Plant: Mitsubishi Chemical Industries Ltd., Kurosaki Factory, Alcohol Process Synthetic Rubber Plant, Code No. 07-50 Cont'd

Code No.	Item	Quantity	Using Company	Date Authorized
II 2-5-5	Centrifugal Separator	1	Mitsubishi Chemical Industry Ltd.	15 November 1947
II 1-9	Dryer			
" 9-3	Blower			
" 9-4	Motor			
" 10	Dryer			
II 1-9-8	Turbine Pump			
" 9-9	Motor			
" -11	Ammonia Compressor			
" 11-1	Motor			
" 11-2	Condenser			
" 11-3	Cooler			
" 11-4	Tank			
" -15	Ammonia Compressor			
" 15-1	Motor			
" 15-2	Oil Separator			
" 15-3	" "			
" 15-4	Condenser			
" 15-5	Tank			
" 15-6	Cooler			
" 15-7	Tank			
" 15-8	Turbine Pump			
" 15-9	Motor			
" 15-10	Turbine Pump			
" 15-11	Motor			
" 15-14	Switch			
" 16	Ammonia Compressor			
" 16-1	Motor			
" 16-2	Switch			
III 3-7	Turbine Pump			
" 7-1	Motor			
" 8	Turbine Pump			
" 8-1	Motor			
" 9	Turbine Pump			
" 9-1	Motor			
" 10	Turbine Pump			
" 10-1	Motor			
" 11	Turbine Pump			
" 11-1	Motor			
" 12	Turbine Pump			
" 12-1	Motor			
" 12-2	Cooling Tower			
" 12-3	" "			
" 12-4	Head Tank			
III 3-7	Low Tension Switch Board			
III 3-8	" " " "			
" 9	" " " "			
" 10	" " " "			

Plants: Mitsubishi Chemical Industries Ltd., Kurosaki Factory, Alcohol Process Synthetic Rubber Plant, Code No. 07-50 Cont'd

Code No.	Item	Quantity	Using Company	Date Authorized
IIIB-11	Low Tension Switch Board	1	Mitsubishi Chemical Industry Ltd.	15 November 1947
" 12	" " " "			
" 13	" " " "			
" 14	" " " "			
" 15	" " " "			
" 16	" " " "			
" 17	High " " "			
" 18	" " " "			
" 19	" " " "			
" 20	" " " "			
" 21	" " " "			
IIIA-1	Pale Switch			
" 2	" "			
" 3	" "			
" 4	" "			
" 5	" "			
" 6	" "			
" 7	" "			
" 8	" "			
" 9	" "			
" 10	" "			
" 11	" "			
IIIB-4	Single Phase Transformer			
" 5	" " "			
" 6	" " "			
" 7	" " "			
" 8	" " "			
" 9	" " "			

Name of Plant: Mutsubishi Chemical Industries Ltd., Kurosaki Factory

Code No.	Item	Application Date	Date of Approval
IF1-10-6	Tank	15 July 1949	20 July 1949
IF1-10-5	"		
IF1-11-5	"		
ID6-1-8	Cooler		
ID5-1-41	Tank		
ID6-1-16	Centri fugal pump		
ID6-3-4	"		
ID3-2-6	Worthington pump		
IE3-8-4	Agitator		
IE3-8-5	"		
IE3-8-6	"		
IE3-8-7	"		
IE3-8-8	"		
ID4-4-10	Aldehyde Tank		
IE4-5-3	Sulphuric acid acid egg		
IE7-10-9	Receiver		
IE3-8-1	Measuring Tank		
IE7-10-2	Tank		
IE7-10-3	Measuring Tank		
IE7-13-3	Receiver		
IE7-10-6	Safety Tank		
IF1-10-11	Brine Tank		
IF1-10-13	"		
IF1-10-23	Butadiene Tank		
IE5-3-6	Tank		
IE5-4-3	"		
IF1-10-9	Vacuum pump		
IF1-10-10	Electric Motor		
IF2-5-6	"		
II1-13-3	Turbine pump		
IE3-8-23	Electric Motor		
IE5-1-2	Calcium oxide solution Tank		
IB1-2-24	Centri fuge		
II4-1-3	Worthington pump		
II4-2-2	"		
III-5	Ammonia compressor		
III-5-1	Electric Motor		
III-5-2	Ammonia Cooler		
III-5-3	Oil Separator		
III-5-4	Ammonia Receiver		
III-5-5	Brine Tank		

Name of Plant: Mutsubishi Chemical Industries Ltd., Kurosaki Factory

Code No.	Item	Application Date	Date of Approval
III-5-6	Brine Cooler		
III-5-7	Turbine pump		
IC4-2	Butadiene Tank		
IC4-3	"		
IC4-4	"		
IC4-5	"		
IC4-6	"		
IC4-7	"		
IF1-1-17	Agitator		
IC3-1-3	"		
IF1-10-15	"		
IE2-3-14	"		

Name of Plant: Mutsubishi Chemical Industries Ltd., Kurosaki Factory

Code No.	Item	Application Date	Date of Approval
IF1-10-6	Tank	15 July 1949	20 July 1949
IF1-10-5	"		
IF1-11-5	"		
ID6-1-8	Cooler		
ID5-1-41	Tank		
ID6-1-16	Centri fugal pump		
ID6-3-4	"		
ID3-2-6	Worthington pump		
IE3-8-4	Agitator		
IE3-8-5	"		
IE3-8-6	"		
IE3-8-7	"		
IE3-8-8	"		
ID4-4-10	Aldehyde Tank		
IE4-5-3	Sulphuric acid acid egg		
IE7-10-9	Receiver		
IE3-8-1	Measuring Tank		
IE7-10-2	Tank		
IE7-10-3	Measuring Tank		
IE7-13-3	Receiver		
IE7-10-6	Safety Tank		
IF1-10-11	Brine Tank		
IF1-10-13	"		
IF1-10-23	Butadiene Tank		
IE5-3-6	Tank		
IE5-4-3	"		
IF1-10-9	Vacuum pump		
IF1-10-10	Electric Motor		
IF2-5-6	"		
II1-13-3	Turbine pump		
IE3-8-23	Electric Motor		
IE5-1-2	Calcium oxide solution Tank		
IB1-2-24	Centri fuge		
II4-1-3	Worthington pump		
II4-2-2	"		
II1-5	Ammonia compressor		
II1-5-1	Electric Motor		
II1-5-2	Ammonia Cooler		
II1-5-3	Oil Separator		
II1-5-4	Ammonia Receiver		
II1-5-5	Brine Tank		

Name of Plant: Mutsubishi Chemical Industries Ltd., Kurosaki Factory

Code No.	Item	Application Date	Date of Approval
II1-5-6	Brine Cooler		
II1-5-7	Turbine pump		
IC4-2	Butadiene Tank		
IC4-3	"		
IC4-4	"		
IC4-5	"		
IC4-6	"		
IC4-7	"		
IF1-1-17	Agitator		
IC3-1-3	"		
IF1-10-15	"		
IE2-3-14	"		

Name of Plant: Mitsubishi Chemical Industries Ltd., Kurosaki Factory

Code No.	Item	Application Date	Date of Approval
111-14-15 1111-14-16	Turbine Pump Motor	28 October 1948	23 December 1948 Inclosure #2
112-7	Compressor	16 September 1948	4 December 1948 Inclosure #1
112-7-1	Motor		
112-7-2	Accumulator		
114-1-4	Turbine Pump		
114-1-5	Motor		
1F4-7-1	Blower	December 1948	19 February 1949 Inclosure #1
1F4-8-1	"		
1113-1	H.T. Switchboard		
1113-2	" "		
1113-3	" "		
1113-6	" "		
1112-2	Transformer		
1112-3	"		
1112-7	"		
1112-8	"		
1A1-1	Acetylene gas Generator	22 January 1949	5 March 1949
1A1-2-1	Carbide Bin		
1A1-1-5	Hopper		
1A1-1-6	Winch		
1A1-1-7	"		
1A1-1-10	Gas Washer		
1A1-1-11	Gas Cooler		
1A1-1-12	Nitrogen Gas Safety Tank		
1A1-1-13	Safety Tank		
1A1-2-11	Nitrogen Gas Safety Tank		
1D6-1-13	Electric Motor		
1A1-2-12	Safety Tank		
1E1-1-11	Gas Holder		
1A3-3	Gas "		
1A2-1	Purifier		
1A2-2	"		
1A2-3	"		
1G2-1-2	Safety Tank for Acetylene		
1G2-1-6	Separator		
1G5-1-12	Cooler		
1E6-2-3	"		
1G5-1-2	Alkali Washing Tower		
1E1-2-8	Gas Holder		
1E1-1-8	Alcohol Vapourizer		
1E1-2-4	Alcohol "		
1E3-1-13	Ethyleneoxide Reservoir		
1E3-1-12	" "		

