PLAINTIFF'S EXHIBIT
CEL-378

CELANESE CHEMICAL COMPANY
Chemcel Plant
Bishop, Texas

TO: As Listed*

FROM: G. Ille GI-119 July 10, 1980

BISHOP RETROSPECTIVE WORK HISTORY DEVELOPMENT

The Bishop Plant Work History Committee has completed defining the chronological evolution of the Bishop facility. The attachment lists the major changes that have occurred through the years, such as process additions, changes in chemical feed, engineering changes, and unit reorganizations. Dotted lines identify the unit processes under a single unit number. The unit numbers will be used by the IR clerks to complete employee work history records. Each unit number represents a single process or number of unit processes in which production employees worked. For instance, until 1954, PP/PPX, FC/FCX, SO and PO represented separate units with different unit numbers. Before 1954, each unit identified by a unit number had its own superintendent and employees were not routinely "swapped" between units unless the change was noted in their personnel records. After 1954, FC and PP came under one superintendent and SO and PO under another superintendent. Now employees in SO could also have routinely worked in PO without their personnel records reflecting this. Therefore, from 1954 to 1973 SO and PO were identified by a single unit number.

I have attached a list of unit numbers for your review. This list will be used by the IR clerks in completing the Celanese Employee Work Assignment Summary.

Please review this information prior to our next committee meeting and make any changes required. Request that you specify the annual quarter in which a change was made since I will have to specify the month and day to the computer. Therefore, we must specify whether the AL Hydrogenation and Purification Unit was started in Winter, Spring, Summer or Fall of 1946. I would like to review this data on Monday, July 14, 1980 at 12:30 PM.

G. Ille

jk

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UNIT NUMBER DESCRIPTIONS
CHEMICAL COMPANY

| UNIT NO. | DESCRIPTION | DATE EFFECTIVE |
|---|---|---|
| 0001 | PO (~~Partial~~ Primary Oxidation) | May 1945 - 1954 JAN |
| 0002 | PP (Product Purification) | May 1945 - 1954 JAN |
| 0003 | SO (Secondary Oxidation) | May 1945 - 1954 JAN |
| 0004 | FC (Formaldehyde Concentration) | May 1945 - 1954 JAN |
| 0005 | Shipping Services | May 1945 - present |
| 0006 | Utility | May 1945 - present |
| 0007 | Chemical Laboratory | May 1945 - present |
| 0008 | PO - CPCW - Sharp - Lay - Hodges | May 1945 - Feb. 1973 |
| 0009 | B. Beyer AL (Hydrog & Purif., Oxidation MEK, n-Butanol, Utility Aldol, n-Butyraldehyde) | Sept 1946 - Feb. 1973 |
| | MS I/~~CPCW103~~ | June 19 1966 - Aug 1 ~~1973~~ - 1976 |
| 0018 | MS II, MSI/~~CPCW103~~ | Aug 1 1976 - present |
| 0010 | CPCW-103 (CPCW-AL) | Sept 1, 1946 - Feb. 1973 |
| 0011 | Sharp Paraform (Formcel, Esters) | Sept 1952 - 1969 |
| | Paraform (Formcel, Esters MO 3) | Nov 1969 - 1973 |
| | Paraform | Feb 73 1973 - present |
| 0012 | PP/FC | JAN 2 1954 - 1963 |
| | PP/FC/MO I | MAR 1963 - 1973 |
| 0013 | PO/SO Nov 57 Sept 65 Mar 61 | JAN 1954 - Feb. 1973 |
| Correct TMP → 0014 | Sharp Polyol (TMP, DAA, PE, 1,3 BG) Jan 66 | Nov 1957 - Present |
| 0015 | Sharp Oxygen Unit | Oct 1957 - 1973 |
| 0016 | Bob Dixon MO 2 | JAN 1972 - 1973 Feb |
| | MO 1/MO 2/MO 3/MO 4 Nov 69 | Feb 1973 - present |
| 0017 | Hodges Oxo-Butyraldehyde (Propanol, Butanol) | Aug 1974 - present |

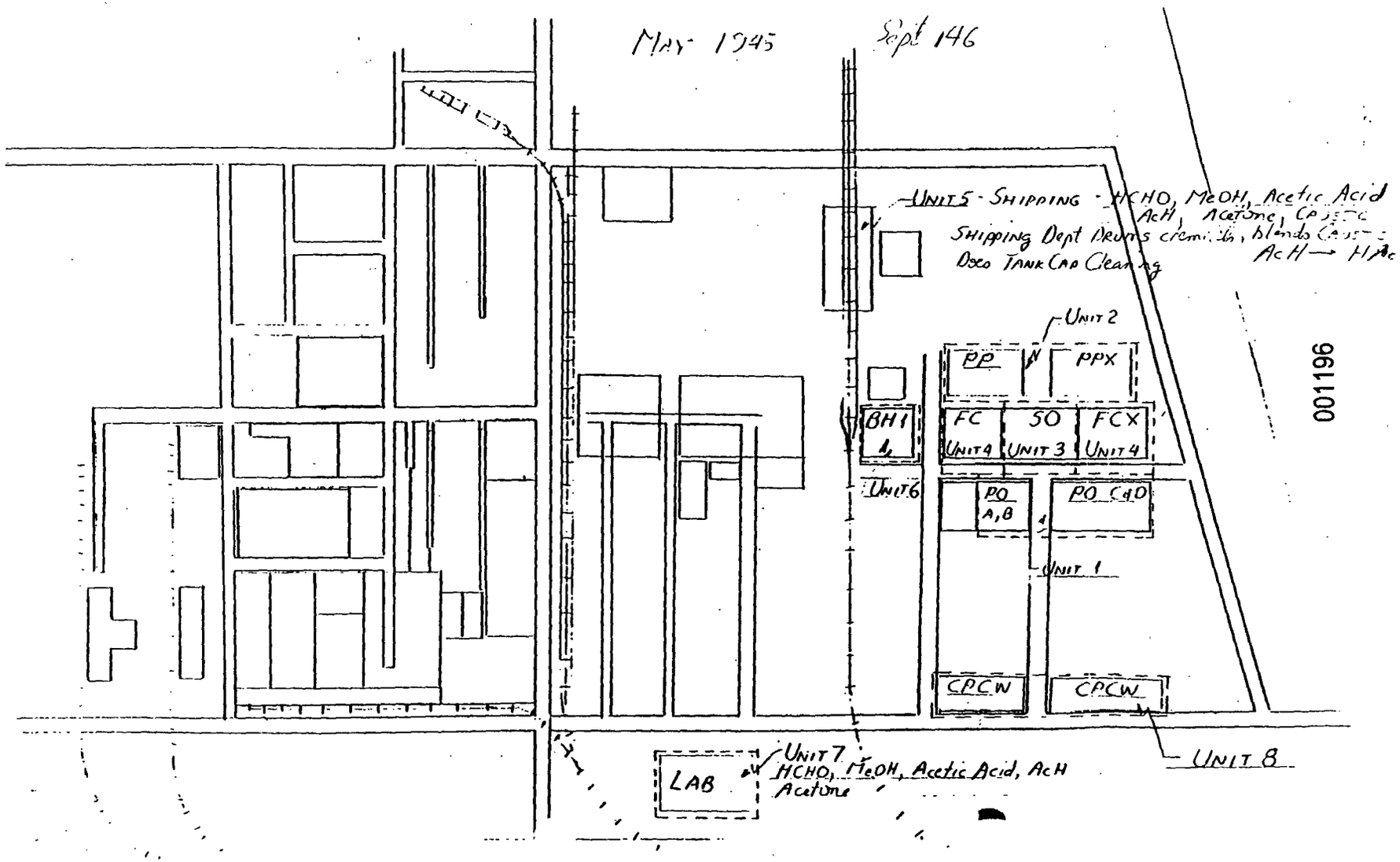
Aug 73 - Aug 19 '79

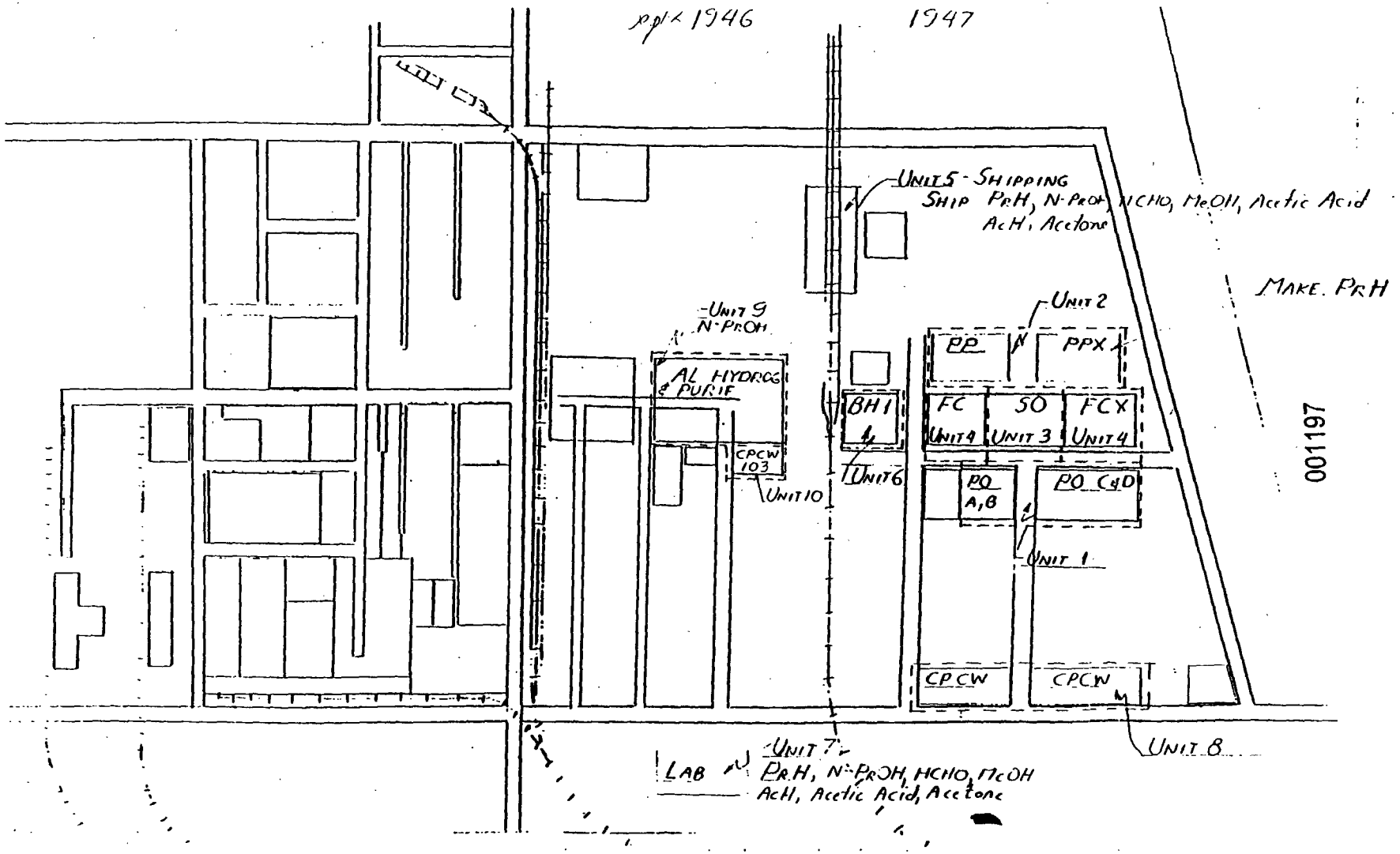
Joe Jinks Shipping Services

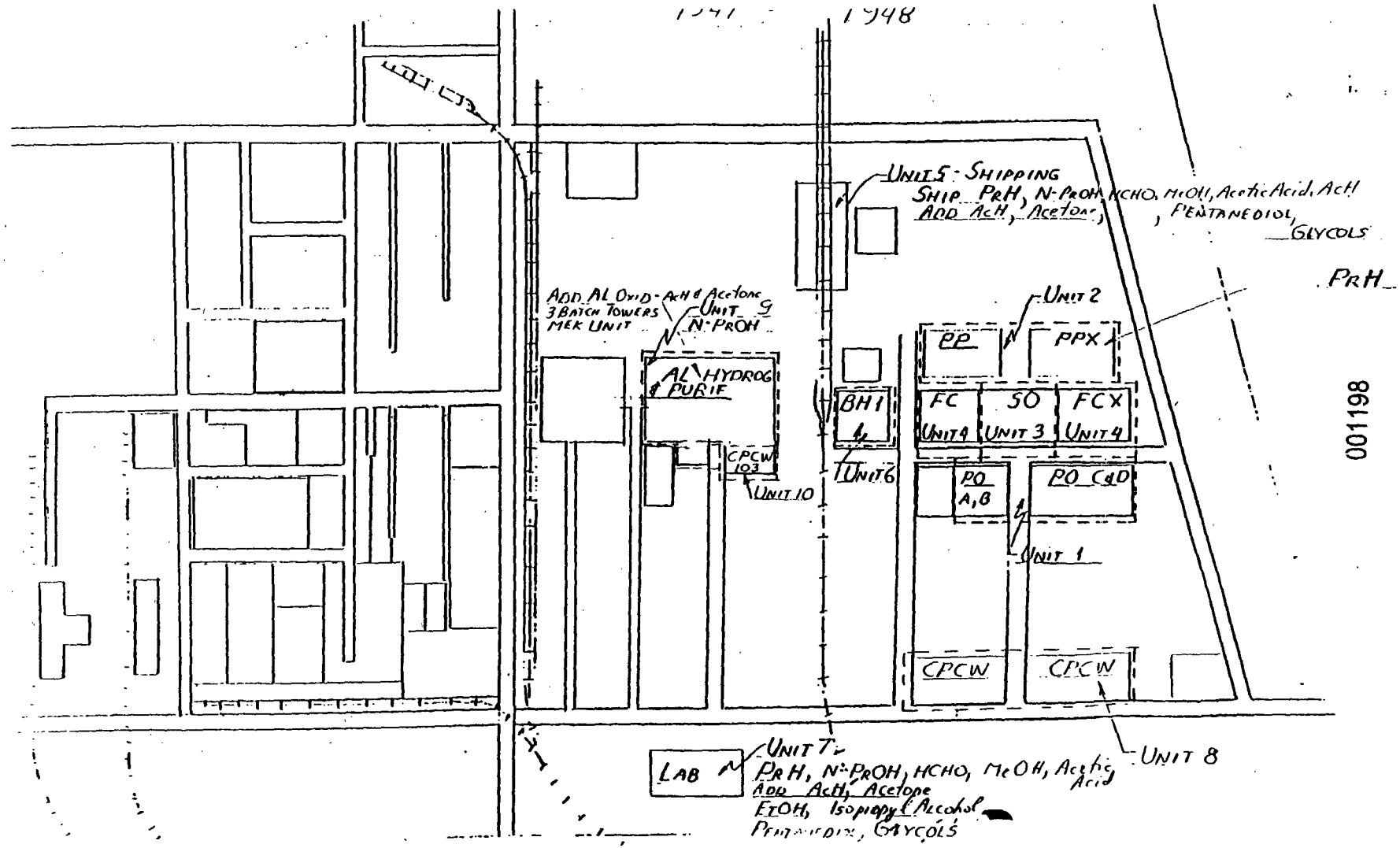
001194

UNIT NUMBER DESCRIPTIONS
PLASTICS & SPECIALTIES COMPANY

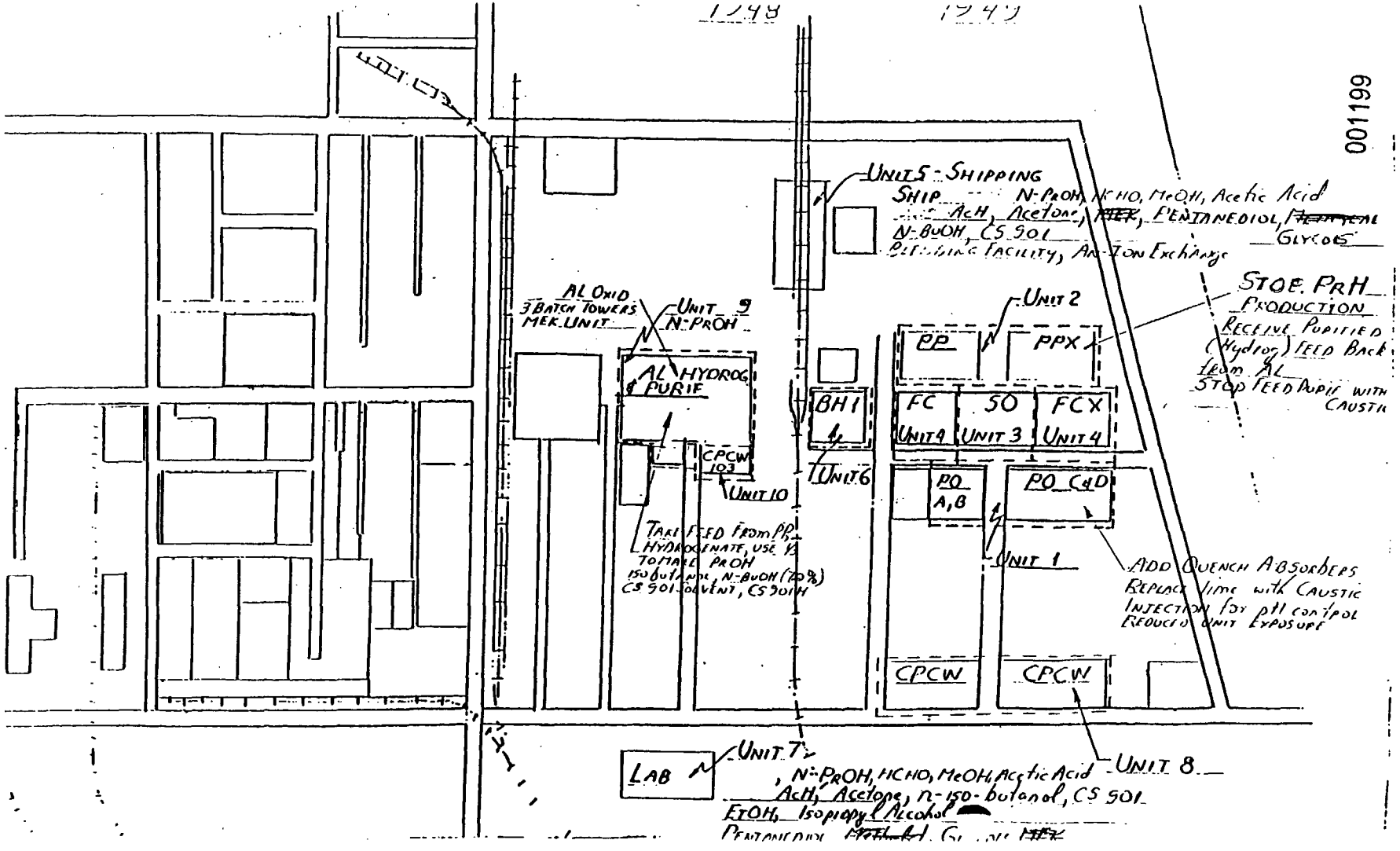
| UNIT NO. | DESCRIPTION | DATE EFFECTIVE |
|---|---|---|
| 0001 | Celcon (TO1/SH1/Natural Finishing) | Sept 1961 - 1964 April |
| | Celcon (TO1/SH1/Natural Finishing/ MO 2/MH2) | Apr 1967 - 1970 JAN |
| 0002 | Color Lab | Sept 1961 - present |
| 0003 | Pilot Plant | Feb 1962 - 1970 |
| 0004 | Black Concentrate Unit | NOV 1969 - present |
| 0005 | TO 2 | APR 1970 - 1975 Feb |
| | TO 2/SH 2 | Feb 1975 - present |
| 0006 | Special Products | JAN 1970 - present |
| 0007 | TO 1/SH 1/MH 2/ MO 2 | JAN 1970 - JAN 1972 |
| | TO 1/SH 1/MH 2 | JAN 1972 - 1975 JUNE |
| | TO 1/SH 1 | June 1975 - present |
| 0008 | Natural Finishing | Sept 1970 - present |
| 0009 | Celanex | NOV 1974 - present |
| 0010 | MH-2 | June 1975 - present |
| 0011 | Nylon | MAR 1978 - present |
| 0012 | Plastic Laboratory (Located in Chemical Laboratory) | ~~Nov 1978~~ - present |
| | | Sept 1961 - NOV 1978 |
| | Plastic Laboratory (Moved to Separate Building) | NOV 1978 - Present |

