Drawing Numbering

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1. SCOPE

This standard defines the coding system that shall be adhered to when numbering Controlled Engineering Drawings.

2. PURPOSE

To ensure a uniform method of drawing numbering is adopted for drawings produced by or on behalf of CSBP Limited (CSBP), and that there is an identifiable link to the associated equipment for plants designed post May 1998.

3. DEFINITION OF TERMS

Controlled Engineering Drawing

Any engineering drawing that has to be prepared, numbered, revised and approved in accordance with specific procedures and standards.

CSBP

CSBP Limited.

Document Conventions

- Will, Shall or Must indicates mandatory action.
- Should indicate preferred action.
- May or Can indicates possible or optional action.

Drawing

Engineering data that reflects an object, e.g. general arrangement, detail drawing and schematic, that is created and normally presented on a single sheet of paper by application software or by manual drafting methods.

Drawing Control

The functional group responsible for the management, administration and safekeeping of Controlled Engineering Drawings.

Drawing Repository

The storage location that drawings are moved to when checked in. All drawings reside in the Drawing Management System. An additional paper copy of P&IDs and HV drawings shall be kept in the drawing cabinets located in the drawing office.

Consultant

A consulting engineer, company, or person duly authorised and appointed in writing by CSBP to prepare drawings or carry out design reviews and verification activities on behalf of CSBP.

Responsible Officer

Functional title for the person responsible for initiating design work, reviewing and approving drawings produced. This includes liaising with, and issuing drawings to the In-House Customer, Statutory Authorities and other interested parties as appropriate.

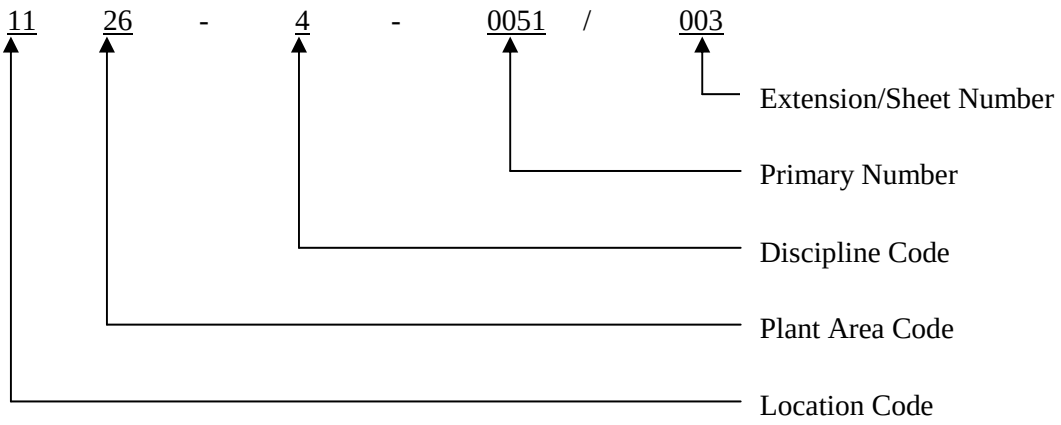
4. STANDARDS

CSBP Engineering Standards

ES-14-101-02 Drawing Management
ES-14-101-03 Drawing Preparation
ES-14-101-06 Equipment Numbering System
ES-14-601-01 Basis for Design – Piping

5. DRAWING NUMBERING CONVENTION

Allocation of drawing numbers is restricted to authorised Drawing Control personnel only. Standard format is as follows:



Note: Although Location and Plant Area Codes are listed separately, they shall be combined to form a four-digit number.

Note: All characters shall be specified - leading zeros shall not be omitted.

Note: New codes can be assigned to suit project needs however any new proposal shall be discussed with and agreed to by Drawing Control prior to their use.

6. LOCATION CODE

X X _ _ -_ - _ _ _ _ / _ _ _

A two-digit numeric assigned to all CSBP locations. See below for full listing.

10	-	Murdoch Perth & Subiaco
11	-	Kwinana
12	-	Bayswater
13	-	Geraldton
14	-	Bunbury
15	-	Albany
16	-	Esperance
17	-	Bibra Lake
19	-	Mt Weld
21	-	Merredin Fertiliser Depot
22	-	Wagin Fertiliser Depot
23	-	Dalwallinu Fertiliser Depot
24	-	Goomalling Fertiliser Depot
25	-	Corrigin Fertiliser Depot
26	-	Tambellup Fertiliser Depot
27	-	Manjimup Fertiliser Depot
62	-	All Minesite Cyanide Installations
99	-	Standard Drawings

7. PLANT AREA CODE
_ _ X X - _ - _ _ _ _ / _ _ _

A two-digit numeric assigned to process plant areas and works related service installations. See below for full listing.

PLANT AREA CODE	PLANT CODE (JDE)	DESCRIPTION
00	GEN / WKS	Plant general infrastructure, and site wide common services (Power, Water Roads, Sewerage, Drainage, gas pipelines) which do not logically belong to a single area. In Chemicals North only, use 71 for shared equipment, facilities and services which are specific to Chemicals North but do not logically belong to a single plant in that area.
02	PAP	Do not use. Up to 2004, was used for the Phosphoric Acid Storage tanks and associated equipment. Many current and historic drawings and equipment numbers associated with these tanks still have 1102 numbers. Use code 46 for these tanks. Do not allocate any new 02 numbers.
03	TKF	Up to 2004, was used for the Phosphoric Acid Storage tanks and associated equipment. Many current and historic drawings and equipment numbers associated with these tanks still have 1103 numbers. Use code 46 for these tanks and any associated equipment in the same geographical area. Do not allocate any new 03 numbers without approval of Engineering Manager (may be considered where use of 46 is inappropriate).
07	RMR	Sulfuric Acid Receival - Country Works
08	LFP	Applies to the area at Kwinana which was previously the Phosphoric Acid Plant, west of the SMP west wall. Includes Liquid Fertiliser blending and manufacture facilities in this area, tanks on the north of this area. Extends west to road east of ex Phos acid tanks and south to lane north of rock shed. Use 25 for Liquid Fertiliser manufacture facilities in Granulating Plant. Do not use 08 for any new Liquid Fertiliser manufacture facilities in other areas.
09	RMR	Materials Receivals at Kwinana
11	RMR	Materials Receivals at Country Works and No.2 Receivals Bin and its associated equipment at Kwinana. Use 44 for DL11 and any associated despatching facilities from No2 Receivals Bin.
12	SAP	Sulfuric Acid receival and storage at Kwinana including remaining equipment from Sulfuric Acid Plant (now demolished), Sulphuric Acid receival pipework, 2 x 1000T Sulfuric Acid Storage Tanks, and the 4 tanks and equipment to the east of the 2 x 1000T Sulfuric Acid Storage Tanks (one currently used for FSA storage). Was previously used for the 10,000T and 5,000T Sulfuric Acid Storage Tanks, now used for Flexi N storage, which have been renumbered 1146. Use 46 for new equipment associated with these tanks. Many current and historic

PLANT AREA CODE	PLANT CODE (JDE)	DESCRIPTION
		drawings and equipment numbers associated with these tanks still have 1112 numbers.
13	ICA	Sulfuric Acid Port Storage Facilities (originally created for tank at Albany Port but tank not constructed).
14	RMR	No.3 Receivals Bin and its associated equipment at Kwinana
21	SMP	Superphosphate Manufacture Plants all works
24	GP2	No.2 Granulating Plant (never built but some drawings exist)
25	GP	No.1 Granulating Plant and Liquid Fertiliser Manufacture Plant in Granulating Plant building.
26	PP	No.1 Prilling Plant (De-Commissioned)
27	PP2	No.2 Prilling Plant
35	-	Bagging All Products (all locations except Kwinana)
41	SDD, SD1, SD2, SD3	Superphosphate Storage and Despatch including DL2, DL3 and DL8
42	CF, CFD, CF1, CF2, CF3, DL4, DL5, DL7	Compound Fertiliser Storage and Despatch including CF1 and CF2 buildings and equipment, Urea receival plant, DL4, DL5, and DL7.
43	DL9, BB	AN Bulk Despatch including DL9, equipment inside CF1 building and Bulka Bag Filling Machine
44	D&D, D11	Fertiliser Despatch - Country Works and No.2 Bin Direct Load No.11 Kwinana
46	LFP	Liquid Fertiliser storage and despatch facilities and equipment in the following areas only: 2 tanks ex Sulfuric Acid (10,000T and 5,000T), 3 tanks ex Phos Acid, No2 and No3 loading stations south of ex Phos Acid tanks.
48	ANS	Ammonium Nitrate Storage Area (new facilities proposed for Chemicals North)
50	AP2	No.2 Ammonia Plant
56	DWP	Demineralisation Water Treatment Plant
58	NA2	No.2 Nitric Acid Plant
59	AN2	No.2 Ammonium Nitrate Plant
61	NHS, NHT,	Ammonia Receivals, Storage and Despatch (Chemicals North). Includes ammonia import/export pipeline to wharf, ammonia storage tanks,

PLANT AREA CODE	PLANT CODE (JDE)	DESCRIPTION
	ALF, NH3	liquefaction area, ammonia transfer pumps, and ALF.
62	NAP	No.1 Nitric Acid Plant
63	ANP	No.1 Ammonium Nitrate Plant
65	ACP	Do not use. Was allocated to Ammonium Chloride Plant (never built)
66	SCS	Sodium Cyanide Solids Plant
67	CAP	Chlor-Alkali Plant (De-Commissioned)
68	SCP, NGT	No.1 Sodium Cyanide Plant and Natural Gas Purification Plant
69	LDP	Sodium Cyanide Lump Dissolving Plant
70	SC2	No.2 Sodium Cyanide Plant
71	-	Previously for No.1 Ammonia Plant (now demolished). Use 71 for shared equipment, facilities and services which are specific to Chemicals North but do not logically belong to a single plant in that area. Use 00 for services including scheme water, bore water reticulation and gas pipelines which originate outside Chemicals North.
72	-	Do not use. Previously used for original Nitric Acid Plant, now demolished
73	-	Do not use. Previously used for original Ammonium Nitrate Plant, now demolished
74	COP	Carbon Dioxide supply from Ammonia Plant
76	NAP3	No.3 Nitric Acid Plant
77	AN3	No.3 Ammonium Nitrate Plant
85	ICA	Industrial Chemicals Area (Chemicals East). Use only for facilities in and around HAP shed. (De-Commissioned)
94	BLD, LAB	Administration and Service Buildings
95	ENV	Environmental monitoring, waste water treatment, collection and disposal, KWRP water, wetland
99	-	Do not use. (Was allocated to Central Control Room)

Note: Plant codes are mostly, but not always, the same as the Accounting Cost Code for the particular plant area. New plant codes shall only be used with the approval of the Engineering Manager who will agree any new plant code with the Senior Accountant before it is used.

Note: Do not use any of the above plant codes in any geographical area other than as detailed above without approval of Engineering Manager.

