DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

GHQ/SCAP Records(RG 331)
Description of contents

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(3) Date: Mar. 1950 - Mar. 1951

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(5) Item description and comment:

(6) Reproduction: (Yes) No

(7) Film no. Sheet no.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

588

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS. 1834
March 27, 1951

TO: Chief of Kanto Civil Affairs Region
Attention: Chief of Distribution and Industry
Division, Economic Section,
Kanto Civil Affairs Region

THROUGH: Kanto Liason and Coordination Office

SUBJECT: Manufacture of Fertilizer(Monthly Report
for March, 1951)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant,
No.1, Soga-mura, Higashichichikuma-gun, Nagano Prefecture

Name of representative and title:

Shigeki Beppu, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton(annually)

2) Production figures for the month:

1,425,262.5 Kg.

3) Production goals for the month:

2,600,000 Kg.

4) Amount and type of imported materials used during month:

Petroleum Coke (Great Lakes) : 205,734 Kg.
African anthracite: 15,000 Kg.

5) Amount and type of imported materials received during month:

Petroleum coke (Great Lakes) : 1,046,670 Kg.

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6) Amount and type of imported materials on hand at the end of month:

Petroleum coke(Great Lakes):	1,671,106 Kg.
American anthracite:	68,590 Kg.
African anthracite:	242,065 Kg.

7) Remarks:

Amount of gas coke(home made) Used during this month:	894,907 Kg.
Rates of using:	
Home made coal:	81.3 %
Imported coal:	18.7 %

8) Bottle-necks for production.

Like last month the condition of electricity did not turn for the better and still this shortness of electricity was the greatest bottle-necks for production.

Shigeki Beppu

S. BEPPU
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

NS-416

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-1742
February 27, 1951

TO: Chief of Kanto Civil Affairs Region
Attention: Chief of Distribution and Industry
Division, Economic Section,
Kanto Civil Affairs Region

THROUGH: Kanto Liason and Coordination Office

SUBJECT: Manufacture of Fertilizer(Monthly Report for February, 1951)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant,
No.1, Soga-mura, Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Shigeki Beppu, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton (annually)

2) Production figures for the month:
2,510,775 Kg.

3) Production goals for the month:
2,000,000 Kg.

4) Amount and type of imported materials used during month:
Petroleum Coke (Great Lakes) : 66,010 Kg.

5) Amount and type of imported materials received during month:

None

6) Amount and type of imported materials on hand at the end of month:

Petroleum coke (Great Lakes) :	830,170 Kg.
American anthracite:	68,590 "
African anthracite:	257,065 "

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7) Remarks:

Amount of gas coke(home made) used during this month:	804.191 Kg.
Rates of using:	
Home made coal:	92.4 %
Imported coal:	7.6 "

8) Bottle-necks for production.

February was the worst month for production. Because this month is the driest season in the year and the electricity is the shortest month. Consumption was limited to 75% of allocation from 14th to 22th. This shotness of electricity was the greatest and the only bottle-necks for production.

S. Beppu

S. BEPPU
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

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SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-1631
January 27, 1951

TO: Chief of Kanto Civil Affairs Region
Attention: Chief of Distribution and Industry
Division, Economic Section,
Kanto Civil Affairs Region

THROUGH: Kanto Liason and Coordination Office

SUBJECT: Manufacture of Fertilizer (Monthly Report for January, 1951)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant,
No.1, Soga-mura, Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Shigeki Beppu, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton (annually)

2) Production figures for the month:

2,730,915 Kg.

3) Production goals for the month:

※ 2,650,000 Kg.

4) Percentage of goal produced:

103.1 %

5) Amount and type of imported materials used during month:

Petroleum Coke (Great Lakes): 203,433 Kg.

6) Amount and type of imported materials received during month:

None

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7) Amount and type of imported materials on hand at the end of month:

Petroleum coke (Great Lakes):	896,180 Kg.
American anthracite:	68,590 "
African anthracite:	257,065 "

8) Remarks:

※ Plant plan

Amount of gas coke (home made) used during this month:	1,047.449 Kg.
Rates of using:	
Home made coal:	83.7 %
Imported coal:	16.3 "

9) Bottle-necks for production.

The greatest bottle-necks in this month is shortness of electricity. Owing to dry season, electricity used during this month is about 81 % short compared with December and product of calcium carbide, the middle-product of calcium cyanamide, is about 67 % short compared with December. But we had 1937 ton stock of calcium carbide, so the percentage of production against our expected plan was over 100 %.

S. Beppu

S.BEPPU
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

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SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-
December 27, 1950

TO: Chief of Kanto Civil Affairs Region
Attention: Chief of Distribution and Industry Division, Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liason and Coordination Office

SUBJECT: Manufacture of Fertilizer (Monthly Report for December, 1950)

Name of plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant,
No.1, Soga-mura, Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Shigeki Beppu, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton (annually)

2) Production figures for the month:

3,032,370 Kg.

3) Production goals for the month:

1,000,000 Kg.

4) Percentage of goal produced:

189.5 %

5) Amount and type of imported materials used during month:

Petroleum Coke (Great Lakes): 284,560 Kg.