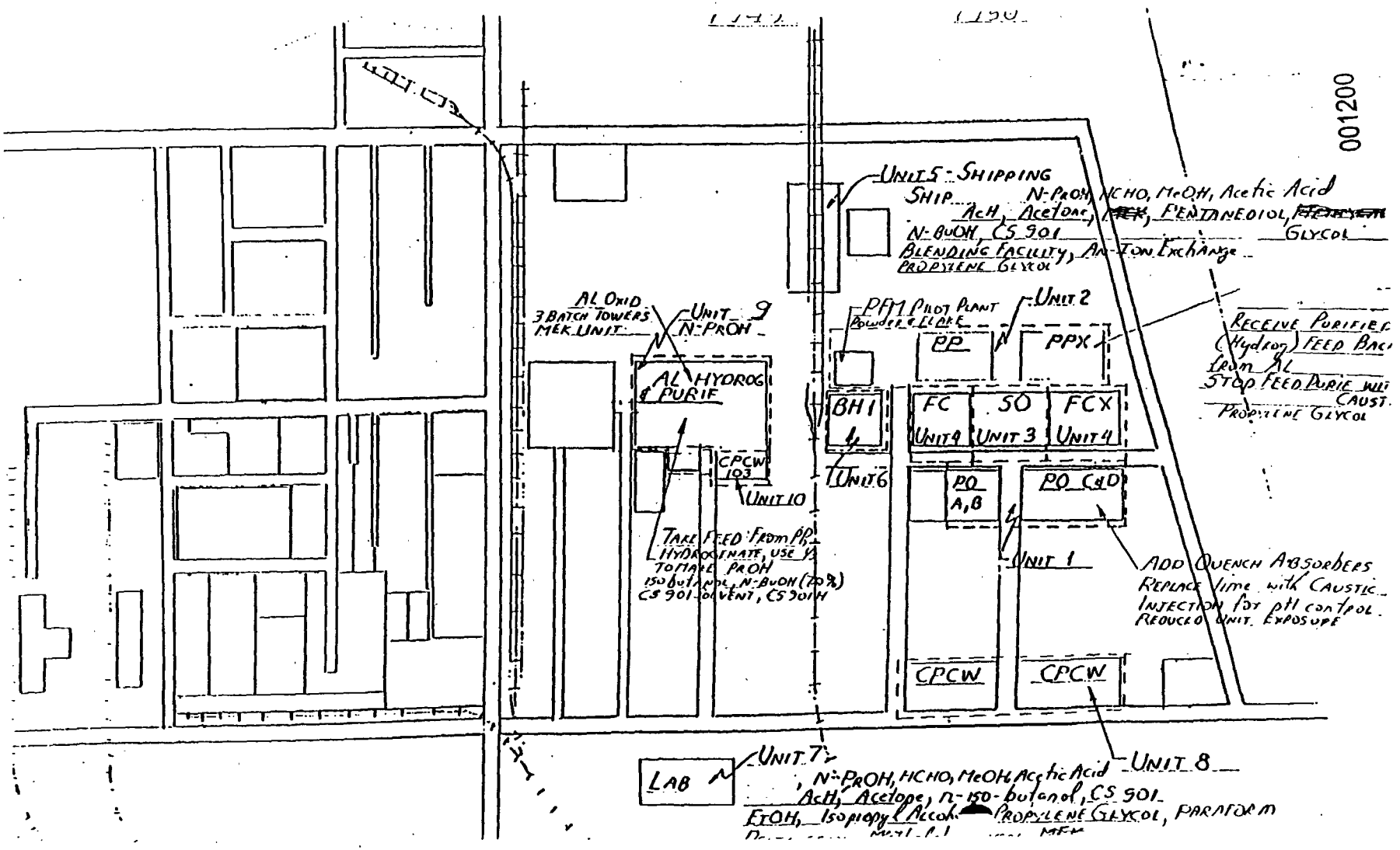

May 1945
Sept 146
UNIT 5 - SHIPPING - HCHO, MeOH, Acetic Acid AcH, Acetone, Caustic
SHIPPING Dept Drums chemicals, blends Caustic - AcH → HAc
Oxco TANK CAR Cleaning
UNIT 2
PP
PPX
BH1
FC
UNIT 4
SO
UNIT 3
FCX
UNIT 4
UNIT 6
PO A,B
PO C&D
UNIT 1
CPCW
CPCW
UNIT 8
LAB
UNIT 7
HCHO, MeOH, Acetic Acid, AcH
Acetone
001196


appx 1946
1947
UNIT 9
N-PROH
AL HYDROG & PURIF
CPCW 103
UNIT 10
UNIT 5 - SHIPPING
SHIP PRH, N-PROH, HCHO, MeOH, Acetic Acid
AcH, Acetone
MAKE. PRH
UNIT 2
PP
PPX
BH1
FC
50
FCX
UNIT 4
UNIT 3
UNIT 4
UNIT 6
PO A,B
PO C&D
UNIT 1
CPCW
CPCW
UNIT 8
UNIT 7
LAB
PRH, N-PROH, HCHO, MeOH
AcH, Acetic Acid, Acetone
001197


1948
UNIT 5 - SHIPPING
SHIP PRH, N-PROH, HCHO, MeOH, Acetic Acid, AcH
ADD AcH, Acetone
, PENTANEDIOL,
GLYCOLS
PRH
ADD AL OXID - AcH & Acetone
3 BATCH TOWERS
MEK UNIT
UNIT 9
N-PROH
AL HYDROG & PURIF
CPCW 103
UNIT 10
UNIT 2
PP
PPX
BH1
FC
UNIT 4
50
UNIT 3
FCX
UNIT 4
UNIT 6
PO A,B
PO C&D
UNIT 1
CPCW
CPCW
UNIT 8
LAB
UNIT 7
PRH, N-PROH, HCHO, MeOH, Acetic Acid
ADD AcH, Acetone
EtOH, Isopropyl Alcohol
PENTANEDIOL, GLYCOLS

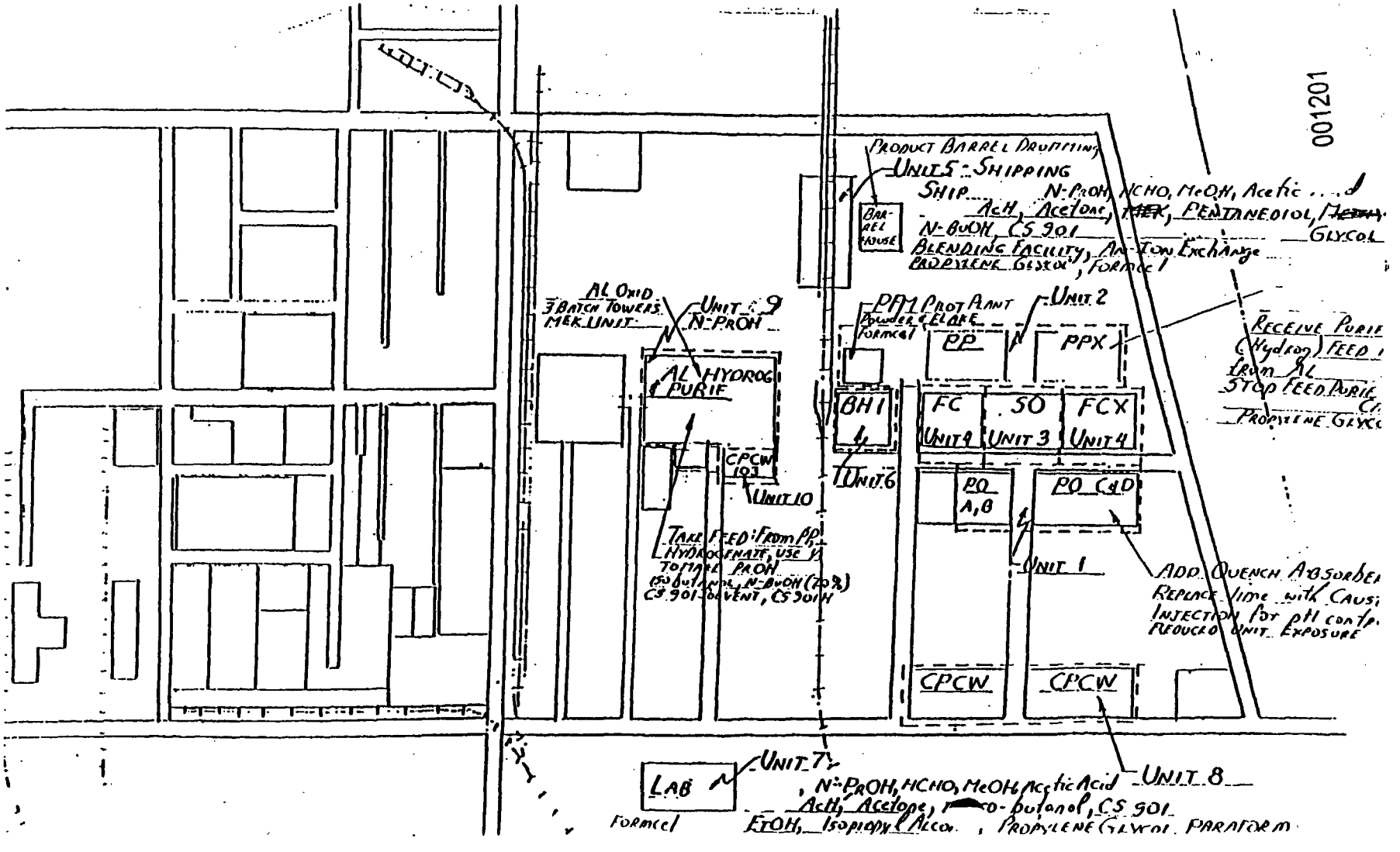
001198


001199
UNIT 5 - SHIPPING
SHIP N-PROH, HCHO, MeOH, Acetic Acid
ACH, Acetone, MEK, PENTANEDIOL, TERPENE
N-BUOH, CS 901
GLYCOLS
REFINING FACILITY, ANION EXCHANGE
STOR. PRH
PRODUCTION
RECEIVE PURIFIED (Hydrog) FEED BACK
FROM AL
STOR FEED PURIF WITH
CAUSTI
AL OXID
3 BATCH TOWERS
MEK UNIT
UNIT 9
N-PROH
AL HYDROG
& PURIF
CPCW
103
UNIT 10
UNIT 2
PP
PPX
BH1
FC
UNIT 4
50
UNIT 3
FCX
UNIT 4
UNIT 6
PO
A,B
PO C&D
UNIT 1
TAKE FEED FROM PP
HYDROGENATE, USE
TO MAKE PROH
150 BUTANOL N-BUOH (20%)
CS 901 SOLVENT, CS 901H
ADD QUENCH ABSORBERS
REPLACE LIME WITH CAUSTIC
INJECTION FOR pH CONTROL
REDUCED UNIT EXPOSURE
CPCW
CPCW
LAB
UNIT 7
N-PROH, HCHO, MeOH, Acetic Acid
ACH, Acetone, n-150-butanol, CS 901
UNIT 8
EtOH, Isopropyl Alcohol
PENTANEDIOL



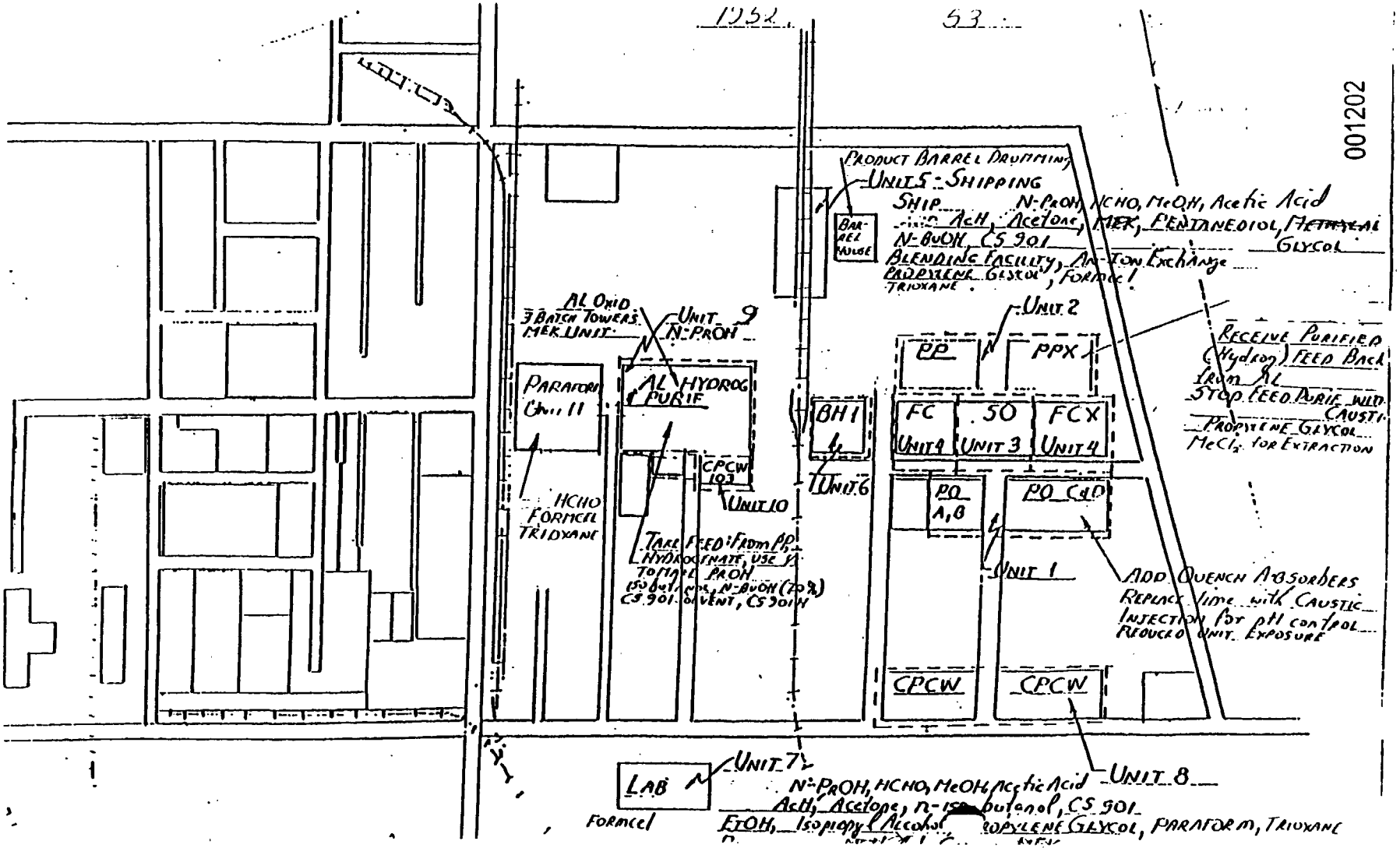
UNIT 5 - SHIPPING
SHIP
N-PROH, HCHO, MeOH, Acetic Acid
AcH, Acetone, ~~MEK~~, PENTANEDIOL, ~~[illegible]~~ GLYCOL
N-BUOH, CS 901
BLENDING FACILITY, AN-ION EXCHANGE
PROPYLENE GLYCOL
AL OXID
3 BATCH TOWERS
MEK UNIT
UNIT 9
N-PROH
AL HYDROG & PURIF
CPCW 103
UNIT 10
TAKE FEED FROM PP, HYDROGENATE, USE 1/3 TO MAKE PROH
ISO BUTANOL, N-BUOH (20%)
CS 901 SOLVENT, CS 901H
PFM PILOT PLANT
POWDER & FLAKE
UNIT 2
PP
PPX
BH1
FC
SO
FCX
UNIT 4
UNIT 3
UNIT 4
UNIT 6
PO A,B
PO C&D
UNIT 1
CPCW
CPCW
UNIT 8
RECEIVE PURIFIED (Hydrog) FEED BACK FROM AL
STOP FEED PURIF WITH CAUST.
PROPYLENE GLYCOL
ADD QUENCH ABSORBERS
REPLACE lime with CAUSTIC
INJECTION for pH control
REDUCED UNIT EXPOSURE
LAB
UNIT 7
N-PROH, HCHO, MeOH, Acetic Acid
AcH, Acetone, n-iso-butanol, CS 901
EtOH, Isopropyl Alcohol
PROPYLENE GLYCOL, PARAFORM


001200

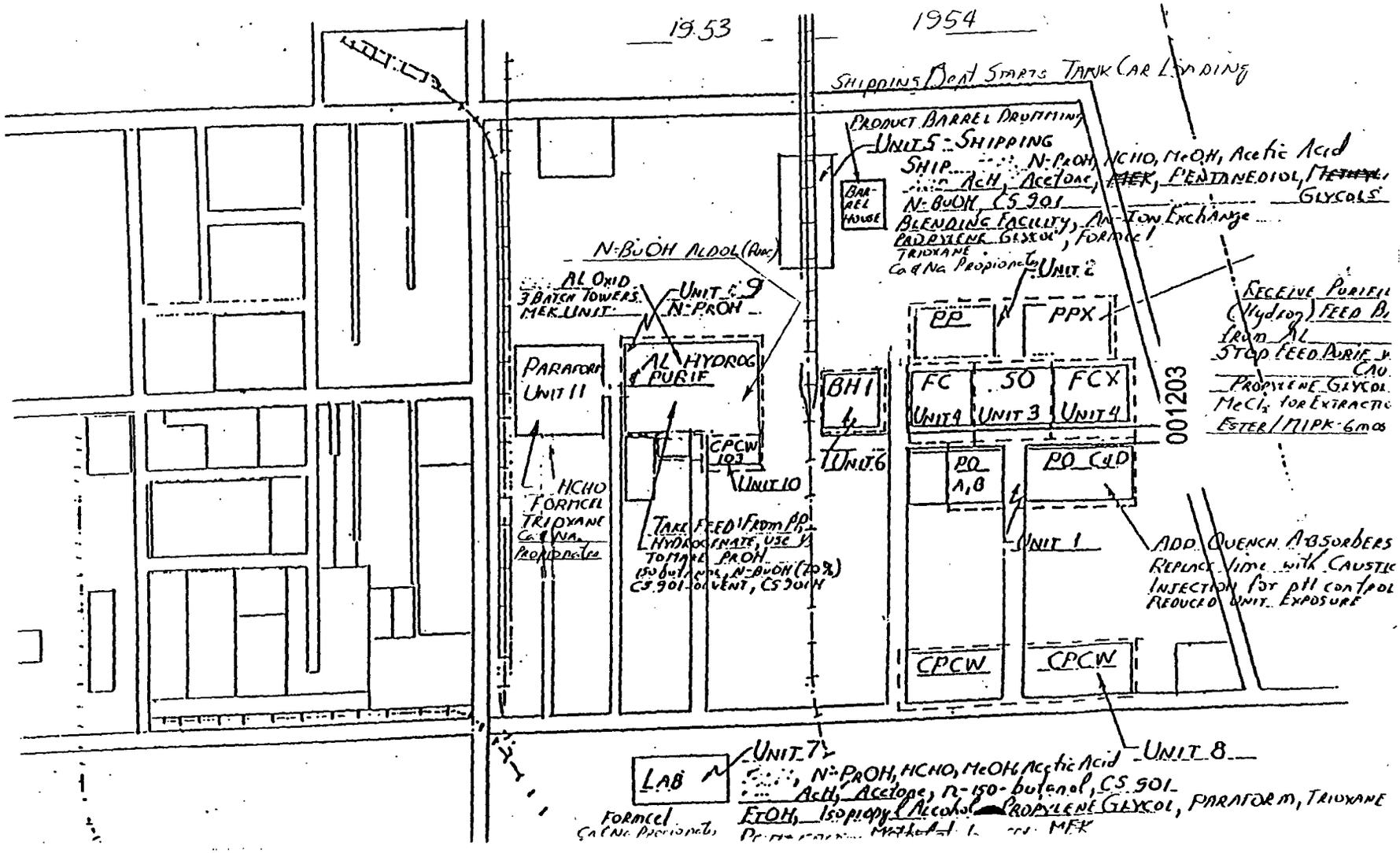


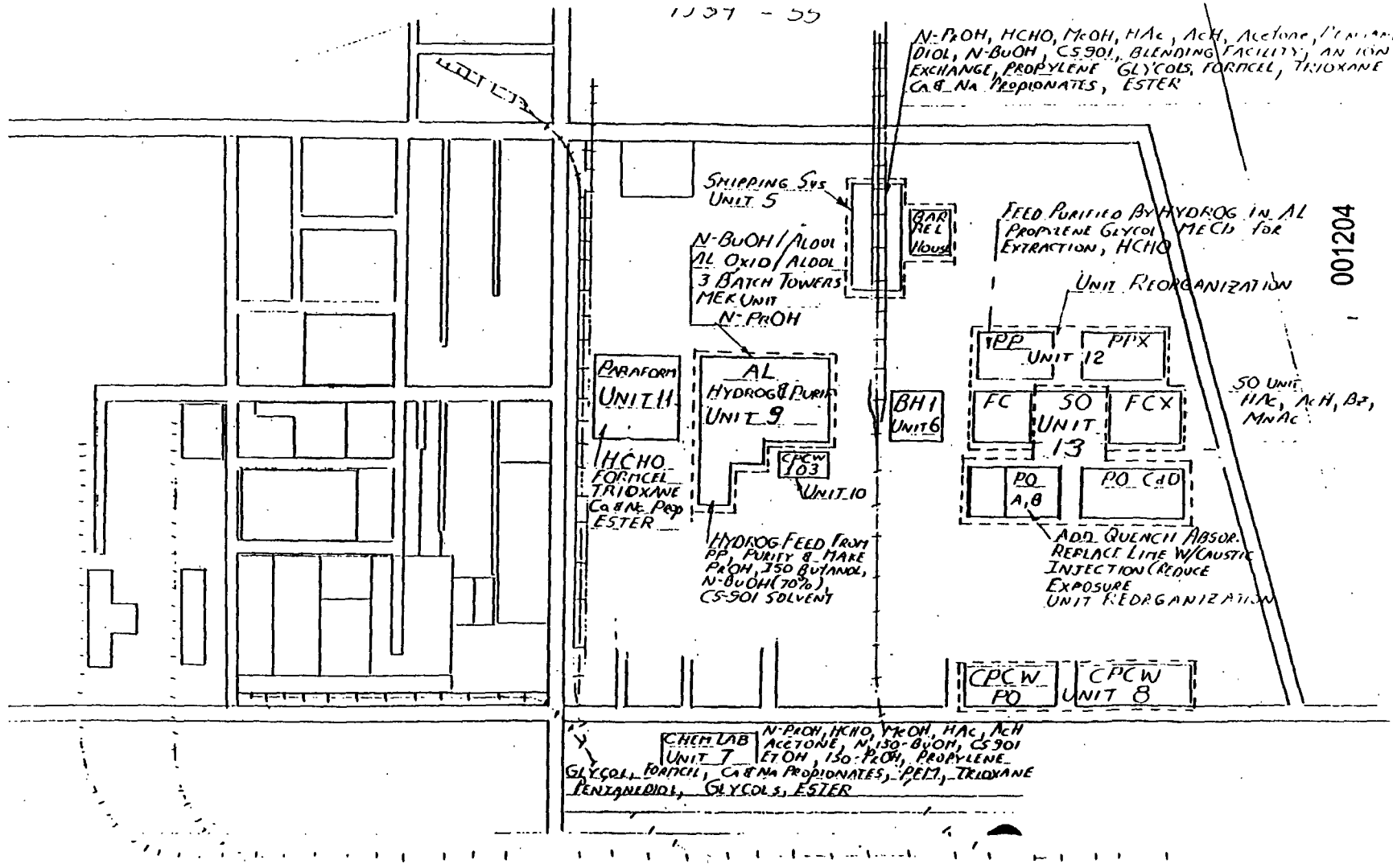
PRODUCT BARREL DRUMMING
UNIT 5 - SHIPPING
SHIP
N-PROH, HCHO, MeOH, Acetic ...
AcH, Acetone, MEK, PENTANEDIOL, GLYCOL
N-BuOH, CS 901
BLENDING FACILITY, An-Ion Exchange
PROPYLENE GLYCOL, Formcel
BARREL HOUSE
AL OXID
3 BATCH TOWERS
MEK UNIT
UNIT 9
N-PROH
AL HYDROG & PURIF
CPCW 103
UNIT 10
TAKE FEED: FROM PP, HYDROGENATE, USE TO MAKE PROH
ISO BUTANOL, N-BuOH (20%)
CS 901 SOLVENT, CS 901H
PPM PILOT PLANT
Powder & FLAKE
Formcel
UNIT 2
PP
PPX
BH1
UNIT 6
FC
UNIT 4
SO
UNIT 3
FCX
UNIT 4
PO A,B
PO C&D
UNIT 1
RECEIVE PURIF (Hydrog) FEED
from AL
STOP FEED PURIF
PROPYLENE GLYCOL
ADD QUENCH ABSORBER
REPLACE lime with CAUST
INJECTION for pH contr.
REDUCED UNIT EXPOSURE
CPCW
CPCW
UNIT 8
LAB
UNIT 7
N-PROH, HCHO, MeOH, Acetic Acid
AcH, Acetone, ...o-butanol, CS 901
Formcel
EtOH, Isopropyl Alco..., PROPYLENE GLYCOL PARAFORM