Cont'd

Code No.	Item	Application Date	Date of Approval
1E3-4-8	Ethleneozide Reservoir	22 January 1949	5 March 1949
1G5-1	MVA Middle "		
1B4-2-3	Acetylene Separator		
1E7-2-3	Nitrile 2nd Cooler		
1B3-1-8	DVA Middle Reservoir		
1B3-2-7	DVA Evaporator		
1E5-1-1	Ethyleneoxide Reservoir		
1F1-1-10	Oleic Acid. Acid Washer		
1F1-1-11	" " " "		
1F1-1	Polymerizing Autoclave		
1F1-2	" "		
1F1-3	" "		
1F1-4	" "		
1E5-1-3	Cold Water Tank		
1F2-1-5	Dilute Acetic Acid Tank		
1G4-4	Nitrile Reservoir		
1F2-1-4	Dilute Acetic Acid Tank		
1D6-1-17	Electric Motor		
1E6-1-6	Gas Separator		
1E3-1-3	Bevel Gear of Neutralizing Tank		
1E3-2-3	" " " "		
1E3-3-3	" " " "		
1E3-4-3	" " " "		
1E3-5-3	" " " "		
1E3-6-1	" " " "		
1B6-1-18	Electric Motor		
111-1-10	" "		
1C2-2-8	" "		
111-4-1	" "		
111-18	Ammonia Compressor		
111-18-2	Inter Cooler		
111-18-3	Ammonia Reservoir		
111-18-4	" Condenser		
111-18-5	" Expansion Coil		
111-18-6	Oil Separator		
111-18-7	" "		
111-18-8	Gauge Board		
111-4	Ammonia Compressor		
111-4-2	Oil Separator		
111-4-3	Ammonia Cooler		
111-4-4	" Receiver		
111-4-5	Brine Tank		
111-4-6	" Cooler		
111-1-2	Oil Separator		
1F1-1-35	Shafting		
1F1-1-36	"		

Cont'd

Code No.	Item	Application Date	Date of Approval
III-15-13	Oil Separator	5 April 1949	Not Required (Verbal)
III-14	Ammonia Compressor		
III-14-1	Electric Motor		
III-14-2	Ammonia Receiver		
III-14-3	Oil Separator		
III-14-4	Condenser		
III-14-5	"		
III-14-6	Ammonia Receiver		
III-14-7	Cooler		
III-14-8	"		
III-14-11	Turnine Pump		
III-14-12	Electric Motor		
III-14-13	Turbine Pump		
III-14-14	Electric Motor		
III-14-19	Centrifugal Pump		
III-14-20	Gauge		
ID3-1-3	Alcohol Storing Tank		
IF1-1-8	Motor	30 April 1949	19 May 1949 Verbal
IE2-1-14	"		
IE2-1-1	"		
IC2-2-11	Accumulator		
IE4-1-10	Blower		
IF1-7-1	Tank		
1B1-1-21	Catalyst Rec. Vessel		
IB1-2-20	" " "		
IB2-1-1	Condensed Water Reservoir		
IB2-1-2	" " "		
IB2-1-4	" " "		
IB6-1-7	Alkali Measuring Tank		
IB6-2-7	" " "		
IC1-2-1	" " "		
IE5-2-6	Measuring Tank		
ID8-5	Butadine Tank	21 May 1949	23 May 1949 Verbal
1B1-1-20	Catalyst Recovering Vessel		
165-1-9	MVA Evaporator		
IF1-1-18	Stirring Apparatus of Emulsion Preparator		
IB1-1-17	Catalyst Preparator		
1B1-2-7	Water Separator		
IB6-2-2	Acid Egg		
LB6-1-3	" "		
IB4-2-17	Cooler for Solvent		
IB4-1-21	" " "		
IF4-9-1	Fan		
IF4-9-2	Electric Motor		
IF4-10-1	Fan		
IF4-10-2	Electric Motor		

Cont'd

Code No.	Item	Application Date	Date of Approval
III-15-13	Oil Separator	5 April 1949	Not Required
III-14	Ammonia Compressor		
III-14-1	Electric Motor		
III-14-2	Ammonia Receiver		
III-14-3	Oil Separator		
III-14-4	Condenser		
III-14-5	"		
III-14-6	Ammonia Receiver		
III-14-7	Cooler		
III-14-8	"		
III-14-11	Turnine Pump		
III-14-12	Electric Motor		
III-14-13	Turbine Pump		
III-14-14	Electric Motor		
III-14-19	Centrifugal Pump		
III-14-20	Gauge		
ID3-1-3	Alcohol Storing Tank		
IF1-1-8	Motor	30 April 1949	19 May 1949 Verbal
IE2-1-14	"		
IE2-1-1	"		
ID2-2-11	Accumulator		
IE1-1-10	Blower		
IF1-7-1	Tank		
1B1-1-21	Catalyst Rec. Vessel		
IB1-2-20	" " "		
IB2-1-1	Condensed Water Reservoir		
IB2-1-2	" " "		
IB2-1-4	" " "		
IB6-1-7	Alkali Measuring Tank		
IB6-2-7	" " "		
IB1-2-1	" " "		
IE5-2-6	Measuring Tank		
ID8-5	Butadine Tank	21 May 1949	23 May 1949 Verbal
1B1-1-20	Catalyst Recovering Vessel		
165-1-9	MVA Evaporator		
IF1-1-18	Stirring Apparatus of Emulsion Preparator		
IB1-1-17	Catalyst Preparator		
1B1-2-7	Water Separator		
IB6-2-2	Acid Egg		
LB6-1-3	" "		
IB4-2-17	Cooler for Solvent		
IB4-1-21	" " "		
IF4-9-1	Fan		
IF4-9-2	Electric Motor		
IF4-10-1	Fan		
IF4-10-2	Electric Motor		

Cont'd

Code No.	Item	Application Date	Date of Approval
1E3-4-8	Ethleneoxide Reservoir	22 January 1949	5 March 1949
105-1	MVA Middle "		
1B4-2-3	Acetylene Separator		
1E7-2-3	Nitrile 2nd Cooler		
1B3-1-8	DVA Middle Reservoir		
1B3-2-7	DVA Evaporator		
1E5-1-1	Ethyleneoxide Reservoir		
1F1-1-10	Oleic Acid. Acid Washer		
1F1-1-11	" " " "		
1F1-1	Polymerizing Autoclave		
1F1-2	" "		
1F1-3	" "		
1F1-4	" "		
1E5-1-3	Cold Water Tank		
1F2-1-5	Dilute Acetic Acid Tank		
1G4-4	Nitrile Reservoir		
1F2-1-4	Dilute Acetic Acid Tank		
1D6-1-17	Electric Motor		
1E6-1-6	Gas Separator		
1E3-1-3	Bevel Gear of Neutralizing Tank		
1E3-2-3	" " " "		
1E3-3-3	" " " "		
1E3-4-3	" " " "		
1E3-5-3	" " " "		
1E3-6-1	" " " "		
1B6-1-18	Electric Motor		
111-1-10	" "		
1C2-2-8	" "		
111-4-1	" "		
111-18	Ammonia Compressor		
111-18-2	Inter Cooler		
111-18-3	Ammonia Reservoir		
111-18-4	" Condenser		
111-18-5	" Expansion Coil		
111-18-6	Oil Separator		
111-18-7	" "		
111-18-8	Gauge Board		
111-4	Ammonia Compressor		
111-4-2	Oil Seprator		
111-4-3	Ammonia Cooler		
111-4-4	" Receiver		
111-4-5	Brine Tank		
111-4-6	" Cooler		
111-1-2	Oil Separator		
1F1-1-35	Shafting		
1F1-1-36	"		