6) Amount and type of imported materials received during month:

None

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7) Amount and type of imported materials on hand at the end of month:

Petroleum coke (Great Lakes):	1,099,613 Kg.
American anthracite:	68,590 "
African anthracite:	257,065 "

8) Remarks:

Amount of gas coke (home made) used during this month:	1,229,522 Kg.
Rates of using:	
Home made coal:	81.2 %
Imported coal:	18.8 "

9) Bottle-necks for production.

Generally speaking, we had no bottle-necks for productions in this month. So, we could manufactured various products (fertilizer, abrasives & metallic silicon) and the percentage of production against our expected plans was all over 100 %. But we will have, in near future, two bottle-necks for production, that are the shortness of electricity in dry season, the difficulties of procuring materials (especially lime stone & coke) and of transportation of products.

1)
2) Akamatsu plant only furnishes 10-20%

3)

S. Beppu

S.BEPPU,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

4)

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 74503/3

ELECTRICAL EQUIPMENT MANUFACTURERS: MONTHLY PRODUCTION REPORT

NAME COMPANY: Fuji Denki Seizo K.K.

NAME OF PLANT: Matsumoto kojo

ADDRESS OF PLANT: No. 2666, Tsukama, Matsumoto City, Nagano Pref.

MONTH REPORTED: From 21 Nov.'50 to 20 Dec.'50

DESCRIPTION OF ITEM	UNITS	WEIGHT	PRODUCTION COST
Watt-hour Meters 1 ø	34615		¥38316000-
" 3 ø	3988		¥12230000-
Indication Meters	268		¥ 970000-
Recording Meters	190		¥ 7333000-
Total	39061		¥58849000-

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 77501/3

ELECTRICAL EQUIPMENT MANUFACTURERS: MONTHLY :PERSONNEL REPORT

NAME OF COMPANY FUJI DENKI SEIZO K .K.

NAME OF PLANT Matsumoto kojo

ADDRESS OF PLANT No. 2666, Tsukama, Matsumoto City, Nagano Pref.

CURRENT MO. From 21 Nov. '50 to 20 Dec. '50

TOTAL DAYS WORKED	NUMBER OF SHIFTS PER DAY	NUMBER OF HOURS PER SHIFT
25 days	1	8.5

ENPLOYMENT

GROUPS	ON ROLL AT END OF MO.	HIRED DURING MO.	RDOPPED DURING MO.	NET INCREASE	NET DECREASE
A. TOTAL EMPLOYEES	1155	0	12	0	12
1. ADMINISTRATIVE EMPLOYEES	122	0	2	0	2
2. TECHMICAL EMPLOYEES	96	0	0	0	0
3. MALE WORKERS	516	0	6	0	6

ENPLOYMENT

GROUPS	ON ROLL AT END OF MO.	HIRED DURING MO.	RDOPPED DURING MO.	NET INCREASE	NET DECREASE
A. TOTAL EMPLOYEES	1155	0	12	0	12
1. ADMINISTRATIVE EMPLOYEES	122	0	2	0	2
2. TECHMICAL EMPLOYEES	96	0	0	0	0
3. MALE WORKERS	516	0	6	0	6
4. FEMALE WORKERS	421	0	4	0	4
B. ELECTRICAL EQUIPMENT EMPLOYEES	1155	0	12	0	12

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DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 45013

ELECTRICAL EQUIPMENT MANUFACTURERS: MONTHLY RAW MATERIAL REPORT

NAME OF COMPANY: Fuji Denki Seizo K.K.

NAME OF PLANT: Matsumoto kojo

ADDRESS OF PLANT: No. 2666, Tsukama, Matsumoto City, Nagano Pref.

CURRENT MONTH: From 21 Aug.'50 to 20 Nov.'50

MATERIAL	UNIT	ON HAND IST OF MC	RECEIVED DURING MO;	USED DURING MONTH	ON HAND END OF MONTH	NEXT MO'S REQUIRE'-MENT
Cotton(Insulating)	kg	LO	0	&	5	10
Antimony	"	0	0	0	0	150
Borax	"	44	20	47	17	20
Carbide	"	1211	0	231	980	500
Coal	"	34000	59000	21262	71738	50000
Coke	"	4920	3000	6000	1920	6000
Glass	case	30	0	7	23	±0
Graphite(Amorphous)	kg					
" (Crystaline)	"					
Hemp	"					
Nickel	"	214	15	50	179	70
Oils(Insulating)	Itr	250	0	18	232	90
Pig Iron	kg	2350	0	0	2350	2000
Rubber(Crude)	"					
" (Scrap)	"					
S		32	0	5	27	20

Glass	case	30	0	7	23	10
Graphite(Amorphous)	kg					
" (Crystaline)	"					
Hemp	"					
Nickel	"	214	15	50	179	70
Oils(Insulating)	ltr	250	0	18	232	90
Pig Iron	kg	2350	0	0	2350	2000
Rubber(Crude)	"					
" (Scrap)	"					
Salt	"	32	0	5	27	20
Soda Ash	"	39	0	4	35	14
Steel(Ordinary)	"	162100	34076	55270	140906	60000
" (Silicon)	"	12313	31923	13406	30830	20000
Tin	"	1379	0	428	951	1000
Elec. Power	kwh			96830		100000

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Electric Power - are staggering power holiday
power ~~cuts~~ on Saturdays
electric furnace shuts on,
start in low centers.

