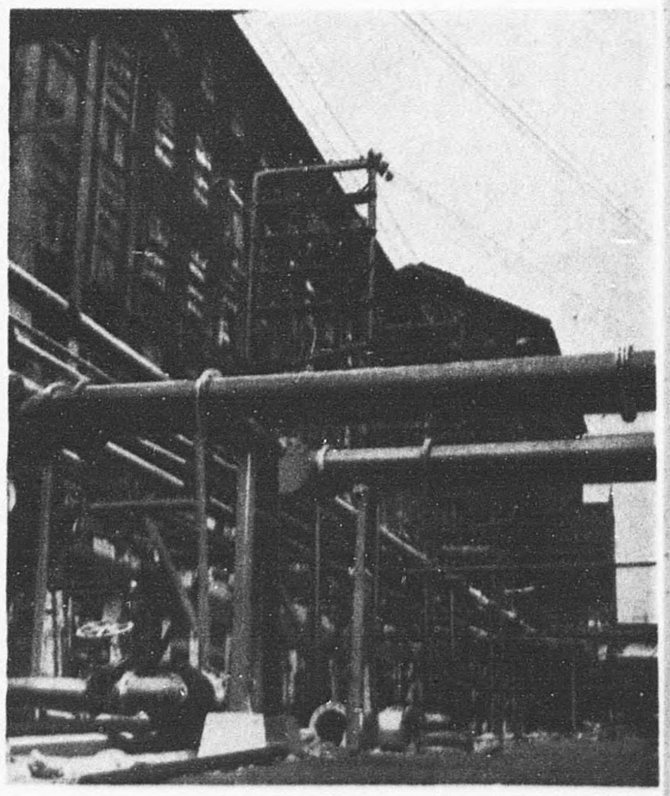
重曹を分離した鹽化アンモニウム溶液は石灰乳を混ぜて加熱するとアンモニアを遊離するから之は循環使用する。工程中使用する炭酸ガス及石灰乳は石灰爐で石灰石をコークスで燒いて製られる。尙重曹を焙燒する時或は重曹溶液を炭酸ソーダ溶液にする際發生する炭酸ガスは全部回收して使用される。



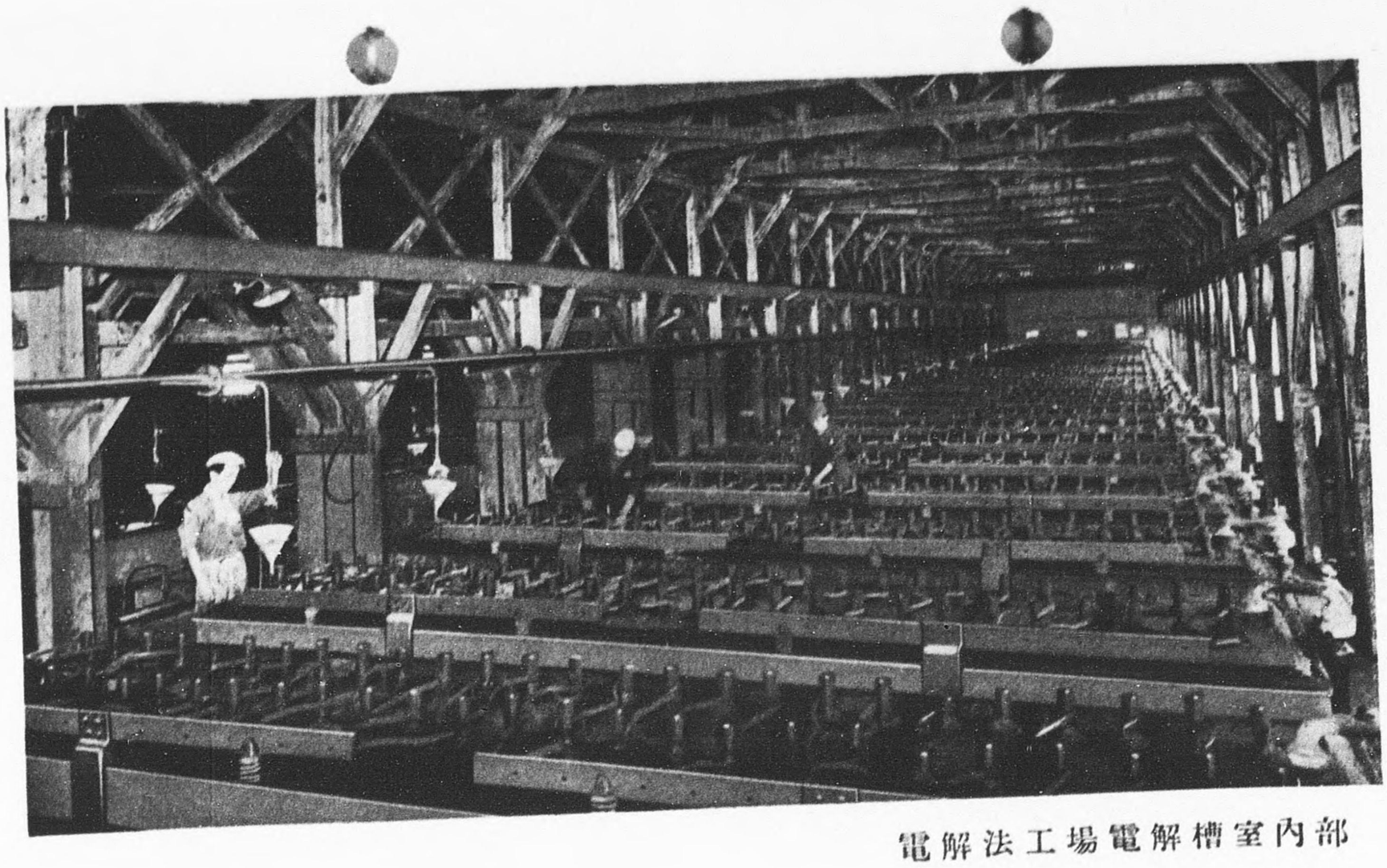
ア法工場蒸溜塔及吸收塔



コンクリート貯槽に取入れられる原鹽



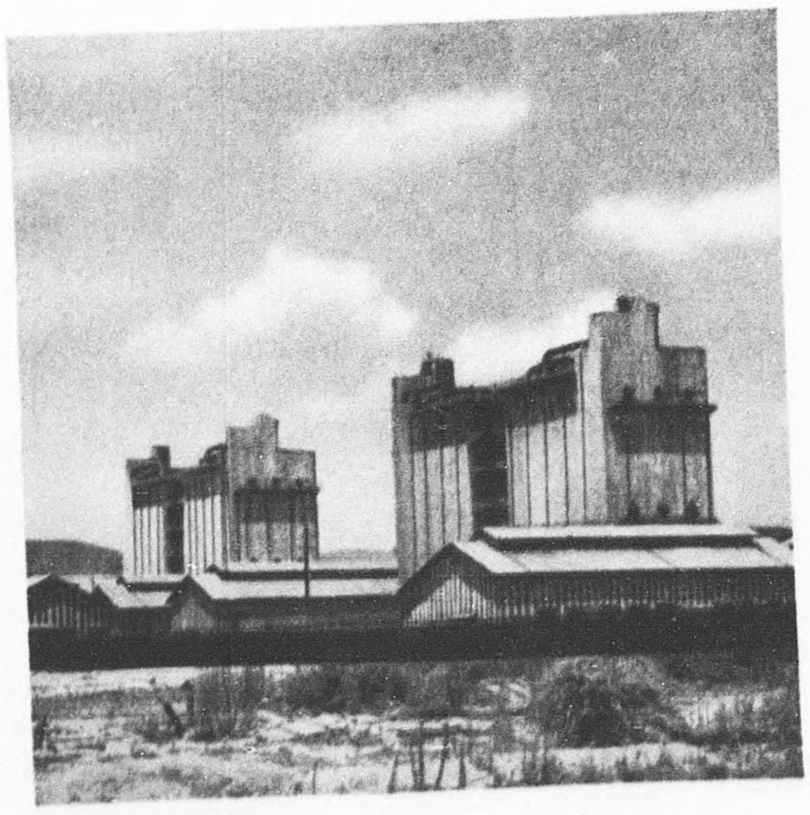
ア法工場構内の配管設備



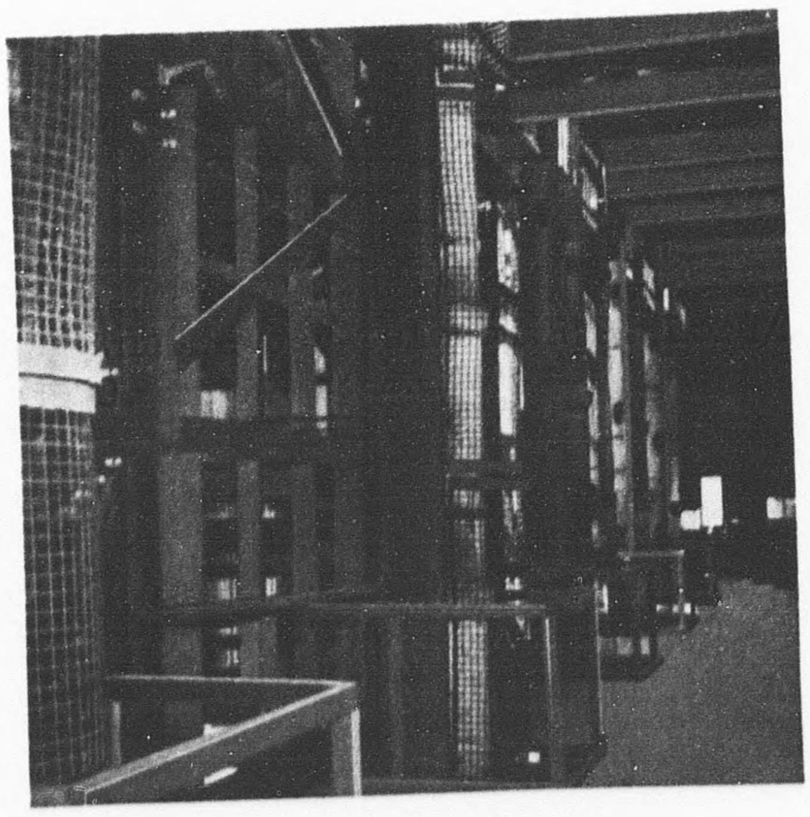
電解法工場電解槽室内部

電解法ソーダ製造法

當社の電解法は水平隔膜式てビリタージーメンス型である
原鹽を溶解して之に回收鹽及ソーダ灰を加へて不純物のマグネシウム、カルシウム等を沈澱物として分離し
この鹹水に鹽酸を加へて中和し精製鹹水とする。之の精製鹹水を電解槽に導入し、黑鉛（陽極）と金網（陰
極）の電極間で直流電氣を通じて電氣分解すると陰極では苛性ソーダと水素ガスを生じ、他方陽極の黑鉛で
は鹽素ガスが發生する。苛性ソーダ溶液は各槽から集め蒸發罐で煮詰める。この時電解液中にある電解され
ない食鹽は結晶して來るので之は濾過して回收鹽として使用する。
蒸發罐で煮詰られた苛性ソーダは液體苛性ソーダ（苛性ソーダ約45%）であつて之を仕上鍋で水分の無くな
る迄煮詰めて固型苛性ソーダとする。電解槽から出る鹽素ガスと水素ガスは溶融石英管中で燃燒させ之を水
に吸收さして鹽酸とする。尙鹽素は臭素の製造に使用される外有機、無機の藥品と化合させて夫々の鹽化物
の製造に用いられる。