Name of Plant: Mitsubishi Chemical Industries Ltd., Kurosaki Factory

Code No.	Item	Application Date	Date of Approval
111-14-15 1111-14-16	Turbine Pump Motor	28 October 1948	23 December 1948 Inclosure #2
112-7	Compressor	16 September 1948	4 December 1948 Inclosure #1
112-7-1	Motor		
112-7-2	Accumulator		
114-1-4	Turbine Pump		
114-1-5	Motor		
1F4-7-1	Blower	December 1948	19 February 1949 Inclosure #1
1F4-8-1	"		
1113-1	H.T. Switchboard		
1113-2	" "		
1113-3	" "		
1113-6	" "		
1112-2	Transformer		
1112-3	"		
1112-7	"		
1112-8	"		
1A1-1	Acetylene gas Generator	22 January 1949	5 March 1949
1A1-2-1	Carbide Bin		
1A1-1-5	Hopper		
1A1-1-6	Winch		
1A1-1-7	"		
1A1-1-10	Gas Washer		
1A1-1-11	Gas Cooler		
1A1-1-12	Nitrogen Gas Safety Tank		
1A1-1-13	Safety Tank		
1A1-2-11	Nitrogen Gas Safety Tank		
1D6-1-13	Electric Motor		
1A1-2-12	Safety Tank		
1E1-1-11	Gas Holder		
1A3-3	Gas "		
1A2-1	Purifier		
1A2-2	"		
1A2-3	"		
1G2-1-2	Safety Tank for Acetylene		
1G2-1-6	Separator		
1G5-1-12	Cooler		
1E6-2-3	"		
1G5-1-2	Alkali Washing Tower		
1E1-2-8	Gas Holder		
1E1-1-8	Alcohol Vapourizer		
1E1-2-4	Alcohol "		
1E3-1-13	Ethyleneoxide Reservoir		
1E3-1-12	" "		

CO 10

REPORT ON AUTHORIZED USE EQUIPMENT
REPORT "A"
(M.V.A. Process)

Code No. 07-50

1. Name of Plant: Mitsubishi Chemical Industries Ltd.

2. Address: 2447-1 Gotanshinkai, Fujita, Yawata City, Fukuoka Prefecture

Code No.	Item	Quantity
IE2-2-4	Fan	
IE2-2-5	Motor	
IE1-1-12	Tank	
IE1-1-24	Centrifuge	
IE1-1-25	Motor	
IE1-2-11	Tank	
IE1-2-25	Motor	
IE1-3-2	Tank	
IE2-2-8	Motor	
IE3-1-11	Tank	
IE3-1-14	Vacuum pump	
IE3-4-7	Tank	
IE3-4-11	Motor	
IE6-1-4	Vacuum pump	
IE6-1-5	Motor	
IE6-1-13	Steam superheator	
IE7-1-4	Tank	
IE7-1-5	"	
IE7-1-9	"	
IE7-2-5	"	
IE7-2-7	"	
IE7-3-4	"	
IE7-4-5	"	
IE7-4-6	"	
IE7-4-8	"	
IE7-5-2	Cooler	
IE7-6-2	"	
IF1-1-3	Tank	
IF1-1-4	"	
IF1-1-9	Acid egg	
IF1-1-14	"	
IF1-1-15	Tank	
IF1-1-16	Acid egg	
IF1-1-21	Centrifugal pump	
IF1-1-24	"	
IF1-1-25	"	
IF1-1-26	Vacuum pump	
IF1-1-27	Acuumlator	
IF1-1-28	Motor	
IF1-1-30	Centrifugal pump	
IF1-1-33	Motor	
IF1-2-2	Tank	
IF1-2-3	"	
IF1-8	Autoclave	
IF1-8-1	Motor	
IF1-9	Autoclave	
IF1-9-1	Motor	
IF2-1-1	Tank	
IF2-1-2	"	
IF2-1-3	"	
IF2-1-4	"	
IF2-1-5	"	
IF2-1-6	Motor	
IF2-1-9	Sheft	
IF2-1-7	Contrifugal pump	
IF2-1-8	Motor	
IF4-1	Dryer	
IF4-1-1	Fun motor	
IF4-2	Dryer	
IF4-3	"	
IF4-3-1	Fun motor	
IF4-4	Dryer	
III4-12	Switch	
III4-13	"	
III4-14	"	
III4-15	"	
None	Piping	
IG2-1-8	Motor	
II2-4	Air compressor	
II2-4-1	Motor	
II2-4-2	Acuumlator	
IE2-2-2	Motor	

Code No.	Item	Quantity
III-3-8	Motor	
III-3-10	"	
III-4-8	"	
III-4-10	"	
III-4-12	"	
III-4-14	"	
III-5-8	"	
III-5-10	"	
IE5-1-11	"	
III-7-8	"	
1A1-1-3	Crusher	
LA1-1-4	Motor	
1A1-1-9	"	
1F1-4-1	"	
1E4-1-9	Acid egg	
1E4-2-4	"	
1E4-3-4	"	
1F1-5	Autoclave	
1F1-6	"	
1F1-7	"	
III-3	Ammonia Compressor	
III-3-1	Motor	
III-3-2	Oil separator	
III-3-3	Condenser	
III-3-4	Tank	
III-3-6	Brine cooler	
1F4-5	Drier	
1F4-6	"	
1F4-7	"	
1F4-8	"	
II2-2	Compressor	
1B1-2-17	Reaction kettle	
1B1-2-18	" "	
1B1-2-21	" "	
1B4-1-23	Centrifugal pump	
1B1-2-16	Reaction kettle	
1B1-2-19	Motor	
1B6-2-11	Centrifugal pump	
1B6-2-12	Motor	
1B6-2-13	Centrifugal pump	
1B6-2-14	Motor	
1E3-2-8	"	
1E6-2-4	Vacuum pump	
1E6-2-5	Motor	
1E6-2-6	Accumlator	
1E7-1-6	Vacuum pump	

Code No.	Item	Quantity
1E7-1-7	Motor	
II2-5	Compressor	
II2-5-1	Motor	
II2-5-2	Accumlator	
II2-1-6	Vacuum pump	
1B2-2-1	Tank	
1B2-2-2	"	
1B2-2-4	"	
1B6-2-8	"	
1C2-1-6	Hoist	
1C3-2-8	Acid egg	
II2-1	Compressor	
II2-1-1	Motor	
II2-1-2	Accumlator	
1B1-1-23	Tub	
1B1-2-23	"	
III-17-7	Centrifugal pump	
III-6	Ammonia compressor	
III-6-1	Motor	
III-6-2	Oil separator	
III-6-3	Condenser	
III-6-4	Tank	
III-7	Ammonia compressor	
III-7-1	Motor	
III-7-2	Oil separator	
III-7-3	Condenser	
III-7-4	"	
III-7-6	Brine cooler	
1C3-1-4	Motor	

REPORT ON AUTHORIZED USE EQUIPMENT
REPORT "A"
(ALCOHOL PROCESS)

Code No. 07-50

1. Name of Plant: Mitsubishi Chemical Industries Ltd.
2. Address : 2447-1 Gotanshinkai Fujita, Yawata City, Fukuoka Pref.