Transportation Problem — not specific — former
problems moving on schedule —
10-15 cars per month.

Raw Materials — magnetized steel —
light ~~tungsten~~ steel very short
supply chrome now.

av. Cost rise in app 50%-60%
S.P — 10-15%

any particular production problems —
none except finance

~~3,600,000~~

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-1523

December 27, 1950

TO: Chief of Kanto Civil Affairs Region
Attention: Chief of Distribution and Industry
Division, Economic Section,
Kanto Civil Affairs Region

THROUHG: Kanto Liaison and Coordination Office

SUBJECT: Manufacture of Fertilizer(Monthly Report
for December, 1950)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant,
No.1, Soga-mura, Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Shigeki Beppu, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton (annually)

2) Production figures for the month:

3,032,370 Kg.

3) Production goals for the month:

1,600,000 Kg .

4) Percentage of goal produced:

189.5 %

5) Amount and type of imported materials used during month:

Petroleum Coke (Great Lakes): 284,560 Kg

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6) Amount and type of imported materials received during month:

None

7) Amount and type of imported materials on hand at the end of month:

Petroleum coke (Great Lakes):	1,099,613 Kg.
American anthracite:	68,590 "
African anthracite:	257,065 "

8) Remarks:

Amount of gas coke (home made) used during this month:	1,229,522 Kg.
Rates of using:	
Home made coal:	81.2 %
Imported coal:	18.8 "

S. Beppu

S. BEPPU,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

SHOWA DENKO CO.,LTD. SHIOJIRI PLANT

No.1, Soga-mura,Higashichikuma-gun,
Nagano Prefecture

File: NLS-1377

November 28, 1950

TO: Chief of Kanto Civil Affairs Region
Attention: Chief of Distribution and Industry Division, Economic Section, Kanto Civil Affairs Region

THROUHG: Kanto Liaison and Coordination Office

SUBJECT: Manufacture of fertilizer (Monthly Report for November, 1950)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant,
No.1, Soga-mura,Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Shigeki Beppu, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton (annually)

2) Production figures for the month:

3,216,660 Kg.

3) Production goals for the month:

3,000,000 Kg.

4) Percentage of goal produced:

107.2%

5) Amount and type of imported materials used during month:

Petroleum Coke (Great Lakes): 318,173 Kg.

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6) Amount and type of imported materials received during month:

Petroleum coke (Great Lakes): 971,380 Kg.

7) Amount and type of imported materials on hand at the end of month:

Petroleum coke (Great Lake):	1,384,173 Kg.
American anthracite:	68,590 "
African anthracite:	257,065 "

8) Remarks:

Mark ° showes planed quantity.

Amount used during this month: 1,017,346 Kg.

Rates of using:
Home made coal: 76.2%
Imported coal: 23.0%

S. Beppu

S. BEPPU,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

SHOWA DENKO CO., LTD. SHIOJIRI PLANT
No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-I273
October 27, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Distribution and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office
SUBJECT: Manufacture of Fertilizer Monthly Report for October, 1950

Name of Plant reporting and address:

Showa Denko Co., Ltd Shiojori Plant. No.1, Soga-mura.
Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Shigeki Beppu, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton(annually)

2) Production figures for the month:

2,864,022.5 Kg

3) Production goals for the month:

※ 2,900,000 Kg

4) Percentage of goal produced:

98.8 - %

5) Amount and type of imported materials used during month:

Petroleum Coke (Great Lakes):	367,392 Kg
African anthracite:	30,000 Kg

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6) Amount and type of imported materials received during month:

Petroleum coke(Great Lakes):	250.990 Kg

7) Amount and type of imported materials on hand at the end of month:

American anthracite:	68.590 Kg
African anthracite:	257.065 Kg
Petroleum coke(Great Lakes):	730.966 Kg

8) Remarks:

※ Plant Plan

Amount used during this month:	Ratio
Gas coke(home made):	1,576.073 Kg(81.1%)
Petroleum coke:	367.392 Kg(18.9%)

S. Beppu

S. BEPPU,
Chief of shiojiri
Plant, Showa Denko
Co., Ltd.

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SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS- 1169
October 2, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Distribution and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office
SUBJECT: Manufacture of Fertilizer(Monthly Report for September., 1950)

Name of Plant reporting and address:

Showa Denko Co., Ltd Shiojori Plant. No.1, Soga-mura.
Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Shigeki Beppu, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton(annually)

2) Production figures for the month:

2,321,710 Kg

3) Production goals for the month:

2,000,000 Kg

4) Percentage of goal produced:

116.1 %

5) Amount and type of imported materials used during month:

Petroleum Coke (Great Lakes): 155,928 Kg
African anthracite: -

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6) Amount and type of imported materials received during month:

Petroleum coke(Great Lakes): 938,950 Kg

7) Amount and type of impored materials on hand at the end of month:

American anthracite:	68,590 Kg
African anthracite:	287,065 Kg
Petroleum coke(Great Lakes):	992,980 Kg

8) Remarks:

None

S. Beppu

S. BEPPU,
Chief of shiojiri
Plant, Showa Denko
Co., Ltd.

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A Guide To The Shiojiri Factory

Showa Denko Kabushiki Kaisha

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

A Guide To The Shiojiri Factory

1. History of the Factory

Dec. 1932 The factory was purchased by the Nihon Yode Kabushiki Kaisha from its owner Taiyo Shoji Kabushiki Kaisha.