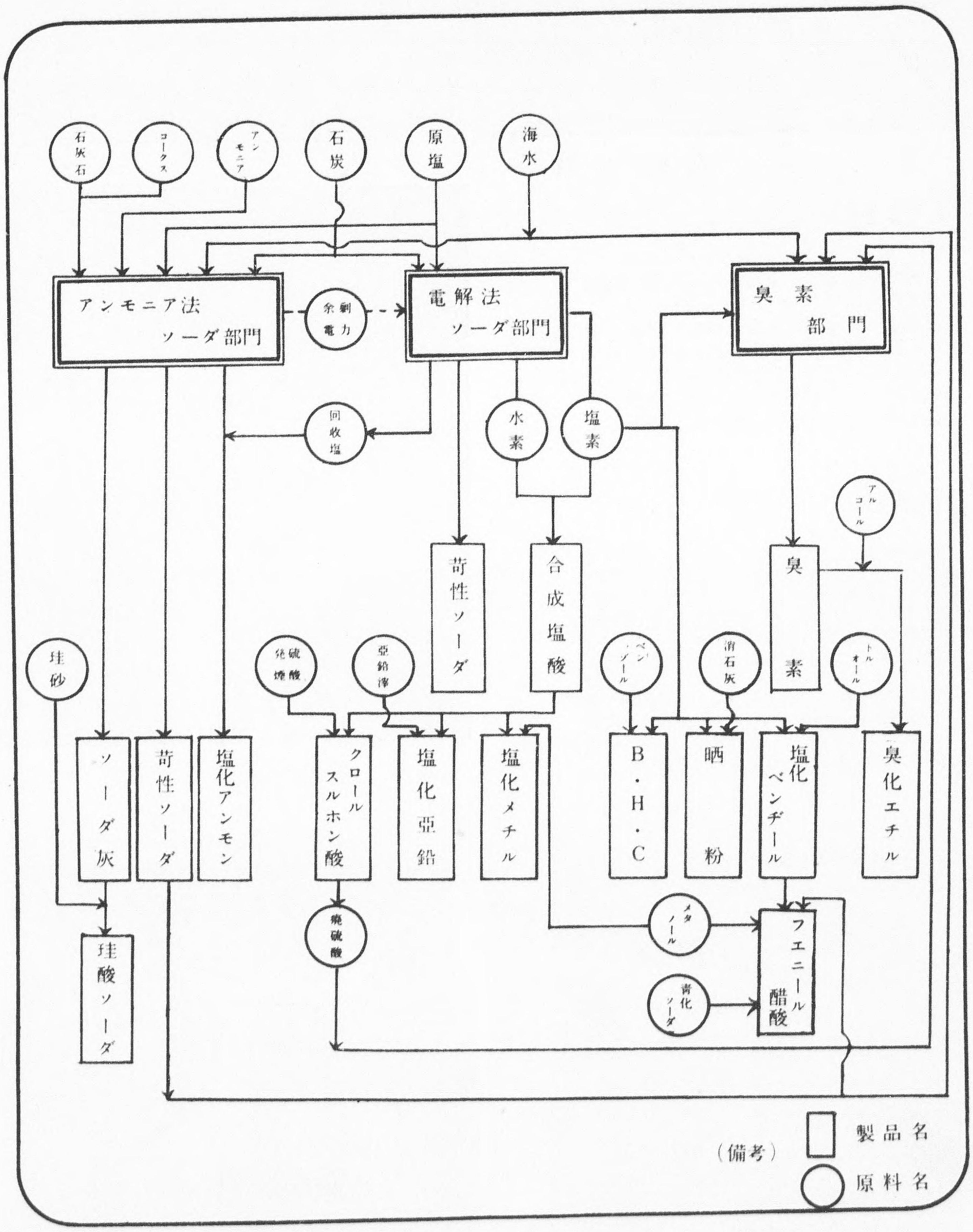


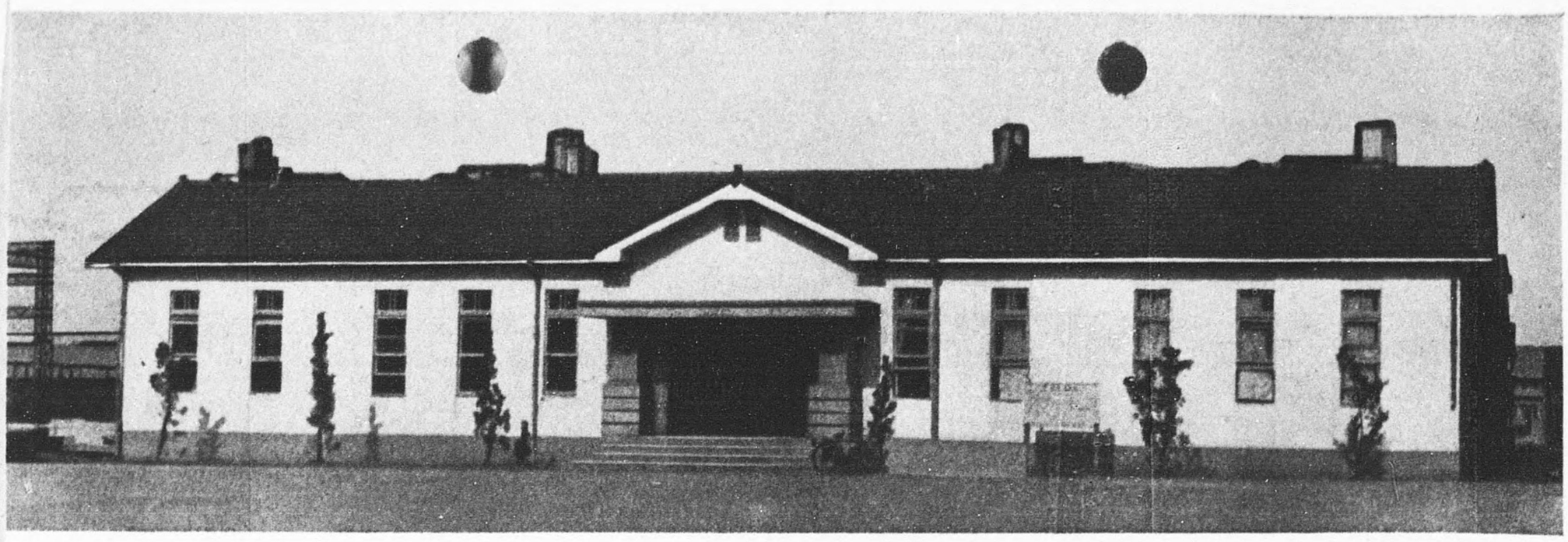
臭素工場



鹽酸合成室

原料製品關聯圖


石灰石
コークス
アンモニア
石炭
原塩
海水
アンモニア法ソーダ部門
余剰電力
電解法ソーダ部門
臭素部門
回収塩
水素
塩素
苛性ソーダ
合成塩酸
アルコール
臭素
珪砂
発煙硫酸
亜鉛滓
ベンゾール
消石灰
トルオール
ソーダ灰
苛性ソーダ
塩化アンモン
クロールスルホン酸
塩化亜鉛
塩化メチル
B・H・C
晒粉
塩化ベンヂール
臭化エチル
珪酸ソーダ
廃硫酸
メタノール
青化ソーダ
フエニール醋酸
(備考)
製品名
原料名



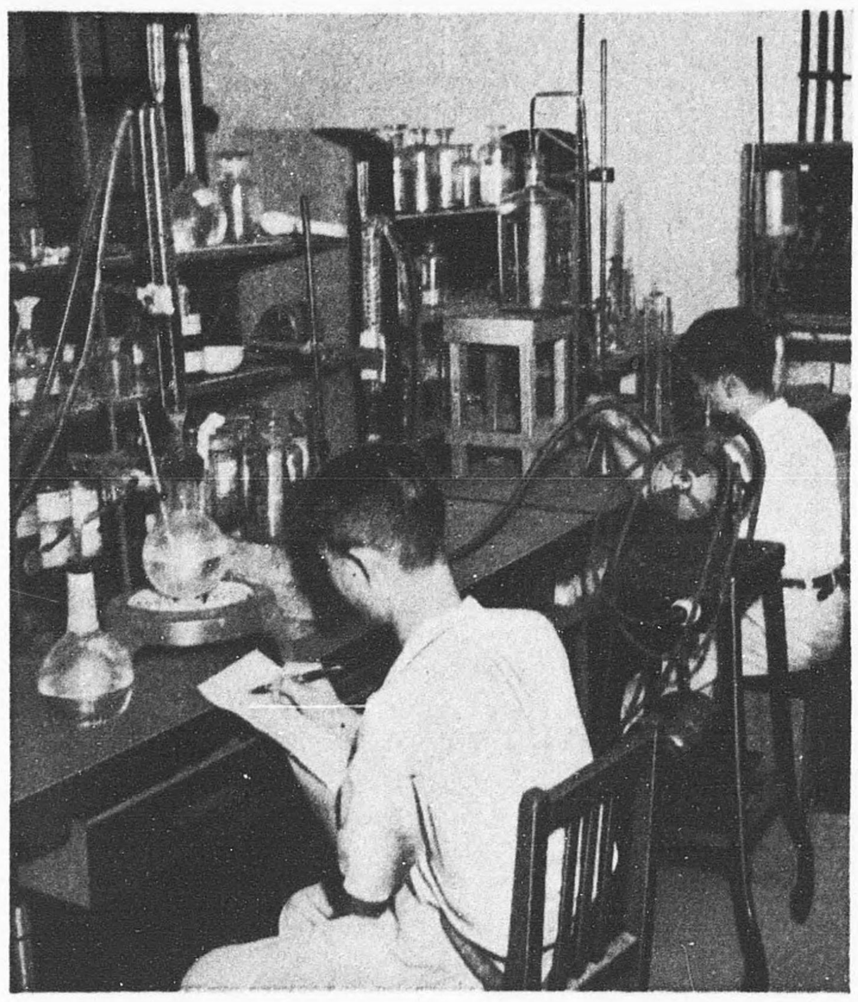
本社研究室

研究設備

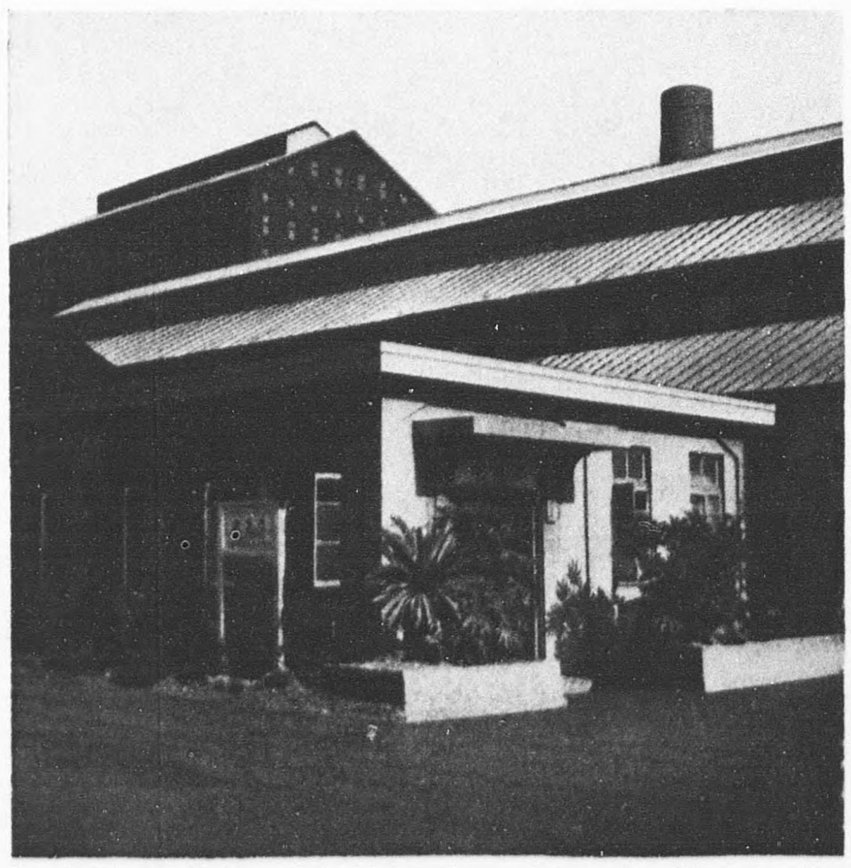
近代化學工業の進歩に對處するには不斷の研究が必要である。
當社は建坪534坪の研究室を工場内に有し、ソーダ工業の改良、進歩に努力を重ね鹽素及臭素の利用に關して研究を進めて來た。今後も新製品の研究、品質及原單位の向上等更に高度の科學技術を應用する研究に邁進することを期している。

勞務情況

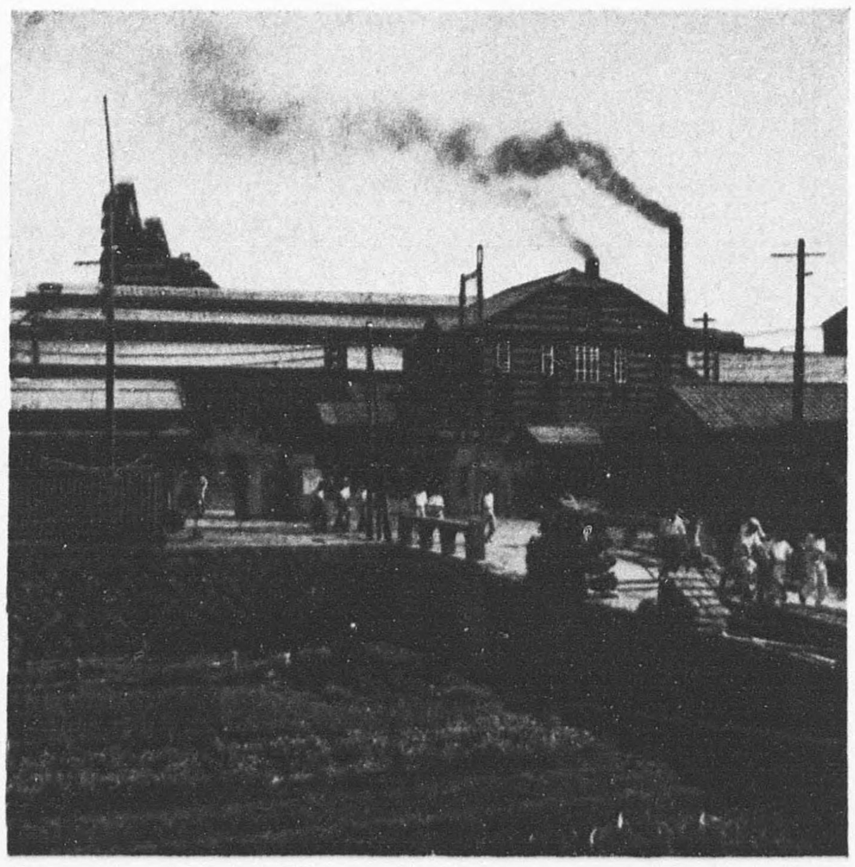
現下各産業會社は過剩人員に惱んで居るが、當社は、ア法工場の再開に當り最小限度の人員を補充し、現在從業員約1,200名でア法ソーダ、電解ソーダ、臭素其他關聯各製造工場の多角經營に最も理想的な人員配置が行われた。
當社勞働組合は昭和21年設立以來健全な發達を辿り勞資良く協調を保ち、未だかつて一回も勞資間の紛爭を起したことがない。昭和22年12月天皇中國御巡幸の際特に行幸の光榮に浴したことは當工場が賠償指定に屈せず産業復興に勞資協調した點に鑑みられた次第の由である。