Note: Do not change any plant code number which has already been allocated to a drawing or equipment item without approval of the Engineering Manager. A full assessment of the consequences of the change must first be made.

8. DISCIPLINE CODE

_ _ _ _- X - _ _ _ _ / _ _ _

A single digit numeric assigned for each engineering discipline. See below for full listing.

CODE	DESCRIPTION	
0	General	- Use **ONLY** when the other discipline codes are unsuitable.
1	Process	- (P&IDs under Instrumentation Discipline Code 7)
2	Civil	- site preparation, earthworks, drainage, roadworks, paving, - foundations, ground slabs, retaining walls, pits, bunding, culverts - masonry works - landscaping, fencing
3	Structural	- load bearing structures - reinforced concrete structures, columns, suspended slabs, beams, walls - steel structures, columns, beams, bracing - platforms, ladders, stairs, handrails, decking - architectural layouts, cladding, furnishings
4	Mechanical (See Note)	- bins and hoppers (T), - blowers (K), - conveying equipment (X), - crushers (C), - drying equipment (D), - fired equipment (F), - heat transfer equipment (E), - HVAC (H), - jets (J), - lifting equipment (L), - mixing equipment (M), - pressure vessels (V), - pumps (P), - reactors (R), - separators (S), - weighing equipment (A)
5	Tankage (See Note)	- unpressurised storage tanks, open and covered (T)
6	Piping	
7	Instrumentation (including P&IDs)	
8	EDP/Communications/Security	
9	Electrical (includes Hazardous Area Classification Drawings)	

Equipment codes, for example (H), relate to designated codes in CSBP Engineering Standard *Equipment Numbering System (ES-14-101-06).*

9. PRIMARY NUMBER
_ _ _ _ -_ - X X X X / _ _ _

A four-digit numeric assigned to each drawing. Standard ranges of numbers have been allocated for similar drawing types.

PLANTS DESIGNED PRE MAY 1998

For general information refer to attached appendices against the specific plant areas and disciplines.

Note: The Appendices attached to this standard shall only be used as a reference. All new drawing numbers shall follow the Plants Designed Post May 1998 numbering convention.

PLANTS DESIGNED POST MAY 1998

For plants designed post May 1998 there shall be a direct and identifiable link between equipment and associated drawings. For an explanation of the logic behind the relationship, refer to CSBP Engineering Standard *Equipment Numbering System (ES-14-101-06)*. Typical examples are as follows:

GENERAL (0) and PROCESS (1)

Refer to DomDoc for primary number allocation. If there are no existing numbers for the area new numbers should commence at 0001. Numbers should be added sequentially.

CIVIL (2), STRUCTURAL (3), MECHANICAL (4) and TANKAGE (5)

Primary Number	Description		Reference Notes
0 _ _ _ Series	Single Train/Common	Number to match associated mechanical equipment number. First digit of the primary number represents the process train number.	1, 2, 3, 4 & 5
1 _ _ _ Series to 8 _ _ _ Series	Multi Process Train Plant. Trains 1 to 8.		
9 _ _ _ Series	For mechanical or tankage equipment which is not assigned an equipment number. Associated drawings given same primary number in this series.		5
	For general civil and structural drawings which are not associated with a specific item of equipment.		

Note:

1 Arrangement drawings shall be assigned a sequence number that matches the associated mechanical equipment number.

Example:

Equipment Number:	1124D0101
Mechanical GA Drawing No.	1124-4-0101/000
Structural GA Drawing No.	1124-3-0101/000
Civil GA Drawing No.	1124-2-0101/000

2. For major identical items of equipment e.g. Feed Elevators; an arrangement drawing is to be produced for each item and numbered to match the equipment number.

3. Minor items of equipment which are shown on one drawing, shall have a drawing number assigned relative to the predominant item of equipment.

4. Detail drawings can be numbered in three (3) ways as follows:

(a) If they are "standard" the 9900 series shall be used.

(b) If they are "non-standard" they will be sheet numbers of the associated arrangement number.

Example:

Mechanical GA drawing number	1124-4-0101/000
Mechanical detail drawing numbers	1124-4-0101/001 1124-4-0101/002 etc.

(c) If they are "non standard" but apply to multi arrangement drawings (Note 2), detail drawings will be given sheet numbers against one of the GA drawing numbers. Other GAs shall reference the assigned numbers. Variations that may occur overtime to a specific item of equipment will have a drawing sheet number assigned relative to the associated primary arrangement number.

5. Refer to CSBP Engineering Standard *Equipment Numbering System (ES-14-101-06)* for defined equipment ranges.

PIPING (6)

_ _ _ _ - 6 - **X X X X** / _ _ _

0101 to 8999	Isometrics (should be same as pipeline number)
9000 to 9099	Layouts
9100 to 9199	Details
9200 to 9299	Insulation & Cladding

Note: CSBP Drawing Office is responsible for assigning pipeline numbers. Ensure Pipeline numbers are allocated at P&ID creation/modification stage.

INSTRUMENTATION (7)

_ _ _ _ - 7 - **X X X X** / _ _ _

0001 to 8999	Loop Diagrams (should be same as loop number)
9001 to 9099	P & IDs
9100 to 9199	Location Diagrams
9200 to 9299	Cable Schedules
9300 to 9399	Interconnection, Block Diagrams
9400 to 9499	Termination Diagrams
9500 to 9599	General Arrangements & Layouts
9600 to 9699	Equipment, Installation & Specifications
9700 to 9799	Logic, Software, PLC/DCS, Functional Specifications

ELECTRICAL (9)

_ _ _ _ - 9 - **X** _ _ _ / _ _ _

0	Series	Single Line Diagrams
1	Series	Schematic Diagrams – "Electrically Driven / Supplied Mechanical Equipment"
2	Series	Termination Diagrams – "Electrically Driven / Supplied Mechanical Equipment"
3	Series	Interconnection, Block Diagrams
4	Series	Cable Schedules
5	Series	Schematic Diagrams - "Electrical Only Equipment"
6	Series	Termination Diagrams - "Electrical Only Equipment"
7	Series	Equipment, Installation
8	Series	Specifications
9	Series	Location Diagrams, General Arrangements & Layouts, Hazardous Area Classification Drawings

Note: "Electrical Only Equipment" relates to electrical equipment which is not directly associated with any mechanical equipment.

Note: "Electrically Driven / Supplied Mechanical Equipment" relates to mechanical equipment that is supplied by an electrical feeder or driven by an electrical device.

Note: For details of the ranges to be followed in the 1000, 2000, 5000 and 6000 series refer to CSBP Engineering Standard *Equipment Numbering System (ES-14-101-06).*

ELECTRICALLY DRIVEN /SUPPLIED MECHANICAL EQUIPMENT

For mechanical equipment that is supplied by an electrical feeder or driven by an electrical device, associated discipline drawings will be assigned a primary number that relates to the mechanical equipment sequence number.

Example:	Equipment Number	1124D0101 (Drum)
	Mechanical GA Drawing No.	1124-4-0101/000
	Structural GA Drawing No.	1124-3-0101/000
	Civil GA Drawing No.	1124-2-0101/000
	Equipment Number	1124MD0101 (Motor Drum)
	Electrical Schematic No.	1124-9-1101/_ _ _
	Termination Diagram No.	1124-9-2101/_ _ _

Note: For multi process train plants, the train number is identified in the Extension Number of Electrical Schematics and Termination Diagrams. Refer to 9.2.5 for details.

ELECTRICAL ONLY EQUIPMENT

For electrical equipment that is not considered to be an integral part of some mechanical equipment, discipline drawings will be assigned a primary number that relates to the electrical equipment number.

Example:	Equipment Number	1124 AP 0005 Annunciator Panel
	Electrical Schematic No.	1124-9-5005
	Termination Diagram No.	1124-9-6005

MULTI PURPOSE TRAIN PLANTS

For multi process train equipment, associated mechanical/ civil/ structural and tankage drawings will be assigned a primary number that matches the mechanical equipment number.

The first digit of the primary number indicates whether the equipment is used in a process train situation.

i.e.
0 _ _ _ Single Train /Common
1 _ _ _ Train 1
2 _ _ _ Train 2
through to
8 _ _ _ Train 8

Example:

Train Number

Equipment Number	1166X **2** 827	Conveyor
Mechanical GA Drawing No.	1166-4-2827/000	
Structural GA Drawing No.	1166-3-2827/000	
Civil GA Drawing No.	1166-2-2827/000	

Note: Train number for Electrical Schematics and Termination Diagrams are identified through the Extension Number. Refer to 9.2.4 for details.

Note: For full details refer to CSBP Engineering Standard *Equipment Numbering System (ES-14-101-06)*

PLANT GENERAL (XX00)

GENERAL (0), PROCESS (1), CIVIL (2), STRUCTURAL (3), MECHANICAL (4), TANKAGE (5)

_ _ 00-0-XXXX/_ _ _ GENERAL

0001	Works Layout
0002	Dangerous Goods Layout
0003	Signage
0004	Site Security
0005	Stack
0006	Presentation Material
0007	ID Plates
0008	Site Safety
0009	Fire Services & Equipment
0010	Dust Sealing
0011	Technical Information
0012	Compressed Air
0013	Works Service - North Acid Plant
0014	Drawing Control Flow Charts
0015	Buildings - Amenities
0016	Offices - Buildings
0017	Crib Rooms - Buildings
0022	Noise levels/Hearing Protection
0023	Reticulation Layouts
0024	Environmental Noise
0025	Safety Shower
0026	Bores
0027	Bulk Storage Installations

_ _ 00-1-XXXX/_ _ _ PROCESS

0001	Metered & Unmetered Water
0002	Bore Water
0003	Return Salt Water Pipeline
0004	Demineralised Water Upgrade
0005	Ammonia Storage

_ _ 00-2_ _ XXXX/_ _ _ CIVIL

0001	Surveys
0002	Roads
0003	Drains & Effluent Ponds
0004	Railway
0005	Fencing
0006	Signs
0007	Sewerage Services
0008	Demin Water Upgrade
0009	Electrical Services

_ _ 00-3-XXXX/_ _ _ STRUCTURAL

0001	Walkways, Stairs, Platforms, Handrails, Ladders
0002	Roofs, Doors, Windows, Walls (Building Stds)
0003	~~Misc~~ **Do Not Use Issue Per Area**
0004	Manholes
0005	Connection Details
0006	Electrical Services