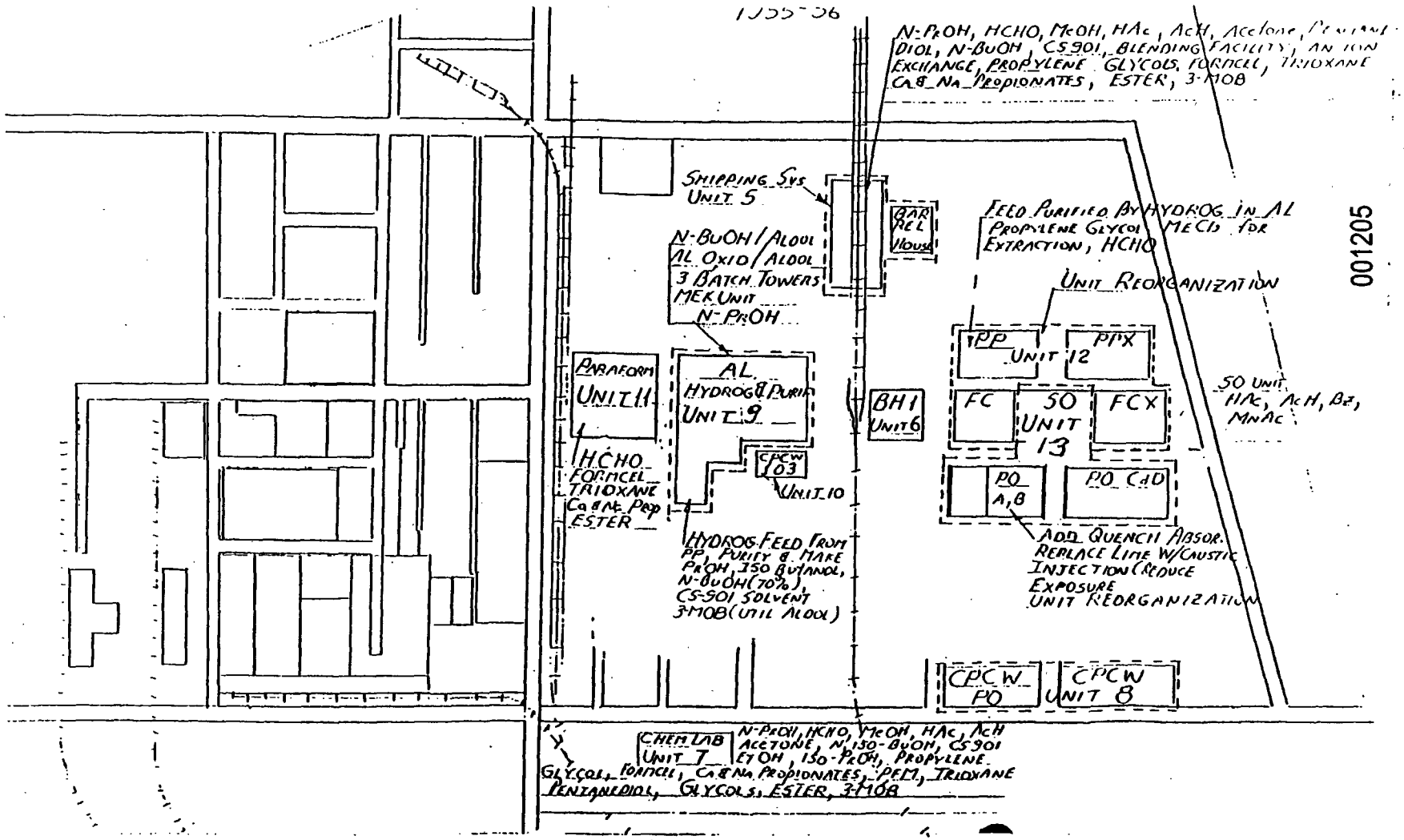

001201


1952
53
PRODUCT BARREL DRUMMING
UNIT 5 - SHIPPING
SHIP
N-PROH, HCHO, MeOH, Acetic Acid
AcH, Acetone, MEK, PENTANEDIOL, Methylal
N-BuOH, CS 901
GLYCOL
BLENDING FACILITY, An-Ion Exchange
PROPYLENE GLYCOL, FORMCEL
TRIOXANE
BARREL HOUSE
AL OXID
3 BATCH TOWERS
MEK UNIT
UNIT 9
N-PROH
PARAFORM
Unit 11
AL HYDROG
PURIF
CPCW
103
UNIT 10
HCHO
FORMCEL
TRIOXANE
TAKE FEED: FROM PP
HYDROGENATE, USE
TO MAKE PROH
ISO BUTANOL, N-BuOH (70%)
CS 901 SOLVENT, CS 901H
BH1
UNIT 6
UNIT 2
PP
PPX
FC
SO
FCX
UNIT 4
UNIT 3
UNIT 4
PO
A,B
PO C&D
UNIT 1
CPCW
CPCW
RECEIVE PURIFIED
(Hydrog) FEED BACK
FROM AL
STOP FEED PURIF WITH
CAUSTIC
PROPYLENE GLYCOL
MeCl2 FOR EXTRACTION
ADD QUENCH ABSORBERS
REPLACE lime with CAUSTIC
INJECTION for pH control
REDUCED UNIT EXPOSURE
UNIT 8
LAB
UNIT 7
FORMCEL
N-PROH, HCHO, MeOH, Acetic Acid
AcH, Acetone, n-iso butanol, CS 901
EtOH, Isopropyl Alcohol
PROPYLENE GLYCOL, PARAFORM, TRIOXANE

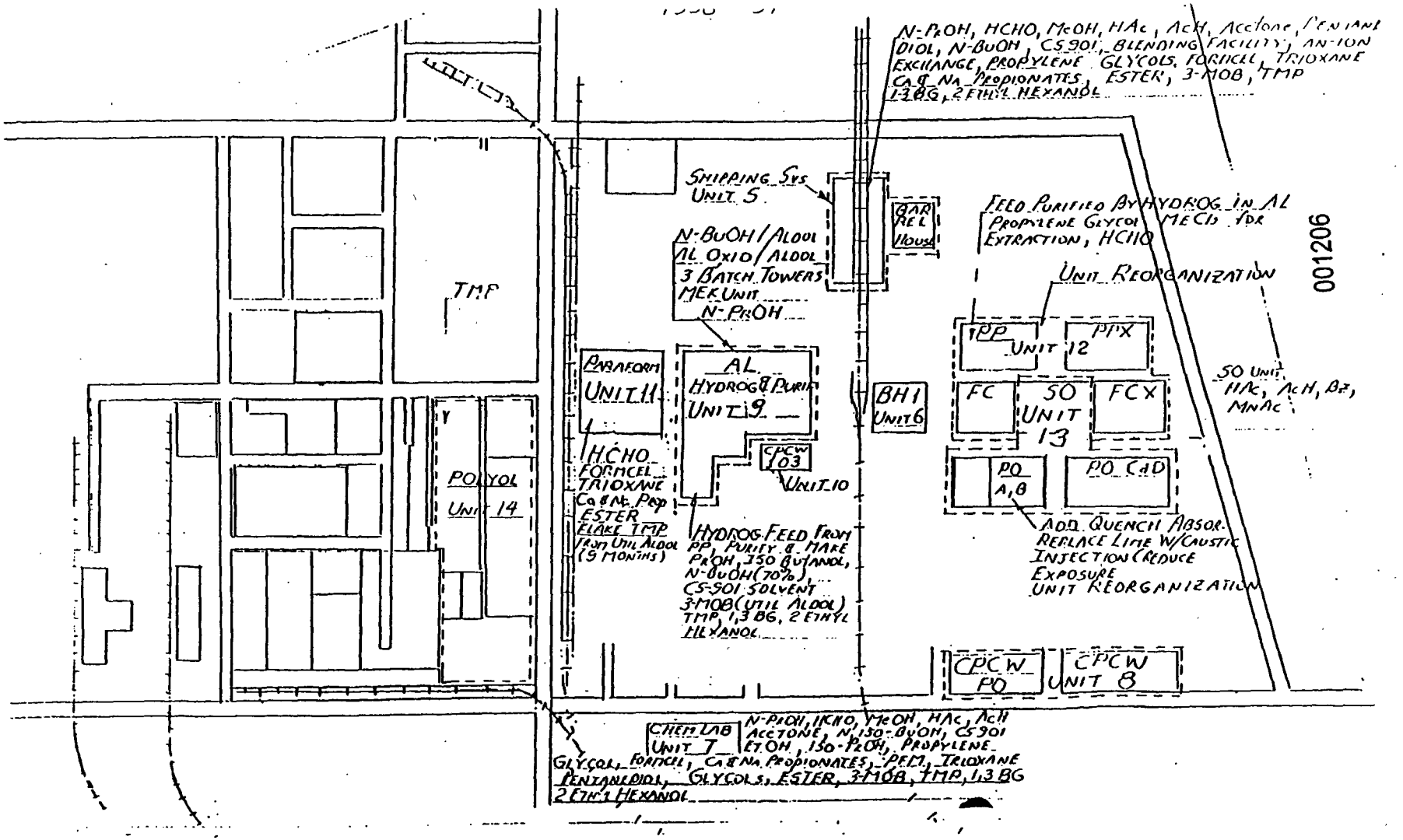
001202


1953
1954
SHIPPING DEPT STARTS TANK CAR LOADING
PRODUCT BARREL DRUMMING
UNIT 5 - SHIPPING
SHIP N-PrOH, HCHO, MeOH, Acetic Acid
ACH, Acetone, MEK, PENTANEDIOL, Methanol, GLYCOLS
N-BuOH, CS 901
BLENDING FACILITY, ION EXCHANGE
PROPYLENE GLYCOL, FORMCEL
TRIOXANE
Ca & Na Propionates
BARREL HOUSE
N-BuOH ALDOL (Rec)
AL OXID
3 BATCH TOWERS
MEK UNIT
UNIT 9
N-PROH
UNIT 2
PARAFORM
UNIT 11
AL HYDROG & PURIF
BH1
UNIT 6
PP
PPX
FC
UNIT 4
50
UNIT 3
FCX
UNIT 4
001203
RECEIVE PURIFI
(Hydrog) FEED B
FROM AL
STRIP FEED PURIF
CAU
PROPYLENE GLYCOL
MeCl2 FOR EXTRACTIO
ESTER / MIPK 6 mos
CPCW
103
UNIT 10
PO
A, B
PO C&D
UNIT 1
HCHO
FORMCEL
TRIOXANE
Ca & Na
PROPIONATES
TAKE FEED FROM PP
HYDROGENATE, USE V
TO MAKE PROH
ISO BUTANOL, N-BUOH (70%)
CS 901 SOLVENT, CS 701H
ADD QUENCH ABSORBERS
REPLACE LIME WITH CAUSTIC
INJECTION FOR pH CONTROL
REDUCED UNIT EXPOSURE
CPCW
CPCW
UNIT 8
LAB
UNIT 7
N-PrOH, HCHO, MeOH, Acetic Acid
ACH, Acetone, n-iso-butanol, CS 901
EtOH, Isopropyl Alcohol, PROPYLENE GLYCOL, PARAFORM, TRIOXANE
FORMCEL
Ca & Na PROPIONATES
MEK

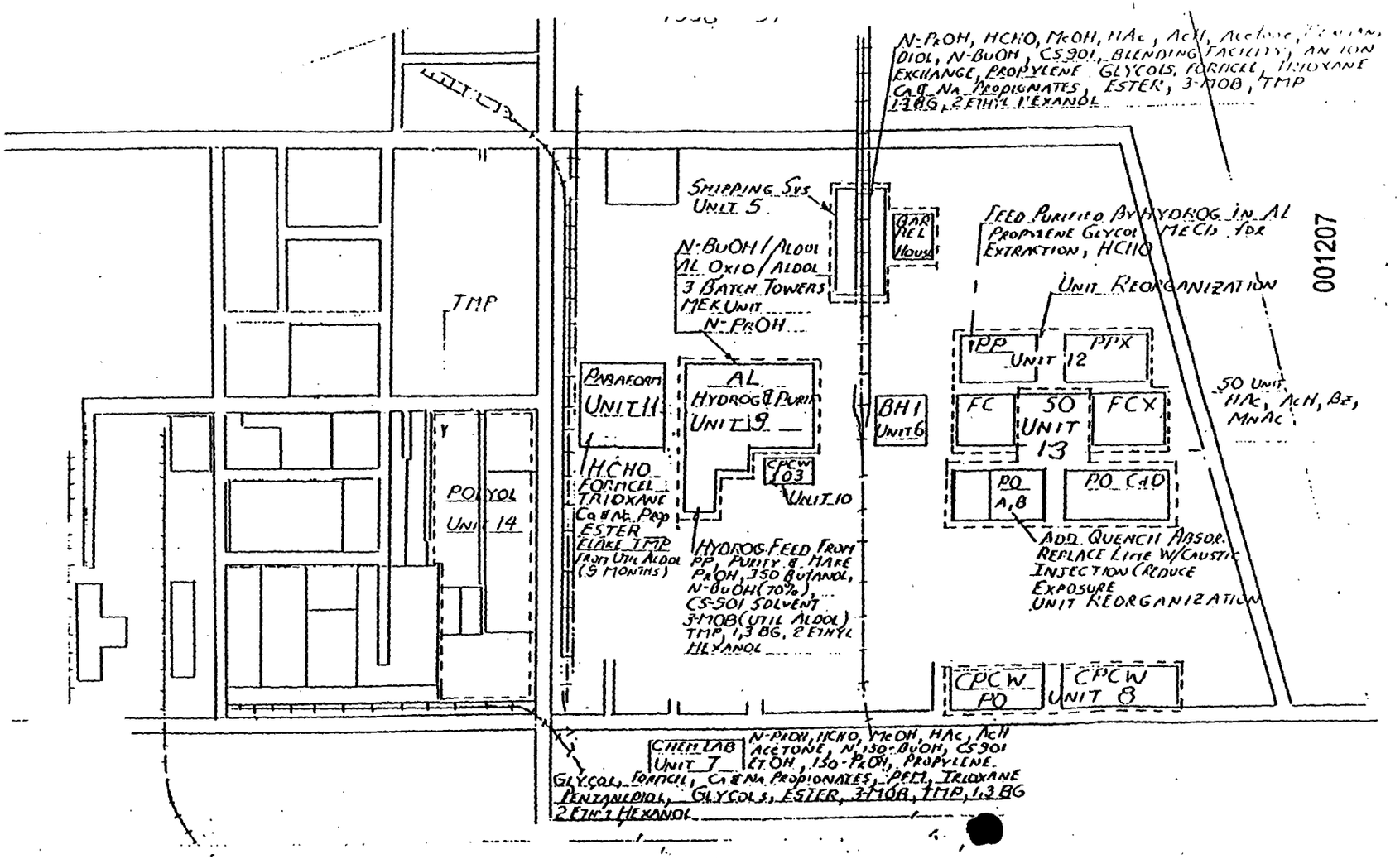

1937 - 55
N-PrOH, HCHO, MeOH, HAc, AcH, Acetone, PENTANE-DIOL, N-BuOH, CS 901, BLENDING FACILITY, AN ION EXCHANGE, PROPYLENE GLYCOLS, FORMCEL, TRIOXANE Ca & Na PROPIONATES, ESTER
SHIPPING SYS UNIT 5
BAR REL HOUSE
N-BuOH / ALDOL / AL OXID / ALDOL 3 BATCH TOWERS MEK UNIT N-PrOH
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECD FOR EXTRACTION, HCHO
UNIT REORGANIZATION
001204
PP UNIT 12
PPX
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH1 UNIT 6
FC
SO UNIT 13
FCX
SO UNIT HAc, AcH, Bz, MnAc
CPCW 103
UNIT 10
PO A, B
PO CdD
HCHO FORMCEL TRIOXANE Ca & Na Prop ESTER
HYDROG FEED FROM PP, PURITY & MAKE PrOH, 150 BUTANOL, N-BuOH (70%), CS-901 SOLVENT
ADD QUENCH ABSOR. REPLACE LIME W/CAUSTIC INJECTION (REDUCE EXPOSURE UNIT REORGANIZATION
CPCW PO
CPCW UNIT 8
CHEM LAB UNIT 7
N-PrOH, HCHO, MeOH, HAc, AcH ACETONE, N 150-BuOH, CS 901 EtOH, 150-PrOH, PROPYLENE GLYCOL, FORMCEL, Ca & Na PROPIONATES, PEM, TRIOXANE PENTANEDIOL, GLYCOLS, ESTER