研究室の一部



工場内診療所



正面附近

製品一覧表

品名	化學式	種類	品質	用途	容器	中味重量
ソーダ灰	Na_2CO_3	輕灰 重灰	99%以上	硝子工業　食料品工業、無機藥品工業、其他諸工業	麻袋 紙袋	70瓩 100瓩 40瓩
アル法苛性ソーダ	NaOH	固型	97%以上	纖維工業、製紙パルプ工業、有機藥品工業　油脂工業、其他諸工業	ドラム罐	300瓩
	〃	液體	標準45%		タンク車 タンク船	
電解苛性ソーダ	NaOH	固型	95%以上		ドラム罐	300瓩
	〃	液體	標準45%		タンク車 タンク船	
珪酸ソーダ	$xSiO_2yNa_2O$	1號	ボーメ59度以上	接着劑、石鹸製造用 其他諸工業	ドラム罐	330瓩
	〃	2號	ボーメ40度以上		ドラム罐	270瓩
合成鹽酸	HCl		35%以上	食料品工業用、醫藥品工業用其他諸工業	甕 タンク船	30瓩
クロールスルホン酸	$HClSO_3$		95%以上	醫藥品(スルファミン劑)原料 化成品用（サッカリン及び染料中間物等）	磁製瓶	17瓩
鹽化亞鉛	$ZnCl_2$		99%以上	紡績用糊防腐劑、鍍金用 活性炭素原料、乾電池用	石油罐	25瓩
鹽化メチル	CH_3Cl		99.6%以上	冷媒、醫藥品原料	鐵製ボンベ	25瓩 50瓩
晒粉	$CaCl_2$ $Ca(OCl)_22H_2O$		有効鹽素 32%以上	漂白劑、消毒劑、工業藥品製造用	木箱	45瓩
BHC	$C_6H_6Cl_6$		γ體の含量12%以上	殺虫劑(農業用、家庭用)	木箱	35瓩
鹽化ベンジル	$C_6H_5CH_2Cl$		純度　98%以上 比重　1.107 14°C） 沸點　179°C	染料、醫藥品、香料原料	籐巻硝子瓶	20瓩
フエニール醋酸	$C_6H_5{\cdot}CH_2COOH$		融點　76－78°C	ペニシリン製造用、香料原料	洋樽	20瓩
臭素	Br_2		99%以上	醫藥品原料、染料原料、寫眞藥品原料	磁製瓶	25瓩
臭化エチル	$C_2H_5Br_2$		99.7%以上 沸點　38°C	染料香料原料、ズルチン原料	磁製瓶	14瓩
鹽化アンモニウム	NH_4Cl	工業用	99.5%以上	鍍金用、染色用	木箱	50瓩
	〃	肥料用	アンモニア性窒素 25%以上	秋落水田肥料、 纖維植物肥料として特效	紙袋	30瓩（8貫目）

TSK

東洋曹達工業株式会社

本社及工場　山口縣都濃部富田町4560番地
（電話）德山局 247, 248　富田局 230, 231, 232
東京支社　東京都港區芝田村町2丁目8番地（櫻田館）
（電話）銀座(57) 1963, 7254, 7280, 7336
大阪支店　大阪市東區北濱2丁目90番地（日產生命館）
（電話）北濱(23) 3137, 3138, 3139

SECTION 1C

DATE	SUBJECT	ISSUING HEADQUARTERS & INDORSEMENTS

SECTION 1D

DATE	SUBJECT	ISSUING HEADQUARTERS & INDORSEMENTS

DECLASSIFIED E.O. 12065 SECTION 3 (b)(1) NND 760030

SECTION 1E

DATE	SUBJECT	ISSUING HEADQUARTERS & INDORSEMENTS

SECTION 1F

DATE	SUBJECT	ISSUING HEADQUARTERS & INDORSEMENTS

SECTION II.

DATE	SUBJECT	ISSUING HEADQUARTERS & INDORSEMENTS
3 Jan. 50	Reconversion Permit for Reparations Plant	SCAP/ ESS
20 Jan. 50	Reopening of Solvay Plant of Toyo Soda for Resuming Proluction of Soda Ash	Toyo Soda Manufacturing Co. Ltd.
21 Jan. 50	Repair of Reparations Equipment	C.C.A.R. - Basic
25 Jan. 50	Reparations Data	Tonda Plant, Toyo Soda Kogyo K.K.
13 Apr. 50	Repair of Reparations Equipment	CCAR - Basic
4 May 50	Application for Conversion of Designated Reparations Plant	Toyo Soda Mfg. Co. Yamaguchi Pref
2 Aug. 50	Repair of Reparations Equipment at Plant 45-16	CCAR - Basic
10 Aug. 50	Transmittal of Reconversion Permit	SCAP/ESS
10 Aug. 50	Reconversion Permit for Reparations Plant, R.A.R. No. 640 (MS)	SCAP/ESS
August 50	General Information	Toyo Soda Mfg. Co. Ltd.
19 Sep. 50	Repair of Reparations Equipment at Plant 45-16	CCAR - Basic
16 Nov. 50	Report on Completion of Repairs and Imporvements on Reparations Equipment at Plant 45-16	Toyo Soda Co. Ltd.
17 Nov. 50	Application for Conversion of Designated Reparations Plant	Toyo Soda Mfg. Co. Ltd.
6 Dec. 50	Repair of Reparations Equipment at Plant 45-16	C.C.A.R. * Basic
29 Dec. 50	Repair of Reparations Equipment	CCAR - Basic
3 Feb. 51	Telegram	Toyo Soda Co. Ltd.
6 Feb. 51	Expansion of Electrolytic Caustic Soda Plant	Toyo Soda Co. Ltd.
26 Feb. 51	Application for Conversion of Designated Reparations Plant to Increase Bleaching Powder Production	Toyo Soda Mfg. Co., Ltd.
26 Feb. 51	Application for Conversion of Designated Reparations Plant to Increase Authorized Quantity of Production	Toyo Soda Mfg. Co., Ltd.
26 Feb. 51	Transmittal of Reconversion Permit	SCAP/ESS
26 Feb. 51	Application for Conversion of Designated Reparations Plant to Increase Bleaching Powder Production	Toyo Sods Mfg. Co., Ltd.

SECTION II. Use of Installation and/or Equipment

HEAD OFFICE & FACTORY,
4560 TONDA-CHO,
YAMAGUCHI-KEN,
JAPAN.

TOYO SODA MFG. COMPANY, LTD.

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
OSAKA BRANCH,
NISSAN SEIMEI-KAN, KITAHAMA,
HIGASHI-KU, OSAKA.

26 February 1951

TO; Governor,
Yamaguchi Prefecture.

FROM; Nobuyoshi Yamaguchi,
Managing Director,
Toyo Soda Kogyo K.K.
Address: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

Subject:- Application for Conversion of Designated Reparations Plant to Increase Bleaching Powder Production.

Sir,

Attached herewith is an application for permission to increase the quantity of output of bleaching powder utilizing a part of designated reparations facilities of plant 45-16. The use of the particular reparations facilities and the manufacture of bleaching powder itself had been duly authorized. The application is submitted in accordance with provisions of SHOKO-No.208 and 25-KI-No.5644 and we beg for your kind consideration and approval.

Respectfully yours,

N. Yamaguchi.
NOBUYOSHI YAMAGUCHI,
Managing Director,
Toyo Soda Kogyo K.K.

Incls:
1 Application for Conversion of Designated Reparations Plant.
2 Copy of Authorization to manufacture zinc chloride.
3 Copy of Permit to manufacture bleaching powder.
4 Copy of Reconversion Permit for Tonda Plant 45-16.
5 Copy of Authorization to Continue Operation for Tonda Plant 45-11.

45-16

II

DECLASSIFIED E.O. 12065 SECTION 3 102, MRS NO.

HEAD OFFICE & FACTORY,
4560 TONDA-CHO,
YAMAGUCHI-KEN,
JAPAN.

TOYO SODA MFG. COMPANY, LTD.

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
OSAKA BRANCH,
NISSAN SEIMEI-KAN, KITAHAMA,
HIGASHI-KU, OSAKA.

26 February 1951

TO: Minister,
International Trade and Industry.

FROM: Keisuke Sadanaga, President,
Toyo Soda Kogyo K.K.
Address: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

Subject:- Application for Conversion of Designated Reparations Plant

1. Name of Plant(Code No.):

Japanese: Tonda Kojo, Toyo Soda Kogyo K.K.

English : Tonda Plant, Toyo Soda Manufacturing Co.,Ltd.

Code No: 45-16

2. Location of Plant:

4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

3. Category:

Chemical Division(Soda Ash)

(Planned production is to use only a building and the ground belonging to the plant 45-16 and the actual productive operation including the chief raw material, Chlorine, is more closely connected with the Electrolytic plant(45-11).

4. Name of Item Whose Production is Planned:

Item		Annual Production (MT)
Bleaching Powder	Presently	936 (Authorized) 2184 (Actual capacity)
Bleaching Powder	Planned	4368

5. Additional Reparations Items Needed for the Above Production:

None

Notes:

1) Equipment involved in the planned production:

The reparations equipment involved in the planned production is one building only, the rest of the

equipment being all EX installations.

(a) Reparations item involved- one building:

The particu;ar building is listed in the Table of Evaluation Details of Soda Ash plant 45-16, line 7, p.56. The building is under authorized use.

(b) Machinery and equipment for production of bleaching powder(All EX installations):

Present capacity	182 MT a Month 2.184 MT a year
Planned Capacity of expansion project	182 MT a Month 2.184 MT a year
Total Capacity after expansion completed	364 MT a Month 4.368 MT a year

2) History of the building:

The building had been used to manufacture zinc chloride for two years under authorization for its temporary use granted by the Yamaguchi Military Covernment Team on 24 March 1947. The undertaking, which was carried out at the company's own expenses in installing the necessary machinery and equipment, was discontinued in March 1949. In August 1948, one-half section of this building has been in use for the production of Bleaching Powder. The temporary use of the building for this purpose was granted by the Yamaguchi Mil. Gov'nt Team under date 6 August 1948.

6. Reasons Why Conversion(increasing the quantity of production) is Necessary:

1) Increases in the demand for Bleaching Powder.

A steady increase in the demand for Bleaching Powder enhanced by greatly activated rayon, pulp, paper and spinning mills has made the existing production capacity of the company's installation unequal and far too small to meet the demand.

The demand for the Bleaching Powder handled by Toyo Soda during the month of February,1951, shows:-

Consumers	Location		Orders placed with Toyo Soda (MT)
Nippon Shigyo(Paper)Co. Oeiso Plant	Yamaguchi	Pref.	70.000
Teikoku Jinken(Rayon)Co. Iwakuni Plant	"	"	40.000
Kanegafuchi Spinning Co. Bofu Mill	"	"	20.000
Miteugi Seishi(Paper) Co.	Hiroshima	Pref.	30.000
Taiyo Seishi(Paper) Co.	Tottori	Pref.	30.000
Jujyo Seishi(Paper) Co. Kokura Plant	Fukuoka	Pref	50.000
Goda Seishi(Paper) Co.	Ehime	Pref	25.000
Koyo Seishi(Paper) Co.	Hyogo	Pref	25.000
Hokuetsu Pulp Co.	Niigata	Pref	40.000
Toyo Boseki(Spinning) Co. Osaka Mill	Osaka		20.000
Nippon Paper Processing Co.	Kyoto		35.000
Kokoku Rayon Co. Toyama Plant	Toyama	Pref	20.000
		Total	405.000

Prospects are that the present trend of increasing demand is likely to continue.

2) The raw materials required for the production of Bleaching Powder:

All the necessary raw materials for the bleaching powder production are of domestic origin and outside the controlled materials. These materials are also readily available to Toyo Soda plant.

(a) Chlorine, the principal raw material, is a by-product of the Electrolytic Caustic Soda plant operated by the company. The present capacity of the Electrolytic plant to produce Caustic Soda is 416 MT a month(Maximum Capacity 540 MT a month) and 366 MT(Maximum Capacity 475 MT) of Chlorine is by-produced per month. Chlorine requirement for the production of 364 tons of Bleaching Powder a month is 138 tons.

(b) Slaked lime(dried), which is another important raw material for bleaching powder production, is obtainable from lime kilns operated in Yamaguchi and Kochi Prefectures. The supply of this item is abundant and there is no uncertainity as to its supply.

DECLASSIFIED Authority NND 745027 By NARS, Date 12/18/07

Remarks:

1) Materials required for the projected expansion of the company's Bleaching powder factory facilities are obtainable from the company's own stockpiles.

2) All the expenses required incidental to the expansion project will be borne by the company.

3) List of reparations machinery and equipment is not attached as their use is not contemplated.

For the President, Toyo Soda Kogyo K.K.

N. Yamaguchi.
NOBUYOSHI YAMAGUCHI,
Managing Director,
Toyo Soda Kogyo K.K.

DECLASSIFIED E.O. 11652 SECTION 3 (E)(2), MAR 8, 1977

Application for Permission to Convert or Reconvert Part of a Designated Reparations Plant

TO: Commander,
The Eighth Army.

FROM: C. Hashimoto,
Toyo Soda Kogyo Kaisha,
4560 Tonda, Tokuyama, Yamaguchi-ken. March 19th, 1947

(1) Name of Plant: Toyo Soda Kogyo Kaisha, Ltd.