Jul. 1933 The manufacture of ferro-silicon and metallic silicon was started.

Oct. 1933 The manufacture of carborundum was started.

Mar. 1934 The name of the company was changed into the Nihon Denki Kogyo Kabushiki Kaisha.

Sept. 1934 The manufacture of "morundum" was started.

Jul. 1935 The manufacture of ferro-molybdenum was started.

Aug. 1936 The manufacture of carborundum and "morundum brick" was started.

Oct. 1937 The manufacture of ferro-tungsten was started.

Aug. 1938 The manufacture of white "morundum" was started.

Jun. 1939 The company was amalgamated with the Showa Hiryo Kabushiki Kaisha to establish a new company Showa Denko Kabushiki Kaisha and the factory was renamed as the Shiojiri Factory of the same company.

May. 1940 The manufacture of grinding stone was started.

Apr. 1946 The conversion of the factory into theproduction of calcium cyanamide was authorized by GHQ.

May. 1946 The factory was designated as afertilizer manufacturing factory by the Japaneas Government in conformity with SCAP [illegible] directive.

Sept. 1946 The manufacture of calcium cyanamide was started.

2. Outline of the Factory

(A) Annual production capacity (Unit: Metric Ton)

Name of Product	Production Capacity
Carbide	30,200 T/Y
Calcium cyanamide	27,000 "
Silicon carbide	1,000 "
Morundum	2,100 "

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(B)(C) Plant area and building area

Name of product	Production Capacity
Plant area	83,566 tsubo
Building area	20,067 "

(D) Number of employees (As of the end of February, 1949)

Name of product	Production Capacity
Manufacturing department	796 persons
Auxiliary department	331 "
Administrative department	276 "
Total	1,403 "

3. Products

Calcium Cyanamide,
Carbide,
Chamotte Mortar,
Chamotte Brick,
Silicon Carbide,
Morundum.

4. Outline of Manufacturing Process

When limestone, together with carbonaceous matter like coke is charged into a lime kiln (enforced draft bottle type) and roasted, quick-lime is produced. When it is put into an electric furnace (Soderberg type), together with carbonaceous matter such as anthracite, coke or charcoal, and a reaction takes place between then under a high temperature, carbide is produced.

Next, carbide is pulverized and then put into the nitrogenizing furnace (Nihon Chisso type and F.C. type are used in the factory). On the other hand the nitrogen gas which is seperated from the air is induced into the above-mentioned nitrogenizing furnace. When carbide is nitrogenized under a high temparature of about 1,000°C there comes out calcium cyanamide. After pulverization, the finished product is packed into a bag.

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2. Abrasive Materials

(a) Morundum (Fused Alumina)

Alumina shale, a principal material, is heated at a high temperature, together with coke smaller than a nut size and iron scrap in an electric furnace for about 50 hours, the product is obtained. In this process, carbonaceous matter, is used for the purpose of remving by reduction such impurities (ferric oxide and silicic acid, etc.) as are contained in the ore. But, in case the ore contain too little amount of iron, silicon is not easily separable. Therefore,if the ore contains little ferric oxide, iron scrap is added, The melted substance needs to be left gradually cooling in the furnace to develop its crystallization. After cooled, the ingot is taken out of the furnace and crushed with a drop hammer. Then a wellcrystallized portion of the product is separated and sent to a gramulating plant which is equiped with jaw crushers, roll jaw crushers,sieves, flotating machines, magnet separators, etc. Here the crystallized product is granulated to the desired size.

(b) Silicon Carbide

When quartzite, a principal material, is heated at a high temperature, together with coke smaller than a nut size (in case green silicon carbide is manufactured, pitch coke is used instead) and saw-dust(in case green carbide is manufactured, salt is added) in an electric furnace for about 15 hours, the product is obtained. In this process, saw-dust is used so that carbon monoxide may easily come out through the pores and salt is used so that impurities such as iron and others may be volatilized in a form of chlorides. After several day, the cylindrical ingot which is formed around the core is taken out of the furnace. The product gose through nearly the same granulating process as morundum.

5. Main Manufactring Equipment

(A) Equipment for calcium cyanamide

Name of Machinery	Capacity	Unit
Lime kiln(anforced draft bottle type)	20 T	6
Electric furnace(Soderberg type, 3 phase, alternating current, three electrodes trinangularly fixed)	4,500 KVA	2
"	3,500 "	1
	9,000 "	1
Carbide tank	350 T	10
Nitrogenizing furnace(N-type)		12
" (3tFC -type)		40
Nitrogen separater(Nihon Rikn-type)	450 M3/H	2
" (Kobe Seiko-type)	1,000 M3/H	1

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(B) Equipment for carborundum

Name of Machinery	Capacity	Unit
Electric furnace	1,400 KW	15
Transformer	2,000 KVA	3