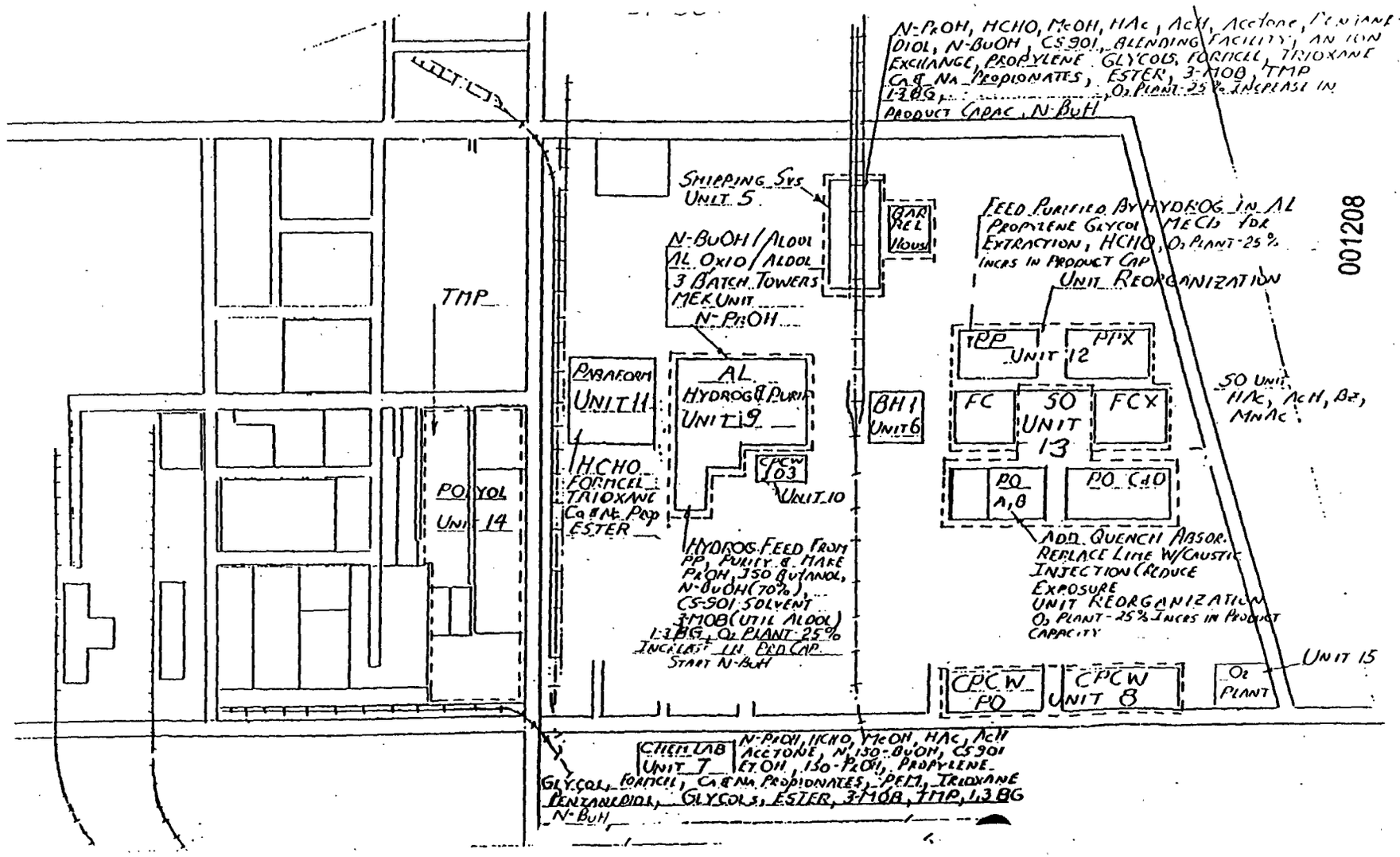

1955-56
N-PrOH, HCHO, MeOH, HAc, AcH, Acetone, Pentane Diol, N-BuOH, CS 901, BLENDING FACILITY, AN ION EXCHANGE, PROPYLENE GLYCOLS, FORMCEL, TRIOXANE Ca & Na PROPIONATES, ESTER, 3-MOB
SHIPPING SYS UNIT 5
BAR REL HOUSE
N-BuOH / ALOOL AL OXIO / ALOOL 3 BATCH TOWERS MEK UNIT N-PrOH
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECB FOR EXTRACTION, HCHO
UNIT REORGANIZATION
PP UNIT 12
PPX
50 UNIT 13
FC
FCX
50 UNIT HAc, AcH, Bz, MnAc
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH1 UNIT 6
CPCW 103
UNIT 10
HCHO FORMCEL TRIOXANE Ca & Na Prop ESTER
PO A, B
PO CAD
HYDROG FEED FROM PP, PURIFY & MAKE PrOH, ISO BUTANOL, N-BuOH (70%), CS-901 SOLVENT 3MOB (UNIL ALOOL)
ADD QUENCH ABSOR. REPLACE LIME W/CAUSTIC INJECTION (REDUCE EXPOSURE UNIT REORGANIZATION
CPCW PO
CPCW UNIT 8
CHEM LAB UNIT 7
N-PrOH, HCHO, MeOH, HAc, AcH ACETONE, N, ISO-BuOH, CS901 ETOH, ISO-PrOH, PROPYLENE GLYCOL, FORMCEL, Ca & Na PROPIONATES, PEM, TRIOXANE PENTANEDIOL, GLYCOLS, ESTER, 3-MOB

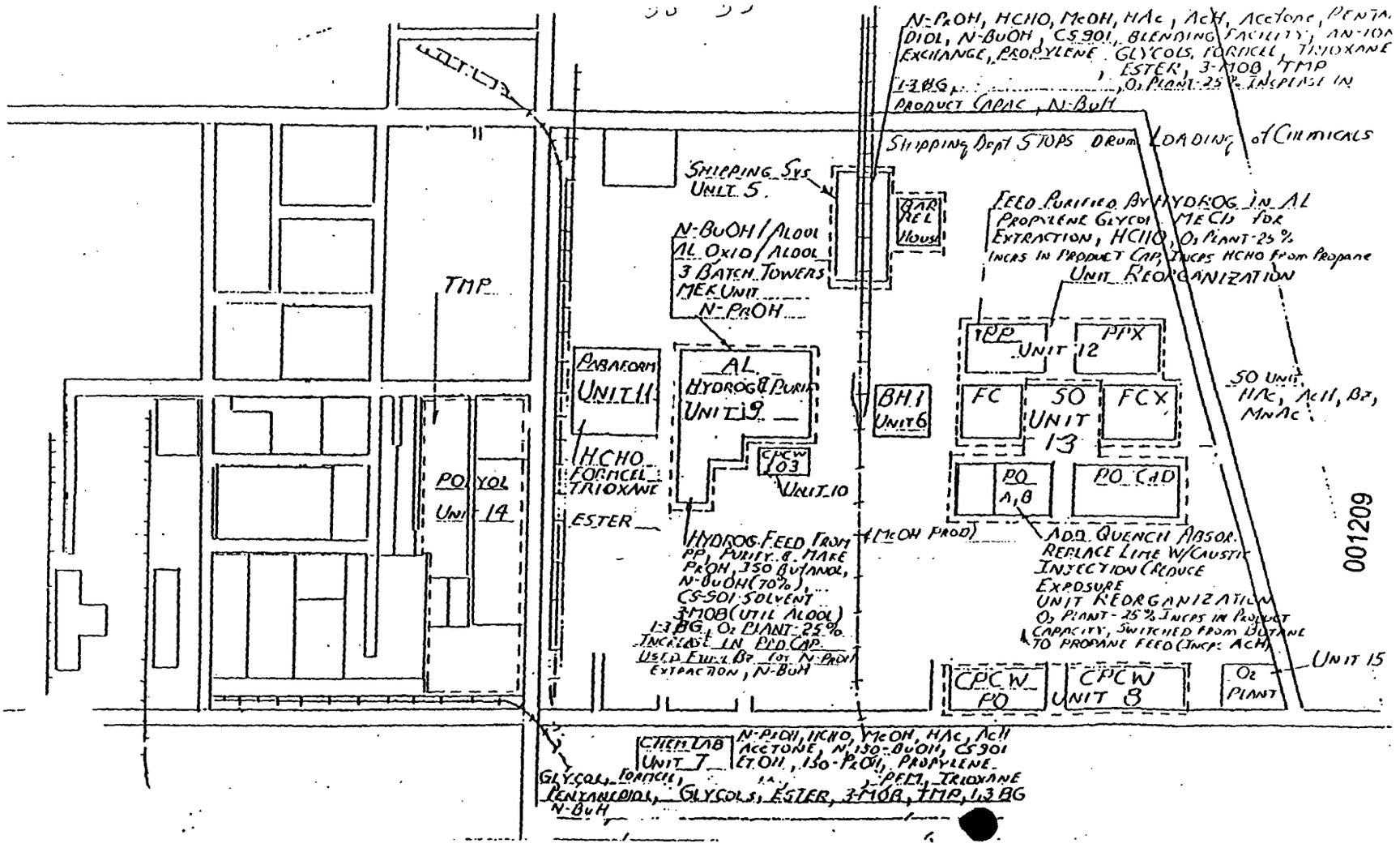
001205


N-PrOH, HCHO, MeOH, HAc, AcH, Acetone, Pentane Diol, N-BuOH, CS901, Blending Facility, An-Ion Exchange, Propylene Glycols, Formcel, Trioxane Ca & Na Propionates, Ester, 3-MOB, TMP 1-3BG, 2 Ethyl Hexanol
Shipping Sys Unit 5
Bar Rel House
Feed Purified By Hydrog in AL Propylene Glycol MECh for Extraction, HCHO
N-BuOH / Aldol
AL Oxid / Aldol
3 Batch Towers
MEK Unit
N-PrOH
Unit Reorganization
TMP
PP
PPX
Unit 12
Paraform Unit 11
AL Hydrog & Purif Unit 9
BH1 Unit 6
FC
SO Unit 13
FCX
SO Unit HAc, AcH, Bz, MnAc
CPCW 103
Unit 10
PO A,B
PO C&D
Polyol Unit 14
HCHO Formcel Trioxane Ca & Na Prop Ester Flake TMP From Util Aldol (9 Months)
Hydrog Feed From PP, Purify & Make PrOH, ISO Butanol, N-BuOH (70%), CS-901 Solvent 3-MOB (Util Aldol) TMP, 1,3 BG, 2 Ethyl Hexanol
Add Quench Absor. Replace Lime W/Caustic Injection (Reduce Exposure Unit Reorganization
CPCW PO
CPCW Unit 8
Chem Lab Unit 7
N-PrOH, HCHO, MeOH, HAc, AcH Acetone, N, ISO-BuOH, CS901 EtOH, ISO-PrOH, Propylene Glycol, Formcel, Ca & Na Propionates, PFM, Trioxane Pentanediol, Glycols, Ester, 3-MOB, TMP, 1,3 BG 2 Ethyl Hexanol

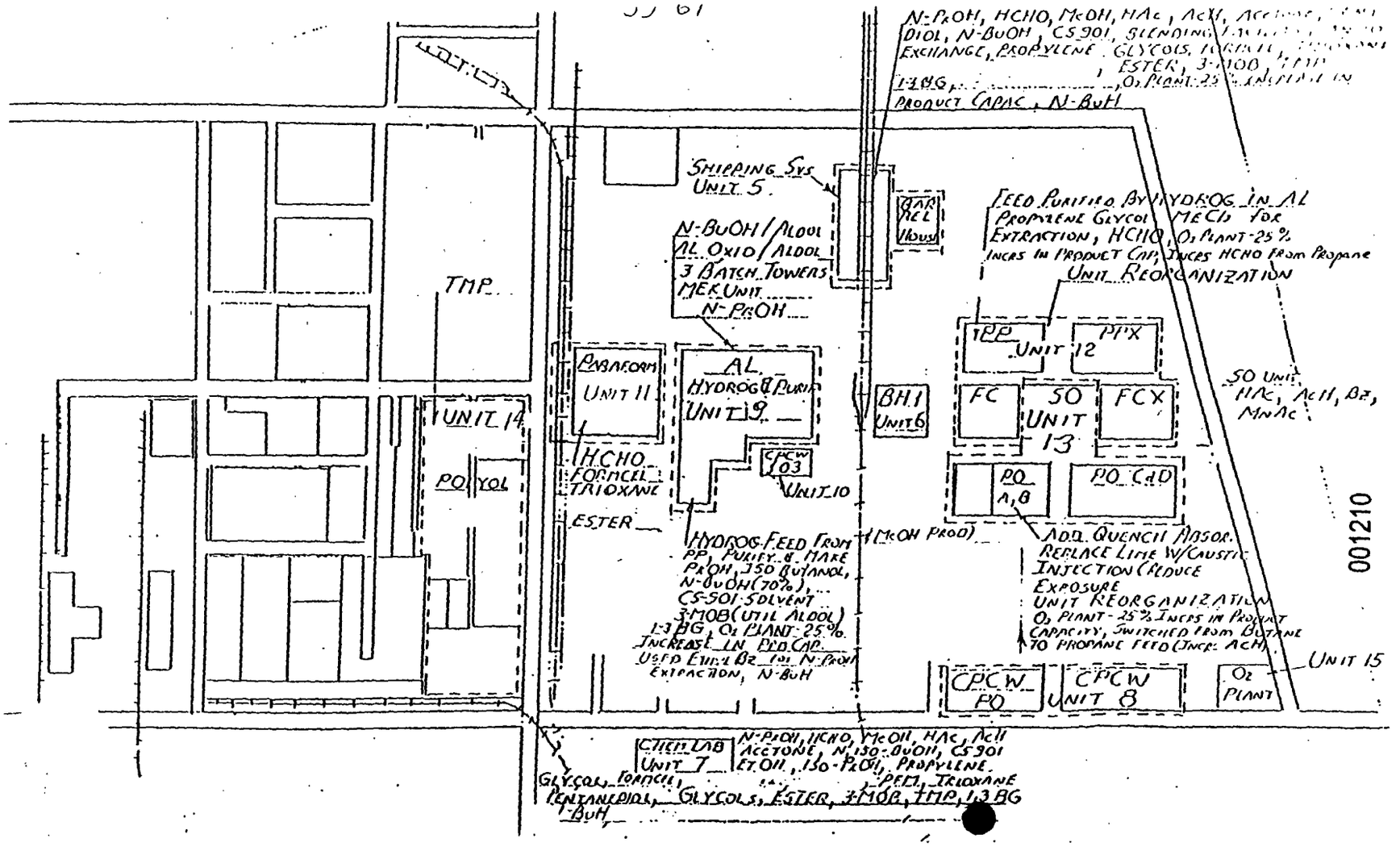
001206


N-PrOH, HCHO, MeOH, HAc, AcH, Acetone, Pentane Diol, N-BuOH, CS 901, BLENDING FACILITY, AN ION EXCHANGE, PROPYLENE GLYCOLS, FORMCEL, TRIOXANE Ca & Na PROPIONATES, ESTER, 3-MOB, TMP 1,3 BG, 2 ETHYL 1 EXANOL
SHIPPING SYS UNIT 5
BAR REL HOUSE
N-BUOH / ALDOL AL OXIO / ALDOL 3 BATCH TOWERS MEK UNIT N-PrOH
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECI YDR EXTRACTION, HCl10
UNIT REORGANIZATION
001207
TMP
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH1 UNIT 6
PPP UNIT 12
PPX
FC
50 UNIT 13
FCX
50 UNIT HAc, AcH, Bz, MnAc
CPCW 03
UNIT 10
HCHO FORMCEL TRIOXANE Ca & Na Prop ESTER FLAKE TMP FROM UTIL ALDOL (9 MONTHS)
POLYOL UNIT 14
PO A, B
PO C&D
HYDROG FEED FROM PP, PURITY & MAKE PrOH, 150 BUTANOL, N-BuOH (70%), CS-501 SOLVENT 3-MOB (UTIL ALDOL) TMP, 1,3 BG, 2 ETHYL HEXANOL
ADD QUENCH ABSOR. REPLACE LINE W/CAUSTIC INJECTION (REDUCE EXPOSURE UNIT REORGANIZATION
CPCW PO
CPCW UNIT 8
CHEM LAB UNIT 7
N-PrOH, HCHO, MeOH, HAc, AcH ACETONE, N-150-BuOH, CS 901 ETOH, 150-PrOH, PROPYLENE GLYCOL, FORMCEL, Ca & Na PROPIONATES, PENT, TRIOXANE PENTANEDIOL, GLYCOLS, ESTER, 3-MOB, TMP, 1,3 BG 2 ETHYL HEXANOL

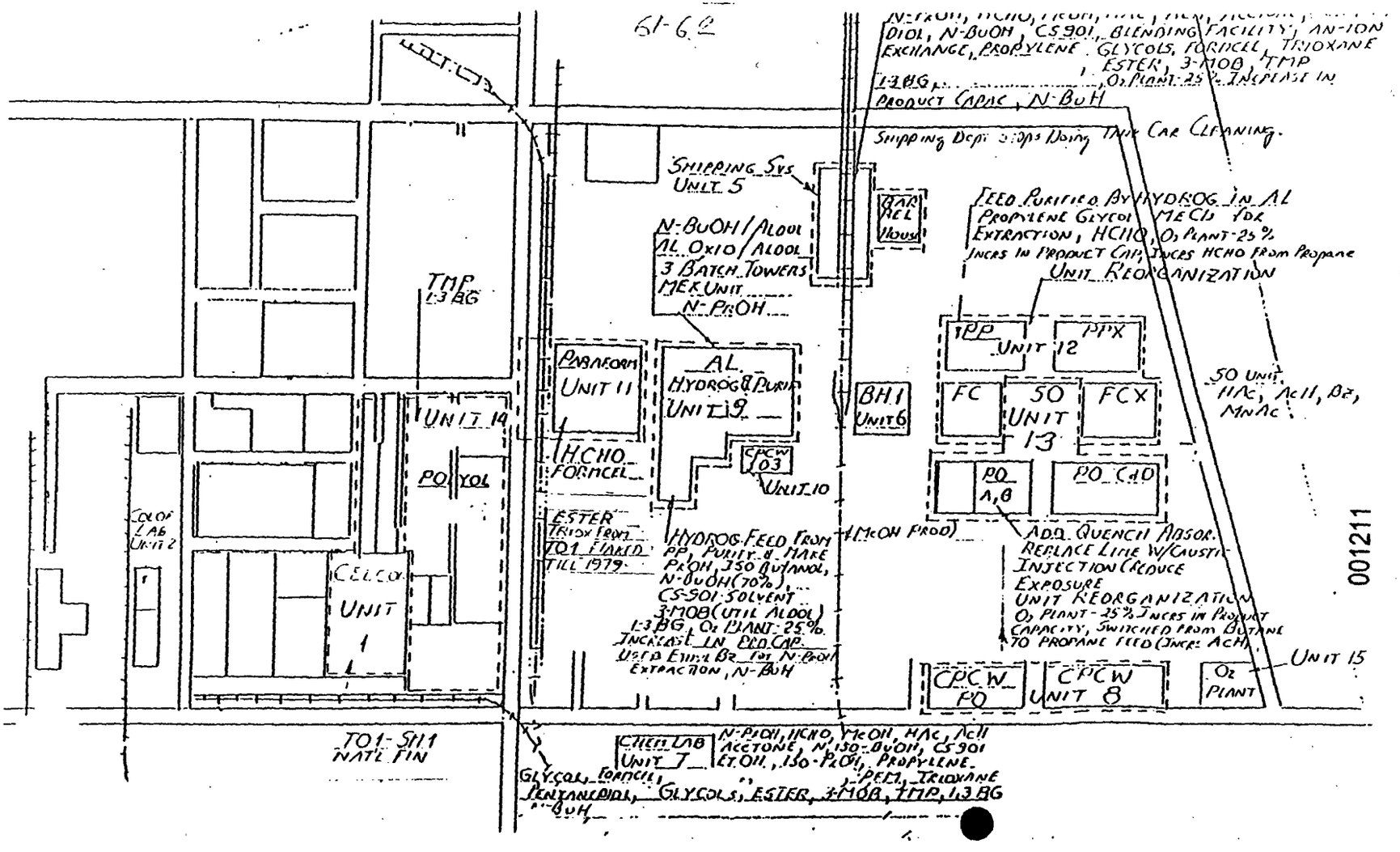

N-PrOH, HCHO, MeOH, HAc, AcH, Acetone, Pentanediol, N-BuOH, CS 901, BLENDING FACILITY, AN ION EXCHANGE, PROPYLENE GLYCOLS, FORMCEL, TRIOXANE Ca & Na PROPIONATES, ESTER, 3-MOB, TMP 1-2BG, O2 PLANT 25% INCREASE IN PRODUCT CAPAC, N-BuH
001208
SHIPPING SYS UNIT 5
BAR REL HOUS
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECH YDR EXTRACTION, HCHO, O2 PLANT 25% INCRS IN PRODUCT CAP
UNIT REORGANIZATION
N-BuOH / ALDOL AL OXIO / ALDOL 3 BATCH TOWERS MER UNIT N-PrOH
TMP
PP UNIT 12
PPX
FC
50 UNIT 13
FCX
50 UNIT HAc, AcH, Bz, MnAc
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BHI UNIT 6
CPCW 103
UNIT 10
HCHO FORMCEL TRIOXANE Ca & Na Prop ESTER
POLYOL UNIT 14
PO A,B
PO CAO
HYDROG FEED FROM PP, PURIFY & MAKE PrOH, 350 BUTANOL, N-BuOH(70%), CS-501 SOLVENT 3MOB(UTIL ALDOL) 1,3BG, O2 PLANT 25% INCR LAST LH PRD CAP START N-BuH
ADD QUENCH ABSOR. REPLACE LINE W/CAUSTIC INJECTION (REDUCE EXPOSURE UNIT REORGANIZATION O2 PLANT - 25% INCRS IN PRODUCT CAPACITY
UNIT 15
CPCW PO
CPCW UNIT 8
O2 PLANT
CHEM LAB UNIT 7
N-PrOH, HCHO, MeOH, HAc, AcH ACETONE, N-350-BuOH, CS 901 ETOH, 350-PrOH, PROPYLENE GLYCOL, FORMCEL, Ca & Na PROPIONATES, PEM, TRIOXANE PENTANEDIOL, GLYCOLS, ESTER, 3-MOB, TMP, 1,3BG N-BuH