_ _ 00-4-XXXX/_ _ _ MECHANICAL

0001	Elevators - Sprockets, Chains, etc.
0002	Belt Conveyors - Pulleys, Scrapers, etc.
0003	Screw Conveyors
0004	Apron Feeders
0005	Weighers
0006	Loss-in-weight Conveyors
0007	Pulleys
0008	Pumps
0009	Couplings
0010	Dust Sealing
0011	Rotary Valves
0012	Treacle Cutter
0013	Screens
0014	Gears
0015	Loaders / Unloaders
0016	Fans & Blowers
0017	Motors / Generators / Alternators
0018	Magnetic Equipment
0019	Hydraulic Equipment
0020	Lubricating Equipment
0021	Mixing Equipment
0022	Beaters
0023	Miscellaneous Mechanical Equipment
0024	Take-ups / Bearings
0025	Tradesmen Equipment -incl scaffolds, hand tools
0026	Railway Equipment
0027	Tractors
0028	Jib & Mobile Cranes
0029	Garage & Transport
0030	Weighbridges & Scales
0031	Guarding
0032	Portable Conveyors
0033	Den Excavator
0034	Oil Reclaiming Equipment
0051	Warman Pumps
0052	Ornell Water Pumps
0053	Standard Chute Detail - Doors, Seals, etc.
0054	Valves
0055	Caking Machine

_ _ 00-5-XXXX/_ _ _ TANKAGE

0001	Typical Tanks
0002	Constant Head Tanks
0003	Demineralised Water
101	Road Tankers

PIPING (6)

_ _00-6-XXXX/_ _ _ PIPING

0001 Works Services Piping
0002 Bore Water Piping
0003 Natural Gas Piping
0004 Salt Water Piping
0005 Acid Plant Fittings
0006 Acid Distribution
0007 Plastics
0008 Technical Information
0009 Demineralised Water
9001 Pipe Gallery
9002 NG Lines
9003 Bunkering Oil Lines
9004 Steam Supply to Plants
9005 Metropolitan Water Supply

INSTRUMENTATION (7)

_ _ 00-7-XXXX/_ _ _ INSTRUMENTATION

Follow convention for Plants Designed Post May 1998

EDP/COMMS (8)

_ _ 00-8-XXXX/_ _ _ EDP/COMMUNICATIONS

0001 Telephone
0002 Computer
0003 Fibre Optics
04 Macroview

ELECTRICAL (9)

_ _ 00-9-_XXX/_ _ _ ELECTRICAL

Main 22 kV Substation No.9 (Switchboard No.9)

000 Breaker Q0900 (0a0)
001 Breaker Q0901 (0a1)
002 Breaker Q0902 (0a2)
003 Breaker Q0903 (0a3)
004 Reserved Breaker Q0904 (0a4)
005 Breaker Q0905 (0a5)
006 Breaker Q0906 (0a6)
007 Breaker Q0907 (0a7)
008 Reserved Breaker Q0908 (0a8)
009 Reserved Breaker Q0909 (0a9)
010 Breaker Q0910 (0a10)
011 to 019 Reserved for 22kV switchboard No. 9 future breakers

132 kV SWITCHYARD

020	132kV Switchyard
021 to 029	Reserved for 132kV switchyard

HIGH VOLTAGE TRANSFORMERS

030/010 to 030/019	Transformer TX0001
030/020 to 030/029	Transformer TX0002 to
030/990 to 030/999	Transformer TX0099

MAIN INCOMING SUBSTATION - MISCELLANEOUS

090	Miscellaneous related to 22 kV Switchboard No. 9 (0a) e.g. GA, SLD
091	Miscellaneous related to 22 kV Switchboard No. 9 (0a) auxiliaries e.g. battery charger
092	Miscellaneous related to 132 kV Switchyard e.g. GA, SLD
093	Miscellaneous related to 132 kV Switchyard auxiliaries

6kV SUBSTATION No.1 (SWITCHBOARD No.1)

100	Breaker Q0100 (1a0)
101	Breaker Q0101 (1a1)
102	Breaker Q0102 (1a2)
103	Breaker Q0103 (1a3)
104	Breaker Q0104 (1a4)
105	Breaker Q0105 (1a5)
106	Breaker Q0106 (1a6)
107	Reserved Breaker Q0107 (1a7)
108	Reserved Breaker Q0108 (1a8)
109	Reserved Breaker Q0109 (1a9)

6KV SUBSTATION No.2 (SWITCHBOARD No.2)

110	Reserved Breaker Q0200 (2a0)
111	Breaker Q0201 (2a1)
112	Breaker Q0202 (2a2)
113	Breaker Q0203 (2a3)
114	Breaker Q0204 (2a4)
115	Breaker Q0205 (2a5)
116	Breaker Q0206 (2a6)
117	Breaker Q0207 (2a7)
118	Breaker Q0208 (2a8)
119	Breaker Q0209 (2a9)
120	Breaker Q0210 (2a10)
121	Breaker Q0211 (2a11)
122	Breaker Q0212 (2a12)
123	Reserved Breaker Q0213 (2a13)
124	Reserved Breaker Q0214 (2a14)
125	Reserved Breaker Q0215 (2a15)
126	Reserved Breaker Q0216 (2a16)
127	Reserved Breaker Q0217 (2a17)
128	Reserved Breaker Q0218 (2a18)
129	Reserved Breaker Q0219 (2a19)

SUBSTATIONS No.1 AND 32 - MISCELLANEOUS

190	Miscellaneous related to switchboard No. 1 eg. GA, SLD
191	Miscellaneous related to substation No. 1 auxiliaries eg. battery charger
192	Miscellaneous related to switchboard No.2 eg. GA, SLD
193	Miscellaneous related to substation No.2 auxiliaries eg. battery charger

OTHER COMMON SERVICES EXCEPTING HIGH VOLTAGE

200	Works Sirens
201	Bore Pumps
202	Chemical North Services
203	Hazardous Area Classification Drawings
204 to 299	Reserved for future common services

22 kV SUBSTATION No.3 (SWITCHBOARDS No.3 AND No.4)

300	Reserved breaker Q0300 (3a0)
301	Breaker Q0301 (3a1)
302	Breaker Q0302 (3a2)
303	Breaker Q0303 (3a3)
304	Breaker Q0304 (3a4)
305	Breaker Q0305 (3a5)
306 to 319	Reserved for 22kV Switchboard No. 3 future breakers
320	Reserved breaker Q0400 (4a0)
321	Breaker Q0401 (4a1)
322	Breaker Q0402 (4a2)
323	Breaker Q0403 (4a3)
324	Breaker Q0404 (4a4)
325 to 339	Reserved for 22kV Switchboard No. 4 future breakers
390	Miscellaneous related to switchboards No.3 and No. 4 eg. GA, SLD
391	Miscellaneous related to substation No.3 eg. battery charger

3.3kV Substation No.11 - (Switchboard No.11)

400	Breaker Q1100 (K1-0)
401/000 to 401/499	Breaker Q1101 (K1-1)
401/500 to 401/599	Breaker Q1100 (K1-A)
402	Breaker Q1102 (K1-2)
403	Breaker Q1103 (K1-3)
404	Breaker Q1104 (K1-4)
405	Breaker Q1105 (K1-5)
406	Breaker Q1106 (K1-6)
407	Breaker Q1107 (K1-7)
408	Breaker Q1108 (K1-8)
409	Breaker Q1109 (K1-9)
410	Breaker Q1110 (K1-10)
411	Breaker Q1111 (K1-11)
412	Breaker Q1112 (K1-12)
413	Breaker Q1113 (K1-13)
414	Breaker Q1114 (K1-14)
415	Breaker Q1115 (K1-15)

416	Breaker Q1116 (K1-16)
417	Breaker Q1117 (K1-17)
418	Breaker Q1118 (K1-18)
419	Breaker Q1119 (K1-19)
420	Breaker Q1120 (K1-20)
421	Breaker Q1121 (K1-21)
422	Breaker Q1122 (K1-22)
423	Breaker Q1123 (K1-23)
424	Breaker Q1124 (K1-24)
425	Breaker Q1125 (K1-25)
426 to 439	Reserved for switchboards No. 11 future breakers

490 Miscellaneous related to switchboard No. 11 eg. GA, SLD
491 Miscellaneous related to substation No. 11 eg. battery chargers

22 AND 6.6 kV SUBSTATION No.5 (SWITCHBOARDS No.5 AND No.6)

500	Reserved for Breaker Q0500
501	Breaker Q0501
502	Breaker Q0502
503	Breaker Q0503
504	Breaker Q0504
505 to 519	Reserved for 22 kV switchboard No. 5 future breakers
520	Reserved for Breakers Q0600
521	Breaker Q0601
522	Breaker Q0602
523	Breaker Q0603
524 to 539	Reserved for 6.6 kV switchboard No. 6 future breakers
590	Miscellaneous related to No 5 switchboard, eg. GA, SLD
591	Miscellaneous related to No 5 substation, eg. battery chargers
592	Miscellaneous related to No 6 switchboard, eg. GA, SLD

Future High Voltage Substation

6XX Reserved for future high voltage substations/switchboard

6.6 kV Substation No.7 (Switchboard No.7)

700	Breaker Q0700
701	Breaker Q0701
702	Breaker Q0702
703	Breaker Q0703
704	Breaker Q0704
705	Breaker Q0705
706	Breaker Q0706
707	Breaker Q0707
708	Breaker Q0708
709	Breaker Q0709
710	Breaker Q0710
711	Breaker Q0711
712	Breaker Q0712
713	Breaker Q0713

714	Breaker Q0714
715	Breaker Q0715
716	Breaker Q0716
717 to 730	Reserved for 6.6 kV switchboard No. 7 future breakers
790	Miscellaneous related to No.7 switchboard eg. GA, SLD
791	Miscellaneous related to No.7 substation eg. battery charger

Future High Voltage Substation

8XX	Reserved for future high voltage substations/switchboard

22 kV Substation #10 (Switchboard #10)

900	Breaker Q1000 (10a0)
901	Breaker Q1001 (10a1)
902	Breaker Q1002 (10a2)
903	Breaker Q1003 (10a3)
904	Breaker Q1004 (10a4)
905	Breaker Q1005 (10a5)
906	Breaker Q1006 (10a6)
907	Breaker Q1007 (10a7)
908	Breaker Q1008 (10a8)
909 to 919	Reserved for 22 kV switchboard No. 10 future breakers
990	Miscellaneous related to No.10 switchboard eg. GA, SLD
991	Miscellaneous related to No.10 substation eg. battery charger.
991/001 to 991/010	PMS remote drop schematics

MINESITE SODIUM CYANIDE STORAGE (6268)

Below is a list of the primary numbers allocated to the different Sodium Cyanide minesites.