Code No.	Item	Quantity
ID1-1-5	Kneader	
ID1-1-7	Motor	
ID1-1-6	Kneader	
ID2-1	Dryer	
ID2-2	"	
ID3-1-1	Tank	
ID3-1-2	Worthington Pump	
ID3-1-4	"	
ID3-2-1	Tank	
ID3-2-3	Pump	
ID7-3-4	Gas holder	
IE1-3	Ethylene generator	
IE1-3-1	Tank	
IE1-3-2	Pump	
IE1-3-4	Tank	
IE1-3-5	Evaporator	
IE1-3-6	Condenser	
IE1-3-7	Cooler	
IE1-3-9	Receiver	
IE1-3-10	Water seal	
IE1-3-11	Chimney	
IE1-3-13	Gas holder	
IE1-3-14	"	
IE1-5	Ethylene generator	
IE1-5-1	Evaporator	
IE2-3	Reaction tower	
IE2-3-1	Motor	
IE2-3-2	Acid egg	
IE2-3-3	Tank	
IE2-3-5	Motor	
IE2-3-7	Accumlator	
IE2-3-8	Nash pump	
IE2-3-9	Motor	
IE2-3-10	Accumlator	
IE2-3-11	Centrifugal pump	
IE2-3-12	Motor	
IE2-4	Reaction tower	
IE2-4-1	Motor	
IE2-4-3	"	
IE2-4-6	Tank	
IE2-4-7	Nash pump	
IE2-4-8	Motor	
IE2-4-9	Accumlator	
IE2-5-1	Motor	
IE2-5-2	Centrifugal pump	
IE2-5-4	Tub	
IE2-5-5	Turbine pump	
IE2-5-6	Motor	
IE2-5-8	Chlorohydrine Receiver	
IE2-5-9	" "	
IE2-5-10	Motor	
IE2-5-12	"	
IE2-5-13	Centrifugal pump	
IE2-5-14	Motor	
IE2-6-2	"	
IE2-7-1	Centrifugal pump	
IE2-7-2	Motor	
IE2-8-1	Centrifugal pump	
IE2-8-2	Motor	
IE2-8-8	Compressor	
IE2-8-9	Motor	
IE2-8-10	Tank	
IE3-7	Ethylene oxide generator	
IE3-7-1	Acid egg	
IE3-7-2	Tank	
IE3-7-3	Acid egg	
IE3-7-4	Tank	
IE3-7-5	Turbine pump	
IE3-7-6	Motor	
IE3-7-7	Condenser	
IE3-7-8	Tank	
IE3-7-9	Condenser	
IE3-7-10	"	
IE3-7-11	Tank	
IE4-5	Cyan gas generator	
IE4-5-6	Tank	
IE4-5-8	Motor	
IE4-6-3	Tank	
IE5-3	Reaction kettle	
IE5-3-1	Tank	

Code No.	Item	Quantity
IE5-3-2	Motor	
IE5-3-4	Centrifugal pump	
IE5-3-5	Motor	
IE5-3-8	"	
IE5-4	Reaction kettle	
IE5-4-1	Tank	
IE5-4-2	Motor	
IE6-3	Distiller	
IE6-3-1	Tank	
IE6-3-2	"	
IE6-3-3	"	
IE6-3-6	"	
IE6-3-7	Vacuum pump	
IE6-3-8	Motor	
IE6-3-9	Vacuum pump	
IE6-3-10	Motor	
IE6-3-12	Tank	
IE6-3-13	"	
IE6-3-14	Condenser	
IE6-3-15	Tank	
IE6-3-16	Tank	
IE6-3-17	Tank	
IE6-3-18	Gauge board	
IE6-4	Distiller	
IE6-4-1	Tank	
IE-4-2	"	
IE6-4-3	"	
IE6-4-4	Vacuum pump	
IE6-4-5	Motor	
IE6-4-6	Tank	
IE6-4-7	"	
IE6-4-8	Condenser	
IE6-4-9	Tank	
IE6-4-10	"	
IE6-4-11	"	
IE7-7-1	"	
IE7-8-4	"	
IE8-3	Distillation tower	
IE8-3-1	Condenser	
IE8-3-2	Tank	
IE8-3-3	"	
IE8-3-4	Centrifugal pump	
IE8-3-5	Motor	
IE8-4	Still	
IE8-4-1	Separator	
IE8-4-3	Tank	
IE8-4-4	"	
III-9-8	Turbine pump	
III-9-9	Motor	
III-15	Ammonia compressor	

Code No.	Item	Quantity
III-15-1	Motor	
III-15-2	Oil Separator	
III-15-3	"	
III-15-4	Condenser	
III-15-5	Tank	
III-15-6	Cooler	
III-15-7	Tank	
III-15-8	Turbine pump	
III-15-9	Motor	
III-15-10	Turbine pump	
III-15-11	Motor	
III-15-14	Switch	
III-16	Ammonia Compressor	
III-16-1	Motor	
III-16-2	Switch	
II5-8	Thermocouple	
II5-9	"	
II5-11	"	
None	Piping Press	
ID3-1-12	Motor	
ID7-1-5	Centrifuge	
ID7-6-6	Tank	
ID7-6-7	"	
IE3-8-11	"	
IE3-8-12	"	
IE3-10-6	Water Separator	
IE3-10-7	" "	
IE3-10-8	" "	
IE3-10-9	" "	
IE7-7-4	Tank	
IE7-8-3	"	
IE7-9-1	Separator	
IE7-10-8	Tank	
IE7-11-2	"	
III-18-1	Motor	
ID1-3-1	Filter press	
ID1-4-1	" "	
ID1-5-1	Filter press	
IF1-12	Autoclave	
IF1-13	"	
ID1-1-2	Filter press	
ID1-1-3	"	
ID1-2-1	"	
IF1-10-17	Tub	
IF1-10-18	"	
ID2-6	Vacuum drier	
ID2-7	" "	
ID1-1	Wooden tub	
ID1-2	"	
ID1-3	"	

Code No.	Item	Quantity
IF4-9	Drier	
IF4-10	"	
IF1-10-14	Motor	
IF2-5-1	"	
IF2-5-5	Centrifuge	
ID2-3	Vacuum drier	
ID2-4	" "	
ID2-4-1	Drain tank	
IF2-5-2	Brine dissolving tub	
IF2-5-3	" " "	
IE6-3-11	Vacuum pump	
ID2-5	Drier	
ID7-1-6	Motor	
IF4-9-3	Blower	
IF4-9-4	Motor	
ID6-1-11	Centrifugal pump	
II1-11	Compressor	
II1-11-1	Motor	
II1-11-2	Condenser	
II1-11-3	Cooler	
II1-11-4	Tank	
ID3-1-8	"	
ID6-1-12	Centrifugal pump	
ID6-1-13	Motor	
ID7-6-3	Condenser	
ID7-6-4	"	
IF1-10-9	Vacuum pump	
IF1-10-10	Motor	
II2-6	Compressor	
II2-6-1	Motor	
II2-6-2	Accumlator	
ID1-4	Tub	
ID1-5	"	
ID1-6	"	
ID1-7	"	
ID1-6-1	Filter press	
ID1-7-1	" "	
ID2-8	Drier	
ID2-9	"	
ID2-9-1	Blower	
ID6-1-14	Centrifugal pump	
ID6-2-8	Turbine pump	
ID7-1-4	" "	
IE2-3-4	Nash pump	
IE2-4-2	" "	
IE2-3-6	Separator	
IE2-4-4	"	
IE7-7-8	Compressor	
IE7-7-9	Motor	
II3-11	Turbine pump	
II3-11-1	Motor	
II3-12	Turbine pump	
II3-12-1	Motor	
II3-12-2	Cooling tower	
II3-12-3	" "	
II3-12-4	Head tank	
II3-7	Turbine pump	
II3-7-1	Motor	
II3-8	Turbine pump	
II3-8-1	Motor	
II3-9	Turbine pump	
II3-9-1	Motor	
II3-10	Turbine pump	
II3-10-1	Motor	
III4-1	Pole switch	
III4-2	" "	
III4-3	" "	
III4-4	" "	
III4-5	" "	
III4-6	" "	
III4-7	" "	
III4-8	" "	
III4-9	" "	
III4-10	" "	
III4-11	" "	
III2-4	Transformer	
III2-5	"	
III2-6	"	
III2-7	"	
III2-8	"	
III2-9	"	
III3-7 through III3-16	Switch board	
III3-17 through III3-21	Switch board with O.C.B.	