(2) Location of Plant: 4560 Tonda, Tokuyama, Yamaguchi-ken.
(A former Caustic Soda Finishing Section of the Solvay Process Soda Ash Plant)

(3) Name of Product Planned: Zinc Chloride

(4) Experience of the Production Planned: Indirectly experienced through a cooperating company.

(5) 1939- 1945 production:
(This particular building is one of the four Caustic Soda Finishing Sections of the Solvay Process Soda Ash Plant, and has never been used since 1942. The total production of Caustic Soda of the whole Solvay plant is shown below)

1939	76,913 tons	1943	16,880 tons
1940	73,043 "	1944	2,009 "
1941	51,512 "	1945	0
1942	20,444 "		

Scale of production planned by month for period on this application:

25 tons per month.

(7) Period of desired permission: 2 years

(8) Plan and location to continue the production after reparations removal:

To continue on the same spot, replacing a new building over the Zinc Chloride equipment, in case the present building was removed.

(9) Scale of proposed changes in physical facilities:
None except removal of remains of completely tornout hearthes. The Caustic Soda Finishing Pots had been removed elsewhere in and immediately after 1942.

C O P Y

(10) Intended Expense for Conversion or Reconversion:

Yen 213,000.

(11) Name or Location to Which Product is to be Delivered:

Battery manufacturers, Textile mills, Activated Carbon manufacrurers, Zinc gilders, etc. in Osaka, Kobe, Kyoto, Nagoya, Tokyo, Otaru, Fukuoka, etc.

s/ C. HASHIMOTO
Managing Director,
Toyo Soda Kogyo Kaisha Ltd.

---

24 Mar 47

Authorization is granted for manufacture of above named product, and for use of above listed bldg.

Auth: Verbal orders, CHUGOKU MG Hq 8th ARMY

s/ FRANCIS T. JUSTICE,
Major, CE

COPY

HEAD OFFICE & FACTORY.
4560 TONDA-CHO,
YAMAGUCHI-KEN,
JAPAN.

TOYO SODA MFG. COMPANY, LTD.

TOKYO BRANCH.
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU.
OSAKA BRANCH.
NISSAN SEIMEI-KAN, KITAHAMA.
HIGASHI-KU, OSAKA.

August 3, 1948

Major Frederick C. Wiggins,
Commerce and Industry Section,
Yamaguchi Mil. Gov'nt Team.

Subject:- Application for Permission for Use of Designated Building in the Solvay Plant

Sir,

We beg to request your permission for utilizing by us the unused portion of the undermentioned building located in our Solvay soda plant for the manufacture of bleaching powder.

The building, which is one of the four structures formerly used for caustic soda finishing processes and marked for reparations, is at present partly used by us for manufacture of zinc chloride by virtue of authorization granted by the Yamaguchi Military Gov'nt Authorities under date March 29, 1947. Only one-half of the building is being used for the zinc chloride manufacture with the other half remaining unused. We wish to utilize this remaining one-half portion of the structure for bleaching powder manufacture.

We are being motivated to undertake the bleaching powder making to find a way out to diminish damage to rice plants in the paddy fields in the immediate neighbourhood of the electrolytic plant by chlorine gas produced by it during the caustic soda manufacturing processes. The bulk of the gas will be utilized and absorbed in the manufacture of bleaching powder, and we expect that the chlorine gas damage to the rice plants would be greatly diminished, if not eliminated completely. The company has been receiving complaints from affected farmers regarding the chlorine gas damage. We are planning to produce 78 tons of bleaching powder a month when authorized.

We shall be deeply grateful to you, sir, for your kind consideration, we remain, sir,

Yours most respectfully,

s/ J. FURUUCHI
Director i/c Gen. Affrs.

---

6 Aug 48
APPROVED
Signed: FREDERICK C. WIGGINS,
Major, CMP
Economic Officer,
Y.M.G.T.

DECLASSIFIED E.O. 11652 SECTION 3 (E)(2), NARS DATE 12-18-75

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section
APO 500

3 January 1950

387.6(3 Jan 50) ESS/IND

INFORMAL MEMORANDUM FOR: Reparations Agency, Tokyo.

SUBJECT : Transmittal of Reconversion Permit

1. Reference is R.B.R.No.68(MS), dated 6 October 1949, subject: Supplementary Reconversion Application of the Tonda Plant, Toyo Soda Kogyo K.K.(45-16).

2. The attached Reconversion permit for the Tonda Plant, Toyo Soda Kogyo K.K. is transmitted for your action.

3. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. GLASS
Chief, Industry Division

1 incl: Reconversion Permit

C O P Y

DECLASSIFIED E.O. 11652 SECTION 3 (E)(2) NARS DATE

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section

3 January 1950

SUBJECT: Reconversion Permit for Reparations Plant.

TO : Toyo Soda Kogyo K.K.

1. In accordance with Memorandum from the Supreme Commander for the Allied Powers to the Japanese Government, dated 22 November 1946(SCAPIN-1355), the Toyo Soda Kogyo K.K. is permitted to produce at their Tonda Factory located at 4560 Tonda, Tokuyama-shi, Yamaguchi the following items.

Item	Maximum quantity
1. Crude Soda Ash	310 MT per day
2. Soda Ash	100 MT per day
3. Caustic Soda	175 MT per day

(Nothing Follows)

2. The temporary use of the following additional reparations machinery is authorized:

See attached list of 876 items.

3. A program will be immediately initiated to substitute non-reparations machinery for reparations machinery in temporary use.

4. The acquisition of material, parts and sub-assemblies as well as the disposition of finished products and the establishment of sales prices will be in accordance with the regulations of the Japanese Government.

5. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. GLASS
Chief, Industry Division

C O P Y

DECLASSIFIED E.O. 12065 SECTION 3 (b)(1) NND 963001

HEADQUARTERS EIGHTH ARMY
United States Army
Office of the Commanding General
APO 343

19 Oct. 1946

AG 004.04(MG)

SUBJECT: Toyo Soda Kogyo K.K., Authorization to continue operation temporarily.

TO : Commanding Officer, Chugoku Military Government Region, APO 317

1. Reference is made to the telephone conversation Captain Valentine, this Headquarters, and Major Nance, Chugoku Military Government Region.

2. The Japanese Government has issued orders to the Toyo Soda Kogyo K.K., Tokuyama, Yamaguchi-ken, to close their plant 20 October 1946.

3. It is authorized that this installation be permitted to continue its present operation and production temporarily for the production of consumer goods until such time as instructions are issued by this Headquarters for its complete shut down.

BY COMMAND OF LIEUTENANT GENERAL EICHELBERGER:

/s/ R. Schafer

/t/ R. SCHAFER
Lt. Col., AGD
Asst. Adjutant General

COPY

DECLASSIFIED E.O. 11905 SECTION 3 (E), NARS NOV

45-16 II

HUGOKU INFORMATION: MAR - 9 1951 O.D.

ECONOMICS
CHIEF
D.&I.
N.R.
LABOR
FILE

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section
APO 500

MWH/WT/yt

387.6(26 Feb 51)ESS/IND 26 February 1951

MEMORANDUM FOR: Reparations Agency, Tokyo

SUBJECT: Transmittal of Reconversion Permit

1. Reference is R.A.R. No. 1903(MS), 25 December 1950, subject: Supplementary Application for Reconversion of Tonda Plant (Code No. 45-16), Tokyo Soda Kogyo K.K.

2. The attached Reconversion Permit for the Toyo Soda Kogyo kk Tonda Plant is transmitted for your action.

3. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

1 Incl
Reconversion Permit.
(dup)

MAURICE M. CLASS
Chief, Industry Division

Cys furnished:
CA Sec (dup)
CHS
G-2 Capt. Head, Targets Branch (Recon Perm only)
CPC (Recon Perm only) (dup)

MEMO FOR RECORD:

The above ltr is self-explanatory.

W. A. Thurman, 26-8485 M. M. C.

45-16 II

364

DECLASSIFIED E.O. 12065 SECTION 3 (E)(2), MDS 6/1

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section

26 February 1951
Date

SUBJECT: Reconversion Permit for Reparations Plant RAR No. 1903 (MS)

TO: Toyo Soda Kogyo K.K. (45-16)

1. In accordance with Memorandum from the Supreme Commander for the Allied Powers to the Japanese Government, dated 22 November 1946 (SCAPIN-1355), the Toyo Soda Kogyo K.K. is permitted to produce at their Tonda Plant Factory located at 4560, Tonda-cho, Tsuno-gun, Yamaguchi Pref. the following additional items:

Item	Maximum Quantity
Soda Ash	unlimited

- nothing follows -

2. The temporary use of the following additional reparations machinery is authorized:

None

- nothing follows -

3. A program will be immediately initiated to substitute non-reparations machinery for reparations machinery in temporary use.

4. The acquisition of material, parts and sub-assemblies as well as the disposition of finished products and the establishment of sales prices will be in accordance with the regulations of the Japanese Government.

5. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. CLASS
Chief, Industry Division

DECLASSIFIED E.O. 12065 SECTION 3 (E), MR 96-1

copy (正)

HEAD OFFICE & FACTORY.
4560 TONDA-CHO,
YAMAGUCHI-KEN,
JAPAN.

TOYO SODA MFG. COMPANY, LTD.

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
OSAKA BRANCH,
NISSAN SEIMEI-KAN, KITAHAMA,
HIGASHI-KU, OSAKA.

26 February 1951

TO: Governor,
Yamaguchi Prefecture.

FROM: Nobuyoshi Yamaguchi,
Managing Director,
Toyo Soda Kogyo K.K.
Address: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

Subject:- Application for Conversion of Designated Reparations Plant to Increase Authorized Quantity of Production.

Sir,

Attached herewith is our application for conversion of designated reparations plant to increase authorized quantity of production. Installation of additional 64 electrolytic cells to our electrolytic caustic soda plant(Code No.45-11) is desired in order to increase the output of the plant. The application is submitted in accordance with provisions of SHOKO-No.208 and 25-KI-No.5644 and we beg for your kind consideration and approval.

Respectfully yours,

N. Yamaguchi.
NOBUYOSHI YAMAGUCHI,
Managing Director,
Toyo Soda Kogyo K.K.

MANUFACTURING AND PRODUCTION
FILE 45-11 (16)

Incls:
1 Application for Conversion of Designated Reparations Plant
2 Copy of Authorization to Continue Operation of Tonda Plant 45-11
3 Copy of Reconversion Permit for Tonda Plant 45-16
4 Copy of Permit for Repair and Improvement of 2 Turbines
5 Copy of Permit for Repair and Improvement of Vacuum Evaporators

DECLASSIFIED E.O. 12065 SECTION 3 (E)(1) NND 969

HEAD OFFICE & FACTORY,
4560 TONDA-CHO,
YAMAGUCHI-KEN,
JAPAN.

TOYO SODA MFG. COMPANY, LTD.

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
OSAKA BRANCH,
NISSAN SEIMEI-KAN, KITAHAMA,
HIGASHI-KU, OSAKA.

26 February 1951

TO: Minister,
International Trade and Industry.

FROM: Keisuke Sadannga, President,
Toyo Soda Kogyo K.K.
Address: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

Subject:- Application for Conversion of Designated Reparations Plant.

1. Name of Plant(Code No.):

Japanese: Tonda Kojo, Toyo Soda Kogyo K.K.

English: Tonda Plant, Toyo Soda Manufacturing Co.,Ltd.

Code No: 45-11

2. Location of Plant:

4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

3. Category:

Chemical Division(Caustic Soda)

4. Name and Quantity of Item Whose Production is planned:

Item		Monthly Production (MT)
Caustic Soda	Presently	416(Max. Capacity 540)
Caustic Soda	Planned	624(Max. Capacity 810)

5. Additional Reparations Items Needed for the Above Production:

None

Remarks: Following equipment are to be used for the above planned production:-

1) All the equipment and facilities of the Electrolytic Caustic Soda Plant (45-11) which are presently under authorized use.

2) Sixty-four(64) additional electrolytic cells, which are to be installed at the expenses of the applicant and the non-reparations equipment for the manufacture of Chlorine derivatives.

6. Necessity for Conversion(Increasing the Quantity of Output):

1) Increased demands for Caustic Soda, Chlorine and Chlorine Derivatives in the Chugoku Area and existing deficiency of supply.

Generally reactivated chemical industries in Japan calls for an increased supply of soda products and chlorine. Particularly true is the situation in the Chugoku area, where there are numerous rayon plants which are stepping up their production and plans for large-scale increased production of pulp. Against this actual and anticipated demands there are only two electrolytic caustic soda plants, including Toyo Soda, able to supply chlorine and various chlorine derivatives. There is no plant at present in the area producing liquid chlorine required for disinfecting service water. Expansion of Electrolytic plant of Toyo Soda to raise its production level, therefore, is strongly desired by the consumers.

2) Toyo Soda's strength to meet short-supplies of raw materials, particularly salt and power.

Since Toyo Soda operates their electrolytic plant in conjunction with a Solvay-process plant they are in position to utilize a part of idle equipment of their Solvay-process unit(45-16) to produce the raw material, sodium chloride, for their electrolytic unit when authorized to do so.

for instance, the Solvay-process unit of Toyo Soda is equipped with 9 Babcock & Wilcox Boilers(evaporation 245 MT per hour each), 8 power generators(including back-pressure turbo-generators 32,000 KW and bleeding condensing turbo-generators 2,200 KW) and 61 vacuum evaporators(caustic soda condensing capacity 320 MT a day each). At present only about 30 per cent of these equipment are being operated.