6268-	0-	General
	1-	PROCESS
	2-	Civil
	3-	Structural
	4-	Mechanical
	5-	Tankage
	6-	Piping
	7-	Instrumentation
	8-	EDP/Communications
	9-	Electrical

6268-X-XXXX

-0000	Standards	-0021	Big Bell
-0001	Mt Percy	-0022	St Ives
-0002	Sons of Gwalia	-0023	Fimmiston
-0003	Mt Gibson	-0025	Nevoria
-0004	Hill 50	-0026	Mt McClure
-0005	Ora Banda	-0028	Sig Heap Leach
-0006	Yilgarn Star	-0029	Thunderbox
-0007	New Celebration	-0030	St Ives Lefroy
-0008	Croesus	-0031	Iluka
-0009	Bronze Wing	-0032	Bluebird
-0010	Chalice	-0033	
-0011	Agnew	-0034	Tuckabiana
-0013	Mt Morgan	-0035	Avoca’s Higginsville
-0014	St Barbara	-0036	Silverlake
-0015	Mary Mia	-0037	Duketon Gold
-0016	Tarmoola	-0038	Tropicana Gold
-0017	Jundee	-0039	Andywells
-0018	Boddington	-0060	Nullagine
-0019	Mt Pleasant		
-0020	Central Norseman		

-1000 to -2000 Minesite Standards

STANDARD DRAWINGS

GENERAL (9900-0)

0001
0002
0003 Signage
0004 Site Security
0005
0006
0007
0008 Safety Equipment
0009 Fire Services & Equipment
0010
0011 Equipment Symbols
0012
0013
0014
0015 Mobile Platforms

STANDARD PROCESS DRAWINGS (9900-1)

0001 PFD Typical Layout

STANDARD CIVIL DRAWINGS (9900-2)

0100 Grade Slabs
0200 Construction Joints
0300 Embedments
0400 Holding Down Bolts
0500 Retaining Walls
0600 Security Fences
0700 Rail Crossovers
0800 Sliding & Swing Gates
0900
1000
1100
1200 Stairs
1300 Bollards
1400 Tyre Decontamination Pad

STANDARD STRUCTURAL DRAWINGS (9900-3)

0001 Ladders, stair, platforms
0002
0003
0004
0005 Beam & Bracing Connections, Baseplates
0006 Dummy Gantry

STANDARD MECHANICAL DRAWINGS (9900-4)

ELEVATORS

9900 -4 - 0100 Standard Elevator

ROTARY VALVES

9900 -4 -1100 Rotary Valves

- 0101 KA Elevators
- 0102 KB Elevators
- 0103 KC Elevators
- 0104 KD Elevators

BELT CONVEYORS

9900 -4 - 0200 Belt Conveyors Standard (any size)
- 0201 Size - up to 18”
- 0202 Size - above 18”
- 0230 Portable Conveyors
- 0250 Take-ups
- 0260 Skirting

SCREW CONVEYORS

9900-4 - 0300 Screw Conveyors
- 0304 FSA Screw Conveyor

APRON CONVEYORS

9900-4 - 0400 Apron Feeders
- 0401 Head
- 0405 Tail

CHUTES

9900 -4 - 0500 Chutes
- 0510 Doors
- 0520 Seals
- 0550 Liners

LOSS-IN-WEIGHT FEEDERS

9900 -4 -0600 Loss-in-Weight Feeders

PULLEYS

9900 -4- 0700 Pulleys (non-conv)

PUMPS

9900 -4 - 0800 Pumps
- 0802 Warman Pumps
- 0803 Ornell Water Pumps

COUPLINGS

9900 -4 - 0900 Couplings

DUST SEALING

9900 - 4 -1000 Dust Sealing

TREACLE CUTTER

9900 - 4 -1200 Treacle Cutter

SCREEN

9900 -4- 1300 Screens

GEARS

9900 - 4 -1400 Gears

LOADERS/UNLOADERS

9900 - 4 -1500 Loaders/Unloaders

FANS & BLOWERS

9900 - 4 -1600 Fans & Blowers

MOTORS/GENERATORS/ALTERNATORS

9900 -4 -1700 Motors, Generators, Alternators
- 1701 Motors
- 1740 Generators

MAGNETIC EQUIPMENT

9900 - 4 -1800 Magnetic Equipment

HYDRAULIC EQUIPMENT

9900 - 4 -1900 Hydraulic Equipment

LUBRICATING EQUIPMENT

9900-4 - 2000 Lubricating Equipment

MIXING EQUIPMENT

9900-4 - 2100 Mixing Equipment

EXCAVATION & CONDITIONING

9900 -4 - 2150
- -2151 Scraper and Cutter

BEATERS

9900-4 - 2200 Beaters

MECHANICAL EQUIPMENT

9900-4 - 2400 Mechanical Equip (non-unique)

BEARINGS

9900-4 - 2500 Bearings

RAILWAY EQUIPMENT

9900 -4 - 2600 Railway Equipment

MOBILE EQUIPMENT (non cranes)

9900 -4 - 2700 Mobile Equipment

- 2701 Tractors

CRANES

9900 -4 - 2800 Cranes

- 2801 Mobile Cranes
- 2810 Jib Cranes
- 2820 Overhead Cranes
- 2830 Mono Rail

TRANSPORT & GARAGE

9900-4-2900 Transport & Garage

GUARDING

9900-4 - 3000 Guarding

- 3001 Conveyor Guards

OIL RECLAIMING EQUIPMENT

9900 -4- 3100 Oil Reclaiming Equipment

WEIGHERS

9900 - 4 -3200 Weighers

WEIGHBRIDGE & SCALES

9900 -4- 3300 Weighbridge & Scales

SCRUBBING

9900 - 4 - 3400

- 3401 Fluorine Scrubbing

STANDARD TANKAGE DRAWINGS (9900-5)

NITRIC ACID
9900-5 - 0100

AMMONIA
9900-5 - 0200

PHOSPHORIC ACID
9900-5 - 0300

98% SULPHURIC ACID
9900-5 - 0400

CAUSTIC SODA
9900-5 - 0500

FLUOSILICIC ACID
9900-5 - 0600

DEMINERALISED WATER
9900-5 - 0700

SODIUM CYANIDE
9900-5 - 0800

AMMONIUM NITRATE
9900-5 - 0900
9900-5 - 1000

LESS THAN 98% SULPHURIC ACID
9900-5 - 1100

10. EXTENSION/SHEET NUMBER

_ _ _ _- _ - _ _ _ _ / X X X

A three-digit numeric which follows the Primary Number and is used for all drawings.

Note: Where there is only one drawing sheet involved the extension number shall be three (3) zeros (excluding Electrical and Instrument drawings). For example: 1111-4-1006/000. Zeros shall not be omitted from the drawing.

Note: Electrical & Instrument drawing sheet numbers shall always commence at 001, regardless of the number of sheets involved. For example: 1111-9-1006/001.

Typical examples where multiple sheets apply are as follows:

Mechanical Drawings (4)

Standard practice for mechanical drawings is to allocate a primary number for a mechanical assembly. The component drawings that make up the assembly are then allocated extension numbers of the same primary number,

Example: Superphosphate Manufacture Plant Product Screens

1121 - 4 - 0072/000	(General Arrangement)
1121 - 4 - 0072/001	(Frame Details)
1121 - 4 - 0072/002	(Frame Details)
1121 - 4 - 0072/003	(Side Rail & UHMWPE Panel Details)
1121 - 4 - 0072/004	(Comb, Spacer Bar & Chain Guard Details)

This same principle also applies to certain other disciplines, e.g. Tankage.

Note: For plants designed post May 1998 the primary number will match the associated mechanical equipment number. For details refer to 9.1.1, APPENDIX 4 and CSBP Engineering Standard *Equipment Numbering System (ES-14-101-06)*

Piping Drawings (Discipline Code 6)

If more than one drawing is required for a piping isometric, then extension numbers are used,

Example: 1126 - 6 - 2105/001 and 1126 - 6 - 2105/002

Note: The primary number of a piping isometric drawing is the same as the pipeline sequence number.

Note: For plants designed post May 1998 the pipeline number will be directly linked to the P&ID number where the line or branch commenced. For details refer CSBP Engineering Standard *Basis for Design - Piping* (*ES-14-601-01*).

Instrumentation Drawings (7)

For one or more drawings required for a loop, then extension numbers are used,

Example: 1121 - 7 - 0521/001 and 1121 - 7 - 0521/002

Note: The Primary Number of an instrument loop diagram is the same as the loop number.

Note: For plants designed post May 1998 the loop number will be directly linked to the associated P&ID. For details refer to CSBP Engineering Standard *Equipment Numbering System (ES-14-101-06).*

Electrical Drawings (9)

For plants designed post May 1998 the train number and Duty/Stand-by arrangement are identified through the extension number of Electrical Schematics and Termination Diagrams.

Termination Diagrams

The first digit of the extension number indicates whether the equipment is used in a process train situation.

i.e. 0 _ _ _ Single Train /Common

1 _ _ _ Train 1
2 _ _ _ Train 2
through to
8 _ _ _ Train 8

Example:

Equipment Number 1166MP 1 407A Motor Pump Duty Train 1

Electrical Schematic No. 1166-9-1 407/ 1 01

"Duty" reference sheet

Train Number.

Drawing Type

Termination Diagram No. 1166-9-2407/101

Example:

Equipment Number 1166MP 1 407B Motor Pump Standby Train 1

Electrical Schematic No. 1166-9-1 407 / 1 02

"Standby" - reference sheet number

Train Number.

Drawing Type

Termination Diagram No. 1166-9-2 407/102

Drawing Type

Example:

Equipment Number 1166MP 2 407 A Motor Pump Duty Train 2

- A — Duty/Standby Suffix Code ‘A’- Duty, ‘B’- Standby
- 407 — Equipment Sequence Number
- 2 — Equipment Train No.

Electrical Schematic No. 1166-9-1407/201

Termination Diagram No. 1166-9-2 407 / 2 01

- 01 — 01- ‘Duty’ - reference sheet; 02- ‘Standby’- reference sheet
- 2 — Train Number
- 9 — Drawing Type

Note: For further details of linkage between equipment and drawing numbers refer to Section 9.Primary Number and CSBP Engineering Standard *Equipment Numbering System (ES-14-101-06).*

11. NUMBERING PROJECT DEVELOPMENT DRAWINGS

For safe operation and maintenance of plant, certain categories of drawings must reflect "As-Built" status at all times. To enable development of plant modifications to proceed - without impacting on the existing drawing - Project Development copies shall be used. Multiple concurrent Project Development copies created from the same base drawing may exist. Project Development drawings shall be numbered as follows.

Existing drawing number:	1162-9-3401/002 Rev 2	
Project Development Copy No.1	1162-9-3401/002	2 P01 - Rev A
Project Development Copy No.2	1162-9-3401/002	2 P02 - Rev 0

Where 2 P01 - Rev A

- Rev A: Revision of Project Development Copy, ('A'= Prel. Design Stage; '0' = Construction Stage)
- P01: Project Development Identifier
- 2: Revision level of drawing from which the Project Development Copy was derived

Note: For detailed explanation of Project Development drawings refer to CSBP Engineering Standard *Drawing Management (ES-14-101-02).*

12. ALLOCATION OF DRAWING NUMBERS

The responsible officer must liaise with drawing control to reserve drawing numbers in the drawing repository. It's the responsibility of drawing control to ensure correct drawing numbering conventions are used.