N-PrOH, HCHO, MeOH, HAc, AcH, Acetone, PENTA-DIOL, N-BuOH, CS901, BLENDING FACILITY, AN-ION EXCHANGE, PROPYLENE GLYCOLS, FORMCEL, TRIOXANE, ESTER, 3-MOB, TMP
1-3 BG, O2 PLANT-25% INCREASE IN PRODUCT CAPAC, N-BuH
SHIPPING DEPT STOPS DRUM LOADING of CHEMICALS
SHIPPING SYS UNIT 5
BAR REL HOUSE
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECH FOR EXTRACTION, HCHO, O2 PLANT-25% INCRS IN PRODUCT CAP, INCRS HCHO FROM PROPANE
UNIT REORGANIZATION
N-BuOH/ALDOL
AL OXID/ALDOL
3 BATCH TOWERS
MEK UNIT
N-PrOH
TMP
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH1 UNIT 6
TPP
PPX
UNIT 12
FC
SO UNIT 13
FCX
SO UNIT HAc, AcH, Bz, MnAc
HCHO FORMCEL TRIOXANE
CPCW 103
UNIT 10
PO A,B
PO C&D
POLYOL UNIT 14
ESTER
HYDROG FEED FROM PP, PURIFY & MAKE PrOH, ISO BUTANOL, N-BuOH (70%), CS-901 SOLVENT 3-MOB (UTIL ALDOL) 1-3 BG, O2 PLANT-25% INCREASE IN PRD CAP. USED FUEL Bz FOR N-PrOH EXTRACTION, N-BuH
(MeOH PROD)
ADD QUENCH ABSOR. REPLACE LIME W/CAUSTIC INJECTION (REDUCE EXPOSURE
UNIT REORGANIZATION
O2 PLANT-25% INCRS IN PRODUCT CAPACITY, SWITCHED FROM BUTANE TO PROPANE FEED (INCRS ACH)
CPCW PO
CPCW UNIT 8
O2 PLANT
UNIT 15
CHEM LAB UNIT 7
N-PrOH, HCHO, MeOH, HAc, AcH ACETONE, N, ISO-BuOH, CS901 ET.OH, ISO-PrOH, PROPYLENE
GLYCOL, FORMCEL, PFM, TRIOXANE
PENTANEDIOL, GLYCOLS, ESTER, 3-MOB, TMP, 1,3 BG
N-BuH

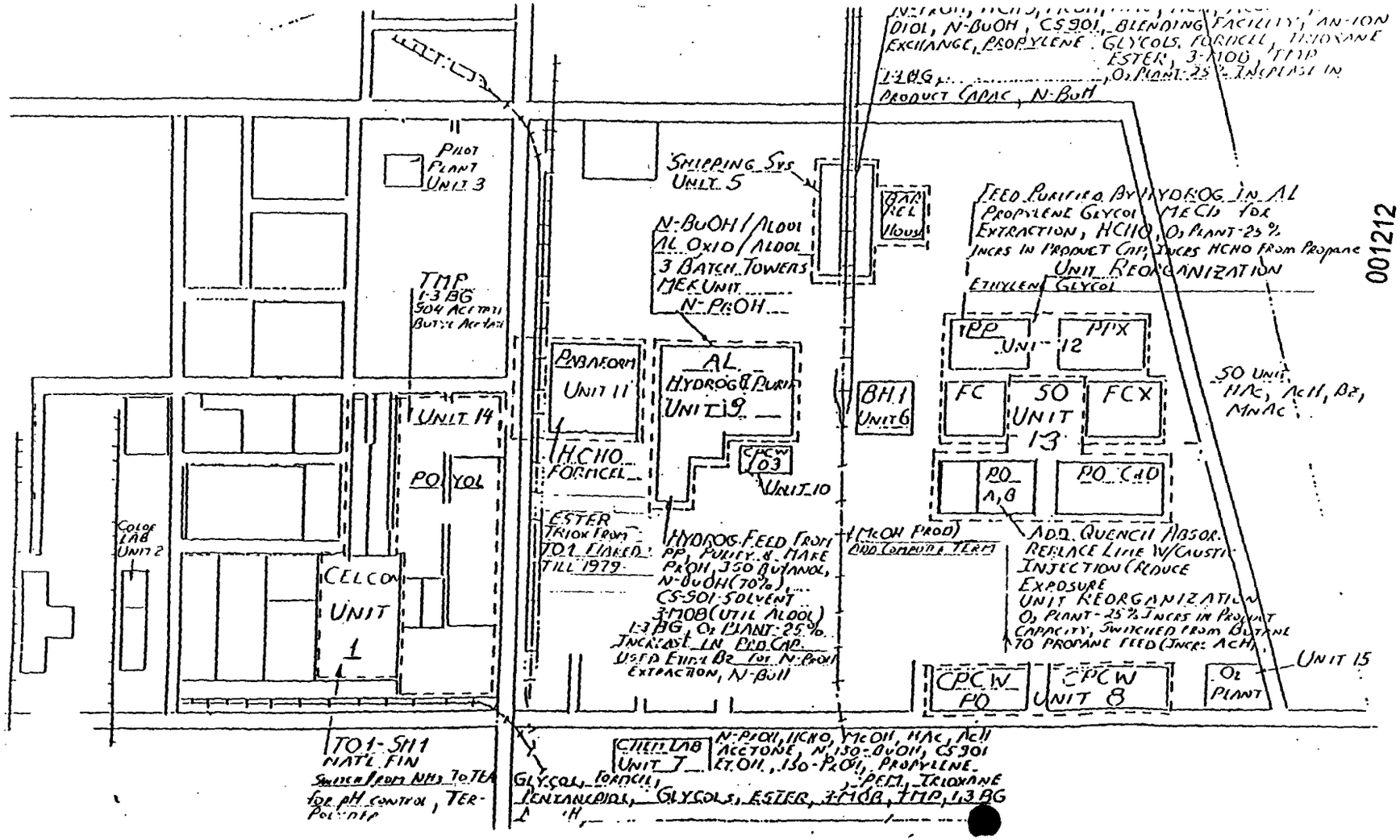
001209


N-PrOH, HCHO, MeOH, HAc, AcH, ACETONE, DIOL, N-BuOH, CS901, BLENDING, EXCHANGE, PROPYLENE, GLYCOLS, ESTER, 3-MOB, TMP, 1-3BG, O2 PLANT-25% INCREASE IN PRODUCT CAPAC, N-BuH
SHIPPING SYS UNIT 5
BAR REL HOUSE
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECh FOR EXTRACTION, HCHO, O2 PLANT-25% INCRS IN PRODUCT CAP, INCRS HCHO FROM PROPANE
UNIT REORGANIZATION
N-BuOH/ALDOL
AL OXID/ALDOL
3 BATCH TOWERS
MEK UNIT
N-PrOH
TMP
PABAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH1 UNIT 6
TPP
PPX
UNIT 12
FC
SO UNIT 13
FCX
SO UNIT HAc, AcH, Bz, MnAc
UNIT 14
POLYOL
HCHO FORMCEL TRIOXANE
CPCW 03
UNIT 10
PO A,B
PO C&D
ESTER
HYDROG FEED FROM PP, PURIFY & MAKE PrOH, ISO BUTANOL, N-BuOH (70%), CS-901 SOLVENT 3-MOB (UTIL ALDOL) 1-3BG, O2 PLANT-25% INCREASE IN PRD CAP. USED ETHYL Bz FOR N-PrOH EXTRACTION, N-BuH
(MeOH PROD)
ADD QUENCH ABSOR. REPLACE LIME W/CAUSTIC INJECTION (REDUCE EXPOSURE
UNIT REORGANIZATION
O2 PLANT-25% INCRS IN PRODUCT CAPACITY, SWITCHED FROM BUTANE TO PROPANE FEED (INCR. AcH)
UNIT 15
CPCW PO
CPCW UNIT 8
O2 PLANT
CHEM LAB UNIT 7
N-PrOH, HCHO, MeOH, HAc, AcH ACETONE, N, ISO-BuOH, CS901 ETOH, ISO-PrOH, PROPYLENE
GLYCOL, FORMCEL, PEM, TRIOXANE
PENTANEDIOL, GLYCOLS, ESTER, 3-MOB, TMP, 1,3 BG
1-BuH

001210

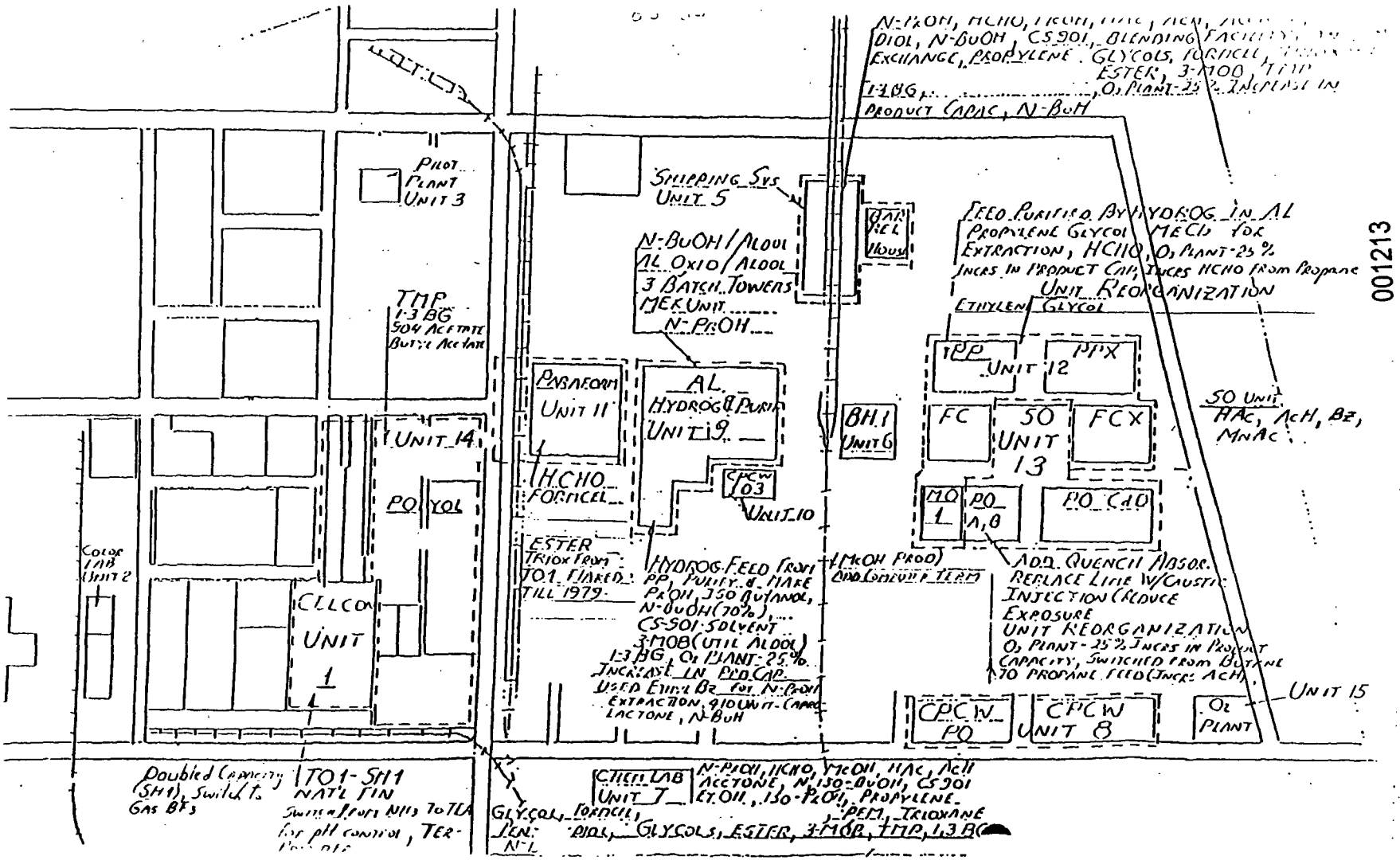

61-62
DIOL, N-BuOH, CS901, BLENDING FACILITY, AN-ION EXCHANGE, PROPYLENE, GLYCOLS, FORMCEL, TRIOXANE, ESTER, 3-MOB, TMP
1-3 BG, O2 PLANT-25% INCREASE IN PRODUCT CAPAC, N-BuH
Shipping Dept stops Doing Tank Car Cleaning.
SHIPPING SYS UNIT 5
BAR REL HOUSE
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECL FOR EXTRACTION, HCHO, O2 PLANT-25% INCRS IN PRODUCT CAP, INCRS HCHO FROM PROPANE
UNIT REORGANIZATION
N-BuOH/ALDOL
AL OXID/ALDOL
3 BATCH TOWERS
MEK UNIT
N-PrOH
TMP 1-3 BG
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH1 UNIT 6
PP UNIT 12
PPX
FC
SO UNIT 13
FCX
50 UNIT HAc, AcH, Bz, MnAc
UNIT 14
POLYOL
HCHO FORMCEL
CPCW 103
UNIT 10
PO A,B
PO C&D
COLOR LAB UNIT 2
ESTER TRIOX FROM TO1 FLAKED TILL 1979
HYDROG FEED FROM PP, PURIFY & MAKE PrOH, ISO BUTANOL, N-BuOH (70%), CS-901 SOLVENT 3-MOB (UTIL ALDOL) 1-3 BG, O2 PLANT-25% INCREASE IN PRD CAP. USED ETHYL BZ FOR N-PrOH EXTRACTION, N-BuH
(McOH PROD)
ADD QUENCH ABSOR. REPLACE LIME W/CAUSTIC INJECTION (REDUCE EXPOSURE
UNIT REORGANIZATION
O2 PLANT-25% INCRS IN PRODUCT CAPACITY, SWITCHED FROM BUTANE TO PROPANE FEED (INCRS ACH)
CELCOL UNIT 1
CPCW PO
CPCW UNIT 8
O2 PLANT
UNIT 15
TO1-SH1 NATL FIN
CHEM LAB UNIT 7
N-PrOH, HCHO, McOH, HAc, AcH ACCTONE, N, ISO-BuOH, CS901 ETOH, ISO-PrOH, PROPYLENE
GLYCOL, FORMCEL, PEM, TRIOXANE
PENTANEDIOL, GLYCOLS, ESTER, 3-MOB, TMP, 1,3 BG
N-BuH

001211



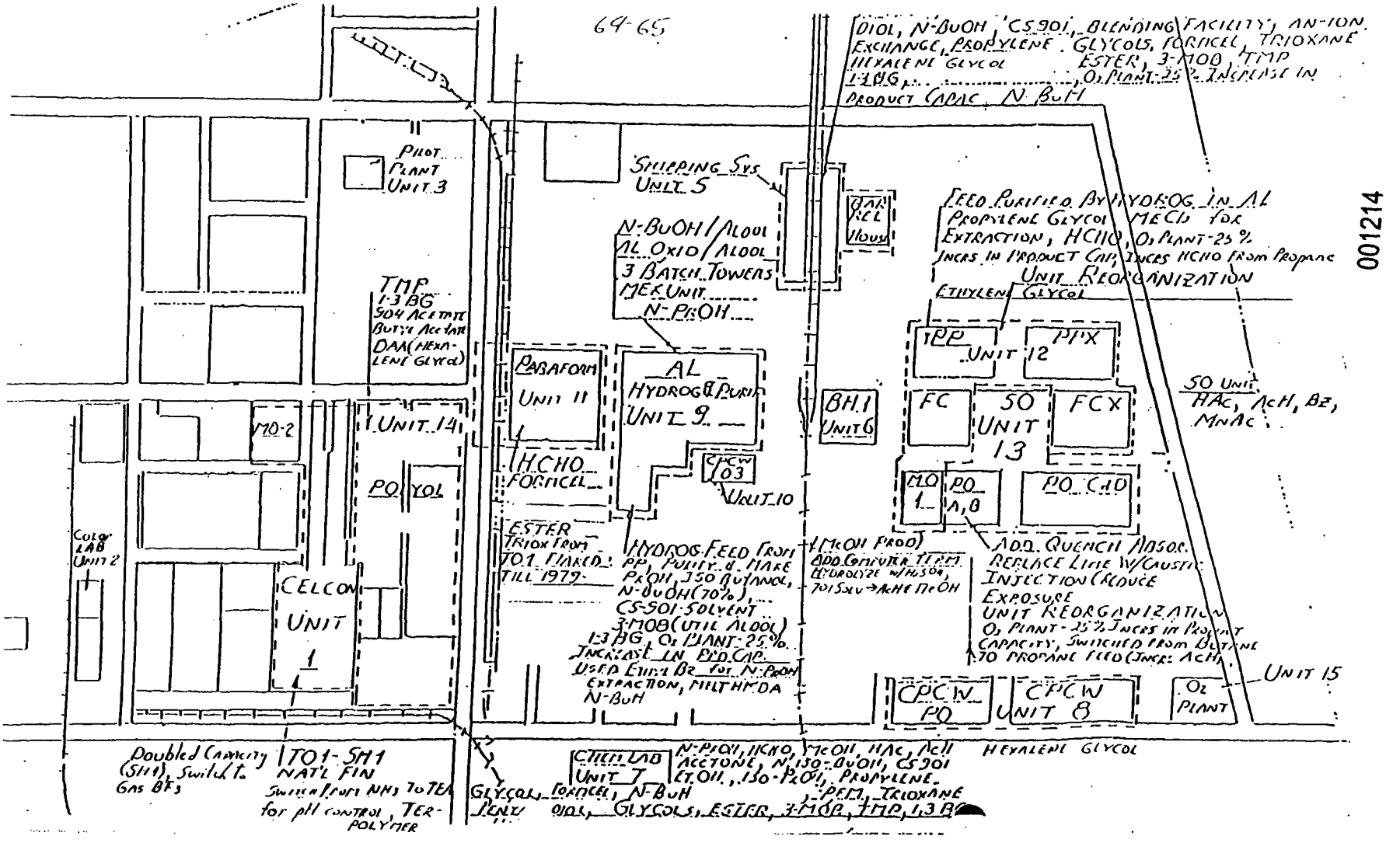
DIOL, N-BuOH, CS901, BLENDING FACILITY, AN-ION EXCHANGE, PROPYLENE GLYCOLS, FORMCEL, TRIOXANE ESTER, 3-MOB, TMP
1-3 BG, O2 PLANT-25% INCREASE IN PRODUCT CAPAC, N-BuOH
PILOT PLANT UNIT 3
SHIPPING SYS UNIT 5
BAR REL HOUSE
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECH FOR EXTRACTION, HCHO, O2 PLANT-25% INCRS IN PRODUCT CAP, INCRS HCHO FROM PROPANE
UNIT REORGANIZATION
ETHYLENE GLYCOL
N-BuOH/ALDOL AL OXID/ALDOL 3 BATCH TOWERS MEK UNIT N-PrOH
TMP 1-3 BG 504 ACETATE BUTYL ACETATE
PABAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH1 UNIT 6
PP UNIT 12
PPX
FC
SO UNIT 13
FCX
SO UNIT HAC, AcH, Bz, MnAc
UNIT 14
POLYOL
HCHO FORMCEL
CPCW 103
UNIT 10
PO A,B
PO C&D
COLOR LAB UNIT 2
ESTER TRIOX FROM TO1 FLAKED TILL 1979
HYDROG FEED FROM PP, PURIFY & MAKE PrOH, 350 BUTANOL, N-BuOH (70%), CS-901 SOLVENT 3-MOB (UTIL ALDOL) 1-3 BG, O2 PLANT-25% INCREASE IN PRD CAP. USED ETHYL Bz FOR N-PrOH EXTRACTION, N-BuH
(MeOH PROD) ADD COMPUTER TERM
ADD QUENCH ABSOR. REPLACE LINE W/CAUSTIC INJECTION (REDUCE EXPOSURE
UNIT REORGANIZATION O2 PLANT-25% INCRS IN PRODUCT CAPACITY, SWITCHED FROM BUTANE TO PROPANE FEED (INCRS AcH)
CELCON UNIT 1
CPCW PO
CPCW UNIT 8
O2 PLANT
UNIT 15
TO1-SH1 NAT'L FIN SWITCH FROM NH3 TO TEA FOR pH CONTROL, TER-POLYDEP
CHEM LAB UNIT 7
N-PrOH, HCHO, MeOH, HAC, AcH ACETONE, N, ISO-BuOH, CS901 ET.OH, ISO-PrOH, PROPYLENE, PEM, TRIOXANE
GLYCOL, FORMCEL, PENTANEDIOL, GLYCOLS, ESTER, 3-MOB, TMP, 1,3 BG