When a situation wherein it is difficult to obtain the chief raw materials, salt and power, arises in future Toyo Soda is able to undertake self-supply of these items by utilizing now idle equipment of their Solvay unit. About 600 tons of Sodium Chloride(equivalent to 550 tons of Caustic Soda) per month can be produced in this way. Concurrently 1,200,000 KWH of power will be generated in the manufacturing process. Furthermore, the equipment of the Solvay process unit of Toyo Soda are well maintained in accordance with the mantenance directives of the Japanese Government(Shoko-Kyoku Shorei No.1) and ,therefore, readily available for operation.

3) Materials required for enlarging the capacity of the electrolytic plant by 50 per cent are readily available to the plant.

For the expansion of their electrolytic plant, Toyo Soda needs to procure 64 electrolytic cells and equipment for manufacture of chlorine derivatives only. These materials are easily procurable domestically and no official allocations are required. Part of the required materials

DECLASSIFIED Authority NND 760036 By NARA Date 12/22/76

can be drawn from the company's own stockpiles. Electric equipment, transformers, converters etc, which are difficult to procure within the country readily and involving considerable outlays of capital are not required for the 64 additonal cells to be installed for the existing equipment at the plant are able to take care of them.

Notes:

1) 2 turbo-generators, 1,500 KW each, were made into bleeding and condensing type of 2,200 KW each. (Repair and improvement for this purpose were authorized by Hq. Chugoku Civil Affairs Region under date of 21 Jan. 1950 and 13 April 1950)

2) 21 vacuum evaporators have been repaired and improved with permission granted by Hq. Chugoku Civil Affairs Region dated 29 December 1950.

7. All the expenses incidental to the installation of 64 additional cells shall be borne by the applicant.

8. No list of reparations items is attached herewith since use of additional reparations equipment is not necessary.

For President, Toyo Soda Kogyo K.K.

H. Yamaguchi.

HOSUYOSHI YAMAGUCHI,
Managing Director,
Toyo Soda Kogyo K.K.

HEADQUARTERS EIGHTH ARMY
United States Army
Office of the Commanding General
APO 343

19 Oct. 1946

AG 004.04(MG)

SUBJECT: Toyo Soda Kogyo K.K., Authorization to continue operation temporarily.

TO : Commanding Officer, Chugoku Military Government Region, APO 317

1. Reference is made to the telephone conversation Captain Valentine, this Headquarters, and Major Mance, Chugoku Military Government Region.

2. The Japanese Government has issued orders to the Toyo Soda Kogyo K.K., Tokuyama, Yamaguchi-ken, to close their plant 20 October 1946.

3. It is authorized that this installation be permitted to continue its present operation and production temporarily for the production of consumer goods until such time as instructions are issued by this Headquarters for its complete shut down.

BY COMMAND OF LIEUTENANT GENERAL EICHELBERGER:

/s/ R. Schafer

/t/ R. SCHAFER
Lt. Col., AGD
Asst. Adjutant General

COPY

X 7273

DECLASSIFIED E.O. 12065 SECTION 3 NND/MNO NO.

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section
APO 500

3 January 1950

337.6(3 Jan 50) ESS/IND

INFORMAL MEMORANDUM FOR: Reparations Agency, Tokyo.

SUBJECT : Transmittal of Reconversion Permit

1. Reference is R.R.A.No.68(Ma), dated 6 October 1949, subject: Supplementary Reconversion Application of the Tonda Plant, Toyo Soda Kogyo K.K.(45-16).

2. The attached Reconversion Permit for the Tonda Plant, Toyo Soda Kogyo K.K. is transmitted for your action.

3. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. OLMS
Chief, Industry Division

1 incl.
Reconversion Permit

X 7 0 5

DECLASSIFIED E.O. 12065 SECTION 3 (E)(2)(B) By [illegible]

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section

3 January 1950

SUBJECT: Reconversion Permit for Reparations Plant.

TO : Toyo Soda Kogyo K.K.

1. In accordance with Memorandum from the Supreme Commander for the Allied Powers to the Japanese Government, dated 22 November 1946(SCAPIN-1355), the Toyo Soda Kogyo K.K. is permitted to produce at their Tonda Factory located at 4560 Tonda, Tokuyama-shi, Yamaguchi the following items:

Item	Maximum Quantity
1. Crude Soda Ash	310 MT per day
2. Soda Ash	100 MT per day
3. Caustic Soda	175 MT per day

(Nothing Follows)

2. The temporary use of the following additional reparations machinery is authorized:

See attached list of 878 items.

3. A program will be immediately initiated to substitute non-reparations machinery for reparations machinery in temporary use.

4. The acquisition of material, parts and sub-assemblies as well as the disposition of finished products and the establishment of sales prices will be in accordance with the regulations of the Japanese government.

5. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE E. GLADE
Chief, Industry Division

COPY

DECLASSIFIED E.O. 11652 SECTION 3 (E)(2), MRS NO.

HEADQUARTERS
CHUGOKU CIVIL AFFAIRS REGION
APO 248(Kure,Honshu)

13 April 1950

CCAR 386.3

MEMORANDUM FOR: Governor, Yamaguchi Prefecture

THROUGH : Chugoku Liaison and Coordination Office

SUBJECT : Repair of Reparations Equipment

1. Reference is inclosed application of Toyo Soda Manufacturing Company Ltd., 1 April 1950, subject: "Application for Permission for Making Repairs and Improvements on Equipment in Designated Plant."

2. Approval is granted for the repair of one turbine(111-A-2-4) as specified in referenced application. However, all cost of transportation to and from Mitsubishi Jukogyo K.K., Hiroshima City and all cost incidental to repair will be borne by the applicant and will not be charged to any reparations account.

FRANK KOWALSKI, JR
Colonel, Inf
Chief

1 incl

As indicated

COPY

DECLASSIFIED - E.O. 12356, SEC. 3.3, NND 760

HEADQUARTERS
CHUGOKU CIVIL AFFAIRS REGION
APO 248(Kure,Honshu)

13 April 1950

CCAR 386.3

MEMORANDUM FOR: Governor, Yamaguchi Prefecture

THROUGH : Chugoku Liaison and Coordination Office

SUBJECT : Repair of Reparations Equipment

1. Reference is inclosed application of Toyo Soda Manufacturing Company Ltd., 1 April 1950, subject: "Application for Permission for Making Repairs and Improvements on Equipment in Designated Plant."

2. Approval is granted for the repair of one turbine(111-A-2-4) as specified in referenced application. However, all cost of trsnportation to and from Mitsubishi Jukogyo K.K., Hiroshima City and all cost incidental to repair will be borne by the applicant and will not be charged to any reparations account.

FRANK KOWALSKI, JR
Colonel, Inf
Chief

1 incl
As indicated

COPY

DECLASSIFIED: E.O. 12958, Sec. 3.3

HEADQUARTERS
CHUGOKU CIVIL AFFAIRS REGION
APO 182

M/RFT/ ftk

29 December 1950

CCAR 386.3

MEMORANDUM FOR: Hiroshima International Trade and Industry Bureau

THROUGH : Chugoku Liaison and Coordination Office

SUBJECT : Repair of Reparations Equipment

1. Reference is application of Toyo Boda Manufacturing Company,Ltd., subject: "Application for Permission to Make Repairs and Improvements on Reparations Equipment", 11 December 1950 as transmitted by letter Hiroshima International Trade and Industry Bureau, 26 December 1950.

2. Approval is granted for repair and improvement of reparations equipment specified in referenced application.

3. All costs incidental to specified repair will be borne by the applicant and will not be charged to any reparations account.

FOR THE CHIEF:

WILLIAM M. KRANE
Lt Col. GS
Deputy Chief

A 7 0 0

DECLASSIFIED - Not Valid Unless Signed

Application for Permission to Make Repairs and Improvements on Designated Equipment at Reparations Plant

11 December 1950

1. Name of Designated Plant: Tonda Kojo, Toyo Soda Kogyo K.K.
(Tonda Plant, Toyo Soda Mfg. Co.,Ltd.)
Plant Code No.46-16.

2. Location of Plant: 4560 Tonda-cho,Tsuno-gun,Yamaguchi-ken.

3. Equipment Whose Repairs and Improvements are Desired:

a) Nomenclature: Evaporator, Vacuum

b) Designed capacity of each: Each set of 3 evaporators- 25 MT per day

c) No.of evaporators involved: 1-A-9-1-No.7
1-A-9-1-No.13
from 1-A-9-1-No.17 thru No.27
1-A-9-1-No.33
1-A-9-1-No.35
from 1-A-9-1-No.56 thru No.61 Total 21

4. Details of Repairs and Improvements Projected:

a) Worn-out parts of 6 evaporators(1-A-9-1-Nos.56-61) are to be replaced with corresponding and better parts of the evaporators Nos.2,6,8,12,16 and 30 in order to restore the efficiency of the six above listed evaporators.

b) Heating tubes and their accessories of the above listed 21 evaporators are to be replaced and refitted.

c) The six evaporators Nos.7,13,17,18,33 and 35 are to be made into two sets after each of them completely refitted.

5. Reasons Why Repairs and Improvements are Projected:

The projected repairs and improvements are expected to bring about the following:-

a) To cut down steam consumption required for evaporation of caustic soda liquid and to lower the production cost, and

b) To restore fully the designed capacity of 7 sets of triple-effect evaporators.

6. All the expenses incidental to the above repairs and improvements shall be borne by the applicant.

COPY

HEAD OFFICE & FACTORY,
4560 TONDA-CHO,
YAMAGUCHI-KEN,
JAPAN.

TOYO SODA MFG. COMPANY, LTD.

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
OSAKA BRANCH,
NISSAN SEIMEI-KAN, KITAHAMA,
HIGASHI-KU, OSAKA.

26 February 1951

TO: Governor,
Yamaguchi Prefecture.

FROM: Nobuyoshi Yamaguchi,
Managing Director,
Toyo Soda Kogyo K.K.
Address: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

Subject:- Application for Conversion of Designated Reparations Plant to Increase Bleaching Powder Production.

Sir,

Attached herewith is an application for permission to increase the quantity of output of bleaching powder utilizing a part of designated reparations facilities of Plant 45-16. The use of the particular reparations facilities and the manufacture of bleaching powder itself had been duly authorized. The application is submitted in accordance with provisions of SHOKO-No.208 and 25-KI-No.5644 and we beg for your kind consideration and approval.

Respectfully yours,

NOBUYOSHI YAMAGUCHI,
Managing Director,
Toyo Soda Kogyo K.K.

Incls:
1 Application for Conversion of Designated Reparations Plant
2 Copy of Authorization to manufacture zinc chloride
3 Copy of Permit to manufacture bleaching powder
4 Reconversion Permit for Tonda Plant 45-16.
5 Copy of Authorization to Continue Operation for Tonda Plant 45-11.

MANUFACTURING AND INDUSTRY
FILE 45-16
DOC II

HEAD OFFICE & FACTORY,
4560 TONDA-CHO,
YAMAGUCHI-KEN,
JAPAN.

TOYO SODA MFG. COMPANY, LTD.

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
OSAKA BRANCH,
NISSAN SEIMEI-KAN, KITAHAMA,
HIGASHI-KU, OSAKA.

26 February 1951

TO: Minister,
International Trade and Industry.

FROM: Keisuke Sadanaga, President,
Toyo Soda Kogyo K.K.
Address: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

Subject:- Application for Convereion of Designated Reparations Plant

1. Name of Plant(Code No.):

Japanese: Tonda Kojo, Toyo Soda Kogyo K.K.

English : Tonda Plant, Toyo Soda Manufacturing Co.,Ltd.

Code No: 45-16

2. Location of Plant:

4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

3. Category:

Chemical Division(Soda Ash)

(Planned production is to use only a building and the ground belonging to the plant 45-16 and the actual productive operation including the chief raw material, Chlorine, is more closely connected with the Electrolytic plant(45-11).

4. Name of Item Whose Production is Planned:

Item		Annual Production (MT)	
Bleaching Powder	Presently	28,470	(Authorized)
		66,430	(Actual Capacity)
Bleaching Powder	Planned	132,860	

5. Additional Reparations Items Needed for the Above Production:

None

Notes:

1) Equipment involved in the planned production:

The reparations equipment involved in the planned production is one building only, the rest of the

DECLASSIFIED E.O. 12065 SECTION 3 (E)(1) NSC Ltr.

equipment being all EX installations.

(a) Reparations item involved- one building:

The particu;ar building is listed in the Table of Evaluation Details of Soda Ash plant 45-16, line 7, p.56. The building is under authorized use.

(b) Machinery and equipment for production of bleaching powder(All EX installations):

Present capacity	182 MT a day
	66,430 MT a year
Planned Capacity of expansion project	182 MT a day
	66,430 MT a year
Total Capacity after expansion completed	364 MT a day
	132,860 MT a year

2) History of the building:

The building had been used to manufacture zinc chloride for two years under authorization for its temporary use granted by the Yamaguchi Military Government Team on 24 March 1947. The undertaking, which was carried out at the company's own expenses in installing the necessary machinery and equipment, was discontinued in March 1949. In August 1948, one-half section of this building has been in use for the production of Bleaching Powder. The temporary use of the building for this purpose was granted by the Yamaguchi Mil. Gov'nt Team under date 6 August 1948.

6. Reasons Why Conversion(increasing the quantity of production) is Neceasaryi

1) Increases in the demand for Bleaching Powder.

A steady increase in the demand for Bleaching Powder enhanced by greatly activated rayon, pulp, paper and spinning mills has made the existing production capacity of the company's installation unequal and far too small to meet the demand.

DECLASSIFIED E.O. 12065 SECTION 3 NND/MAS NO.