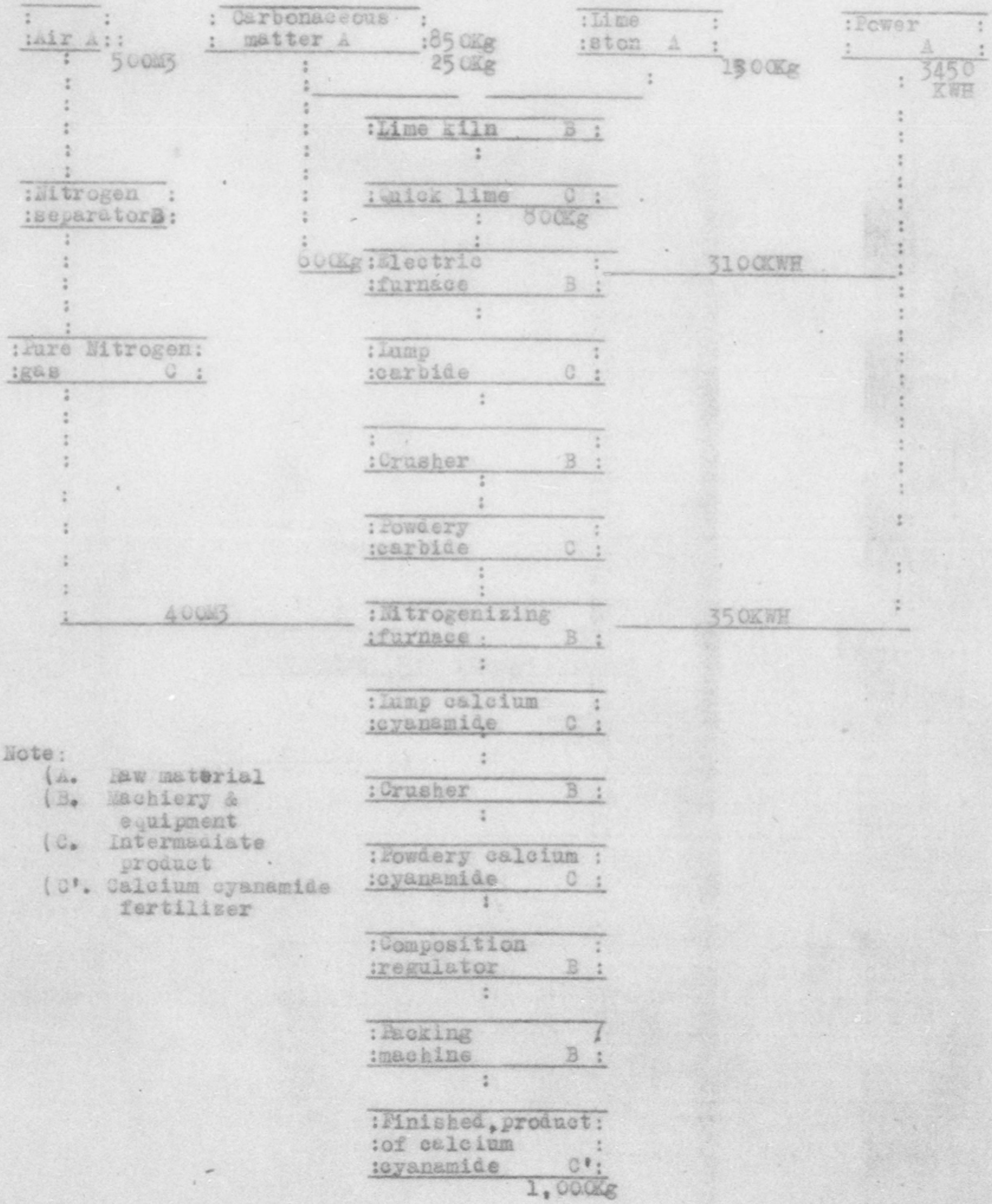
(C) Equipment for morundum

Name of Machinery	Capacity	Unit
Electric furnace (for morundum)	700 KW	6
" (for white morundum)	900 "	1
" (")	450 "	1
Transformer	1,000 KVA	6
"	1,500 "	1
"	750 "	1

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Attached sheet No. 1

Flow Sheet of Calcium Cyanamide



Note:
- (A. Raw material
- (B. Machiery & equipment
- (C. Intermadiate product
- (C'. Calcium cyanamide fertilizer