001212

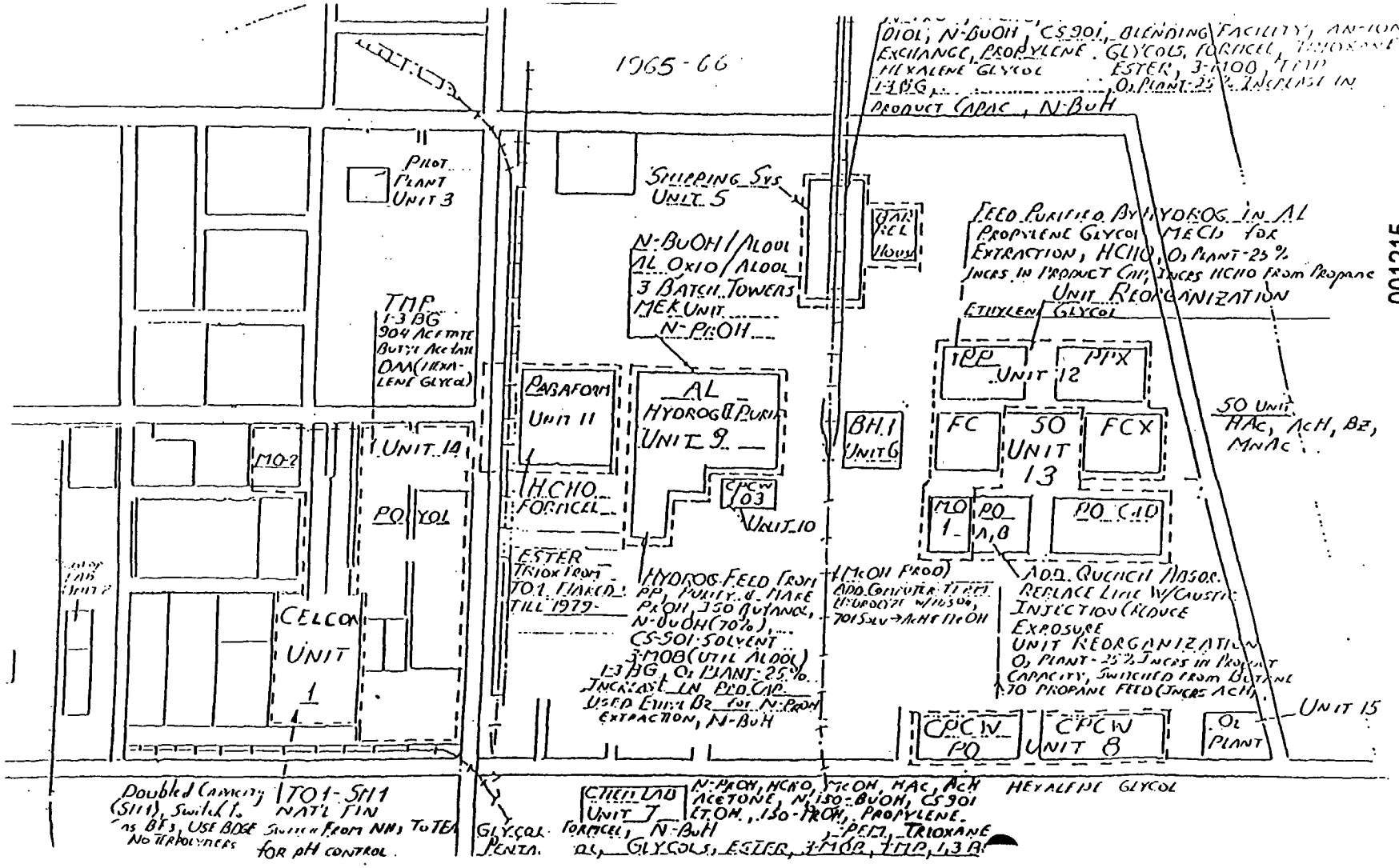


N-PrOH, HCHO, MeOH, HAc, AcH, ...
DIOL, N-BuOH, CS901, BLENDING FACILITY, ...
EXCHANGE, PROPYLENE. GLYCOLS, FORMCEL, ...
ESTER, 3-MOB, TMP
1-3 BG, ..., O2 PLANT-25% INCREASE IN
PRODUCT CAPAC, N-BuH
PILOT PLANT UNIT 3
SHIPPING SYS UNIT 5
BAR REL HOUSE
N-BuOH/ALDOL
AL OXID/ALDOL
3 BATCH TOWERS
MEK UNIT
N-PrOH
FEED PURIFIED BY HYDROG IN AL
PROPYLENE GLYCOL MECH FOR
EXTRACTION, HCHO, O2 PLANT-25%
INCRS IN PRODUCT CAP, INCRS HCHO FROM PROPANE
UNIT REORGANIZATION
ETHYLENE GLYCOL
TMP
1-3 BG
904 ACETATE
BUTYL ACETATE
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH1 UNIT 6
PP UNIT 12
PPX
FC
SO UNIT 13
FCX
SO UNIT
HAc, AcH, Bz, MnAc
UNIT 14
PO YOL
HCHO FORMCEL
CPCW 03
UNIT 10
MO 1
PO A,B
PO CdO
COLOR LAB UNIT 2
ESTER TRIOX FROM TO1 FLARED TILL 1979
HYDROG FEED FROM PP, PURIFY & MAKE PrOH, ISO BUTANOL, N-BuOH (70%), CS-901 SOLVENT 3-MOB (UTIL ALDOL) 1-3 BG, O2 PLANT-25% INCREASE IN PRD CAP. USED ETHYL BZ FOR N-PrOH EXTRACTION, 410 UNIT-CAPRO LACTONE, N-BuH
(MeOH PROD) ADD COMPUTER TERM
ADD QUENCH ABSOR. REPLACE LIME W/CAUSTIC INJECTION (REDUCE EXPOSURE
UNIT REORGANIZATION
O2 PLANT-25% INCRS IN PRODUCT CAPACITY, SWITCHED FROM BUTANE TO PROPANE FEED (INCRS ACH)
CELCON UNIT 1
CPCW PO
CPCW UNIT 8
O2 PLANT
UNIT 15
Doubled Capacity (SH1), Switch to Gas BF3
TO1-SH1 NAT'L FIN
Switch from NH3 to TEA for pH control, TER-
CHEM LAB UNIT 7
N-PrOH, HCHO, MeOH, HAc, AcH
ACETONE, N, ISO-BuOH, CS901
ET.OH, ISO-PrOH, PROPYLENE
PEM, TRIOXANE
GLYCOL, FORMCEL,
PEN-DIOL, GLYCOLS, ESTER, 3-MOB, TMP, 1,3 BG

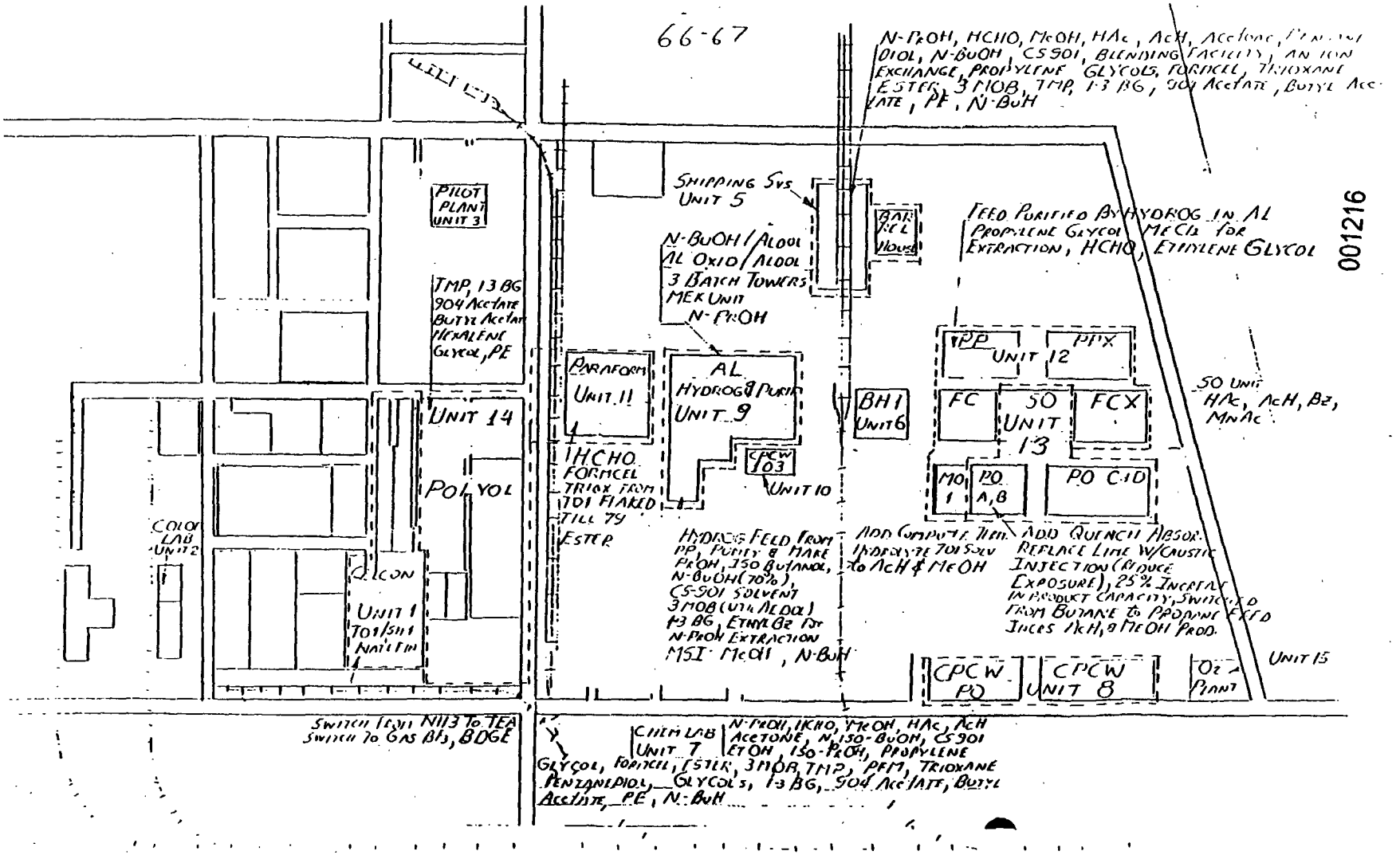

001213


64-65
DIOL, N-BuOH, CS 901, BLENDING FACILITY, AN-ION EXCHANGE, PROPYLENE GLYCOLS, FORMCEL, TRIOXANE HEXALENE GLYCOL ESTER, 3-MOB, TMP 1-3BG, O2 PLANT-25% INCREASE IN PRODUCT CAPAC, N-BuH
PILOT PLANT UNIT 3
SHIPPING SYS UNIT 5
BAR REL HOUSE
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECH FOR EXTRACTION, HCHO, O2 PLANT-25% INCRS IN PRODUCT CAP, INCRS HCHO FROM PROPANE UNIT REORGANIZATION
ETHYLENE GLYCOL
N-BuOH/ALDOL AL OXID/ALDOL 3 BATCH TOWERS MEK UNIT N-PROH
TMP 1-3 BG 904 ACETATE BUTYL ACETATE DAA (HEXALENE GLYCOL)
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH.1 UNIT 6
PP UNIT 12
PPX
FC
SO UNIT 13
FCX
SO UNIT HAC, ACH, BZ, MNAC
MO-2
UNIT 14
POLYOL
HCHO FORMCEL
CPCW 03
UNIT 10
MO 1
PO A,B
PO C&D
COLOR LAB UNIT 2
ESTER TRIOX FROM TO1 FLARED TILL 1979
HYDROG FEED FROM PP, PURIFY & MAKE PROH, ISO BUTANOL, N-BuOH (70%), CS-901 SOLVENT 3-MOB (UTIL ALDOL) 1-3 BG, O2 PLANT-25% INCREASE IN PRD CAP. USED ETHYL BZ FOR N-PROH EXTRACTION, MELTHMDA N-BuH
(MeOH PROD) ADD COMPUTER TERM HYDROLYZE W/H2SO4, 701 SOLV → ACH & MeOH
ADD QUENCH ABSOR. REPLACE LIME W/CAUSTIC INJECTION (REDUCE EXPOSURE UNIT REORGANIZATION O2 PLANT-25% INCRS IN PRODUCT CAPACITY, SWITCHED FROM BUTANE TO PROPANE FEED (INCR: ACH)
CELCON UNIT 1
CPCW PO
CPCW UNIT 8
O2 PLANT
UNIT 15
Doubled Capacity (SH1), Switch to Gas BF3
TO1-SH1 NAT'L FIN
Switch from NH3 to TEA for pH control, TER-POLYMER
CHEM LAB UNIT 7
N-PROH, HCHO, MeOH, HAC, ACH ACETONE, N, ISO-BuOH, CS 901 ET.OH, ISO-PROH, PROPYLENE, PEM, TRIOXANE
GLYCOL, FORMCEL, N-BuH
PENT DIOL, GLYCOLS, ESTER, 3-MOB, TMP, 1,3 BG
HEXALENE GLYCOL

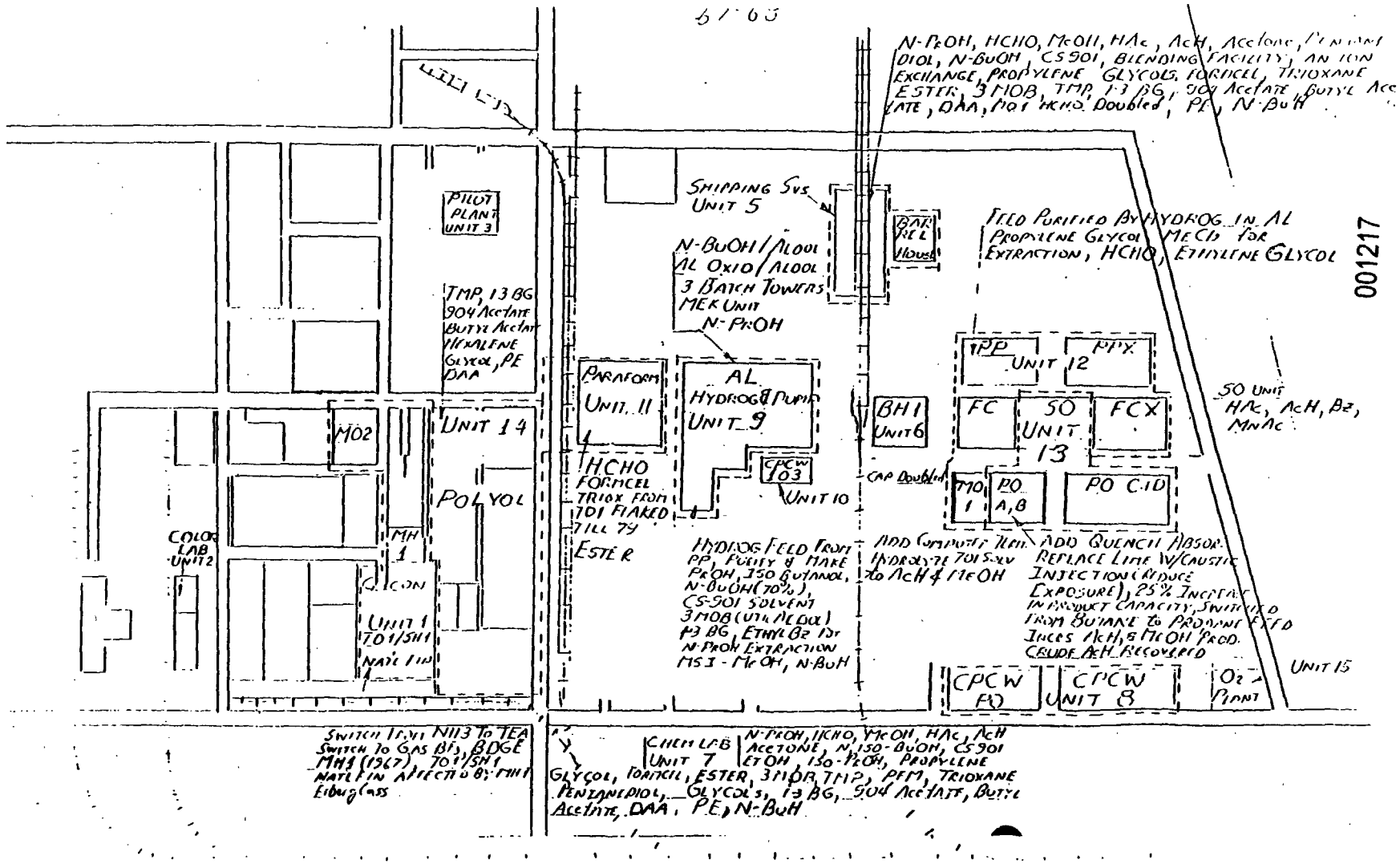
001214


1965-66
DIOL, N-BuOH, CS901, BLENDING FACILITY, AN-ION EXCHANGE, PROPYLENE GLYCOLS, FORMCEL, TRIOXANE HEXALENE GLYCOL ESTER, 3-MOB, TMP 1-3BG, O2 PLANT-25% INCREASE IN PRODUCT CAPAC, N-BuH
PILOT PLANT UNIT 3
SHIPPING SYS UNIT 5
BAR REL HOUSE
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECH FOR EXTRACTION, HCHO, O2 PLANT-25% INCRS IN PRODUCT CAP, INCRS HCHO FROM PROPANE
UNIT REORGANIZATION
ETHYLENE GLYCOL
N-BuOH/ALDOL
AL OXID/ALDOL
3 BATCH TOWERS
MEK UNIT
N-PROH
TMP
1-3 BG
904 ACETATE
BUTYL ACETATE
DAA (HEXALENE GLYCOL)
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH.1 UNIT 6
PP UNIT 12
PPX
FC
SO UNIT 13
FCX
SO UNIT HAC, ACH, BZ, MNAC
MO-2
UNIT 14
PO YOL
HCHO FORMCEL
CPCW 03
UNIT 10
MO 1
PO A,B
PO C,D
ESTER TRIOX FROM TO1 MAKED TILL 1979
HYDROG FEED FROM PP, PURIFY & MAKE PROH, ISO BUTANOL, N-BuOH (70%), CS-901 SOLVENT 3-MOB (UTIL ALDOL) 1-3 BG, O2 PLANT-25% INCREASE IN PRD CAP. USED ETHYL BZ FOR N-PROH EXTRACTION, N-BuH
(MeOH PROD) ADD COMPUTER TERM HYDROLYZE W/ISO, 701 SOLV → ACH & MeOH
ADD QUENCH ABSOR. REPLACE LINE W/CAUSTIC INJECTION (REDUCE EXPOSURE
UNIT REORGANIZATION
O2 PLANT-25% INCRS IN PRODUCT CAPACITY, SWITCHED FROM BUTANE TO PROPANE FEED (INCRS ACH)
CELCON UNIT 1
CPCW PO
CPCW UNIT 8
O2 PLANT
UNIT 15
Doubled Capacity (SH1), Switch to GAS BFS, USE BDGE NO TERPOLYMERS
TO1-SH1 NAT'L FIN SWITCH FROM NH3 TO TEA FOR pH CONTROL
GLYCOL PENTA.
CHEM LAB UNIT 7
N-PROH, HCHO, MeOH, HAC, ACH ACETONE, N, ISO-BuOH, CS901 ET.OH., ISO-PROH, PROPYLENE FORMCEL, N-BuH
PEM, TRIOXANE
GLYCOLS, ESTER, 3-MOB, TMP, 1,3 B
HEXALENE GLYCOL

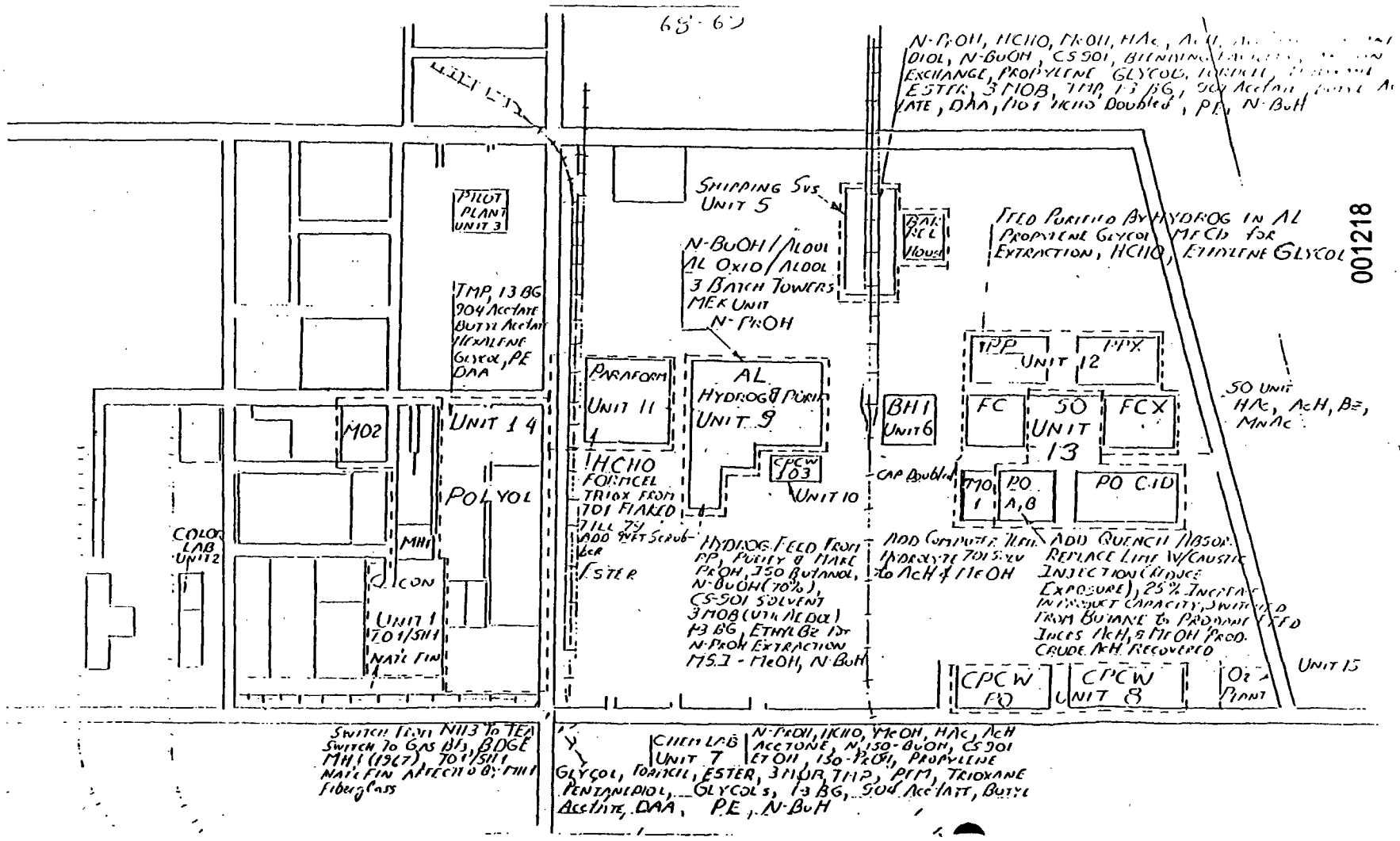
001215


66-67
N-PrOH, HCHO, MeOH, HAc, AcH, Acetone, Pentane Diol, N-BuOH, CS901, Blending Facility, Anion Exchange, Propylene Glycols, Formcel, Trioxane Ester, 3 MOB, TMP, 1-3 BG, 904 Acetate, Butyl Acetate, PE, N-BuH
Shipping Svs Unit 5
Bar Rel House
Feed Purified By Hydrog In AL Propylene Glycol MeCl2 for Extraction, HCHO, Ethylene Glycol
Pilot Plant Unit 3
TMP, 1-3 BG 904 Acetate Butyl Acetate Hexalene Glycol, PE
N-BuOH / Aldol AL Oxid / Aldol 3 Batch Towers MEK Unit N-PrOH
Paraform Unit 11
AL Hydrog & Purif Unit 9
BH1 Unit 6
PP
PPX
Unit 12
FC
SO Unit 13
FCX
SO Unit HAc, AcH, Bz, MnAc
Unit 14
Polyol
HCHO Formcel Triox from TO1 Flaked Till 79 Ester
CPCW 103
Unit 10
MO 1
PO A,B
PO C+D
Color Lab Unit 2
Alcon
Unit 1 TO1/SH1 Natl Fin
Hydrog Feed from PP, Purify & Make PrOH, ISO Butanol, N-BuOH (70%), CS-901 Solvent 3 MOB (Util Aldol) 1-3 BG, Ethyl Bz for N-PrOH Extraction MSI MeOH, N-BuH
Add Compute Term. Hydrolyte TO1 Solv to AcH & MeOH
Add Quench Absor. Replace Lime W/Caustic Injection (Reduce Exposure), 25% Increase in Product Capacity, Switched from Butane to Propane Feed Incrs AcH, & MeOH Prod.
CPCW PO
CPCW Unit 8
Oz Plant
Unit 15
Switch from N113 to TEA Switch to Gas BF3, BDGE
Chem Lab Unit 7
N-PrOH, HCHO, MeOH, HAc, AcH Acetone, N, ISO-BuOH, CS901 EtOH, ISO-PrOH, Propylene Glycol, Formcel, Ester, 3 MOB, TMP, PFM, Trioxane Pentanediol, Glycols, 1-3 BG, 904 Acetate, Butyl Acetate, PE, N-BuH