REPORT ON AUTHORIZED USE EQUIPMENT
REPORT "B"
(M.V.A. Process)

Code No. 07-50

1. Name of Plant: Mitsubishi Chemical Industries Ltd.

2. Address: 2447-1 Gotanshinkai, Fujita, Iwata City, Fukuoka Prefecture

Code No.	Item	Quantity
-	Platform scale	3
	Balance	1
	Desk	2
	Black board	3
	Locker	1
	Chair	1
	Clock	1
	(Alcohol Process)	
	Desk	13
	Chair	6
	Black board	4
	Locker	5
	Documents case	5
	Telephone	1
	Loud Speaker	1
	Clock	2
	Book stand	1

Name of Plant: Mitsubishi Chemical Industries Ltd., Kurosaki Factory

Code No.	Item	Application Date	Date of Approval
1G5-1-1	Centrifugal Pump	28 July 1949	16 August 1949
1B2-1-5	Vacumn Pump		
1E6-3-4	Filter Tank		
1E8-2-2	Condenser		
1E6-2-9	Solvent Reservoir		

Name of Plant: Mitsubishi Chemical Industries Ltd., Kurosaki Factory

Code No.	Item	Application Date	Date of Approval
1G5-1-1	Centrifugal Pump	28 July 1949	16 August 1949
1B2-1-5	Vacumm Pump		
1E6-3-4	Filter Tank		
1E8-2-2	Condenser		
1E6-2-9	Solvent Reservoir		

List on Ex Equipment

Date of Report 15 Oct., 1948

1. Name of plant (Code Number)

   Mitsubishi Chemical Industries

   Kurosaki Factory (07-50)
   M.V.A. Process synthetic Rubber plant

2. Name of Custodian

   Shikao Satow

3. Location of plant

   2449-1 Gotenzhinkai Fujita, Yawata City

   Fukuoka Prefecture

4. List of Ex Equipment

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-301	Motor	20 May '46	Producing of perfume	Converted from Urea resin plant
V-1-302	"	"	"	Received from store house or second hand machine
V-1-303	"	"	"	"
V-1-304	"	"	"	"
V-1-305	"	17 June '46	"	Converted from organic glass plant

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-306	Motor	10 Nov. '46	Producing of perfume	Converted from organic glass plant
V-1-307	"	20 May '46	"	Converted from urea resin plant
V-1-308	"	"	"	"
V-1-309	"	"	"	"
V-1-310	"	"	"	"
V-1-311	"	"	"	"
V-1-312	"	"	"	"
V-1-313	Reaction kettle	10 Nov. '46	"	Converted from solvent plant
V-1-314	"	26 Feb. '46	"	Received from store house of second hand machine
V-1-315	"	20 May '46	"	Converted from solvent plant
V-1-316	"	5 Mar. '46	"	"
V-1-317	"	20 May '46	"	Converted from organic glass plant
V-1-318	"	10 Nov. '46	"	"
V-1-319	"	20 May '46	"	Converted from solvent plant
V-1-320	"	"	"	"

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-321	Reaction kettle	15 Mar. '47	Producing of perfume	Converted from Urea resin plant
V-1-322	"	"	"	Received from store house of second hand machine
V-1-323	"	"	"	Converted from Urea resin plant
V-1-324	"	30 Mar. '47	"	Converted from organic glass plant
V-1-325	"	20 May. '46	"	"
V-1-326	"	20 June '47	"	Received from store house of second hand machine
V-1-327	"	20 Jan. '48	"	"
V-1-328	"	20 May. 46	"	"
V-1-329	Distillation still	20 May. '46	"	Converted from organic glass plant
V-1-330	"	"	"	"
V-1-331	"	"	"	"
V-1-332	"	"	"	"
V-1-333	"	15 Jan. '48	"	Received from store house of second hand machine

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-334	Distillation still	20 May. '46	Producing of perfume	Received from store house of second hand machine
V-1-335	"	"	"	Converted from Urea resin plant
V-1-336	"	15 Feb. '46	"	Received from store house of second hand machine
V-1-337	"	20 Jan. '48	"	"
V-1-338	"	20 May. '46	"	Converted from Dyestuff plant
V-1-339	"	"	"	"
V-1-340	"	"	"	Received from store house of second hand machine
V-1-341	"	1 May. '48	"	Home-made
V-1-342	Distillation tower	10 May. '46	"	Received from store house of second hand machine
V-1-343	"	"	"	"
V-1-344	"	"	"	"
V-1-345	"	"	"	"
V-1-346	Condenser	1 May. '48	"	"
V-1-347	"	20 May. '48	"	Home-made

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-348	Condenser	15 Feb. '48	Producing of perfume	~~Home-ma~~ Received from Urea resin plant
V-1-349	"	30 Jan. '48	"	Received from store house of second hand machine
V-1-350	"	20 May. '47	"	"
V-1-351	"	20 May. '46	"	Converted from organic glass plant
V-1-352	"	"	"	"
V-1-353	"	"	"	"
V-1-354	"	"	"	Received from store house of second hand machine
V-1-355	"	"	"	"
V-1-356	"	"	"	Converted from solvent plant
V-1-357	"	"	"	Converted from dyestuff plant
V-1-358	"	"	"	Received from store house of second hand machine
V-1-359	"	"	"	"
V-1-360	"	"	"	"
V-1-361	"	"	"	"
V-1-362	"	"	"	"

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-363	Condenser	20 May '46	Producing of perfume	Received from store house of second hand machine
V-1-364	"	"	"	"
V-1-365	"	"	"	"
V-1-366	"	"	"	"
V-1-367	"	"	"	"
V-1-368	"	28 Oct. '46	"	"
V-1-369	"	"	"	"
V-1-370	Receiver	20 May '46	"	Converted from organic glass plant
V-1-371	"	"	"	"
V-1-372	"	"	"	"
V-1-373	"	"	"	"
V-1-374	"	"	"	"
V-1-375	"	"	"	Received from store house of second hand machine
V-1-376	"	"	"	"
V-1-377	"	"	"	"
V-1-378	"	"	"	"
V-1-379	"	"	"	"
V-1-380	"	"	"	"
V-1-381	"	"	"	"

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-382	Receiver	30 May. '46	Producing of perfume	Received from store house of second hend machine
V-1-383	"	"	"	"
V-1-384	"	"	"	"
V-1-385	"	"	"	"
V-1-386	"	"	"	"
V-1-387	"	"	"	"
V-1-388	"	"	"	"
V-1-389	Tank	"	"	"
V-1-390	"	"	"	"
V-1-391	"	"	"	Converted from organic glass plant
V-1-392	Tank	"	"	"
V-1-393	Oil bath	"	"	Home-Made
V-1-394	"	"	"	"
V-1-395	Tank	"	"	Converted from organic glass plant
V-1-396	"	"	"	"
V-1-397	Seperating tank	"	"	Received from store house of second hend machine
V-1-398	Measuring tank	"	"	"
V-1-399	"	"	"	"

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-400	Generating tank	20 May '46	Producing of perfume	Received from store house of second hand machine
V-1-401	"	"	"	"
V-1-402	"	"	"	"
V-1-403	Tub	"	"	Converted from dyestuff plant
V-1-404	Separating tank	"	"	Received from store house of second hand machine
V-1-405	Acid ers	6 June '46	"	Converted from Resin plant
V-1-406	Tub	10 June '47	"	Converted from dyestuff plant
V-1-407	"	"	"	"
V-1-408	Water separator	20 May '46	"	Received from store house of second hand machine
V-1-409	Separating tank	"	"	"
V-1-410	Measuring tank	"	"	"
V-1-411	"	"	"	"
V-1-412	Separating tank	"	"	"
V-1-413	Measuring tank	"	"	"
V-1-414	"	"	"	"
V-1-415	Receiver	"	"	"
V-1-416	Dissolving tank	"	"	"

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-416 ✓	Dissolving tank	20 May. '46	Producing of perfume	Home-made
V-1-417 ✓	"	"	"	"
V-1-418 ✓	Measuring tank	"	"	Received from store house of second hand machine
V-1-419 ✓	Water tank	"	"	"
V-1-420 ✓	"	"	"	"
V-1-421 ✓	Oil tank	"	"	"
V-1-422 ✓	Vacuum tank	"	"	"
V-1-423 ✓	"	"	"	"
V-1-424 ✓	"	"	"	"
V-1-425 ✓	"	"	"	"
V-1-426 ✓	Air tank	"	"	"
V-1-427 ✓	Acid catcher	14 May. '46	"	"
V-1-428 ✓	"	"	"	"
V-1-429 ✓	"	"	"	"
V-1-430 ✓	"	"	"	"
V-1-431 ✓	Porcelain pot	20 May. '46	"	"
V-1-432 ✓	"	"	"	"
V-1-433 ✓	"	"	"	"
V-1-434 ✓	"	"	"	"
V-1-435 ✓	"	"	"	"
V-1-436 ✓	"	"	"	"

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-437 ✓	Porcelain pot	20 May. '46	Producing of perfume	Received from store house of second hand machine
V-1-438 ✓	"	"	"	"
V-1-439 ✓	"	"	"	"
V-1-440 ✓	"	"	"	"
V-1-441 ✓	"	"	"	"
V-1-442 ✓	"	"	"	"
V-1-443 ✓	"	"	"	"
V-1-444 ✓	"	"	"	"
V-1-445 ✓	Centrifuge	"	"	Converted from organic glass plant
V-1-446 ✓	"	"	"	"
V-1-447 ✓	Refrigerator	"	"	Converted from solvent plant
V-1-448 ✓	Crusher	"	"	"
V-1-449 ✓	"	"	"	"
V-1-450 ✓	Air Compressor	3 June. '46	"	Converted from Urea resin plant
V-1-451 ✓	Grinder	1 May. '46	"	Purchased
V-1-452 ✓	Stand	20 May. '46	"	Home-made
V-1-453 ✓	Gear pump	"	"	Received from store house of second hand machine