13. APPENDIX 1 – PLANTS DESIGNED PRE MAY 1998

(REFERENCE ONLY – PLANTS PRE MAY 1998)

ELECTRICAL (9)

_ _ _ _ - 9 - **X** _ _ _ / _ _ _

0	Series	Single Line Diagrams
1	Series	Schematic Diagrams
2	Series	Termination Diagrams
3	Series	Interconnection, Block Diagrams
4	Series	Cable Schedules
5	Series	Location Diagrams
6	Series	General Arrangements & Layouts
7	Series	Equipment, Installation
8	Series	Specifications
9	Series	Hazardous Area Classification Drawings

APPENDIX 2 - MATERIALS RECEIVALS (XX09)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _ 09-0-XXXX/_ _ _ GENERAL

0001 Receival Conveyors Layout

_ _ 09-1-XXXX/_ _ _ PROCESS

_ _ 09-2-XXXX/_ _ _ CIVIL

0001 Bulk Cargo Jetty
0003 Shore Transfer Station
0006 Rock Bin

_ _ 09-3-XXXX/_ _ _ STRUCTURAL

0002 Wharf Transfer Station
0003 Shore Transfer Station
0004 ’C’ Transfer Station
0005 Rock Bin
0006 No. 3 Receivals Conveyor

_ _ 09-4-XXXX/_ _ _ MECHANICAL

0001 Unloader
0002 No. 1 Receivals Conveyor
0003 No. 2 Receivals Conveyor
0004 No. 3 Receivals Conveyor
0005 Rock Bin Conveyor & Tripper
0007 Tunnel Hopper

_ _ 09-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

_ _ 09-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _ 09-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 3 - SULPHURIC ACID PLANT (XX12)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _ 12-0-XXXX/_ _ _ GENERAL

0001 Plant Layout
0002 Sulphur Area
00003 1000 tonne Sulphuric Acid Export Tank

_ _ 012-1-XXXX/_ _ _ PROCESS

0001 Flow Schematic
0002 Steam & Feed Water
0003 Water Treatment

_ _ 012-2-XXXX/_ _ _ CIVIL

0001 Acid Plant Foundations
0002 Sulphur Storage Area
0005 Cooling Tower Foundations
0006 Sulphur Pit
0007 Sulphur Melting Foundations

_ _ 012-3-XXXX/_ _ _ STRUCTURAL

0001 De-aerator
0002 Sulphur Storage Area
0003 Control Centre
0004 Blower Room
0005 Test Room
0007 Sulphur Melting Area
0008 Tanker Loading
0009 Tanker Filling Station
0010 Pipe Racks
0011 No. 1 & No. 2 TA Buildings
0012 Acid Bricks

_ _ 012-4-XXXX/_ _ _ MECHANICAL

0001 Sulphur Hopper
0002 Sulphur Feed Conveyor
0003 Sulphur Melting Tank Agitator
0004 Sulphur Feed Pump
0005 Dirty/Pre coat Sulphur Pump
0006 Sumner Pump
0007 Fuel Oil Pump
0008 Elliot Turbine No. 1
0009 Elliot Turbine No. 2

_ _ 012-4-XXXX/_ _ _ MECHANICAL (cont.). . .

0010 Starting Blower
0011 K & L Acid Pump
0012 Durco Pump 1-1.5
0013 Durco Pump 3-2
0014 Cooling Water Pumps
0015 Cooling Water Pumps
0016 Cooling Tower
0017 No. 1 TA
0018 No. 1 TA Turbine
0019 12 tonne TA Crane
0020 No. 2 TA
0021 Condensate Pump
0022 TA Condensate Pump
0023 Treated Water Pump
0024 Boiler Feed Pump
0025 Dosing Pump
0026 Condensate Recirculating Pump
0027 Backwash Pump
0028 Acid Transfer Pump
0031 Water Treatment Plant
0032 Lubrication Schedule
0033 Sulphur Crusher
0034 Feeders to Burners
0035 Sulphur Burners
0036 Combustion Chamber
0037 Dryer
0038 Venturi Scrubber
0039 Chamber Fittings
0040 Drip Pot
0041 Vertical Centrifugal Pumps
0042 Ammonia Oxidation
0043 30” x 13” Tail Fan
0044 Mist Filter
0045 Flue & Damper
0046 Receivable Equipment/Transfer Pump
0047 Thermometer Screen Medium
0049 Flame Sealing

_ _ 12-5-XXXX/_ _ _ TANKAGE

0001 Sulphur Melt Tank
0002 Dirty Sulphur Tank
0003 Precoat Tank
0004 Sulphur Filter
0005 Sulphur Burner & Waste Heat Boiler
0006 Hot Gas Filter
0007 Converter
0008 Hot Heat Exchanger
0009 Cold Heat Exchanger
0011 No. 1 Economiser
0013 Super Heater
0014 Drying & Absorption Tower
0015 Stack
0018 Inter-pass Acid Cooler
0019 Drying Acid Cooler
0020 Final Acid Cooler
0021 Product Acid Cooler
0022 Acid Circulating Tank
0024 98% Tanks
0025 1000t Acid Tanks
0026 5000t Acid Tanks
0027 10000t Acid Tanks
0028 Sulphuric Acid Tank
0041 Condensate Circulation Tank
0042 Treated Water Tank
0045 Water Treatment Dosing Tanks
0051 Spare Acid Cooler
0052 No. 1 Acid Cooler
0053 No. 1 Absorber Cooler
0056 Condensate Tank
0091 Lime Slurry Tank

_ _ 12-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

_ _ 12-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _ 12-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 4 - SUPERPHOSPHATE MANUFACTURE PLANT(XX21)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _ 21-0-XXXX/_ _ _ GENERAL

0001 Plant Layouts
0002 Fluorine Scrubbing Layout
0003 Pipe Gallery

_ _ 21-1-XXXX/_ _ _ PROCESS

0001 Flow Schematic

_ _ 21-2-XXXX/_ _ _ CIVIL

0001 SMP Building
0002 Fluorine Scrubbing Building
0003 Pipe Gallery
0004 Delivery Conveyor
0005 Acid Tank - Bunbury
0007 MCC Building (currently only ESP)
0008 SMP Effluent Recycling (currently on GER)
0009 SMP Truck Wash Facility

_ _ 21-3-XXXX/_ _ _ STRUCTURAL

0001 SMP Building
0002 Fluorine Scrubbing Building
0003 Pipe Gallery
0004 Delivery Conveyor
0005 Phosphates Office
0016 Equipment Support Structure
0017 MCC Building - Esperance
0018 Superphosphate Storage Shed

_ _ 21-4-XXXX/_ _ _ MECHANICAL

0001 Apron Feeder
0002 Rock Bin MKII Apron Feeder
0003 No. 1 Tunnel Conveyor
0004 No. 2 Tunnel Conveyor
0005 Cross Tunnel Conveyor
0006 No. 1 Rock Recovery Elevator
0008 Hammer Mill 3a
0009 No. 2 Hammer Mill 4a
0010 A1 Crushed Rock Screw
0011 A2 Crushed Rock Screw
0012 B Crushed Rock Screw
0013 C1 Crushed Rock Screw
0014 C2 Crushed Rock Screw
0015 D Crushed Rock Screw

_ _ 21-4-XXXX/_ _ _ MECHANICAL (cont.). . .

_ _ 21-4-XXXX/_ _ _ MECHANICAL (cont.)

0016 CR Weigh Feeder ABCD
0017 CR Weigh Feeder E
0018 No. 1 Crushed Rock Feed Elevator
0019 No. 2 Crushed Rock Feed Elevator
0020 No. 1 Crushed Rock Feed Bin
0021 No. 2 Crushed Rock Feed Bin
0022 No. 1, 2 & 3A CR Metering Screw
0023 No. 1 CR Feed Screw
0024 No. 3B CR Feed Screw
0025 No. 4A CR Feed Screw
0026 No. 4B CR Feed Screw
0027 No. 5, 6, 7 & 8 CR Feed Screws
0028 No. 7A CR Feed Screw
0029 No. 8A CR Feed Screw
0030 Circulating Elevators
0031 No. 1-4 13’ Air Classifiers
0032 Air Classifier Fans
0033 Centrifugal Classifiers
0034 Crushing Rolls
0035 No. 1 - 4 Cyclones
0036 No. 5 - 8 Cyclones
0037 No. 1 Dust Collecting Screw
0038 No. 2 Dust Collecting Screw
0039 No. 3 Dust Collecting Screw
0040 No. 4 Dust Feed Screw
0042 No. 6 Dust Feed Screw
0043 No. 7 Dust Feed Screw
0044 Screw Extensions
0045 No. 1 Dust Transfer Screw
0046 No. 2 Dust Transfer Screw
0047 No. 3 Dust Transfer Screw
0048 No. 4 Dust Transfer Screw
0049 Dust Elevator
0050 No. 2 Rock Recovery Elevator
0051 Dust Recovery Screw
0052 Dust/Reject Reincorporation System
0053 No. 1 F. S. A Dust Screw
0054 No. 2 F. S. A Dust Screw
0055 F. S. A Dust Neutralisation
0056 No. 1 Bleed Air Filter
0057 No. 2 Bleed Air Filter
0058 36’ Rock Dust Weigher
0059 Dust Wetting Screw
0060 No. 1 Kneader

_ _ 21-4-XXXX/_ _ _ MECHANICAL (cont.). . .

0061 No. 2 Kneader
0062 Den
0063 No. 1 Wet Super Conveyor
0064 No. 2 Wet Super Conveyor
0065 No. 1 Disintegrator
0066 No. 1 Disintegrator Conveyor
0067 No. 3 Wet Super Conveyor
0068 No. 4 Wet Super Conveyor
0069 Granulator
0070 Scalping Screen
0071 Product Screen Feeder
0072 Product Screens
0073 No. 1 Oversize Conveyor
0077 No. 1 Product Conveyor
0078 No. 2 Product Conveyor
0079 Delivery Conveyor
0080 Recycle Conveyor
0090 Trace Elements Addition
0091 Trace Elements Hopper
0092 Trace Elements Mixer
0093 F. S. A
0094 Sand Hopper and Feeder
0095 Filler Feeder
0096 Vibrating Sand Feeder
0097 Triple Super Mixing Chute
0101 Scrubbing Towers
0102 Cross Flow Scrubber
0103 Gas Scrubber Towers
0104 Venturi Scrubber
0105 Cyclone
0106 Exhaust Fan
0107 Den Exit Fan
0108 Stack
0109 Venturi Scrubber Pump
0110 No. 1 Void Tower Pump
0111 No. 2 Void Tower Pump
0112 No. 1 Cross Flow Scrubber Pump
0113 No. 2 Cross Flow Scrubber Pump
0114 Sump Pump
0115 Spray Water Pump
0116 Proposed Odour Scrubber
0120 Rock Storage Dust
0122 Discharge Chute
0123 Feed Chute
0147 Ductwork- Hygiene System
0148 Odour Scrubbing
0149 Dust Bin
0150 Control Room Filter
0151 SMP Effluent Recycling
0159 Vertical Mixer
0160 USP Granulator Ammonia Sparging
0161 USP Reagent Mixing
0162 Truck Wash
0163 No. 5 Rolls Jibcrane