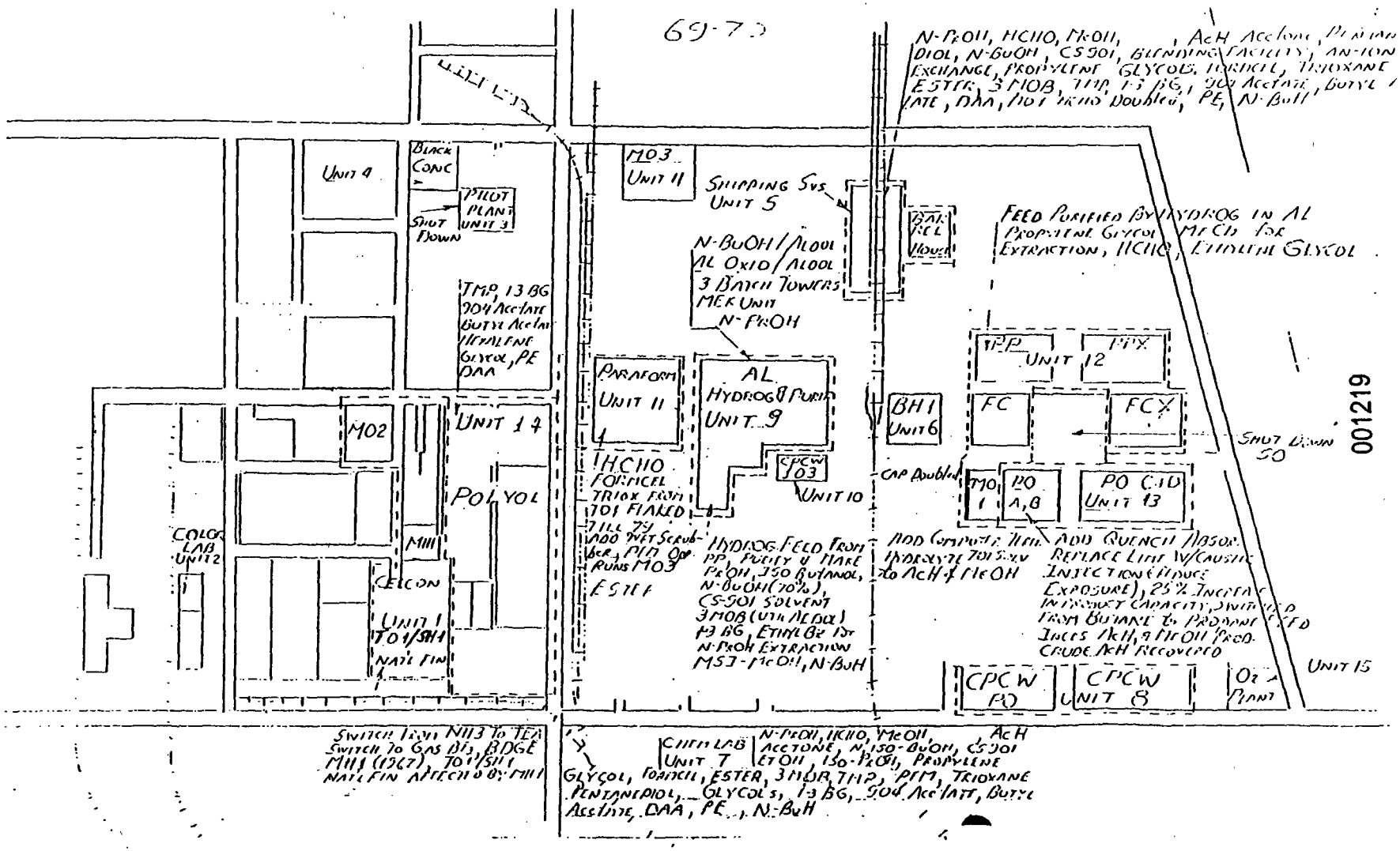
001216


N-PrOH, HCHO, MeOH, HAc, AcH, Acetone, Pentane Diol, N-BuOH, CS901, Blending Facility, An Ion Exchange, Propylene Glycols, Formcel, Trioxane Ester, 3MOB, TMP, 13 BG, 904 Acetate, Butyl Acetate, DAA, MO1 HCHO Doubled, PE, N-BuH
Shipping Svs Unit 5
Pilot Plant Unit 3
TMP, 13 BG 904 Acetate Butyl Acetate Hexalene Glycol, PE DAA
N-BuOH/Alcol AL Oxid/Alcol 3 Batch Towers MEK Unit N-PrOH
Bar Rel House
Feed Purified By Hydrog In AL Propylene Glycol, MeCl for Extraction, HCHO, Ethylene Glycol
Paraform Unit 11
AL Hydrog & Purif Unit 9
BH1 Unit 6
PP Unit 12
PPX
FC
SO Unit 13
FCX
SO Unit HAc, AcH, Bz, MnAc
MO2
Unit 14
Polyol
HCHO Formcel Triox From 701 Flaked Till 79
Ester
CPCW 103
Unit 10
Cap Doubled
MO 1
PO A,B
PO C.I.D
Color Lab Unit 2
MH 1
Unit 1 701/SH1 Nat'l Fin
Hydrog Feed From PP, Purify & Make PrOH, ISO Butanol, N-BuOH (70%), CS-901 Solvent 3MOB (Util Alcol) 13 BG, Ethyl Bz for N-PrOH Extraction MSI - MeOH, N-BuH
Add Computer Term. Hydrolyte 701 Solv to AcH & MeOH
Add Quench Absor. Replace Lime W/Caustic Injection (Reduce Exposure), 25% Increase in Product Capacity, Switched From Butane to Propane Feed Incres AcH, & MeOH Prod. Crude AcH Recovered
CPCW PO
CPCW Unit 8
O2 Plant
Unit 15
Switch From NH3 To TEA Switch To Gas Bfs, BDGE MH1 (1967), 701/SH1 Nat'l Fin Affected By MH1 Fiberglass
Chem Lab Unit 7
N-PrOH, HCHO, MeOH, HAc, AcH Acetone, N, ISO-BuOH, CS901 EtOH, ISO-PrOH, Propylene Glycol, Formcel, Ester, 3MOB, TMP, PFM, Trioxane Pentanediol, Glycols, 13 BG, 904 Acetate, Butyl Acetate, DAA, PE, N-BuH

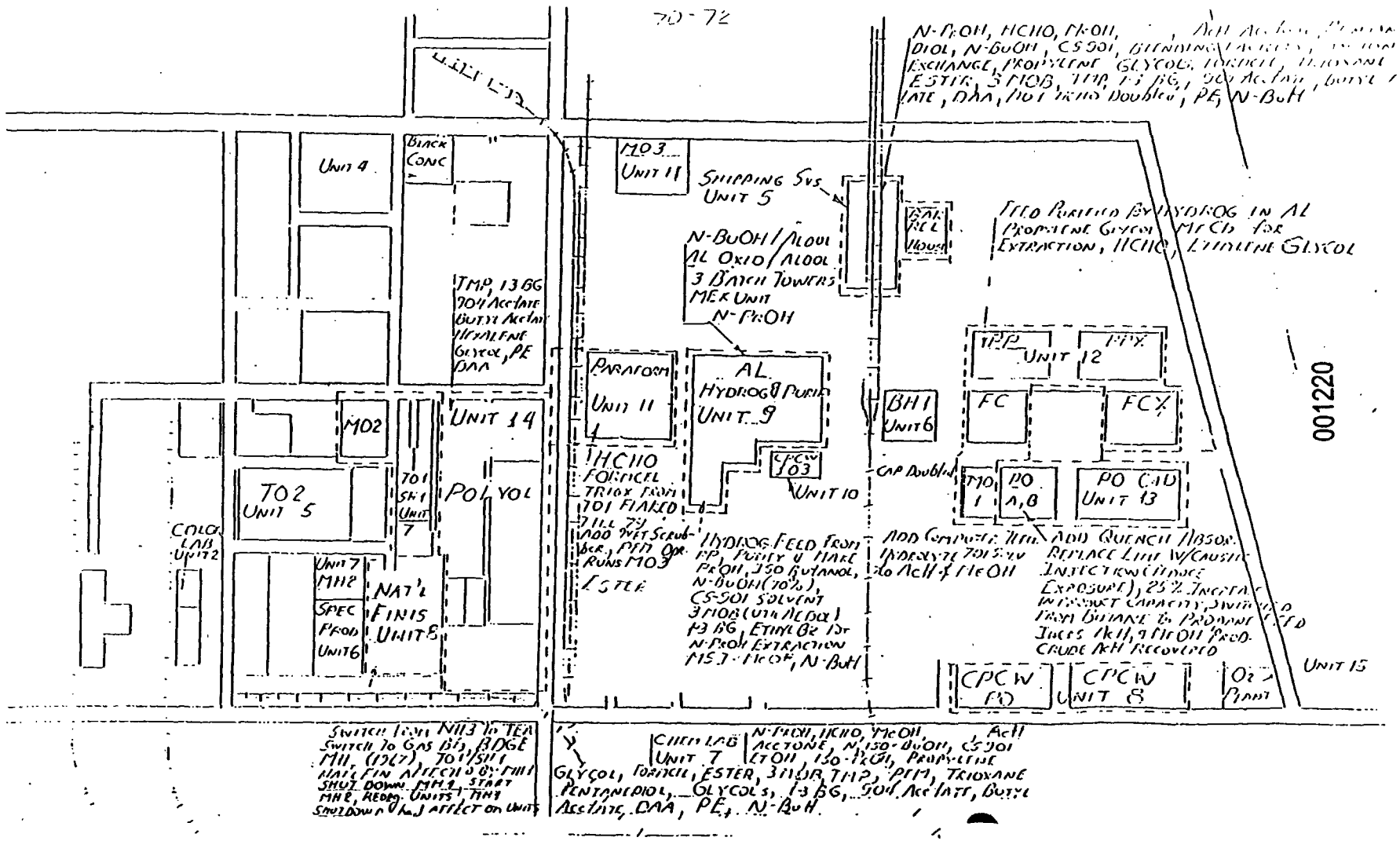
001217


68-69
N-PrOH, HCHO, MeOH, HAc, AcH, ... DIOL, N-BuOH, CS 901, BLENDING ... EXCHANGE, PROPYLENE GLYCOL, FORMCEL, ... ESTER, 3 MOB, TMP, 13 BG, 904 Acetate, Butyl Acetate, DAA, 101 HCHO Doubled, PE, N-BuH
PILOT PLANT UNIT 3
TMP, 13 BG 904 Acetate Butyl Acetate Hexalene Glycol, PE DAA
SHIPPING SVS UNIT 5
BAR REL HOUSE
N-BuOH / ALDOL AL OXID / ALDOL 3 BATCH TOWERS MEK UNIT N-PrOH
FEED PURIFIED BY HYDROG IN AL PROPYLENE GLYCOL MECH FOR EXTRACTION, HCHO, ETHYLENE GLYCOL
PARAFORM UNIT 11
AL HYDROG & PURIF UNIT 9
BH1 UNIT 6
PP UNIT 12
PPX
FC
SO UNIT 13
FCX
SO UNIT HAc, AcH, Bz, MnAc
MO2
UNIT 14
POLYOL
HCHO FORMCEL TRIOX FROM 701 FLAKED TILL 79 ADD WET SCRUBBER
CPCW 103
UNIT 10
CAP Doubled
MO 1
PO A,B
PO C,D
COLOR LAB UNIT 2
MH1
CON
UNIT 1 701/SH1 NAT'L FIN
ESTER
HYDROG FEED FROM PP, PURIFY & MAKE PrOH, ISO BUTANOL, N-BuOH (70%), CS-901 SOLVENT 3 MOB (UTIL AEDOL) 13 BG, ETHYL Bz for N-PrOH EXTRACTION MSI - MeOH, N-BuH
ADD COMPUTER TERM. HYDROLYTE 701 SOLV to AcH & MeOH
ADD QUENCH ABSOR. REPLACE LIME W/CAUSTIC INJECTION (REDUCE EXPOSURE), 25% INCREASE IN PRODUCT CAPACITY, SWITCHED FROM BUTANE to PROPANE FEED INCRS AcH, & MeOH PROD. CRUDE AcH RECOVERED
CPCW PO
CPCW UNIT 8
O2 PLANT
UNIT 15
SWITCH FROM NH3 TO TEA SWITCH TO GAS BF3, BDGE MH1 (1967), 701/SH1 NAT'L FIN AFFECTED BY MH1 Fiberglass
CHEM LAB UNIT 7
N-PrOH, HCHO, MeOH, HAc, AcH ACETONE, N, ISO-BuOH, CS 901 ETOH, ISO-PrOH, PROPYLENE GLYCOL, FORMCEL, ESTER, 3 MOB, TMP, PFM, TRIOXANE PENTANEDIOL, GLYCOLS, 13 BG, 904 Acetate, Butyl Acetate, DAA, PE, N-BuH

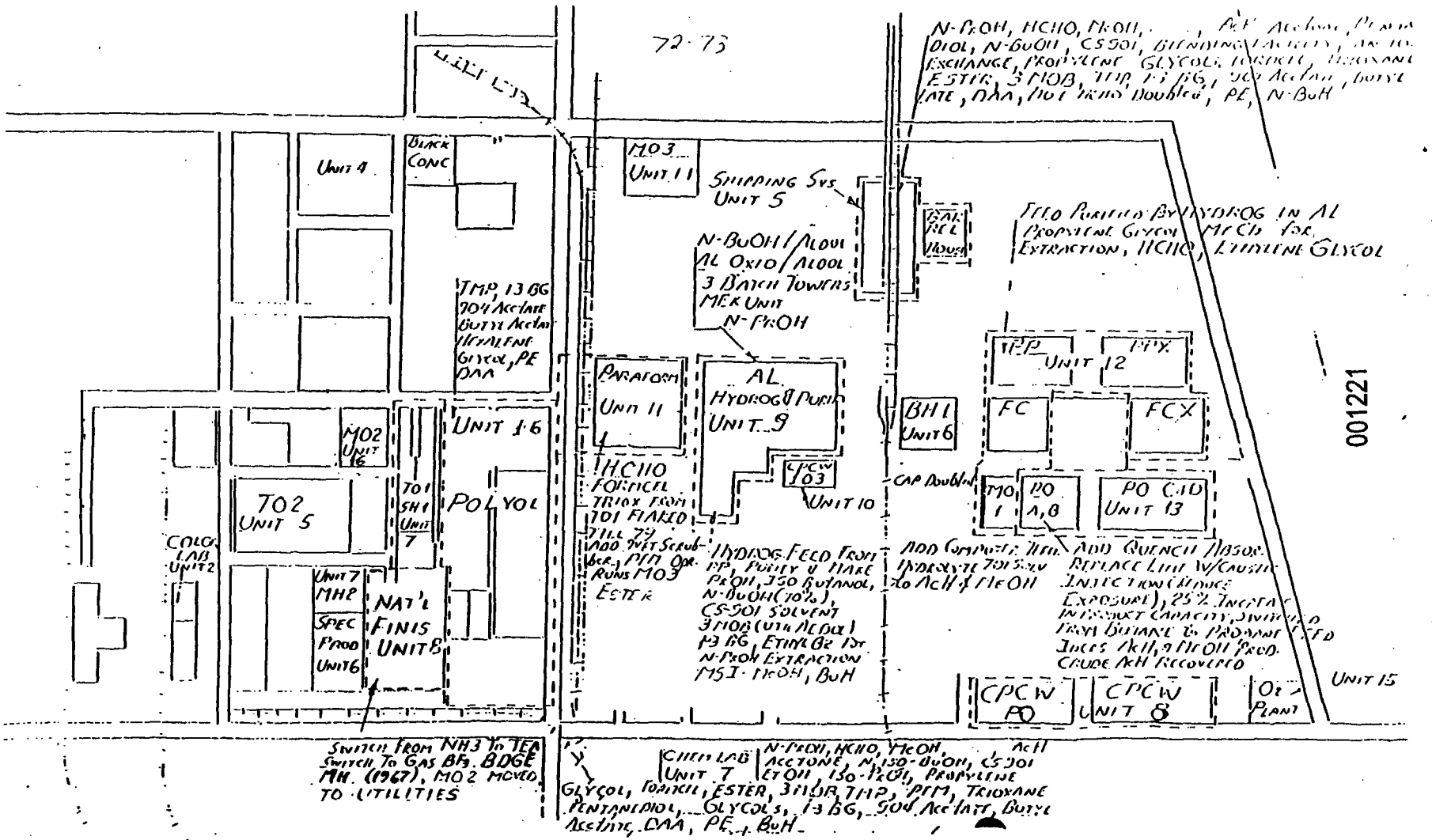
001218


69-73
N-PrOH, HCHO, MeOH, , AcH Acetone, Pentan
DIOL, N-BuOH, CS901, BLENDING FACILITY, AN-ION
EXCHANGE, PROPYLENE GLYCOLS, FORMCEL, TRIOXANE
ESTER, 3MOB, TMP, 13 BG, 904 Acetate, Butyl
ATE, DAA, 101 HCHO Doubled, PE, N-BuH
Unit 4
Black Conc
Pilot Plant Unit 3
Shut Down
TMP, 13 BG
904 Acetate
Butyl Acetate
Hexalene
Glycol, PE
DAA
MO3
Unit 11
Shipping Svs
Unit 5
N-BuOH / Alcol
AL Oxid / Alcol
3 Batch Towers
MEK Unit
N-PrOH
Bar Rel House
Feed Purified By Hydrog in AL
Propylene Glycol MeCl for
Extraction, HCHO, Ethylene Glycol
PP
Unit 12
PPX
Paraform
Unit 11
AL
Hydrog & Purif
Unit 9
BH1
Unit 6
FC
FCX
Shut Down
50
MO2
Unit 14
HCHO
Formcel
Triox from
TO1 Flaked
Till 79
Add Wet Scrub-
ber, PFM Opp.
Runs MO3
Ester
CPCW
103
Unit 10
Cap Doubled
MO
1
PO
A,B
PO C&D
Unit 13
Polyol
Color
Lab
Unit 2
MH1
Celcon
Unit 1
TO1/SH1
Nat'l Fin
Hydrog Feed From
PP, Purify & Make
PrOH, ISO Butanol,
N-BuOH (70%),
CS-901 Solvent
3MOB (Uth Alcol)
13 BG, Ethyl Bz for
N-PrOH Extraction
MSI-MeOH, N-BuH
Add Computer Term.
Hydrolyte TO1 Solv
to AcH & MeOH
Add Quench Absor.
Replace Line W/Caustic
Injection (Reduce
Exposure), 25% Increase
in Product Capacity, Switched
From Butane to Propane Feed
Incls AcH, & MeOH Prod.
Crude AcH Recovered
Unit 15
CPCW
PO
CPCW
Unit 8
O2
Plant
Switch From NH3 To TEA
Switch To Gas BF3, BDGE
MH1 (1967), TO1/SH1
Nat'l Fin Affected By MH1
Chem Lab
Unit 7
N-PrOH, HCHO, MeOH, AcH
Acetone, N-ISO-BuOH, CS901
EtOH, ISO-PrOH, Propylene
Glycol, Formcel, Ester, 3MOB, TMP, PFM, Trioxane
Pentanediol, Glycols, 13 BG, 904 Acetate, Butyl
Acetate, DAA, PE, N-BuH