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-454	Worthington pump	20 May.'46	Producing of perfume	Converted from Heinuzuka factory
V-1-455	Filter	"	"	Converted from Ano factory
V-1-456	Vacuum pump	"	"	Converted from dyestuff plant
V-1-457	Platform scale	"	"	Received from store house of second hand machine
V-1-458	"	"	"	"
V-1-459	"	"	"	"
V-1-460	"	"	"	"
~~V-1-461~~	~~Unit~~			
~~V-1-462~~				
V-1-463	Turbine pump	1 Oct, '46	Producing of salt	Converted from machine shop
V-1-464	"	"	"	"
V-1-465	Tub	"	"	Home-made
V-1-466	"	"	"	"
V-1-467	"	"	"	"
V-1-468	"	"	"	Received from stone house
V-1-469	"	"	"	"
V-1-470	"	"	"	"
V-1-471	"	"	"	Converted from water tank for fire extinguish

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-472	Tub	1 Oct. '46	Producing of salt	Converted from water tank for fire extinguish
V-1-472	"	"	"	"
V-1-473	Furnace	"	"	"
V-1-474	Chimnet	"	"	"
V-1-475	Evapoestor	"	"	"
V-1-476	"	"	"	"
V-1-477	Hand pump	"	"	"
V-1-479	Portable grinder	20 Feb. '48	Maintemance of reparation equipment	Purchased
V-1-526	Compressor	20 May '46	Producing of perfumes	Received from store house of second hand machine
V-1-527	Distillation water making apparatus	1 Apr. '47	Distillation water making	Home-made
V-1-528	Boiler	20 May '46	Producing of salt	Converted from Heinuzuka plant
V-1-529	Super heater	"	"	"
V-1-570	Tank	10 Oct. '46	"	Home-made
V-1-532	Reaction kettle	10 Sept.'48	Producing of perfume	Purchased Received from electric store house
V-1-533	Transformer	1 May '48	"	
V-1-534	"	"	"	"
V-1-535	"	"	"	"
V-1-611	Piping	1 Feb. '46	"	Purchased

B Tools and Attachement

Code No.	Item	Ex Date	Authorised Use	Remarks
V-S-91	Double hole spanner 7/8" x 6/8"	1 May '46	Producing of Perfume	4 Pieces
V-S-92	Double hole spanner 6/8" x 5/8"	"	"	5 "
V-S-93	Double hole spanner 5/8" x 4/8"	"	"	4 "
V-S-94	Double hole 4/8" x 4/8"	"	"	2 "
V-S-95	Double hole spanner 1" x 7/8"	"	"	2 "
V-S-96	Double hole spanner 8/8" x 8/8"	"	"	4 "
V-S-97	Double hole spanner 4/8" x 3/8"	"	"	1 "
V-S-98	Box spanner 8/8"	"	"	2 "
V-S-99	Monkey spanner 10"	"	"	1 "
V-S-100	Pipe wrench 44"	"	"	1 "
V-S-101	Pipe wrench 26"	"	"	1 "
V-S-102	Pipe wrench 22"	1 May '46	"	1 "
V-S-103	Hammer 1 lb	"	"	1 "
V-S-104	" 12 lb	"	"	1 "
V-S-105	Chain block 3t	"	"	1 "
V-S-106	"	"	"	1 "

Code No.	Item	Ex Date	Authorized Use	Remarks
V-3-107	Chain block 1 t	1 May '46	Producing of perfume	1 Pieces
V-3-106	Chain block 1 t	"	"	2 "
V-3-109	Block	"	"	2 "
V-3-110	Wire brush	"	"	2 "
V-3-111	Fire stirrer	"	"	9 "
V-3-112	Shovel	"	"	3 "
V-3-113	Pick	"	"	1 "
V-3-122	Tap 5/16"	1 Oct.'48	Maintenance of Reparation	2 "
V-3-127	Hand planer	"	"	1 "
V-3-129	Pincers	"	"	3 "
V-3-134	Pipe wrench 12"	"	"	3 "
V-3-135	" " 10"	"	"	2 "
V-3-136	Graver	"	"	5 "

C. Furniture, Car, Phone, and other miscellaneous

Code No.	Item	Ex Date	Authorized Use	Remarks
V-2-98	Desk	1 May '46	Producing of perfumes	
V-2-99	"	"	"	
V-2-100	"	"	"	
V-2-101	"	"	"	
V-2-102	"	"	"	
V-2-103	"	"	"	
V-2-104	"	"	"	
V-2-105	"	"	"	
V-2-113	Bench	1 May '46	"	
V-2-114	"	"	"	
V-2-116	Stool	"	"	
V-2-117	"	"	"	
V-2-123	Clock	"	"	
V-2-124	Radiator	"	"	
V-2-125	"	"	"	
V-2-126	"	"	"	
V-2-127	"	"	"	
V-2-128	Water hose for fire extinguish	"	"	
V-2-129	"	"	"	
V-2-130	"	"	"	
V-2-131	"	"	"	
V-2-132	"	"	"	
V-2-133	"	"	"	

Code No.	Item	Ex Date	Authorized Use	Remarks
V-2-134	Desk	1 Oct. '46	Producing of salt	
V-2-135	Chair	"	"	
V-2-136	Document case	"	"	
V-2-142	Fire extinguisher	"	Preservation of reperation equipment	
V-2-143	"	"	"	
V-2-144	"	"	"	
V-2-145	"	"	"	
V-2-146	"	"	"	
V-2-152	Ladder	"	"	
V-2-153	"	"	"	
V-2-154	"	"	"	
V-2-159	Desk	"	"	
V-2-160	"	"	"	
V-2-168	Document case	"	"	
V-2-171	Looker	"	"	
V-2-172	"	"	"	
V-2-176	Bench	"	"	
V-2-177	"	"	"	
V-2-178	"	"	"	
V-2-180	Telephone	"	"	

Code No.	Item	Ex Date	Authorized Use	Remarks
V-1-461	Cert	20 May '46	Producing of perfume	
V-1-462	"	"	"	
V-1-601	"	20 Feb. '46	Preserivation of reperse-tion equi-ment	

Date : 16 March, 1949

Name of Company : Mitsubishi Chemical Industries Ltd., Kurosaki Factory

Code No. : 07-50

Location of Plant: 2447-1, Gotenshinkai, Fujita, Yawata City, Fukuoka Pref.

Name of Plant : Alcohol Process Synthetic Rubber Plant

List of Reparation Equipment in None Use

Alcohol Process Plant

(a) Originally inventoried Equipment that is not in Authorized Use.

Code No.	Item	Class	Remarks
ID1-1-1	Worthington pump		
ID1-1-4	"		
ID1-2-2	"		
ID1-3-2	"		
ID1-4-2	"		
ID3-1	Butadiene Synthesizing tower		
ID3-1-3	Reservoir		
ID3-1-5	"		
ID3-1-6	"		
ID3-1-7	Worthington pump		
ID3-1-9	Evaporator		
ID3-1-10	Pre-heater		
ID3-1-11	Origine pump		
ID3-1-13	Oil separator		
ID3-1-14	"		
ID3-1-15	Drain tank		
ID3-1-16	"		
ID3-2	Butadiene Synthesizing tower		
ID3-2-2	Reservoir		

Code No.	Item	Class	Remarks
ID3-2-4	Reservoir		
ID3-2-5	"		
ID3-2-6	Worthington pump		
ID3-2-7	Head tank		
ID3-2-8	Pre-heater		
ID3-3	Butadiene Synthesizing tower		
ID3-3-1	Reservoir		
ID3-3-2	"		
ID3-3-3	Pre-heater		
ID4-1	Distillation tower		
ID4-1-1	Condenser		
ID4-1-2	"		
ID4-1-3	Reservoir		
ID4-1-4	"		
ID4-1-5	Worthington pump		
ID4-1-6	"		
ID4-1-7	Pre-heater		
ID4-1-8	Condenser		
ID4-1-9	Cooler		
ID4-1-10	Cooler		
ID4-1-11	Reservoir		
ID4-2	Distillation tower		