_ _ 21-5-XXXX/_ _ _ TANKAGE

0001 A & B Rock Bins
0002 C & D Rock Bins
0003 Dust Bin
0004 USP Reagent Mixing

_ _ 21-6-XXXX/_ _ _ PIPING

0001 Acid Mixing
0002 Fluorine Scrubbing
0003 Isometrics
0005 Vacuum Cleaning Piping

_ _ 21-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _21-8-XXXX/_ _ _ EDP/COMMS

0001 Electronic Data Processing
1001 Telephone/PABX
2001 Security
3001 Video Systems

_ _ 21-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 5 – NO.1 GRANULATING PLANT (XX25)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _ 25-0-XXXX/_ _ _ GENERAL

0001 Plant Layout
0002 Hazardous Area
0003 Fertiliser Re-incorporation
0010 Coating Drum Fungicide Addition

_ _ 25-1-XXXX/_ _ _ PROCESS

0001 Flow Sheets

_ _ 25-2-XXXX/_ _ _ CIVIL

0001 Foundations
0002 Wax Tank
0003 De-dusting System

_ _ 25-3-XXXX/_ _ _ STRUCTURAL

0001 Structural
0002 De-dusting System
0004 Fines Hopper
0006 Dissolving Hopper

_ _ 25-4-XXXX/_ _ _ MECHANICAL

0001 Recovery Hoppers
0004 No. 2 Recovery Conveyor
0005 No. 2 Recovery Beater
0007 No. 3 Recovery Conveyor
0008 No. 3 Recovery Beater
0010 No. 1 Recovery Elevator
0011 No. 2 Recovery Elevator
0012 No. 3 Recovery Elevator
0013 Mixed Materials Elevator
0014 Delivery Elevator
0022 No. 3 Screen
0025 No. 1 Hopper
0026 No. 2 Hopper
0027 Slurry Hopper
0032 No. 2 Belt Weigher
0033 No. 3 Belt Weigher
0034 Ramsey Belt Weigher
0041 Product to Cooler Chute
0044 No. 2 Beater
0045 No. 3 Beater
0048 Mixed Materials Conveyor
0055 Granulator
0061 Dryer Furnace
0064 Dryer Furnace Fan
0067 Dryer

_ _ 25-4-XXXX/_ _ _ MECHANICAL (cont.)

0073 Dryer Cyclone
0074 Cyclone Discharge Screw Conveyor
0076 Dried Materials Conveyor
0079 Recycle Elevator
0085 Crusher
0088 Oversize Screen
0094 Fines Hopper
0097 Fines Conveyor
0100 Cooler
0106 Cooler Cyclone
0109 No. 3 Product Conveyor
0110 No. 4 Product Conveyor
0111 No. 3 Delivery Conveyor
0112 No. 4 Delivery Conveyor
0113 No. 5 Delivery Conveyor
0114 No. 6 Delivery Conveyor
0115 No. 7 Delivery Conveyor
0116 No. 1 Coating Conveyor
0119 No. 2 Coating Conveyor
0122 Coating Drum
0125 Trace Element Addition
0130 Scrubber
0133 Scrubber Fan
0134 Scrubber Recirculation Pump
0135 Scrubber Dump Tank Pump
0138 Venturi Scrubber No. 1
0139 No. 2 Scrubber - Dedusting
0141 Ammonia Scrubber
0142 De-dusting System Upgrade
0143 Dedusting Cyclone
0144 Dust Recovery System
0145 Dust Recovery Fan
0146 Control Room Air-conditioning
0147 Control Room Hydraulic Services
0148 Floor Sweeping Recovery Chute
0149 Beater Casing
0150 Dryer Drum
0151 Activator Bin Trolley
0155 Dust Extraction System
0160 Bund Sump Pump
0210 Phosphoric Acid Tank
0220 Coating Drum Fungicide Addition

_ _ 25-5-XXXX/_ _ _ TANKAGE

0001 Wax Tank
0002 Effluent Tanks
0003 Effluent Tanks
0004 Effluent Tanks
0005 Effluent Tanks
0006 Effluent Tanks
0007 Effluent Tanks
0008 Fluosilicic Tank
0009 Dissolving Tank
0010 Fungicide Tanks

_ _ 25-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

_ _ 25-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _ 25-8-XXXX/_ _ _ EDP/COMMUNICATIONS

0001 Electronic Data Processing
1001 Telephone/PABX
2001 Security
3001 Video Systems

_ _ 25-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 6 - PRILLING PLANT (XX26)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _ 26-0-XXXX/_ _ _ GENERAL

0001 Dry Section Layout

0002 Dry Section Layout

0006 AN Solution Export Layout

0007 ANAP Evaporators Layout

0010 Span Acid Area

0012 Valve Lists

0013 Equipment Location Dwgs

0014 Hazardous Areas

_ _ 26-1-XXXX/_ _ _ PROCESS

0001 Ammonium Nitrate Flow Sheet

0002 Ammonium Sulphate Flow Sheet

0003 Steam & Condensate 1 Flow Sheet

0004 Steam & Condensate 2 Flow Sheet

0005 Boiler Feed Water Flow Sheet

0006 Span Acid Area Flow Sheet

0007 Scheme & Bore Water Flow Sheet

0008 Condensate Flow Sheet

0009 Cooling Water Diagram

0010 AN Material Balance

_ _ 26-2-XXXX/_ _ _ CIVIL

0001 Prilling Plant Foundations

0002 Prilling Tower Foundations

_ _ 26-4-XXXX/_ _ _ MECHANICAL (cont)

0024 Cooler

0027 Screen Elevator

0030 Product Screens

0031 Product Sizing Screens

0032 Product Sizing Screens

0033 Coating Drum

0036 Product Elevator

0039 Product Feeder

0042 Product Conveyor

0045 Beater

0048 Recycle Screw

0051 Coating Agent Feed Screw

0054 Pre-dryer Air Heater

0057 Pre-dryer Air Heater Fan

0060 Dryer Air Heater H106

0063 Dryer Air Heater Fan

0066 Pre-dryer Fan P110

0067 Dryer

0069 Dryer Fan P111

0070 Held - Pumps

0071 Held - Pumps

0072 Cooler Fan P106

0004 AN Recovery Tank

0005 Fluorosilicic Acid Tank Bunding

_ _ 26-3-XXXX/_ _ _ STRUCTURAL

0001 Prilling Plant Structure

0002 Prilling Tower Structure

0003 Prilling Plant Control Room

0005 AN Tanker Loading Station

0006 200 VLD T Compressor

_ _ 26-4-XXXX/_ _ _ MECHANICAL

0001 Prilling Machine

0002 Prill Tower Scraper

0003 Prill Tower Exhaust Fan

0004 Prilling Pre-heater

0006 Prill Tower Sack

0009 Prill Conveyor

0012 Pre-dryer Feed Conveyor

0015 Pre-dryer

0018 Dryer

0021 Cooler Elevator

0022 Bed Cooler - Data Sheet

0023 Bed Cooler

0075 De-dusting Fan P112

0078 Dehumidifier Fan

0081 Exhaust Fan

0082 Held - Pumps

0083 Held - Pumps

0085 Held - Pumps

0087 Pre-dryer Cyclone

0090 Dryer Cyclone

0093 Cooler Cyclone

0096 De-dusting Cyclone

0099 Dehumidifier

0102 Bag Filter

0105 Skip Hoist

0108 AN Filter

0111 P101 AN Melt Pump

0114 P102 Mixed Acid Pump

0117 P103 Vacuum Pump

0120 P104 NP Melt Pump

0123 P105 Prilling Tower Fans

0126 P107 Recycle Pump

0129 P108 Exhaust Fan

0132 P109 AN Vent Fan

0135 P114 Condensate Pump

0138 P115 Salt Water Pump

0141 Phosphoric Acid Pumps

_ _ 26-4-XXXX/_ _ _ MECHANICAL (cont.). . .

0142 Held - Pumps
0143 Held - Pumps
0144 Drum Pressure Pump
0147 Relief Pumps
0148 Process Valves
0149 Thermocouples
0150 Static Mixer
0151 V101 Agitator
0152 V102 Agitator
0153 V103 Agitator
0154 V104 Agitator
0156 V106 Agitator
0158 V108 Agitator
0160 V110 Agitator
0164 V114 Agitator
0166 Evaporator Condenser
0172 Held - Heat Exchangers
0173 Held - Heat Exchangers
0174 Held - Heat Exchangers
0175 Held - Heat Exchangers
0176 Held - Heat Exchangers
0177 Held - Heat Exchangers
0178 Held - Heat Exchangers
0179 Held - Heat Exchangers
0180 Held - Heat Exchangers
0181 Held - Heat Exchangers
0182 Held - Heat Exchangers
0183 Held - Heat Exchangers
0200 Held - Conveyors
0201 Held - Conveyors
0202 Held - Conveyors
0203 Recycle Conveyors
0204 Held - Conveyors
0205 Held - Conveyors
0206 Held - Conveyors
0207 Held - Conveyors
0208 Held - Conveyors

_ _ 26-5-XXXX/_ _ _ TANKAGE

0001 V101 AN Melt Tank
0002 V102 Nitric Acid Tank
0003 V103 Mixing Tank
0004 V104 AN Recovery
0005 V105 AL Sulphate Tank
0006 V106 Intermediate Tank
0007 V107 NP Seal Pot
0008 V108 NP Melt Tank
0009 V109 Steam Saturator
0010 V110 Redissolving Tank
0011 V111 Seal Pot
0012 V112 Condensate Seal Pot/Cyclone Seal Pot
0013 V113 Wash Tank for Prilling Bucket

_ _ 26-5-XXXX/_ _ _ TANKAGE (cont.). . .