The demand for the Bleaching Powder handled by Toyo Soda during the month of February,1951, shows:-

Consumers	Location	Orders placed with Toyo Soda (MT)
Nippon Shigyo(Paper)Co. Gelbo Plant	Yamaguchi Pref.	70.000
Teikoku Jinken(Rayon)Co. Iwakuni Plant	" "	40.000
Kanegafuchi Spinning Co. Nofu Mill	" "	20.000
Mitsugi Seishi(Paper) Co.	Hiroshima Pref.	30.000
Taiyo Seishi(Paper) Co.	Tottori Pref.	30.000
Jujyo Seishi(Paper) Co. Kokura Plant	Fukuoka Pref	50.000
Oda Seishi(Paper) Co.	Ehime Pref	25.000
Koyo Seishi(Paper) Co.	Hyogo Pref	25.000
Hokuetsu Pulp Co.	Niigata Pref	40.000
Toyo Boseki(Spinning) Co. Osaka Mill	Osaka	20.000
Nippon Paper Processing Co.	Kyoto	35.000
Kokoku Rayon Co. Toyama Plant	Toyama Pref	20.000
	Total	405.000

Prospects are that the present trend of increasing demand is likely to continue.

2) The raw materials required for the production of Bleaching Powder:

All the necessary raw materials for the bleaching powder production are of domestic origin and outside the controlled materials. These materials are also readily available to Toyo Soda plant.

(a) Chlorine, the principal raw material, is a by-product of the Electrolytic Caustic Soda plant operated by the company. The present capacity of the Electrolytic plant to produce Caustic Soda is 416 MT a month(Maximum Capacity 540 MT a month) and 366 MT(Maximum Capacity 475 MT) of Chlorine is by-produced per month. Chlorine requirement for the production of 364 tons of Bleaching Powder a month is 138 tons.

(b) Slaked lime(dried), which is another important raw material for bleaching powder production, is obtainable from lime kilns operated in Yamaguchi and Kochi Prefectures. The supply of this item is abundant and there is no uncertainity as to its supply.

DECLASSIFIED E.O. 12065 SECTION 3 (E)(1) NARS DATE

Remarks:

1) Materials required for the projected expansion of the company's Bleaching Powder factory facilities are obtainable from the company's own stockpiles.

2) All the expenses required incidental to the expansion project will be borne by the company.

3) List of reparations machinery and equipment is not attached as their use is not contemplated.

For the President, Toyo Soda Kogyo K.K.

NOBUYOSHI YAMAGUCHI,
Managing Director,
Toyo Soda Kogyo K.K.

DECLASSIFIED E.O. 12065 SECTION 3 NND 963057

Application for Permission to Convert or Reconvert Part of a Designated Reparations Plant

TO: Commander,
The Eighth Army.

FROM: C. Hashimoto,
Toyo Soda Kogyo Kaisha,
4560 Tonda, Tokuyama, Yamaguchi-ken. March 19th, 1947

(1) Name of Plant: Toyo Soda Kogyo Kaisha, Ltd.

(2) Location of Plant: 4560 Tonda, Tokuyama, Yamaguchi-ken.
(A former Caustic Soda Finishing Section of the Solvay Process Soda Ash Plant)

(3) Name of Product Planned: Zinc Chloride

(4) Experience of the Production Planned: Indirectly experienced through a cooperating company.

(5) 1939- 1945 production:
(This particular building is one of the four Caustic Soda Finishing Sections of the Solvay Process Soda Ash Plant, and has never been used since 1942. The total production of Caustic Soda of the whole Solvay plant is shown below)

1939	76,913 tons	1943	16,880 tons
1940	73,043 "	1944	2,009 "
1941	51,512 "	1945	0
1942	20,444 "		

Scale of production planned by month for period on this application:

25 tons per month.

(7) Period of desired permission: 2 years

(8) Plan and location to continue the production after reparations removal:

To continue on the same spot, replacing a new building over the Zinc Chloride equipment, in case the present building was removed.

(9) Scale of proposed changes in physical facilities:
None except removal of remains of completely turnout hearthes. The Caustic Soda Finishing Pots had been removed elsewhere in and immediately after 1942.

COPY

(10) Intended expense for conversion or reconversion:

Yen 213,000.

(11) Name or location to which product is to be delivered:

Battery manufacturers, Textile mills, Activated Carbon manufacturers, Zinc gilders, etc. in Osaka, Kobe, Kyoto, Nagoya, Tokyo, Otaru, Fukuoka, etc.

s/ S. HASHIMOTO
Managing Director,
Toyo Soda Kogyo Kaisha Ltd.

---

24 Mar 47

Auhtorization is granted for manufacture of above named product, and for use of above listed bldg.

Auth: Verbal orders, CHUGOKU MG HQ 8th Army

s/ FRANCIS T. JUSTICE,
Major, CE

COPY

August 3, 1948

Major Frederick C. Wiggins,
Commerce and Industry Section,
Yamaguchi Mil. Gov'nt Team.

Subject:- Application for Permission for Use of Designated Building in the Solvay Plant

Sir,

We beg to request your permission for utilizing by us the unused portion of the undermentioned building located in our Solvay soda plant for the manufacture of bleaching powder.

The building, which is one of the four structures formerly used for caustic soda finishing processes and marked for reparations, is at present partly used by us for manufacture of zinc chloride by virtue of authorization grmted us by the Yamaguchi Military Gov'nt Authorities under date March 29, 1947. Only one-half of the building is being used for the zinc chloride manufacture with the other half remaining unused. We wish to utilize this remaining one-half portion of the structure for bleaching powder manufacture.

We are being motivated to undertake the bleaching powder making to find a way out to diminish damage to rice plants in the paddy fields in the immediate neighbourhood of the electrolytic plant by chlorine gas produced by it during the caustic soda manufacturing processes. The bulk of the gas will be utilized and absorbed in the manufacture of bleaching powder, and we expect that the chlorine gas damage to the rice plants would be greatly diminished,if not eliminated completely. The company has been receiving complaints from affected farmers regarding the chlorine gas damage. We are planning to produce 78 tons of bleaching powder a month when authorized.

We shall be deeplygrateful toyou,sir, for your kind consideration, we remain,sir,

Yours most respectfully,

s/ J. FURUUCHI,
Director i/c Gen. Affrs.

---

6 Aug 48

APPROVED

Signed: FREDERICK C. WIGGINS,
Major, CMP
Economic Officer,
Y.M.G.T.

GENERAL HEADQUARTERS

SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section

APO 5000

3 January 1950

387.6(3 Jan 50) ESS/IND

INFORMAL MEMORANDUM FOR: Reparations Agency, Tokyo.

SUBJECT : Transmittal of Reconversion Permit

1. Reference is R.B.R.No.68(MS), dated 6 October 1949, subject: Supplementary Reconversion Application of the Tonda Plant, Toyo Soda Kogyo K.K.(45-16)

2. The attached Reconversion Permit for the Tonda Plant, Toyo Soda Kogyo K.K. is transmitted for your action.

3. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. GLASS
Chief, Industry Division

1 incl: Reconversion Permit

COPY

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section

3 January 1950

SUBJECT: Reconversion Permit for Reparations Plant.

TO : Toyo Soda Kogyo K.K.

1. In accordance with Memorandum from the Supreme Commander for the Allied Powers to the Japanese Government, dated 22 November 1946(SCAPIN-1355), the Toyo Soda Kogyo K.K. is permitted to produce at their Tonda Factory located at 4560 Tonda,Tokuyama-shi, Yamaguchi the following items:

Item		Maximum Quantity
1.	Crude Soda Ash	310 MT per day
2.	Soda Ash	100 MT per day
3.	Caustic Soda	175 MT per day

(Nothing Follows)

2. The temporary use of the following additional reparations machinery is authorized:

See attached list of 876 items.

3. A program will be immediately initiated to substitute non-reparations machinery for reparations machinery in temporary use.

4. The acquisition of material, parts and sub-assemblies as well as the disposition of finished products and the establishment of sales prices will be in accordance with the regulations of the Japanese Government.

5. This permit is issued subject to any and a l directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. GLASS
Chief, Industry Division

COPY

HEADQUARTERS EIGHTH ARMY
United States Army
Office of the Commanding General
APO 343

19 Oct. 1946

AG 004.04(MG)

SUBJECT: Toyo Soda Kogyo K.K., Authorization to continue operation temporarily.

TO : Commanding Officer, Chugoku Military Government Region, APO 317

1. Reference is made to the telephone conversation Captain Valentine, this Headquarters, and Major Nance, Chugoku Military Government Region.

2. The Japanese Government has issued orders to the Toyo Soda Kogyo K.K., Tokuyama, Yamaguchi-ken, to close their plant 20 October 1946.

3. It is authorized that this installation be permitted to continue its present operation and production temporarily for the production of consumer goods until such time as instructions are issued by this Headquarters for its complete shut down.

BY COMMAND OF LIEUTENANT GENERAL EICHELBERGER:

/s/ R. Schafer

/t/ R. SCHAFER
Lt. Col., AGD
Asst. Adjutant General

COPY

Mr. R. G. Stradley,
Economic Section,
Chugoku Civil Affairs Region,
KURE.

6 February 1951

Dear Mr. Stradley,

Concerning the expansion project of our electrolytic caustic soda plant, I am sure that we had left you wondering about the reasons why our plant manager had to start on the actual building of the additional installation before filing even an application for approval of the proper authorities for that purpose. A more startling fact was that the plans for the project which have to go ~~so~~ with the application had not been completed. I felt that this puzzle must be cleared up and that we must not try to conceal the matter from you in view of the fact that you have been helping us in every way possible, and that include the reopening of our Solvay plant, which saved Toyo Soda from possible disintegration last year. This is why I am writing this, Mr. Stradley.

I took up the question with the head of the general affairs dept., Mr. Ogura, this morning and found him also puzzled about. An interview with Mr. Ishida, in charge of the electrolytic plant, later finally solved the puzzle. From what I gather from Mr. Ishida it seems that Mr. Harada saw that the approval of the International Trade and Industry on the project would not be easily granted and planned to build the additonal facilities and approach the Japanese authorities with the strangth of fait accompli to press for approval. I must state, in fairness, that he had been thinking of the Japanese authorities only and had not been aware that he had to obtain approval of the ESS.

Mr. Harada came back completely crushed. He is convinced that he must file an application for approval as quickly as possible and for that purpose he is leaving for Tokyo, where he says that the detailed plans for the project would be worked out.

MANUFACTURING AND TRADING
FILE Dec 11
45'16

DECLASSIFIED E.O. 12065 SECTION 3 (E)(1)(2) NSC

Work on the expansion project had been discontinued and it will remain suspended pending approval. It was rather lucky for Toyo Soda that they are laying aside the work at that early stage where they have been only preparing the ground and no further.

Toyo Soda and all of us shall be grateful to you, Mr. Stradley, if you kindly regard the matter as an amusing episode and a mis-adventure undertaken by our plant manager which was, fortunately, nipped in the bud.

Very sincerely yours,

Kazuo Tomozawa

DECLASSIFIED E.O. 11652 SECTION 3 (E)(2)(B) NLJ 83-16

URGENT TELEGRAM

JAPAN TELEGRAPHS

R. No. | out | Time sent | By | Collated by

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1010 KURE D YAMAGUCHITONDA 1 15 9 20M

D RG STRAILEY CHUGAKU MINSEIBU KURE

KURE 3.7.10 JAPAN

ELECTROLYTIC EXTANSION WORK STOPPED HARADA KURE WORD MONDAY

TOYOSODA

10 45M 36

FILE (L)-16 SEC II

HEADQUARTERS
CHUGOKU CIVIL AFFAIRS REGION
APO 182

D/RPL/ftk

29 December 1950

CCAR 386.3

MEMORANDUM FOR: Hiroshima International Trade and Industry Bureau

THROUGH: Chugoku Liaison and Coordination Office

SUBJECT: Repair of Reparations Equipment

1. Reference is application of Toyo Soda Manufacturing Company, Ltd., subject: "Application for Permission to Make Repairs and Improvements on Reparations Equipment", 11 December 1950 as transmitted by letter Hiroshima International Trade and Industry Bureau, 26 December 1950.

2. Approval is granted for repair and improvement of reparations equipment specified in referenced application.

3. All costs incidental to specified repair will be borne by the applicant and will not be charged to any reparations account.

FOR THE CHIEF:

WILLIAM M. KEANE
Lt Col, FA
Deputy Chief

Approval granted per telecon R.P. Lord/Maj. Freeman CAS/SCAP, 29 December 1950.

Subject File
RSL
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MANUFACTURING AND INDUSTRY
FILE
45-16
Sec. 7

293

2079

DECLASSIFIED E.O. 11652 SECTION 3 (E)(1)(2) NSC

THE HIROSHIMA INTERNATIONAL TRADE & INDUSTRY BUREAU

26 Dec. 1950.

Serial No. : 25 I Ki 2653

To : Chief, Chugoku Civil Affairs Region

Through : Director, Chugoku Liaison & Coordination Office

Subject : Application for permission to make repairs and improvements on Reparation Equipments in Tomita Plant, Toyo Soda Kogyo K.K. (Code No. 45-16)

Toyo Soda Kogyo K.K. has made an application to the Bureau about the subject matter. Our opinion regarding this matter is as follows:

As stated in the application, the purpose of repairing and improving of Lime Kiln, Lime Slaker and Evaporator Vacum is to economize raw materials and to rationalize production, which helps a lot in reduction of production cost. We consider the application reasonable and request your approval after due consideration.

H. Ibayashi

For Y. Hara
Director, Hiroshima
International Trade
& Industry Bureau.