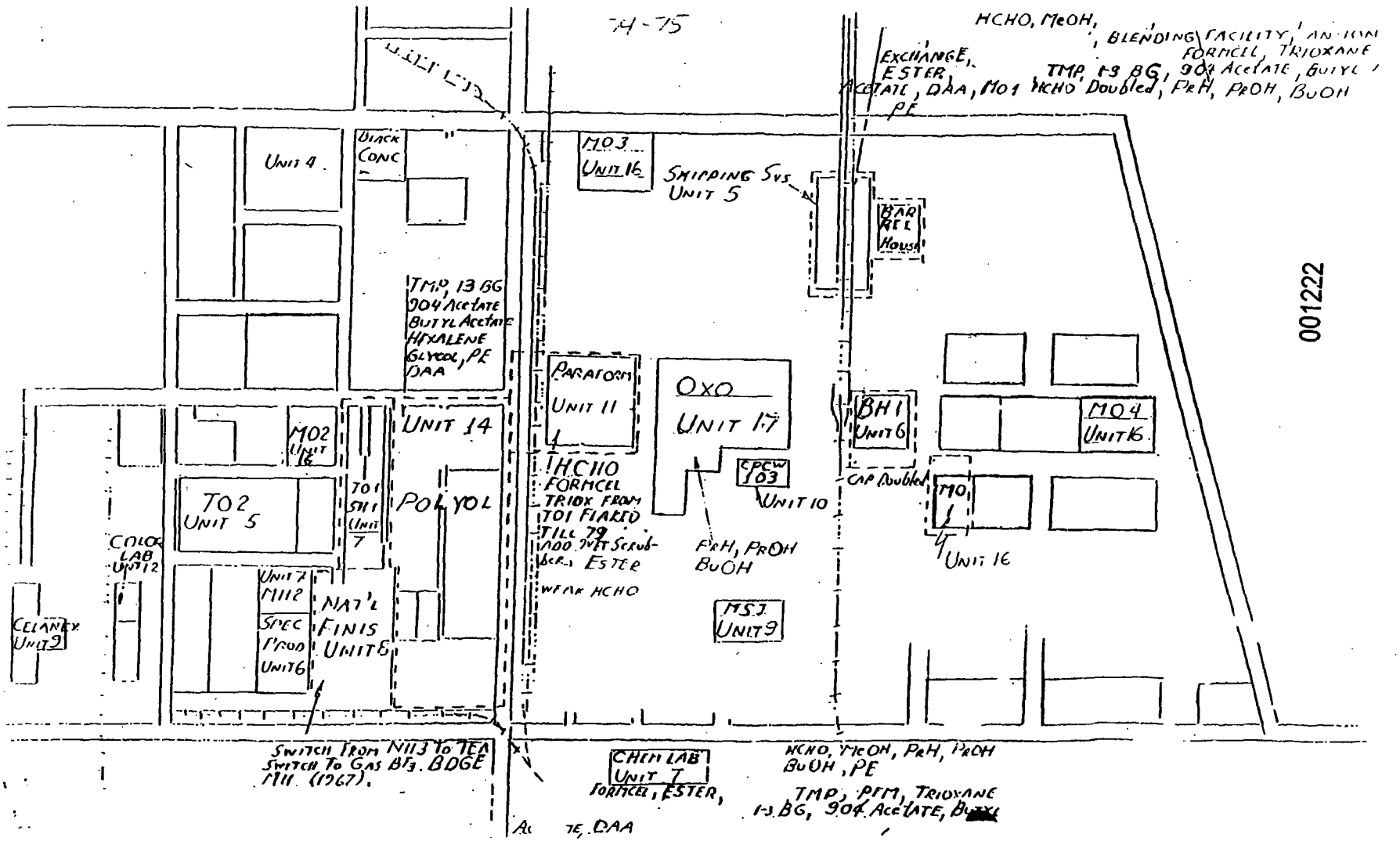
001219


70-72
N-PrOH, HCHO, PrOH, ACH Acetone, Pentane DIOL, N-BuOH, CS901, Blending Facility, Ion Exchange, Propylene Glycols, Formcel, Trioxane Ester, 3 MOB, TMP, 13 BG, 904 Acetate, Butyl Acetate, DAA, MO1 HCHO Doubled, PE, N-BuH
Unit 4
Black Conc
MO3 Unit 11
Shipping Svs Unit 5
Bar Rel House
Feed Purified By Hydrog In AL Propylene Glycol MeCl for Extraction, HCHO, Ethylene Glycol
N-BuOH/Aldol AL Oxid/Aldol 3 Batch Towers MEK Unit N-PrOH
TMP, 13 BG 904 Acetate Butyl Acetate Hexalene Glycol, PE DAA
Paraform Unit 11
AL Hydrog & Purif Unit 9
BH1 Unit 6
PP Unit 12
PPX
FC
FCX
MO2
Unit 14
HCHO Formcel Trioxane from TO1 Flaked Till 79 Add Wet Scrubber, PFM Opr. Runs MO3 Ester
CPCW 103
Unit 10
Cap Doubled
MO 1
PO A,B
PO CAD Unit 13
TO2 Unit 5
TO1 SH1 Unit 7
PO1 VOL
Color Lab Unit 2
Unit 7 MH2
Spec Prod Unit 6
Nat'l Finis Unit 8
Hydrog Feed from PP, Purify & Make PrOH, ISO Butanol, N-BuOH (70%), CS-901 Solvent 3 MOB (Ethyl Acetate) 13 BG, Ethyl Bz for N-PrOH Extraction MSI-MeOH, N-BuH
Add Computer Tech. Hydrolyte 701 Solv to AcH & MeOH
Add Quench Absor. Replace Line W/Caustic Injection (Reduce Exposure), 25% Increase in Product Capacity, Switched from Butane to Propane Feed Incr. AcH, & MeOH Prod. Crude AcH Recovered
CPCW PO
CPCW Unit 8
O2 Plant
Unit 15
Switch from NH3 to TEA Switch to Gas Bfg, BDGE MH, (1967), TO1/SH1 Nat'l Fin Affected by MH1 Shut Down MH1 Start MH2, Reorg. Units, MH1 Shutdown had Affect on Units
Chem Lab Unit 7
N-PrOH, HCHO, MeOH, AcH Acetone, N, ISO-BuOH, CS901 EtOH, ISO-PrOH, Propylene Glycol, Formcel, Ester, 3 MOB, TMP, PFM, Trioxane Pentanediol, Glycols, 13 BG, 904 Acetate, Butyl Acetate, DAA, PE, N-BuH

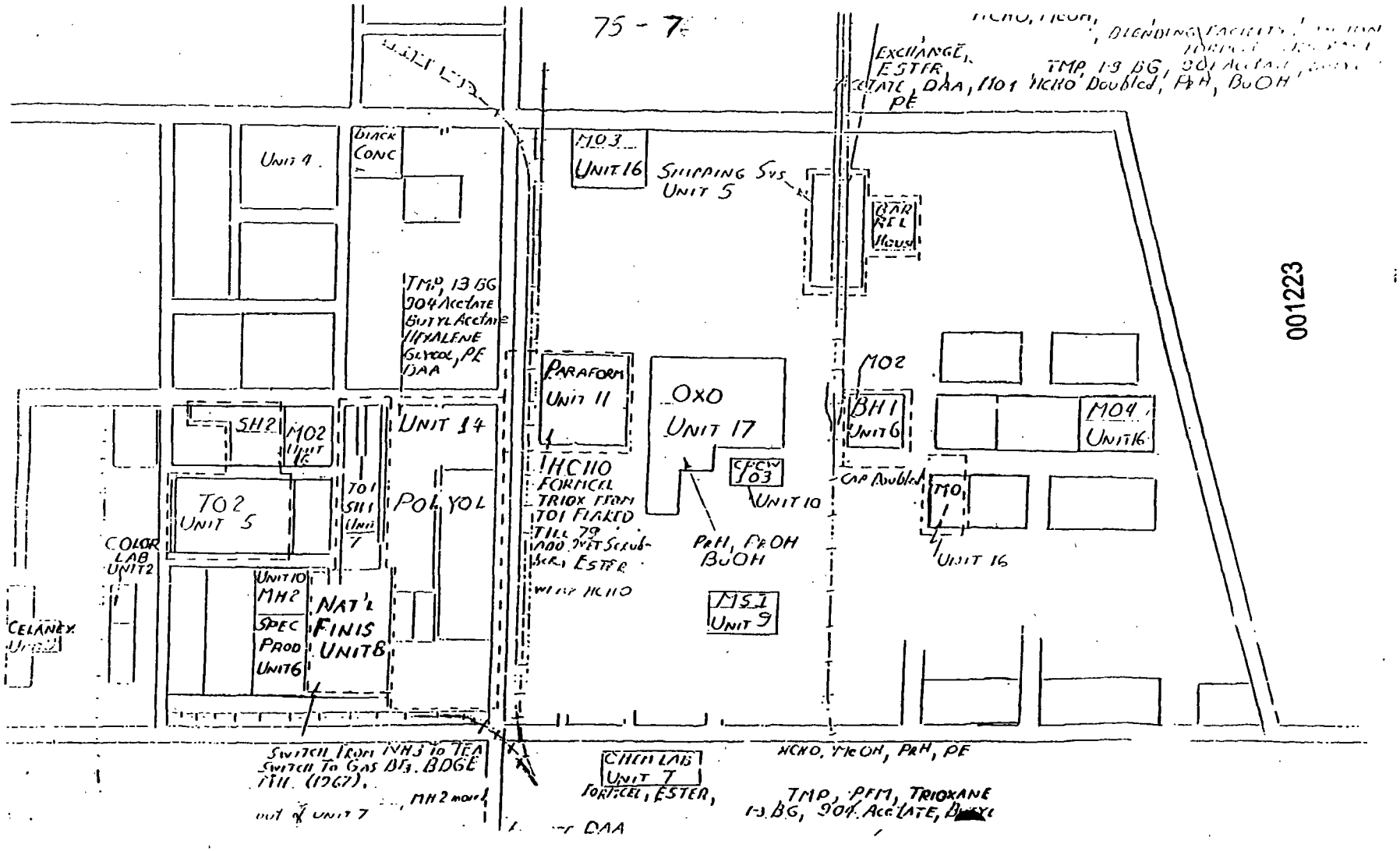
001220


72-73
N-PrOH, HCHO, MeOH, ... Acetone, Pentanediol, N-BuOH, CS501, Blending Facility, Anion Exchange, Propylene Glycols, Formcel, Trioxane, Ester, 3 MOB, TMP, 13 BG, 904 Acetate, Butyl Late, DAA, MO1 HCHO Doubled, PE, N-BuH
Unit 4
Black Conc
MO3 Unit 11
Shipping Svs Unit 5
Bar Rel House
Feed Purified By Hydrog In AL Propylene Glycol MeOH for Extraction, HCHO, Ethylene Glycol
N-BuOH / Aldol
AL Oxid / Aldol
3 Batch Towers
MEK Unit
N-PrOH
TMP, 13 BG
904 Acetate
Butyl Acetate
Hexalene Glycol, PE
DAA
Paraform Unit 11
AL Hydrog & Purif Unit 9
PP Unit 12
PPX
FC
FCX
BH1 Unit 6
MO2 Unit 16
Unit 16
HCHO Formcel
Trioxane from TO1 Flaked
Till 79
Add Wet Scrubber, PFM Opr. Runs MO3 Ester
CPCW 103
Unit 10
Cap Doubled
MO 1
PO A,B
PO CAD Unit 13
TO2 Unit 5
TO1 SH1 Unit 7
Polyol
Color Lab Unit 2
Unit 7 MH2
Spec Prod Unit 6
Nat'l Finis Unit 8
Hydrog Feed From PP, Purify & Make PrOH, Iso Butanol, N-BuOH (70%), CS-501 Solvent 3 MOB (Util Aldol) 13 BG, Ethyl B2 for N-PrOH Extraction MSI-MeOH, BuH
Add Computer Feed Hydrolyte TO1 Solv to AcH & MeOH
Add Quench Absor. Replace Line W/Caustic Injection (Reduce Exposure), 25% Increase in Product Capacity, Switched from Butane to Propane Feed Incr AcH, & MeOH Prod. Crude AcH Recovered
CPCW PO
CPCW Unit 8
O2 Plant
Unit 15
Switch From NH3 To TEA Switch To Gas BF3. BDGE MH. (1967), MO2 Moved To Utilities
Chem Lab Unit 7
N-PrOH, HCHO, MeOH, AcH Acetone, N, Iso-BuOH, CS501 EtOH, Iso-PrOH, Propylene Glycol, Formcel, Ester, 3 MOB, TMP, PFM, Trioxane Pentanediol, Glycols, 13 BG, 904 Acetate, Butyl Acetate, DAA, PE, BuH

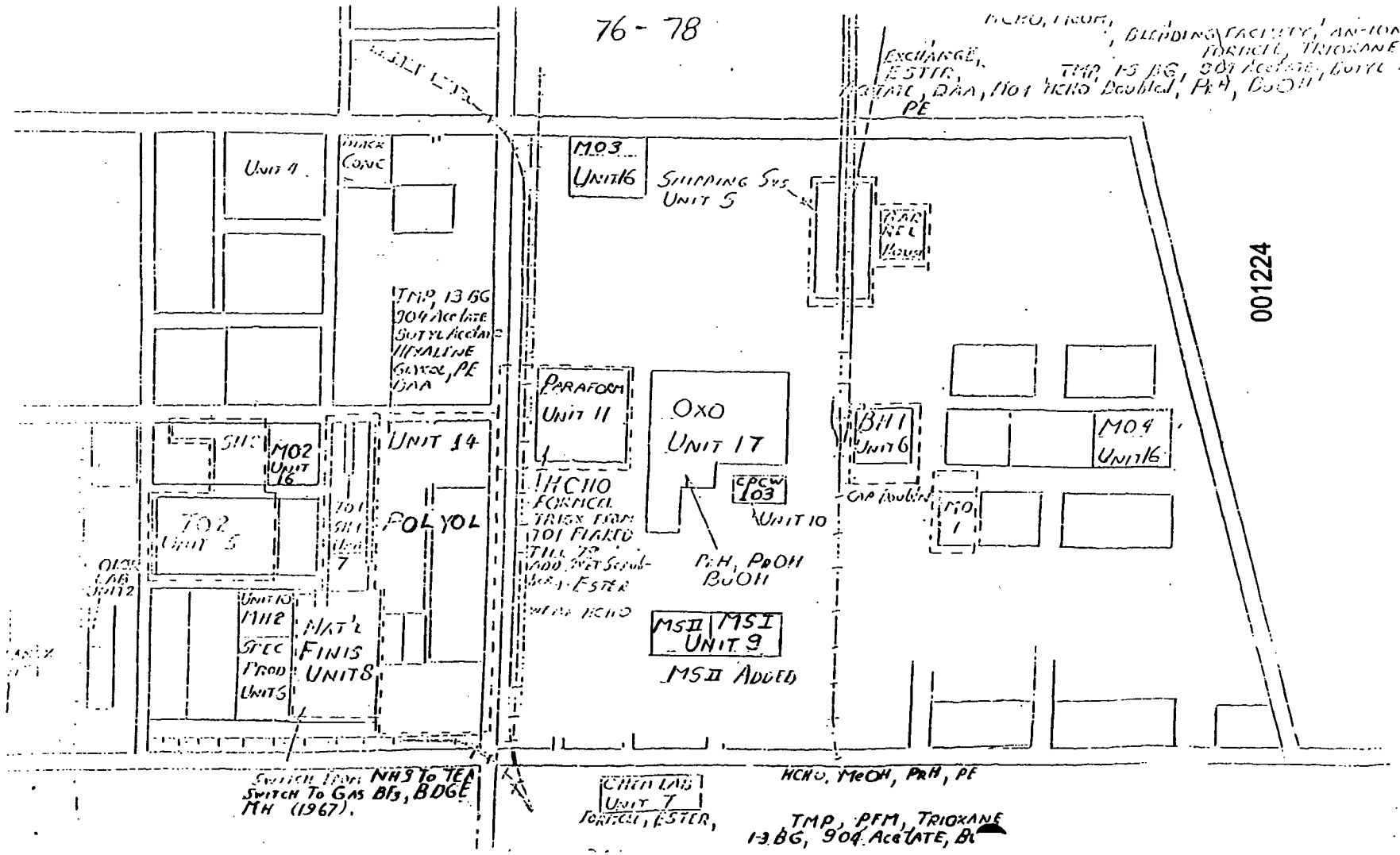
001221


74-75
HCHO, MeOH,
BLENDING FACILITY, AN-ION
FORMCEL, TRIOXANE
EXCHANGE, ESTER,
TMP, 1-3 BG, 904 Acetate, Butyl
Acetate, DAA, MO1 HCHO Doubled, PrH, PrOH, BuOH
PE
Unit 4
Black Conc
MO3 Unit 16
Shipping Svs Unit 5
Bar Rel House
TMP, 13 BG
904 Acetate
Butyl Acetate
Hexalene
Glycol, PE
DAA
Paraform Unit 11
Oxo Unit 17
BH1 Unit 6
MO4 Unit 16
MO2 Unit 16
Unit 14
HCHO
FORMCEL
TRIOX FROM
TO1 FLAKED
TILL 79
ADD 2 Wet Scrubber, ESTER
WEAK HCHO
CPCW 103
Unit 10
Cap Doubled
MO1
Unit 16
TO2 Unit 5
TO1 Stl Unit 7
Polyol
PrH, PrOH
BuOH
Color Lab Unit 12
Unit 7 M112
Spec Prod Unit 6
Nat'l Finis Unit 8
MSJ Unit 9
Celanex Unit 9
Switch From N113 To TEA
Switch To Gas BF3. BDGE
M11 (1967).
Chem Lab Unit 7
FORMCEL, ESTER,
HCHO, MeOH, PrH, PrOH
BuOH, PE
TMP, PFM, TRIOXANE
1-3 BG, 904 Acetate, Butyl
Acetate, DAA

001222


75 - 7
EXCHANGE, ESTER
TMP, 1-3 BG, 904 Acetate
ACETATE, DAA, MO1 HCHO Doubled, PrH, BuOH
PE
UNIT 4
BLACK CONC
MO3
UNIT 16
SHIPPING SYS
UNIT 5
BAR REL HOUSE
TMP, 13 BG
904 Acetate
BUTYL Acetate
HEXALENE
GLYCOL, PE
DAA
PARAFORM
UNIT 11
OXO
UNIT 17
MO2
BH1
UNIT 6
MO4
UNIT 16
SH2
MO2
UNIT 16
UNIT 14
HCHO
FORMCEL
TRIOX FROM
TO1 FLARED
TILL 79
ADD 2YET Scrubber, ESTER
CPCW
TO3
UNIT 10
CAP Doubled
MO1
UNIT 16
TO2
UNIT 5
TO1
SH1
UNIT 7
POLYOL
PrH, PrOH
BuOH
COLOR LAB
UNIT 2
UNIT 10
MH2
SPEC PROD
UNIT 6
NAT'L FINIS
UNIT 8
MS1
UNIT 9
CELANEX
SWITCH FROM NH3 TO TEA
SWITCH TO GAS BF3. BDGE
MH. (1967).
MH2 moved
out of UNIT 7
CHEM LAB
UNIT 7
FORMCEL, ESTER,
HCHO, MeOH, PrH, PE
TMP, PFM, TRIOXANE
1-3 BG, 904 Acetate, BUTYL
DAA

001223


76 - 78
HCHO, MeOH, BLENDING FACILITY, AN-ION FORMCEL, TRIOXANE
EXCHANGE, ESTER, TMP, 1-3 BG, 904 Acetate, BUTYL A
ACETATE, DAA, MO1 HCHO Doubled, PrH, BuOH
PE
Unit 4
Black Conc
MO3 Unit 16
Shipping Sys Unit 5
Bar Rel House
TMP, 13 BG 904 Acetate Butyl Acetate Hexaline Glycol, PE DAA
Paraform Unit 11
Oxo Unit 17
BH1 Unit 6
MO4 Unit 16
SH2
MO2 Unit 16
Unit 14
HCHO Formcel Trioxane from 701 Flared
CPCW 103
Unit 10
Cap Doubled
MO1
TO2 Unit 5
TO1 SH1 Unit 7
POLYOL
PrH, PrOH BuOH
Olor Lab Unit 2
Unit 10 MH2 Spec Prod Unit 5
Nat'l Finis Unit 8
MSII MSI Unit 9
MSII Added
Switch from NH3 to TEA Switch to Gas BF3, BDGE MH (1967).
Chem Lab Unit 7
Formcel, Ester,
HCHO, MeOH, PrH, PE
TMP, PFM, Trioxane 1-3 BG, 904 Acetate, Bu

001224