0014 V114 Dissolving Tank
0015 V115 Condensate Tank
0016 V116 Steam Flash Tank
0017 V117 Oil Drain Vessel
0020 V120 Salt Water Seal pot
0021 AN Recovery Dissolving Tank
0031 H101 AN Scrubber
0032 H102 NP Heat Exchanger
0033 H103 Direct Condenser
0034 H104 AN Heat Exchanger
0037 H107 Ammonia Vaporiser
0038 H108 Auxiliary Ammonia Vaporiser
0041 S101 Ammonia Scrubber
0042 S102 NP Separators
0043 S103 Exhaust Gas Scrubber
0044 S104 AN Separators
0051 S111 AN Strainer
0052 S112 Strainer in Mixed Liquid Suction Line
0054 S114 Strainer in Dissolved Melt Line
0055 S115 Catch Pots
0061 Span Tank
0062 Nitric Acid Tank
0063 Pilot Setting Tank
0064 Prilling Tower Water Tank
0064 AN Wash Tank
0070 Nucleating Tank
0071 Coating Agent Bin
0072 Amine Coating System
0075 NP Stack
0076 AN Stack

_ _ 26-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

_ _ 26-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _ 26-8-XXXX/_ _ _ EDP/COMMS

0001 Electronic Data Processing
1001 Telephone/PABX
2001 Security
3001 Video Systems

_ _ 26-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 7 - SUPERPHOSPHATE STORAGE- DESPATCH (XX41)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _ 41-0-XXXX/_ _ _ GENERAL

0001 No. 1 & 2 Dressing Plant Layout

0002 No. 3 Dressing Plant Layout

0003 Recovery System Layout

0004 No. 8 Dressing Plant Layout

0005 SSD Building Isometric

0007 No. 5 Despatch

_ _ 41-1-XXXX/_ _ _ PROCESS

0001

_ _ 41-2-XXXX/_ _ _ CIVIL

0001 Bin Foundations

0002 Despatch Plant

0004 No. 8 Despatch Plant

0007 Superfines Bin

0008 No. 8 Weighbridge Marking Plan

0009 No. 3 Despatch Plant - Bunbury

_ _ 41-3-XXXX/_ _ _ STRUCTURAL

0001 Bin Structure

0002 Dressing Plant Structure

0003 Despatch Office

0004 No. 8 Despatch Plant

0005 No. 2 Despatch Plant

0006 No. 3 Despatch Plant

_ _ 41-4-XXXX/_ _ _ MECHANICAL

0001 Shuttle Conveyor

0004 9T OHT Crane (No. 1 & 2 Cranes)

0005 No. 3 Crane

0006 Recovery Hopper

0007 Recovery Apron Conveyors

0008 Super Crushers

0011 ’A’ Recovery Conveyor

0012 ’B’ Recovery Conveyor

0013 ’C’ Recovery Conveyor

0014 ’D’ Recovery Conveyor

0015 ’E’ Recovery Conveyor

0016 ’F’ & ’G’ Recovery Conveyors

0021 No. 1 & 2 DP Elevators

0022 No. 3 DP Elevator

0023 Potash Elevator

0025 No. 1 & 2 DP Trommel Screens

0026 Super Screen

0027 Potash Screen

0028 DP Screen

0031 No. 1 & 2 DP Beaters

0032 Super Beater

0033 Potash Beater

0041 No. 1 & 2 50T Super Bin

0042 No. 1 5T Bin

APPENDIX 8 - FERTILISER STORAGE & DESPATCH, UREA PLANT (XX42)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _ 42-0-XXXX/_ _ _ GENERAL

0001	No. 1 CF Despatch Layout
0002	No. 2 CF Recovery Layout
0004	Palletising Layout
0006	Compounds 1 & 2 General Arrangement
0008	No. 1 CF Bin Isometric
0009	No. 2 CF Bin Isometric
0010	Urea Despatch
0012	Small Products Bin
0013	Direct Loading No. 7
0200	Palletising Machines Layout

_ _ 42-1-XXXX/_ _ _ PROCESS

0001	Flow Diagram

_ _ 42-2-XXXX/_ _ _ CIVIL

0001	No. 1 CF Bin
0005	No. 2 CF Bin (1969)
0006	No. 2 CF Bin
0011	Bulka Bag Filling Station
0013	AN Outloading

_ _ 42-3-XXXX/_ _ _ STRUCTURAL

0001	No. 1 CF Bin (1969)
0002	No. 1 CF Bin (1973)
0003	Despatch Area
0005	No. 2 CF Bin
0006	No. 2 CF Bin
0007	Direct Loading
0008	Switchroom Details
0009	Control Room DL7
0010	CV1 Conveyor
0011	Bulka Bagging
0012	Direct Loading No. 7
0014	Urea Tower
0015	Urea Despatch Pit
0016	Crib Room
0017	Main Substation CF Storage
0018	MCC Room
0019	No. 4 Crane
0020	DL4 & 5 Control Room
0021	DL5 Conveyor

_ _ 42-4-XXXX/_ _ _ MECHANICAL

0004	Recovery Elevator (West)
0005	Ammonia Loading
0007	Recovery Conveyor (East)
0010	Recovery Elevator (East)
0013	Prill Trommel Moved to 1143-3-0013/XXX
0016	Product Elevator
0019	Bulka Bag Feed Conveyor
0022	Bulka Bag Hopper & Weigh Hopper
0025	Roller Conveyor
0028	Screening Station
0051	Recovery Hopper
0054	No. 2 Recovery Feeder
0057	No. 2 Recovery Elevator
0058	No. 2 DP Trommel
0059	Beater
0060	No. 1 Dressed Fertiliser Conveyor
0063	No. 2 Dressed Fertiliser Conveyor
0066	No. 3 Dressed Fertiliser Conveyor
0072	No. 3 Recovery Feeder
0075	No. 3 Recovery Elevator
0076	No. 3 DP Trommel
0077	No. 3 DP Beater
0078	No. 4 Crane Hopper
0081	No. 4 Recovery Conveyor
0082	Alternate Feed System
0087	No. 5 Recovery Conveyor
0090	No. 4 Dressed Fertiliser Conveyor
0093	No. 5 Dressed Fertiliser Conveyor
0096	No. 6 Dressed Fertiliser Conveyor
0099	Swivel & Transfer Chutes
0120	50T Bins
0122	No. 1 Weigh Feed Hopper
0125	No. 2 Weigh Feed Hopper
0128	Bulk Weigh Hopper
0130	50T Surge Bin
0131	Manual Pre-weigher
0134	Richard Simon Weighers
0137	Weigh Hopper
0140	Haver & Bocher Filling Spouts
0142	No. 1 CF Feeder
0143	No. 1 Platform Conveyor
0146	No. 2 Platform Conveyor
0149	Portable Sewing Machine

_ _ 42-4-XXXX/_ _ _ MECHANICAL (cont.). . .

0152	Bag Cleaner & Sealer
0155	Manual Bag Loader
0156	Manual Bag Loader Rail Platform
0158	Mechanical Bag Loader
0161	Roller Chute
0164	Bag Elevator
0167	Bag Conveyor
0170	Sheeting Rig
0173	Dynaclone Filter
0176	Dehumidification System
0179	Mobile Bulka Bag Filling Station
0200	Palletiser
0220	Hopper
0223	Feeder Conveyor
0226	Urea Elevator
0229	CV1 Conveyor
0232	CV2 Conveyor
0235	Urea Conveyor No. 3
0236	FEL Hopper
0237	Urea Recovery Conveyor
0238	Urea Dressing Recovery Conveyor
0239	Screen Chutes
0241	No. 1 Dressed Urea Conveyor
0242	No. 2 Dressed Urea Conveyor
0243	Shuttle Conveyor
0245	Despatch Urea Vacuum
0250	Direct Loading Hopper
0253	Direct Loading Screening Conveyor
0256	Screening Station
0259	Direct Bulk Loading Conveyors
0262	Direct Loading Cross Conveyor
0265	Direct Loading Shuttle Conveyor
0266	CFI MCC Air Con
0267	CF2 Substation Air Con
0268	DL7 MCC & Control Room Air Con

_ _ 42-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

_ _ 42-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _ 42-8-XXXX/_ _ _ EDP/COMMUNICATIONS

0001	Electronic Data Processing
1001	Telephone/PABX
2001	Security
3001	Video Systems

_ _ 42-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 9 - CHLOR-ALKALI PLANT (XX67)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _ 67-0-XXXX/_ _ _ GENERAL

0001 Plant Layout
0002 Equipment Layout
0003 Hazardous Areas

_ _ 67-1-XXXX/_ _ _ PROCESS

0001 Flow Sheets

_ _ 67-2-XXXX/_ _ _ CIVIL

0001 Civil Details
0002 Perimeter Drain
0003 Surveys Datums
0007 Cell Building
0009 Cooling Tower
0010 Process Building
0011 Lixator

_ _67-3-XXXX/_ _ _ STRUCTURAL

0001 Control Room
0002 Service Centre
0003 Office & Crib Room
0004 Substation
0005 Drum Filling Station
0006 Support Steel
0007 Pipe Racks
0008 Cell Building
0009 Process Tower
0010 Process Building
0011 Chlorine Filling & Transfer Station

_ _ 67-4-XXXX/_ _ _ MECHANICAL

BRINE AREA

0003 Lixator Pumps
0011 Brine Filter
0016 Brine Heat Exchanger
0017 Brine De chlorinator ***ELECTROLYSIS AREA***
0031 Membrane Cells
0034 Catholyte Heat Exchangers

_ _ 67-4-XXXX/_ _ _ MECHANICAL (cont.)...

ELECTROLYSIS AREA

0031 Membrane Cells
0034 Catholyte Heat Exchangers

CAUSTIC HANDLING AREA

0043 50% Caustic Cooler

CHLORINE HANDLING AREA

0051 Chlorine Cooler
0052 Chlorine Candle Filter
0053 Chlorine Drying Towers
0060 Sulphuric Acid Mist Separator
0061 Chlorine Liquefier
0064 Sulphuric Acid De chlorinator Tower
0068 Container Hoists

SODIUM HYPOCHLORITE AREA

0071 Primary Hypo Tower
0074 Secondary Hypo Tower
0077 Hypo Fans

HYDROGEN AREA

0081 Hydrogen Cooler
0082 Hydrogen Blower

HYDROCHLORIC ACID AREA

0091 HCl Synthesis Unit
0096 Hydrogen Blower Cooler

UTILITIES AREA

0101 Air Compressor
0110 Hypo Batch Chiller
0116 Cooling Tower

_ _67-5-XXXX/_ _ _ TANKAGE

BRINE AREA

0001 Sodium Carbonate Solution Tank
0002 Sodium Carbonate Storage Tank
0003 Treatment Tank
0004 Filter Aid Mix Tank
0005 Filter Precoat Tank
0006 Filter Brine Tank
0007 Brine Head Tank
0008 De chlorinated Brine Tank
0009 Sodium Sulphite Mix Tank
0010 Sodium Sulphite Storage Tank

ELECTROLYSIS AREA

0021 Weak Brine Tank
0022 Catholyte Tank
0023 Hydrogen Seal Tank

CAUSTIC HANDLING AREA

0031 Intermediate Caustic Storage Tank
0032 Caustic Head Tank
0034 Barometric Condenser
0035 Hotwell
0036 Pure Caustic Tank
0037 50% Caustic Storage Tank
0038 33% Caustic Dosing Tank

CHLORINE HANDLING AREA

0041 Chlorine Seal Tank
0042 Chlorine Storage Tanks
0043 Sulphuric Acid Head Tank
0044 Weak Sulphuric Acid Tank
0046 Chlorine Drum

SODIUM HYPOCHLORITE AREA

0051 Secondary Hypo Tower Tank
0052 Hypo Storage Tank
0053 Dilute Caustic Head Tank
0054 Hypo Batch Tank

HYDROCHLORIC ACID AREA

0062 Hydrogen Knock-out Pot
0064 HCl Storage Tank
0065 HCl Head Tank
0066 Desiccant Vessel

_ _ 67-5-XXXX/_ _ _ TANKAGE (cont.). . .