DECLASSIFIED E.O. 12065 SECTION 3 NLJ/NARS DATE

COMMERCE & INDUSTRY DEPARTMENT
YAMAGUCHI PREFECTURAL GOVERNMENT

December 20, 1950

SUBJECT: Re Application for Permission to Make Repairs and Improvements on Reparations Equipment

TO: Chief
Chugoku Civil Affairs Region

THROUGH: Hiroshima Trade & Industry Bureau

1. We received the attached application dated Dec. 11, 1950 for permission to effect repairs and improvements on reparations designated equipment sent from Tonda Plant, Toyo Soda Mfg. Co., Ltd. (Plant Code No. 45-16).

2. We shall be much obliged if you will kindly accept the application because what the company designs is to increase production, improve products in quality and rationalize the enterprise of the said company.

Yours respectfully,

Tsutomu Hironaga

TSUTOMU HIRONAGA
Director
Commerce & Industry Dept.
Yamaguchi Pref. Govt.

hm/fn

DECLASSIFIED - E.O. 12065 SECTION 3 (E)(2)(B) NLJ 96-33

HEAD OFFICE & FACTORY.
4560 TONDA-CHO,
YAMAGUCHI-KEN,
JAPAN.

TOYO SODA MFG. COMPANY, LTD.

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
OSAKA BRANCH,
NISSAN SEIMEI-KAN, KITAHAMA,
HIGASHI-KU, OSAKA.

11 December 1950

TO: The Governor,
Yamaguchi Prefecture.

FROM: Toyo Soda Manufacturing Co., Ltd.
4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

Subject:- Application for Permission to Make Repairs and Improvements on Reparations Equipment.

Sir,

Attached herewith is our application for permission for making repairs and improvements on reparations equipment, which we are forwarding to you in compliance with provisions of "25 Kicho 0.051" and beg for your kind consideration and approval.

Respectfully yours,

N. Yamaguchi.
NOBUTOSHI YAMAGUCHI,
Managing Director,
Toyo Soda Mfg. Co., Ltd.

Enclosures: 1 Application for Permission to Make Repairs and Improvements on Reparations Equipment.

1 Reconversion Permit.

DECLASSIFIED Authority NND 945076 By NARA Date 12-18-09

Application for Permission to Make Repairs and Improvements on Designated Equipment at Reparations Plant

1. Name of Designated Plant: Tonda Kojo, Toyo Soda Kogyo K.K. (Tonda Plant, Toyo Soda Mfg. Co.,Ltd) Plant Code No. 45-16.

2. Location of Plant: 4560 Tonda-cho,Tsuno-gun, Yamaguchi-ken.

3. Equipment Whose Repairs and Improvements are Desired:

   a) Nomenclature: Lime Kiln

   b) Type: Vertical type

   c) Designed capacity of each: Limestone decomposition capacity 600 MT perday.

   d) No. of kilns involved: Two (I-A-1-1-No. 3, (I-A-1-1-No. 5)

4. Details of Repairs and Improvements Projected:

   a) Limestone and fuel charging equipment is to be repaired and improved so that limestone and coke or anthracite charged could be evenly spread within the kiln.

   b) Rebuilding of heat-resisting bricks (fire-bricks) within the kiln in order to make the burning even within the lime kiln.

   c) Quick lime discharging equipment is to be repaired and improved so that quick lime within the kiln could be taken out evenly at the bottom of the kiln.

5. Reasons Why Repairs and Improvements are Planned:

   The projected repairs and improvements are expected to bring about the following:-

   a) To raise the conversion rate of $CaCO_3$ (limestone) into quick lime, and

   b) To increase the density of CO_2 gas derived from decomposition of limestone.

   Overall effects of the above will be to raise the rate of yields against limestone and fuel directly and, indirectly, similar effect with regards salt and ammonia. Production cost will be cut accordingly.

6. All the expenses incidental to the repairs and improvements shall be borne in full by the applicant.

DECLASSIFIED E.O. 12065 SECTION E 102, MAB WV

No. II.

Application for Permission to Make Repairs and Improvements on Designated Equipment at Reparations Plant

1. Name of Designated Plant: Tonda Kojo, Toyo Soda Kogyo K.K. (Tonda Plant, Toyo Soda Mfg. Co.,Ltd) Plant Code No. 45-16.

2. Location of Plant: 4560 Tonda-cho,Tsuno-gun,Yamaguchi-ken.

3. Equipment Whose Repairs and Improvements are Desired:

   a) Nomenclature: Lime Slaker

   b) Type: Horizontal Rotary type

   c) Designed capacity of each: quick lime slaking capacity 300 MT per day.

   d) No. of slakers involved: Two (I-A-1-2-No.3, I-A-1-2-No.4)

4. Details of Repairs and Improvements Projected:

   The screw-conveyer and its accessories within the slaker are to be repaired and improved in order to raise the slaking capacity. The flow of the quick lime and slaking water is to be reversed to achieve the objective.

5. Reasons Why Repairs and Improvements are Planned:

   The projected repairs and improvements are expected to bring about the following:-

   a) Milk of lime of a higher density could be obtained, and

   b) the slaking efficiency will be raised.

   The overall effects of the above repairs and improvements will be a raising of the rate of yields against limestone and fuel consumption and to cut the production cost.

6. All the expenses incidental to the above repairs and improvements shall be borne by the applicant.

DECLASSIFIED E.O. 12065 SECTION 3 (E)(1)(D) NSC MEMO 11/2/78

No.III

Application for Permission to Make Repairs and Improvements on Designated Equipment at Reparations Plant

1. Name of Designated Plant: Tonda Kojo, Toyo Soda Kogyo K.K.
(Tonda Plant, Toyo Soda Mfg. Co., Ltd.)
Plant Code No. 45-16.

2. Location of Plant: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

3. Equipment Whose Repairs and Improvements are Desired:

a) Nomenclature: Evaporator, Vacuum

b) Type: Triple-effect evaporator

c) Designed capacity of each: Each set of 3 evaporators 25 MT per day

d) No. of evaporators involved:
I-A-9-1-No.7
I-A-9-1-No.13
from I-A-9-1-No.17 thru No.27
I-A-9-1-No.33
I-A-9-1-No.35
from I-A-9-1-No.56 thru No.61 Total 21

4. Details of Repairs and Improvements Projected:

a) Heating tubes and their accessories of the above listed 21 evaporators are to be replaced and refitted.

b) Worn-out parts of 6 evaporators(I-A-9-1-Nos.56-61) are to be replaced with corresponding and better parts of the evaporators nos. 2,6,8,12,16 and 30 in order to restore the efficiency of the six above listed evaporators.

c) The six evaporators Nos. 7,13,17,18,33 and 35 are to be made into two sets after each of them completely refitted.

5. Reasons Why Repairs and Improvements are Projected:

The projected repairs and improvements are expected to bring about the following:-

a) To cut down steam consumption required for evaporation of caustic soda liquid and to lower the production cost, and

b) To restore fully the designed capacity of 7 sets of triple-effect evaporators.

6. All the expenses incidental to the above repairs and improvements shall be borne by the applicant.

DECLASSIFIED E.O. 11652 SECTION 3 (E), NARS DATE

General Headquarters
Supreme Commander for the Allied Powers
Economic and Scientific Section
APO 500

387.6(3 Jan 50) ESS/IMD 3 January 1950

INFORMAL MEMORANDUM FOR: Reparations Agency, Tokyo.

SUBJECT : Transmittal of Reconversion Permit.

1. Reference is R.B.R. No. 68 (MG), dated 6 October 1949, subject: Supplementary Reconversion Application of the Tonda Plant, Toyo Soda Kogyo K.K. (45-16).

2. The attached Reconversion Permit for the Tonda Plant, Toyo Soda Kogyo K.K. is transmitted for your action.

3. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. GLASS
Chief, Industry Division.

1 incl: Reconversion Permit.

COPY

DECLASSIFIED E.O. 11652 SECTION 3 (E)(2) AND (3)

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section

3 January 1950

SUBJECT: Reconversion Permit for Reparations Plant.

TO : Toyo Soda Kogyo K.K.

1. In accordance with Memorandum from the Supreme Commander for the Allied Powers to the Japanese Government, dated 22 November 1946(SCAPIN-1355), the Toyo Soda Kogyo K.K. is permitted to produce at their Tonda Factory located at 4560 Tonda, Tokuyama-shi, Yamaguchi the following additional items:

	Item	Maximum Quantity
1.	Crude Soda Ash	310 MT per day
2.	Soda Ash	100 MT per day
3.	Caustic Soda	175 MT per day

(Nothing follows)

2. The temporary use of the following additional reparations machinery is authorized:

See attached list of 876 items.

3. A program will be immediately initiated to substitute non-reparations machinery for reparations machinery in temporary use.

4. The acquisition of material, parts and sub-assemblies as well as the disposition of finished products and the establishment of sales prices will be in accordance with the regulations of the Japanese Government.

5. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. GLASS
Chief, Industry Division.

C O P Y

DECLASSIFIED E.O. 12065 SECTION 3 (b)(1)

HEADQUARTERS
CHUGOKU CIVIL AFFAIRS REGION
APO 182

D/FPL/hk

CCAR 386.3

6 December 1950

MEMORANDUM FOR: Yamaguchi Prefectural Government

THROUGH: Chugoku Liaison and Coordination Office

SUBJECT: Repair of Reparations Equipment at Plant 45-16

1. Reference is application of Toyo Soda Manufacturing Company, Ltd., subject: "Application for Permission to Make Rearrangement and Repairs on Reparations Equipment", 30 November 1950.

2. Approval is granted for repair and rearrangement of reparations equipment as specified in referenced application.

3. All costs incidental to specified repair will be borne by the applicant and will not be charged to any reparations account.

C. N. BAILEY
Colonel, Inf
Chief

Approval granted in telecon R. P. Lord/W. F. Johann 5 Dec 50.

Subject Files
ORS
HBK

MANUFACTURING AND INDUSTRY
FILE 45-16
Doc. II

1936

DECLASSIFIED: NLJ 11-03, #2

C O P Y

TOYO SODA MFG. COMPANY, LTD.

30 November 1950

TO: The Governor,
Yamaguchi Prefecture.

FROM: Toyo Soda Manufacturing Co., Ltd.
4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

SUBJECT: Application for Permission to Make Rearrangement and Repairs on Reparations Equipment.

Sir,

We submit herewith for your kind consideration and approval of our application for permission to make rearrangement and repairs on reparations equipment at Toyo Soda Plant (Code No. 45-16) in accordance with provisions of 25-Kicho No. 400.

Respectfully yours,

s/ Nobuyoshi Yamaguchi
t/ NOBUYOSHI YAMAGUCHI
Managing Director,
Toyo Soda Mfg. Co., Ltd.

Incls: 1. Application for Permission to Make Rearrangement and Repairs on Reparations Equipment, Nos. I,II,III.

2. Copy of Authorization to Reconvert the Soda Ash Plant of Toyo Soda (45-16).

C O P Y

No. 1

Application for Permission to Make Rearrangement and Repairs on Reparations Equipment

1. Name of Designated Plant: Tonda Kojo, Toyo Soda Kogyo K.K. (45-16)
(Tonda Plant, Toyo Soda Mfg. Co., Ltd.)

2. Location of Plant : 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

3. Equipment Whose Reparrangement and Repairs are Desired:

a) Nomenclature: Ammonia Still

b) Type : Column type

c) Designed Capacity:

Large type(Dia. 3M) Soda Ash daily output 160 tons each.

Small type(Dia.2.5M) " " " " 120 " " "

d) Number of Equipment Involved:

Large stlls 3(Inventory No. I-A-4-1-No.3 No.4 & No.5 ~~1-A-3-No. 3, No.4 and No. 5~~)

Small stills 2(Inventory No. I-A-4-1-No.1 & No.2 ~~1-A-3-No.1 and No.2~~)

4. Parts of the Equipment to be Rearranged and Repaired:

a) A general overhauling of each of the stills and replacement of worn out parts.

b) The upper half of each Ammonia Still involved is to be replaced with parts of Gas Washers, Ammonia Absorbers and Alumina Separators to reconstruct the upper half of the Still so as to make it a packed and filled column type in order that the Still will have the strong points of both of the stirring and the packed column types. The lower half of the existing Still is of the stirring type.

c) Decomposers of Fixed Ammonia and Gas Coolers, accessory parts of Ammnia Distillers are to be rearranged.

d) Three sets of Prelimers(EX.) are to be newly installed.

5. Reasons Why the Rearrangement and Repairs are Desired:

The rearrangement of parts of the equipment and the repairs are necessary and desirable in order to(a) obtain Ammonia Gas of a higher density, (b) increase the efficiency of Ammonia recovery, (c) cut steam consumption rate per recovered Ammonia, (d) obtain Ammoniacal Brine of a better quality, and (e) to restore the designed capacity of the plant for Soda Ash production of 560 tons a day.

DECLASSIFIED E.O. 12065 SECTION 3 (b)(1) NARS Date

The overall effects of the rearrangement and repairs on the plant will be to raise the rate of yield against the chief raw materials in general which are required by the Ammonia-Soda process plant and to cut production cost to an appreciable extent.

6. Expenses Required for the Rearrangement and Repairs:

All the expenses incidental to the projected work of rearrangement and repairs shall be borne by the applicant.

DECLASSIFIED E.O. 11652 SECTION 3 (E)(1) NND 765001

No. 11.