Code No.	Item	Class	Remarks
ID4-2-1	Head tank		
ID4-2-2	Heat exchanger		
ID4-2-3	Pre-heater		
ID4-2-4	Condenser		
ID4-2-5	"		
ID4-2-6	"		
ID4-2-7	Tank		
ID4-2-8	Tank		
ID4-2-9	Worthington pump		
ID4-3	Alcohol distillation tower		
ID4-3-1	Heat exchanger		
ID4-3-2	Pre-heater		
ID4-3-3	Condenser		
ID4-3-4	"		
ID4-3-5	"		
ID4-3-6	"		
ID4-3-7	Reservoir		
ID4-3-8	"		
ID4-4	Distillation tower		
ID4-4-1	Condenser		
ID4-4-2	"		
ID4-4-3	Reservoir		
ID4-4-4	"		

Code No.	Item	Class	Remarks
ID4-4-5	Worthington pump		
ID4-4-6	Pre-heater		
ID4-4-7	Condenser		
ID4-4-8	Reservoir		
ID4-4-9	"		
ID4-4-10	"		
ID4-4-11	Worthington pump		
ID4-5	Distillation tower		
ID4-5-1	Head tank		
ID4-5-2	Pre-heater		
ID4-5-3	Condenser		
ID4-5-4	Cooler		
ID4-5-5	Reservoir		
ID4-5-6	"		
ID4-5-7	Worthington pump		
II5-1	Temperature regulator		
II5-2	"		
II5-3	"		
II5-4	"		
II5-5	"		
II5-6	"		
None	Piping		
ID5-1	Gas separator		

Code No.	Item	Class	Remarks
ID5-1-1	Gas holder		
ID5-1-2	Gas meter		
ID5-1-3	Accumulator		
ID5-1-4	Compressor		
ID5-1-5	Cooler		
ID5-1-6	Oil separator		
ID5-1-7	Gas dryer		
ID5-1-8	"		
ID5-1-9	"		
ID5-1-10	"		
ID5-1-11	Cooler		
ID5-1-12	Gas separator		
ID5-1-13	Cooler		
ID5-1-14	Gas separator		
ID5-1-15	"		
ID5-1-16	Accumulator		
ID5-1-17	Compressor		
ID5-1-18	Motor		
ID5-1-19	Cooler		
ID5-1-20	Oil separator		
ID5-1-21	Condenser		
ID5-1-22	Oil separator		
ID5-1-23	Cooler		

Code No.	Item	Class	Remarks
ID5-1-24	Oil separator		
ID5-1-25	Gas dryer		
ID5-1-26	"		
ID5-1-27	"		
ID5-1-28	"		
ID5-1-29	"		
ID5-1-30	Oil collector		
ID5-1-31	Collecting tank		
ID5-1-32	Gas holder		
ID5-1-33	Heat exchanger		
ID5-1-34	Gas meter		
ID5-1-35	"		
ID5-1-36	Collecting tank		
ID5-1-37	Tank		
ID5-1-38	Separating tank		
ID5-1-39	Cooler		
ID5-1-40	Condenser		
ID5-1-41	Tank		
ID5-1-42	Reservoir		
ID5-1-43	"		
ID5-1-44	Tank		
ID5-1-45	Tank		

Code No.	Item	Class	Remarks
ID5-1-46	Reservoir		
ID5-1-47	Tank		
ID5-1-48	Compressor		
ID5-1-49	Oil separator		
ID5-1-50	Gas holder		
ID5-1-51	"		
ID5-1-52	Tank		
ID5-1-53	Gas holder		
ID5-1-54	Gas holder		
ID5-1-55	Washer		
ID5-1-56	Vaporizer		
II1-18	Ammonia Compressor		
II1-18-2	Inter cooler		
II1-18-3	Reservoir		
II1-18-4	Condenser		
II1-18-5	Expanion coil		
II1-18-6	Oil separator		
II1-18-7	"		
II1-18-8	Gauge board		
II2-6-3	Separator		
None	Piping		
ID6-1	Distillator		

Code No.	Item	Class	Remarks
ID6-1-1	Condenser		
ID6-1-2	Washing tower		
ID6-1-3	"		
ID6-1-4	"		
ID6-1-5	Drying tower		
ID6-1-6	"		
ID6-1-7	Condenser		
ID6-1-8	Cooler		
ID6-1-9	Tank		
ID6-1-10	Worthington pump		
ID6-1-12	"		
ID6-1-13	Motor		
ID6-1-15	Centrifugal pump		
ID6-1-16	"		
ID6-1-17	Motor		
ID6-2	Distillator		
ID6-2-1	Condenser		
ID6-2-2	Washing tower		
ID6-2-3	"		
ID6-2-4	Drying tower		
ID6-2-5	"		
ID6-2-6	Condenser		

Code No.	Item	Class	Remarks
ID6-2-7	Cooler		
ID6-3	Distillator		
ID6-3-1	Condenser		
ID6-3-2	"		
ID6-3-3	"		
ID6-3-4	Centrifugal pump		
ID6-3-5	"		
ID7-1	Purifier		
ID7-1-1	Drying tower		
ID7-1-2	Condenser		
ID7-1-3	"		
ID7-2	Purifier		
ID7-2-1	Condenser		
ID7-2-2	Cooler		
ID7-3	Purifier		
ID7-3-1	Drying tower		
ID7-3-2	Condenser		
ID7-3-3	Cooler		
ID7-4	Purifier		
ID7-5	Purifier		
ID7-6	Reaction tower		
ID7-6-1	Separating tower		
ID7-6-2	Reaction kettle		

Code No.	Item	Class	Remarks
ID7-6-5	Condenser		
ID8-1	Reservoir		
ID8-2	"		
ID8-3	"		
ID8-4	"		
ID8-5	"		
ID8-6	"		
ID8-7	"		
ID8-8	"		
ID8-9	"		
ID8-10	"		
ID8-11	"		
ID8-12	"		
ID8-13	"		
ID8-14	"		
ID8-1-1	Worthington pump		
ID8-15	Reservoir		
ID8-16	"		
ID8-17	"		
ID8-18	"		
ID8-19	"		
ID8-20	"		
ID8-21	"		

Code No.	Item	Class	Remarks
ID8-22	Reservoir		
I[illegible]5-7	Themometer		
None	Piping [illegible]		
IE1-3-3	Worthington pump		
IE1-3-8	Condenser		
IE1-3-12	Gas holder		
IE1-3-15	Reaction kettle		
IE1-3-16	"		
IE1-3-17	"		
IE1-3-18	Chimney		Scrap
IE1-3-19	"		"
IE1-3-20	"		"
IE1-4	Reaction Kettle		
IE1-6	"		
IE1-6-1	Reaction kettle inner cylinder		
IE1-7	Reaction kettle		
IE1-7-1	Reaction kettle inner cylinder		
IE1-8	Reaction kettle		
IE1-8-1	Reaction kettle inner cylinder		
IE2-3-1	Motor		
IE2-3-4	Nash pump		

Code No.	Item	Class	Remarks
IE2-3-13	Compressor		
IE2-3-14	Agitator		
IE2-3-15	"		
IE2-3-16	"		
IE2-3-17	"		
IE2-3-18	Tub		
IE2-3-19	"		
IE2-4-1	Motor		
IE2-4-2	Rotary pump		
IE2-4-3	Motor		
IE2-4-5	Tub		
IE2-5	Reaction tower		
IE2-5-3	Tank		
IE2-5-7	Absorbing tower		
IE2-5-11	Centrifugal pump		
IE2-5-15	Tank		
IE2-5-16	Cooling tower		
IE2-5-17	"		
IE2-5-18	"		
IE2-5-19	"		
IE2-5-20	"		
IE2-5-21	"		
IE2-5-22	"		