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Flow Sheet of Morundum

Power

Electrode

(Al2O3 55%
(Fe2O3 11%
(SiO2 15%
(TiO2 25%

Alumina shale

Coke

F.C. 60-65%
Ash 25%

Iron Scrap

Mixing

Electric Furnace

Girault-type

SiO2+2C=Si+2CO
Fe2O3+3C=2Fe+3CO

Cooling

5-7 days

Ingot

Crushing

Dressing

2 hrs

AST Alloy

Crude Product

Matters not Reacted

Crushing

Pulverizing

Sieving

Washing

(Packed 25kg)
(Al2O3 95%
(SiO2 2%
(TiO2 2%
(Fe2O3 0.5%

Dressing by Magnetism

Final Sieving

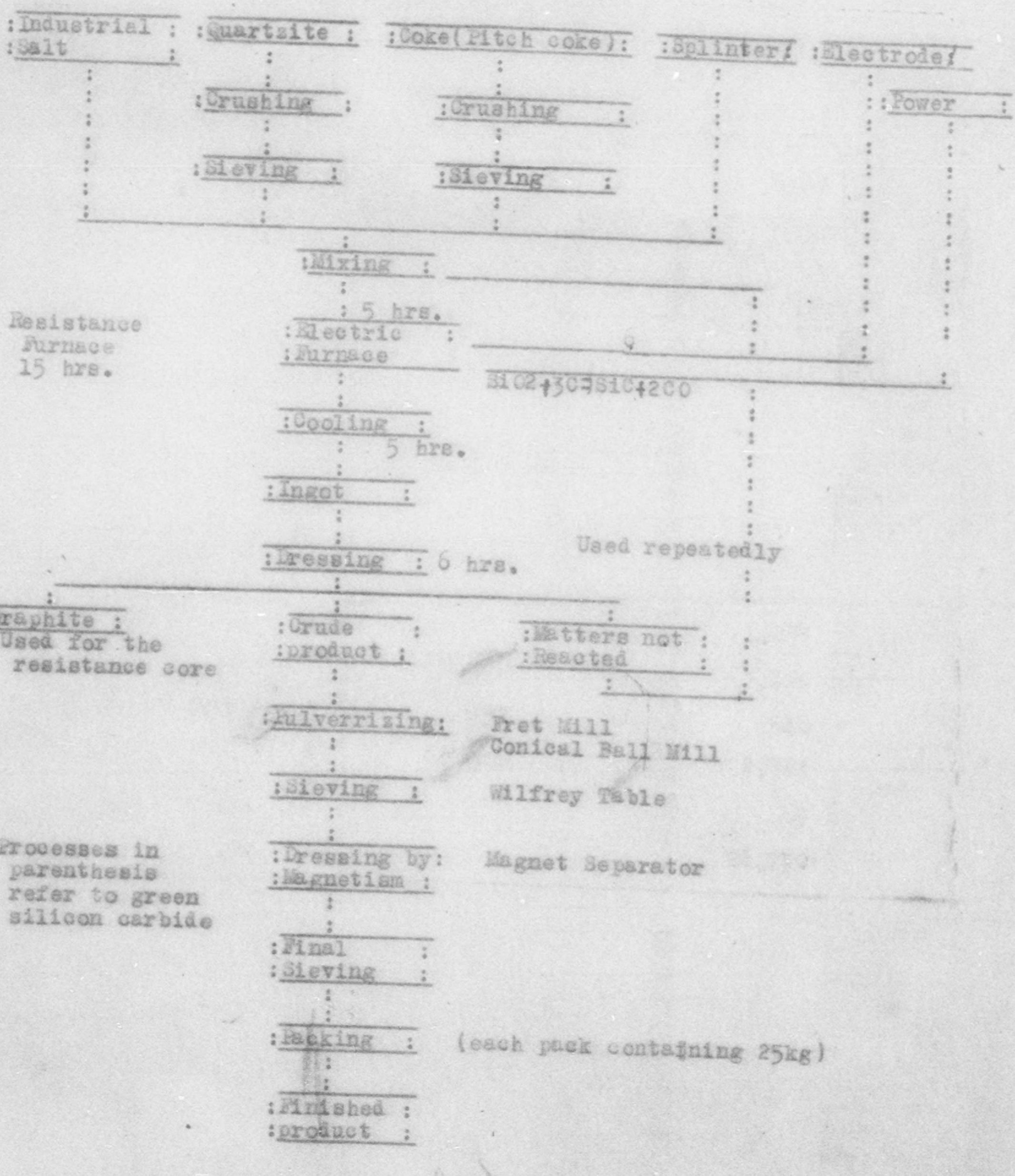
Packing

Finished Product

Name of Raw Materials	Unit	Raw materials required per ton of product: Crude product (per ton)	Finished "
1. Alumina Shale	kg	2,000	3,000
2. Coke	"	180	270
3. Iron Scrap	"	150	225
4. Electrode	"	150	225
5. Power	KWH	9,000	13,500

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Flow Sheet of Silicon Carbide



DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Mr and Mrs Paul Stefan von Kemske and Son -
Pauli Stefan von Kemske, Esq.
Celeste Rains von Kemske
Clark von Kemske

Klark Kemske vs Karl Kemske

Clark - Carl

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Raw Materials Required per ton
of Black Silicon Carbide

Name of Raw Materials	Unit	Crude product (per ton)	Finished product (per ton)
Quartzite	kg	2,100	2,625
Coke	"	2,000	2,500
Saw Dust	"	1,400	1,750
Electrode	"	30	375
Power	KWH	15,000	18,750

Raw Materials Required per ton
of Green Silicon Carbide

Name of Raw Materials	Unit	Crude product (per ton)	Finished product (per ton)
Quartzite	kg	3,430	4,253
Pitch Coke	"	2,480	3,100
Industrial Salt	"	432	540
Saw Dust	"	2,000	2,500
Electrode	"	50	63
Power	KWH	21,400	26,750

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Two ½ hours
from 2-4:30 on 23rd January 1951.
Showa Denko ← Shiojiri, Nagano
Honshu, Japan