Application for Permission to Make Rearrangement and Repairs on Reparations Equipment

1. Name of Designated Plant: Tonda Kojo, Toyo Soda Kogyo K.K.(45-16)
(Tonda Plant, Toyo Soda Mfg. Co., Ltd.)

2. Location of Plant : 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

3. Equipment Whose Rearrangement and Repairs are Desired:

a) Nomenclature: Ammonia Absorber

b) Type : Column type

c) Designed Capacity: Soda Ash production 140 tons a day.

d) Number of Equipment Involved: Five(5) 1-A-3-No.1,
1-A-3-No.2,
1-A-3-No.3,
1-A-3-No.4,
1-A-3-No.5.

4. Parts of the Equipment to be Rearranged and Repaired:

a) A general overhauling of each of the Absorbers and replacement of worn out parts.

b) Parts of the Absorbers are to be replaced with parts of Alumina Separators and Ammonia Stills in an interchange rearrangement.

c) A cooling apparatus(EX.) is to be installed.

5. Reasons Why the Rearrangement and Repairs are Desired:

The rearrangement of parts of the equipment and the repairs are necessary and desirable in order to (a) raise the efficiency of absorption of Ammonia, (b) obtain Ammoniacal Brine of a better quality, (c) increase the efficiency of the equipment in cooling Ammoniacal Brine, and (d) to make operation of the equipment more convenient and accurate.

The overall effects will be to raise the rate of yield against the chief raw materials, to improve the quality of the products and to cut production cost.

6. Expenses of the Rearrangement and Repairs:

All the expenses incidental to the projected rearrangement and repairs shall be borne in full by the applicant.

No. III.

Application for Permission to Make Rearrangement and Repairs on Reparations Equipment

1. Name of Desigmated Plant: Tonda Kojo, Toyo Soda Kogyo K.K.(45-16)
(Tonda Plant, Toyo Soda Mfg. Co., Ltd.)

2. Location of Plant: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

3. Equipment Whose Rearrangement and Repairs are Desired:

a) Nomenclature: Carbonating Tower

b) Type : Column type

c) Designed Capacity:

Large type- Soda Ash production 120 tons a day.

Small type- " " " 100 " " "

d) Number of Equipment Involved:

5 large type towers: (Dia. 3M)
1-A-5-1-No.5 through No.9.

4 small type towers: (dia. 2.5M)
1-A-5-1-No. 1 through No.4.

4. Parts of the Equipment to be Rearranged and Repaired:

a) Replacement of the worn-out parts and cooler steel tubes.

b) Replacement of the worn-out parts of large-type Carbonating Towers with corresponding parts of the large-type tower (1-A-3-1-No.9).

c) Meters(EX.) are to be newly installed.

5. Reasons Why the Rearrangement and Repairs are Desired:

The rearrangement and repairs are necessary and desirable in order to (a) restore the designed capacity of the four small-type and four large-type Towers, and (b) to raise the efficiency of the Towers and, at the same time, to increase the rate of yield against salt and Ammonia.

6. Expenses of the Rearrangement and Repairs:

All the expenses incidental to the projected rearrangement and repairs shall be borne in full by the applicant.

HEAD OFFICE & FACTORY,
TOKUYAMA, YAMAGUCHI-KEN
OSAKA BRANCH,
NISSAN SEIMEI KAN, KITAHAMA
HIGASHI-KU, OSAKA.

TOYO SODA KOGYO KAISHA, LTD.

(TOYO SODA MANUFACTURING CO., LTD.)

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
TEL. (57) 7278

TOKYO, November 17, 19 50.

Copy

RAR 1903
25 Dec 50

Application for Conversion of Designated Reparations Plant

TO: Minister,
International Trade and Industry.

FROM: Toyo Soda Manufacturing Co., Ltd.
Address: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

1. Name of plant and Code Number:

Japanese: Tonda Kojo, Toyo Soda Kogyo K.K. (Code No. 45-16)
English : Tonda Plant, Toyo Soda Manufacturing Co., Ltd.

2. Location of Plant:

4560 Tonda-cho, Tsuno-gun, Yamaguchi-ken.

3. Category:

Soda Ash

4. Production:

Product	Present		Planned	
	Authorized output T/Day	Ton/Year	T/Day	Ton/Year
Crude soda ash	310	111,600	ditto	ditto
Caustic soda	175	63,000	ditto	ditto
Soda ash	100	36,000	200	72,000

Notes: 1) For the current production of above items Toyo Soda had been granted SCAP authorization dated 3rd January 1950 (387.6 (3 Jan 50) ESS/IND)
2) This application concerns only with the raising the production limit on soda ash and does not involve changes regarding total crude soda ash production.

5. Additonal Reparations Items Needed for the Above Production:

None.

MANUFACTURING AND INDUSTRY
FILE 45-16
Dec. 11

HEAD OFFICE & FACTORY,
TOKUYAMA, YAMAGUCHI-KEN
OSAKA BRANCH,
NISSAN SEIMEI KAN, KITAHAMA
HIGASHI-KU, OSAKA.

TOYO SODA KOGYO KAISHA, LTD.
(TOYO SODA MANUFACTURING CO., LTD.)

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
TEL. (57) 7278

TOKYO, ..., 19 ....

6. Necessity for Conversion (Increasing the Quantity of Authorized Output):

1) Under the current production limitation, shown in the foregoing table under para 4, it is possible to produce soda ash and caustic soda only on the following levels as shown by the table below: (Unit: Ton/Day)

	When the plant is operated on basis of chief items	Required quantity of crude soda ash	%	Products Item	Products Quantity
Crude Soda Ash 310	Soda Ash	100	32	Soda Ash	100
		210	68	Caustic Soda	100
	Caustic Soda	65	21	Soda Ash	65
		245	79	Caustic Soda	175

This means that the plant can turn the total crude soda into caustic soda up to 79% of the former when the plant is operated to produce caustic soda as the chief item of products, while it can turn only 32% of the total crude soda into soda ash when the soda ash is taken as the chief item of products.

2) The designed capacity of Toyo Soda plant to produce soda ash is 250 tons a day. But owing to inadequate maintenance during the war, the actual capacity as of Feb. 1949 was judged to be 100 tons a day (according to the Report made by the Investigation Party sent out by the Minister of Commerce and Industry).

Since then, however, aside from maintenance work, which has been resumed, and repairs having been undertaken and completed on calcinators in particular with the authorization of the Hq. Chugoku Civil Affairs Region the actual capacity of the plant to produce soda ash has been brought up to 200 tons a day. Eight calcinators out of the total 12 calcinators are presently in good operative condition. Each calcinators has the capacity of 25 tons per day.

HEAD OFFICE & FACTORY,
TOKUYAMA, YAMAGUCHI-KEN
OSAKA BRANCH,
NISSAN SEIMEI KAN, KITAHAMA
HIGASHI-KU, OSAKA.

TOYO SODA KOGYO KAISHA, LTD.
(TOYO SODA MANUFACTURING CO., LTD.)

TOKYO BRANCH,
SAKURADA-KAN, 2-CHOME, SHIBA,
TAMURA-CHO, MINATO-KU,
TEL. (57) 7278

TOKYO, ..., 19 ....

3) In this connection, we wish to point out that there exist active and increasing demands for soda ash and caustic soda at present. The demand for soda ash, in particular, enhanced by revitalized activities of the glass-making industry, has especially notable. This has brought about a situation in which the supply of the product is falling short of requirement, and measures to increase the output of soda products in order to meet the increased demands within the country are also being earnestly considered by the Japanese Government authorities.

When Toyo Soda plant is authorized to increase soda ash production up to 200 tons a day from the current limitation this plant will be enabled to turn 65% of the presently authorized output of total crude soda ash or 310 tons a day. The increased soda ash production at this plant at this time will help not only in easing the present situation of short supply of the product but contribute also to the promotion of various chemical enterprises in general. It would, furthermore, make it possible to place the production program at Toyo Soda on a more rationalized basis through enabling the plant to make adjustments in the ratio of output between soda ash and caustic soda freely and within a wider range than at present.

KEISUKE SADANAGA, President,
Toyo Soda Mfg. Co., Ltd.

Incls: 1 Copy of Reconversion Permit for Reparations Plant, 387.6 (3 Jan 50) M.S.S./Ind.

2 Copy of Authorization to Make Repairs and Improvements on Calciners(calcinators).

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section
APO 500

3 January 1950

387.6 (3 Jan 50) ESS/IND

INFORMAL MEMORANDUM FOR: Reparations Agency, Tokyo.

SUBJECT : Transmittal of Reconversion Permit.

1. Reference is R.B.R. No. 68 (MS), dated 6 October 1949, subject: Supplementary Reconversion Application of the Tonda Plant, Toyo Soda Kogyo K.K. (48-16).

2. The attached Reconversion Permit for the Tonda Plant, Toyo Soda Kogyo K.K. is transmitted for your action.

3. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives and industructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. CLASS
Chief, Industry Division.

1 Incl: Reconversion Permit.

- C O P Y -

GENERAL HEADQUARTERS
SUPREME COMMANDER FOR THE ALLIED POWERS
Economic and Scientific Section.

3 January 1950

SUBJECT: Reconversion Permit for Reparations Plant.

TO : Toyo Soda Kogyo K.K.

1. In accordance with Memorandum from the Supreme Commander for the Allied Powers to the Japanese Government, Dated 22 November 1946 (SCAPIN-1355), the Toyo Soda Kogyo K.K. is permitted to produce at their Tonda Factory located at 4560 Tonda Tokuyama-chi, Yamaguchi the following additional items

Item	Maximum Quantity
1. Crude Soda Ash.	310 MT per day.
2. Soda Ash.	100 MT per day.
3. Caustic Soda.	175 MT per day.

(Nothing Follows)

2. The temporary use of the following additional reparations machinery authorized:

See attached list of 876 items.

3. A program will be immediately initiated to substitute non-reparations machinery for reparations machinery in temporary use.

4. The acquisition of material, parts and sub-assemblies as well as the disposition of finished products and the establishment of sales prices will be in accordance with the regulations of the Japanese Government.

5. This permit is issued subject to any and all directives affecting reparations plants which have been issued or may hereafter be issued by the Supreme Commander for the Allied Powers. Reports will be rendered as required by current directives instructions.

FOR THE CHIEF, ECONOMIC AND SCIENTIFIC SECTION:

MAURICE M. CLASS
Chief, Industry Division.

- C O P Y -

1 July 1950

TO: The Governor,
. Yamaguchi Prefecture.

FORM: Nobuyoshi Yamaguchi,
Managing Director,
Toyo Soda Manufacturing Co., Ltd.

Subject:- Application for Permission to Make Repairs and Improvements on Designated Equipment.

Sir,

We submit herewith for your kind consideration and approval our application for permission to make repairs and improvements on designated equipment in accordance with the provisions of 25 Kicho No. 400.

Respectfully yours,

Signed NOBUYOSHI YAMAGUCHI,
Managing Director.

Inclosures: 1. Application for Permission to Make Repairs and Improvements on Designated Equipment in Reparations Plant.

2. Authorization to reconvert the soda ash plant of Toyo Soda (Plant Code No. 46-16)

- C O P Y -

DECLASSIFIED E.O. 12065 SECTION 3, NND 760305

Application for Permission to Make Repairs and Improvements on Designated Equipment in Reparations Plant

1. Name of Designated Plant: Tonda Kojo, Toyo Soda Kogyo K.K. (Tonda plant, Toyo Soda Mfg. Co., Ltd.)

2. Location of Plant: 4560 Tonda-cho, Tsuno-gun, Yamaguchi-Ken.

3. Equipment Whose Repairs and Improvements are Required:

a)	Nomenclature:	Calciner
b)	Type:	Rotary kiln horizontal type
c)	Designed capacity of each:	25 tons a day.
d)	No. of calciners involved:	Six (1-A-7-1 Nos. 7-12)

4. Details of Repairs and Improvements Projected:

Two calciners (Inventory Nos. 1-A-7-1 No. 11 and 1-A-7-1 No. 12)- Partially incomplete brick construction to be completed and necessary accessory parts to be installed in order to restore their capacity up to the designed level.

Four calciners (Inventory Nos. 1-A-7-1 No. 7 thru 10)-

Front and rear parts of the furnace to be repaired and improved to raise their capacity up to the designed level. The projected improvements are expected to increase considerably the calciners's efficiency.

5. Reasons Why Improvements are Planned:

The projected improvements are expected to bring about the following:-

a) Production of a higher quality soda ash;
b) Increasing in percentage of recovery of ammonia and a high density carbon dioxide gas, while raising the percentage of yield against the raw materials used including crude salt, ammonia, limestone, coke and coal, enabling the plant to lower the production cost thereby; and
c) Increasing the output of soda ash out of the total crude soda ash production authorized the plant, which is 310 metric tons a day.

6. All the expenses required for these repairs and improvements are to be borne by Toyo Soda Manufacturing Company Ltd.

- C O P Y -

DECLASSIFIED E.O. 11652 SECTION 3 (E), AND NN

HEADQUARTERS
CHUGOKU CIVIL AFFAIRS REGION
APO 182

2 August 1950

CCAR 386.3 (D-Lo)

MEMORANDUM FOR: Yamaguchi Prefectural Government

THROUGH: Chugoku Liaison and Coordination Office

SUBJECT: Repair of reparations Equipment at Plant 46-16

1. Reference is application of Toyo Soda Manufacturing Company, Yamaguchi Prefecture, subject: "Application for Permission to Make Repairs and Improvements on Designated Equipment", 1 July 1950.

2. Approval is granted for the repair of six (6) calcinators bearing code numbers 1-A-7-1 No. 7 thru No. 12 as specified in referenced application. All costs incidental to repair will be borne by the applicant and will not be charged to any reparations account.

3. Report will be made to this headquarters upon completion of repairs.

(Signed)
C. N. BAILEY
Colonel, Inf
Chief

- C O P Y -