Code No.	Item	Class	Remarks
IE2-5-23	Cooling tower		
IE2-5-24	"		
IE2-5-25	"		
IE2-5-26	Centrifugal pump		
IE2-5-27	"		
IE2-5-28	"		
IE2-5-29	"		
IE2-5-30	Plunger pump		
IE2-6	Reaction tower		
IE2-6-1	Centrifugal pump		
IE2-6-3	Tank		
IE2-7	Reaction tower		
IE2-8	"		
IE2-8-3	Tank		
IE2-8-4	Origine pump		
IE2-8-5	Motor		
IE2-8-6	Accumlator		
IE2-8-7	Origine pump		
IE2-8-11	Motor		
IE2-8-12	Separator		
IE2-8-13	Cooler		
IE2-8-14	Tank		
IE3-7-12	Receiver		

Code No.	Item	Class	Remarks
IE3-7-13	Receiver		
IE3-7-14	Reaction kettle		
IE3-8	"		
IE3-8-1	Tank		
IE3-8-2	Tank		
IE3-8-3	Motor		
IE3-8-4	Wooden tub		
IE3-8-5	"		
IE3-8-6	"		
IE3-8-7	"		
IE3-8-8	"		
IE3-8-9	Condenser		
IE3-8-10	Separator		
IE3-8-13	Tank		
IE3-8-14	Condenser		
IE3-8-15	"		
IE3-8-16	Tank		
IE3-8-17	Tank		
IE3-8-18	Tank		
IE3-8-19	Tank		
IE3-8-20	Condenser		
IE3-8-21	"		
IE3-8-22	Compressor		

Code No.	Item	Class	Remarks
IE3-8-23	Motor		
IE3-8-24	Shafting		
IE3-9	Reaction kettle		
IE3-9-1	Rectifier		
IE3-9-2	Tank		
IE3-9-3	Tank		
IE3-10	Reaction kettle		
IE3-10-1	Condenser		
IE3-10-2	"		
IE3-10-3	Tank		
IE3-10-4	Tank		
IE3-10-5	Tank		
IE3-10-10	Condenser		
IE3-11	Reaction kettle		
IE3-11-1	Tank		
IE3-11-2	Condenser		
IE3-11-3	Separator		
IE3-11-4	"		
IE3-11-5	"		
IE3-11-6	"		
IE3-11-7	Condenser		
IE3-12	Reaction kettle		
IE3-12-1	Condenser		

Code No.	Item	Class	Remarks
IE4-5-1	Tank		
IE4-5-2	Tank		
IE4-5-3	Acid egg		
IE4-5-4	Tank		
IE4-5-5	Condenser		
IE4-5-7	Blower		
IE4-5-9	Blower tube		
IE4-5-10	Ventilator		
IE4-6	Gas generator		
IE4-6-1	Tank		
IE4-6-2	Condenser		
IE4-7	Gas generator		
IE4-7-1	Tank		
IE4-7-2	Condenser		
IE4-7-3	"		
IE4-7-4	Receiver		
IE5-3-5	Tub		
IE5-3-6	"		
IE5-3-7	Centrifugal pump		
IE5-3-9	"		
IE5-4-3	Tub		
IE6-3-4	Filter vessel		
IE6-5-5	"		

Code No.	Item	Class	Remarks
IE7-7	Dehydrator		
IE7-7-2	Heat exchanger		
IE7-7-3	Condenser		
IE7-7-5	Head tank		
IE7-7-6	Blower		
IE7-7-7	Tank		
IE7-8	Dehydrator		
IE7-8-1	Reservoir		
IE7-8-2	Condenser		
IE7-9	Dehydrator		
IE7-10	"		
IE7-10-1	Filter vessel		
IE7-10-2	Tank		
IE7-10-3	"		
IE7-10-4	Chimney		
IE7-10-5	Safety tank		
IE7-10-6	"		
IE7-10-7	Condenser		
IE7-10-9	Acid egg		
IE7-10-10	Tank		
IE7-10-11	Centrifugal pump		
IE7-10-12	Motor		
IE7-11	Dehydrator		

Code No.	Item	Class	Remarks
IE7-11-1	Condenser		
IE7-12	Dehydrator		
IE7-12-1	Tank		
IE7-12-2	"		
IE7-12-3	Chimney		
IE7-12-4	Safety tank		
IE7-12-5	Condenser		
IE7-12-6	Receiver		
IE7-12-7	"		
IE7-12-8	Blower		
IE7-13	Dehydrator		
IE7-13-1	Condenser		
IE7-13-2	"		
IE7-13-3	Receiver		
IE7-14	Dehydrating kettle		
IE7-15	"		
IE7-16	"		
IE7-17	"		
IE8-3-6	"		
IE8-3-7	Jacket		
IE8-3-8	Receiver		
IE8-4-2	Condenser		
II5-10	Resistance thermocouple		

Code No.	Item	Class	Remarks
II5-12	Resistance thermocouple		
IF1-10	Autoclave		
IF1-10-1	Reservoir		
IF1-10-2	"		
IF1-10-3	Tank		
IF1-10-4	Reservoir		
IF1-10-5	Tank		
IF1-10-6	"		
IF1-10-7	Motor		
IF1-10-8	Separator		
IF1-10-9	Vaccum pump		
IF1-10-10	Motor		
IF1-10-11	Tank		
IF1-10-12	Tank		
IF1-10-13	Centrifugal pump		
IF1-10-15	Tank		
IF1-10-16	Motor		
IF1-10-19	Wooden tub		
IF1-10-20	Tank		
IF1-10-21	"		
IF1-10-22	Worthington pump		
IF1-10-23	Reservoir		

Code No.	Item	Class	Remarks
IF1-11	Autoclave		
IF1-11-1	Reservoir		
IF1-11-2	"		
IF1-11-3	"		
IF1-11-4	"		
IF1-11-5	Tank		
IF1-11-6	Speed variable machine		
IF1-12-1	"		
IF1-12-2	Motor		
IF1-13-1	Speed variable machine		
IF1-14	Autoclave		
IF1-15	"		
IF2-5-4	Tank		
IF2-5-6	Motor		
IF4-9-1	Fun		
IF4-9-2	Motor		
IF4-9-5	Fun		
IF4-10-1	Fun		
IF4-10-2	Motor		
II1-9	Ammonia Compressor		
II1-9-1	Motor		
II1-9-2	Condenser		
II1-9-5	Tank		

Code No.	Item	Class	Remarks
III-9-4	Cooler		
III-9-5	Tank		
III-9-6	Turbine pump		
III-9-7	Motor		
III-9-10	Accumlator		
III-9-11	"		
III-9-12	Switch board		
III-9-13	Starting Rheostat		
III-10	Ammonia Compressor		
III-10-1	Motor		
III-10-2	Starting Rheostat		
III-11-5	Tank		
III-11-6	"		
III-11-7	Turbine pump		
III-11-8	Motor		
III-11-9	Switch and Starting Rheostat		
III-12	Ammonia Compressor		
III-12-1	Motor		
III-13	Ammonia Compressor		
III-13-1	Motor		
III-13-2	Tank		
III-13-3	Turbine pump		

Code No.	Item	Class	Remarks
III-13-4	Cooler		
III-13-5	Condenser		
III-13-6	Reservoir		
III-14	Ammonia Compressor		
III-14-1	Motor		
III-14-2	Oil separator		
III-14-3	"		
III-14-4	Condenser		
III-14-5	"		
III-14-6	Receiver		
III-14-7	Cooler		
III-14-8	"		
III-14-9	Tank		
III-14-10	"		
III-14-11	Turbine pump		
III-14-12	Motor		
III-14-13	Turbine pump		
III-14-14	Motor		
III-14-17	Turbine pump		
III-14-18	Motor		
III-14-19	Turbine pump		
III-14-20	Guage board		
III-14-21	Accumlator		

Code No.	Item	Class	Remarks
III-14-22	Accumulator		
III-14-23	"		
III-14-24	Switch		
III-14-25	Tank		
III-15-12	Turbine pump		
III-15-13	Oil separator		
III-17	Ammonia Compressor		
III-17-1	Motor		
III-17-2	Oil separator		
III-17-3	"		
III-17-4	Expansion coil		
III-17-5	Condenser		
III-17-6	Receiver		
III-17-7	Cooler		
III-17-8	Tank		
III-17-9	Turbine pump		
III-17-10	Motor		
III-17-11	Accumulator		
III-17-12	Switch		
I^{1}3-13	Turbine pump		
II3-13-1	Motor		
None	Outdoor piping		

b. Additionally inventoried Equipment that is not in authorized Use.

Code No.	Item	Class	Remarks

c. Miscellaneous Equipment which is not Authorized Use.

	Item	Quantity	Remarks