New production in last 6 mo.

is metallic silicon
(purity 98%)
is exported to USA -
volume is 50 to 100 M/T per Mo.

other productions the same
as usual

transportation needs are being met
RR very cooperative and
stockpile moved - now normal
"turnaround" - is same day of
30 or more cars a day -

Electric power - ok - since on
8 Nov '50 - ~~[illegible]~~ akamatsu plant
of Showa Denko began operations
(private power plant relieves them
of Kanto Heiden restrictions)

critical needs -
lime stone + coke
Costs vs Selling Price -
Korean War -

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

FERT

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-1065
September 2, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Distribution and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office
SUBJECT: Manufacture of Fertilizer(Monthly Report for August.,1950)

Name of Plant reporting and address:

Showa Denko Co., Ltd Shiojori Plant. No.1, Soga-mura.
Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Shigeki Beppu, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton(annually)

2) Production figures for the month:

1,955,720 Kg

3) Production goals for the month:

1,600,000 Kg

4) Percentage of goal produced:

122.2 %

5) Amount and type of imported materials used during month:

Petroleum Coke (Great Lakes):	187,162 Kg
African anthracite:	5 Kg

Received
K.L.C.O.
25. 9. -5
11MG

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

6) Amount and type of imported materials received during month:

Petroleum coke(Great Lakes) :	204.220 Kg

7) Amount and type of imported materials on hand at the end of month:

American anthracite:	68,590 Kg
African anthracite:	287,065 Kg
Petroleum coke(Great Lakes):	209,958 Kg

8) Remarks:

None

S. Beppu

S. BEPPU,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Fort
Nagano

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-932
August 2, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Distribution and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office
SUBJECT: Manufacture of Fertilizer(Monthly Report for July.,1950)

Name of Plant reporting and address:

Showa Denko Co., Shiojori Plant. No.1, Soga-mura.
Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Kaijiro Kawashima, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanamide, 30,000 ton (annually)

2) Production figures for the month:

2,408,080 Kg

3) Production goals for the month:

2,480,000 Kg

4) Percentage of goal produced:

97.1 %

5) Amount and type of imported materialsused during month:

American anthracite: -
African anthracite: -
Petroleum Coke (great Lakes): 237,800 Kg

Received
K.L.O.O.
25.8.-1

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

o) Amount and type of imported materials received during month:

None

7) Amount and type of imported materials on hand at the end of month:

American anthracite:	68,590 Kg
African anthracite:	287,070 Kg
Petroleum coke(Great Lakes):	192,900 Kg

8) Remarks:

None

K. Kawashima

K. KAWASHIMA,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Fert

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-797
July 2, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Distribution and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office
SUBJECT: Manufacture of Fertilizer(Monthly Report for June., 1950)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant. No.1, Soga-mura.
Higashichikuma-gun, Nagano Prefecture

Name of representative and title:
Kaijiro Kawashima, Chief of Plant

1) Name and quantitymof fertilizer authorized:

Calcium cyanamide, 30,000 ton (annually)

2) Production figures for the month:

2,474,475 kg

3) Production goals for the month:

1,500,000 Kg

4) Percentage of goal produced:

165.0 %

5) Amount and type of imported materials used during month:

American anthracite:	593.100 kg
African anthracite:	—
French Indo-China anthracite:	—
Petroleum Coke (great Lakes):	—

X

Received
K.L.C.O.
25. 1.-5
TIME

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

6) Amount and type of imported materials received during month:

Petroleun coke (greet Lakes) 376,470 kg ✓

7) Amount and type of imported materials on hand at the end of month:

American anthracite: 68,590 kg
African anthracite: 287,070 kg
Petroleun coke (greet Lakes): 430,700 kg } —

8) Remarks:

None

K. Kawashima

K. KAWASHIMA,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

SHOWA DENKO CO., LTD. SHIOJIRI PLANT
No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-665
June 2, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Distribution and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office
SUBJECT: Manufacture of Fertilizer(Monthly Report for May., 1950)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant. No.1, Soga-mura.
Higashichikuma-gun, Nagano Prefecture

Name of representative and title:
Kaijiro Kawashima, Chief of Plant

1) Name and quantity of fertilzer authorized:

Calcium cyanamide, 30,000 ton (annually)

2) Production figures for the month:

2,282,940 Kg

3) Production goals for the month:

2,500,000 Kg

4) Percentage of goal produced:

91.3 %

5) Amount and type of imported materials used during month:

American anthracite:	1,500 Kg
African anthracite:	25,650 "
French Indo-China anthracite:	386,110 "
Petroleum Coke (Great Lakes):	555,500 "

Received
K.L.C.C.
25. 0.-5
TIME

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

b) Amount and type of imported materials received during month:

Petroleun coke (great Lakes) 1,202,830 Kg

7) Amount and type of imported materials on hand at the end of month:

American anthracite:	68,590 Kg
African anthracite:	287,070 Kg
French Indo-China anthracite:	0
Petroleun coke (great Lakes)	647,330 Kg

8) Remarks:

None

K Kawashima

K. KAWASHIMA,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

Fert.

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-554
May. 3, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Commerce and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office

SUBJECT: Manufacture of Fertilizer(Monthly Report for April.,1950)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant. No.1, Soga-mura.
Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Kaijiro Kawashima, Chief of Plant

1) Name and quantity of fertilzer authorized:

Calcium cyanamide, ※ 30,000 ton (annually)

2) Production figures for the month:

2,532,240 Kg

3) Production goals for the month:

△ 2,300,000 Kg

4) Percentage of goal produced:

110.1 %

5) Amount and type of imported materials used during month:

American anthracite:	134.600 Kg	
African anthracite:	97.700 "	
French Indo-China anthracite:	554.000 "	
	786.3	

Received
K.L.C.O.
25.5.-4
IIMB

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

6) Amount and type of imported materials received during month:

American anthracite:	-
African anthracite:	-
French Indo-China anthracite:	-

7) Amount and type of imported materials on hand at the end of month:

American anthracite:	70,090 Kg
African anthracite:	312,720 "
French Indo-China anthracite:	386,110 "

8) Remarks:

※ Quantity indicated by Ministry of International Trade and Industry during 1950 fiscal year is not yet decided, so adoped the piant plan 30,000 ton,

△ plant plan

K. Kawashima

K. KAWASHIMA,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-425
April. 3, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Commerce and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office

SUBJECT: Manufacture of Fertilizer(Monthly Report for March.,1950)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant. No.1, Soga-mura.
Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Kaijiro Kawashima, Chief of Plant

1) Name and quantity of fertilzer authorized:

Calcium cyanamide, 19,500 ton (annually)

2) Production figures for the month:

2,354,985 Kg

3) Production goals for the month:

1,700,000 Kg

4) Percentage of goal produced:

138.5 %

5) Amount and typs of imported materials used during month:

American anthracite: 23,400 Kg
African anthracite:
French Indo-China anthracite: 513,100 Kg

Received
K.L.C.O.
25.4.-4
TIME

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

6) Amount and type of imported materials received during month:

American anthracite:	—
African anthracite:	—
French Indo-China anthracite:	60 Kg

7) Amount and type of imported materials on hand at the end of month:

American anthracite:	204,690
African anthracite:	410,020
French Indo-China anthracite:	940,110

8) Remarks: None

K. Kawashima

K. KAWASHIMA,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NIS 333
Mar. 2, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Commerce and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office

SUBJECT: Manufacture of Fertiliser (Monthly Report for Feb., 1950)

Name of Plant reporting and address:
Showa Denko Co., Ltd. Shiojiri Plant, No.1, Soga-mura,
Higashichikuma-gun, Nagano Prefecture

Name of representative and title

Kaijiro Kawanshima, Chief of Plant

1) Name and quantity of fertiliser authorized:

Calcium cyanamide, 19,500 ton (annually)

2) Production figures for the month: 2,256,750 Kg

3) Production goals for the month: 2,150,000 Kg (Factory Pla

4) Percentage of goal proposed: 105.0 %

5) Amount and type of imported materials used during month :

American anthracite: —
African anthracite: —
French Indo-China anthracite: 380,700 Kg

6) Amount and type of imported materials received during month:

American anthracite: —
African anthracite: —
French Indo-China anthracite: —

7) Amount and type of imported materials on hand at the end of monyh:

American anthracite: 228,090 Kg
African anthracite: 410,020 Kg
French Indo-China anthracite: 1,453,150 Kg

8) Remarks:

None

Received
K.L.C.O.
25. 3. -4

K. Kawashima

K. Kawashima,
Chief of Shiojiri Plant
Showa Denko Co., Ltd.

Received
K.L.O.O.
25. 3. -4
TIME

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

SHOWA DENKO CO., LTD. SHIOJIRI PLANT

No.1, Soga-mura, Higashichikuma-gun,
Nagano Prefecture

File: NLS-231

Feb. 3, 1950

TO: Chief of Kanto Civil Affairs Region

Attention: Chief of Commerce and Industry Division,
Economic Section, Kanto Civil Affairs Region

THROUGH: Kanto Liaison and Coordination Office

SUBJECT: Manufacture of Fertilizer (Monthly Report for Jan.,1950)

Name of Plant reporting and address:

Showa Denko Co., Ltd. Shiojiri Plant, No.1, Soge-mura,
Higashichikuma-gun, Nagano Prefecture

Name of representative and title:

Kaijiro Kawashima, Chief of Plant

1) Name and quantity of fertilizer authorized:

Calcium cyanide, 30,000 ton (annually)

2) Production figures for the month:

2,191,140kg. (Factory Plan)

3) Production goals for the month:

2,150,000Kg.

4) Percentage of goal produced: 101.9%

5) Amount and type of imported materials used during month:

American anthracite: 5,000Kg.
African anthracite: 184,500Kg.
French Indo-China anthracite: 87,400Kg.

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

6) Amount and type of imported materials received during month:

French Indo-China anthracite: 92,250Kg.

7) Amount and type of imported materials on hand at the end of month:

American anthracite:	228,090 Kg.
African anthracite:	410,020 Kg.
French Indo-China anthracite:	1,877,850Kg.

8) Remarks: None

K. Kawashima

K. KAWASHIMA,
Chief of Shiojiri
Plant, Showa Denko
Co., Ltd.

AM/NM