UTILITIES AREA

0071 Expansion Pot
0075 Pure Water Tank

EFFLUENT AREA

0081 Effluent Tanks

_ _ 67-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

__67-7-XXXX/___INSTRUMENTATION

As per Plants Designed Post May 1998

__67-8-XXXX/___EDP/COMMUNICATIONS

0001 Electronic Data Processing
1001 Telephone/PABX
2001 Security
3001 Video Systems

_ _ 67-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 10 - NO 1 SODIUM CYANIDE PLANT (XX68)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _ 68-0-XXXX/_ _ _ GENERAL

0001 Area Location

0002 Hazardous Area

0005 Rail Loading

_ _68-1-XXXX/_ _ _ PROCESS

0001 Flow Sheets

_ _68-2-XXXX/_ _ _ CIVIL

0001 Process Building

0002 Control Room & TA Building

0003 Maxitherm Incinerator Foundations

0004 Cooling Tower

0005 NaCN Storage, Loading & Piperacks

0006 Peter Brotherhood Turbine Foundation

0007 John Zink Incinerator Foundations

0012 Rail Loading

_ _68-3-XXXX/_ _ _ STRUCTURAL

0001 Process Building

0002 Control Room & TA Building

0004 Cooling Tower

0005 Piperacks

0006 Turbine Building

0009 Rail Loading

_ _68-4-XXXX/_ _ _ MECHANICAL (cont)…

0101 Debottling Pump

0106 Treatment Chemical Dosing Pump No. 0133 Cyanide Loading Pump No. 1

0136 Tank Farm Return Pump

0142 Tank Farm Primary Sump Pump

0143 Rail Loading

0144 Strainers S0611 A & B

0169 Turbine

0180 Peter Brotherhood Turbine

0200 John Zink Incinerator

0202 John Zink Incinerator Thermal Oxidiser

0204 John Zink Incinerator Waste Heat Boiler

0206 John Zink Incinerator Vent Stack

0208 John Zink Incinerator

0210 John Zink Incinerator Reoxidation Air Inlet Stack

0212 John Zink Incinerator Knock Out Drum

0214 John Zink Incinerator Economiser

0216 John Zink Incinerator High Burner

0218 John Zink Incinerator Liquid Waste Gun

0220 John Zink Incinerator Boiler Feed Water Pumps

0221 John Zink Incinerator Air Vents

_

68-4-XXXX/ _ _ MECHANICAL

0001	Reactors
0002	Air Filter
0004	Mixed Gas Filter
0007	Ammonia Separator
0010	Waste Gas Separator No. 1
0016	Waste Gas Separator No. 2
0043	Suction Blower No. 1
0049	Maxitherm Incinerator Combustion Air Fan
0052	Maxitherm Incinerator Boiler & Stack
0054	Maxitherm Incinerator Super Heater
0055	Maxitherm Incinerator Economiser
0057	Maxitherm Incinerator BFW Pump No. 1
0059	Air Compressor
0061	Instrument Air Dryer
0063	Air Pre-Heater
0065	Ammonia Vaporiser
0067	Glycol Heater
0069	Waste Gas By-Pass Cooler
0071	Waster Water Heater
0073	Turbine Oil Cooler
0075	Auxiliary Dump Steam Condenser
0079	Reactor BFW Pump No. 1
0085	Cyanide Circulation Pump No. 1
0097	Weak Cyanide Circulation Pump No. 1

_ _68-5-XXXX/_ _ _ TANKAGE

0001	Cyanide Storage Tanks
0004	Absorber Tower
0007	Steam Drum
0010	De-aerator
0013	Caustic Tank
0016	Weak Cyanide Circulation Tank
0019	Glycol Expansion Tank
0022	Waste Gas Separator Drain Pot
0024	Residence Towers
0025	Waste Water Buffer Tank
0028	Hydrogen Peroxide Tank
0031	Sulphuric Acid Tank
0034	Copper Sulphate Tank
0037	Plant Air Receiver
0043	Cooling Tower Dosing Tank
0046	Cyanide Storage Tanks 1 & 2
0047	Cyanide Storage Tank 3
0050	Waste Water Holding Tank 1 & 2
0053	Cyanide Dilution Tank
0059	Process Water Head Tank
0093	Dump Condenser
0100	Isotainers

_ _68-6-XXXX/_ _ _ PIPING

0001 Process Plant Layouts
0002 Tank Farm, Loading & Yard Piping Layouts
0003 TA House Piping Layout
0004 Maxitherm Incinerator Piping
0007 Steam Drum D-103
0008 Reactor Steam Drum V-1003
0010 Deaerator
0050 Line Schedules
0051 Tie-in Schedules
0100 Isometrics
9001 John Zink Incinerator Piping Layout

_ _68-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _68-8-XXXX/_ _ _ EDP/COMMUNICATIONS

0001 Electronic Data Processing
1001 Telephone/PABX
2001 Security
3001 Video Systems

_ _68-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 11 - LUMP DISSOLVER (XX69)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _69-0-XXXX/_ _ _ GENERAL

0006 Site Layout

_ _69-1-XXXX/_ _ _ PROCESS

0001 Flow Sheet

_ _69-2-XXXX/_ _ _ CIVIL

0005 General Arrangement

_ _69-3-XXXX/_ _ _ STRUCTURAL

0001 General Arrangement
0002 Access Platform & Stairs

_ _69-4-XXXX/_ _ _ MECHANICAL

0002 Vortex Mixer
0003 Warman Agitator
0004 Warman Agitator

_ _69-5-XXXX/_ _ _ TANKAGE

0001 T-001
0002 T-002, T-003 & T-004
0003 Bag Splitter

_ _69-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

_ _69-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _69-8-XXXX/_ _ _ EDP/COMMS

0001 Electronic Data Processing
1001 Telephone/PABX
2001 Security
3001 Video Systems

_ _69-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 12 - AMMONIA PRODUCTION CHEMICALS NORTH (XX71)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _71-0-XXXX/_ _ _ GENERAL

_ _71-1-XXXX/_ _ _ PROCESS

0001 Ammonia Distribution
0002 Ammonia Transfer System
0003 Transfer Pumps

_ _71-2-XXXX/_ _ _ CIVIL

0005 Ammonia Handling Area

_ _71-3-XXXX/_ _ _ STRUCTURAL

-0005 Ammonia Handling Area

_ _71-4-XXXX/_ _ _ MECHANICAL

0100 Portable Compressor
0101 Balckmer Pump
0102 Instrument Air Dryer
0103 Boiler Feedwater Pump
0104 No. 2 Liquefaction Plant

_ _71-5-XXXX/_ _ _ TANKAGE

0051 West Bullet
0052 East Bullet
0053 2T Ammonia Tank

_ _71-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

_ _71-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _71-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 13 - NITRIC ACID PLANT - CHEMICALS NORTH (XX72)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _72-5-XXXX/_ _ _ TANKAGE

0001 Nitric Acid Tank

APPENDIX 14 - CHEMICALS DESPATCH (XX85)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _85-0-XXXX/_ _ _ GENERAL

0001 Hydrochloric Acid Plant Layout
0002 Absorption Tower Layout

_ _85-1-XXXX/_ _ _ PROCESS

0002 Hydrochloric Acid Plant Absorption System

_ _85-2-XXXX/_ _ _ CIVIL

0001 Drainage
0002 Hydrochloric Acid Plant North
0003 Cooling Tower & Pump
0004 Hydrochloric Acid Plant Building

_ _85-3-XXXX/_ _ _ STRUCTURAL

0001 Hydrochloric Acid Plant Building
0002 Hydrochloric Acid Plant
0003 Acid Loadout Facility
0004 Furnace Stack
0005 Piperacks
0006 Tanker Filling

_ _85-4-XXXX/_ _ _ MECHANICAL

0001 Scrubber Fan
0002 Product Pump
0003 Cooling Tower Fan
0004 Sump Pump
0014 Exchanger

_ _85-5-XXXX/_ _ _ TANKAGE

0001 Sulphuric Acid Head Tank
0002 Sulphuric Acid Tank
0003 Weak Sulphuric Acid Tank
0004 Gas Cooler
0005 Gas Scrubber
0006 Absorber
0007 Tails Tower Scrubber
0008 Weak Acid Cooler

_ _85-5-XXXX/_ _ _ TANKAGE (cont). . .

0009 Hydrochloric Acid Tank
0010 Process Water Tank

_ _85-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

_ _85-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _85-8-XXXX/_ _ _ EDP/COMMS

0001 Electronic Data Processing
1001 Telephone/PABX
2001 Security
3001 Video Systems

_ _85-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 15 - ADMINISTRATION & SERVICE CENTRES (XX94)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

_ _94-0-XXXX/_ _ _ GENERAL

0001 Employee Relations
0014 Super Dressing & Despatch Service Centre
0020 Operations Building
0021 Weighbridge
0022 Laboratory Extensions
0023 Security Gatehouse/Emergency Control

_ _94-1-XXXX/_ _ _ PROCESS

_ _94-2-XXXX/_ _ _ CIVIL

0002 Workshop & Stores
0009 Emergency Response Centre
0012 Phosphates Area
0015 Trace Elements Storage Shed

_ _94-3-XXXX/_ _ _ STRUCTURAL

0001 Administration Building
0002 Canteen & Change Rooms
0003 Purchasing Office
0004 Workshop & Stores
0006 Customer Service Centre
0007 Compounds Building
0008 AN Building
0009 Emergency Response Centre
0010 Store Building Fittings
0011 Stores Building Contracts Dept
0012 Phosphates Office
0015 Trace Elements Storage Shed

_ _94-4-XXXX/_ _ _ MECHANICAL

0001 Administration & Lab Air-conditioning & Exhausts
0002 Lab Equipment
0003 Held - Capital Engineering

_ _94-5-XXXX/_ _ _ TANKAGE

_ _94-6-XXXX/_ _ _ PIPING

As per Plants Designed Post May 1998

_ _94-7-XXXX/_ _ _ INSTRUMENTATION

As per Plants Designed Post May 1998

_ _94-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 16 - MERREDIN FERTILISER DEPOT (2100)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

2100-0-XXXX/_ _ _ GENERAL

0001 Plant Map
0002 Perspective

2100-2-XXXX/_ _ _ CIVIL

0001 Bulk Bin
0002 Bulk Loading
0003 Surveys
0004 Roads
0005 Drains
0006 Railways

2100-3-XXXX/_ _ _ STRUCTURAL

0001 Bulk Bin
0002 Bulk Loading Plant
0003 Staff House
0030 Bag Bin

2100-4-XXXX/_ _ _ MECHANICAL

0001 Recovery Hopper
0002 Receivals Conveyor
0003 Elevator
0004 Transfer Hopper
0005 10T Surge Bin
0006 Shuttle Conveyor
0007 Shuttle Cross Conveyor
0008 Vibrating Screen
0009 Beater
0010 Gantry Conveyor
0011 Hopper
0012 Despatch Shuttle Conveyor
0013 Weighbridge
0014 Bulk Super Despatch Conveyor
015 No. 2 Bulk Conveyor

2100-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 17 - WAGIN FERTILISER DEPOT (2200)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

2200-0-XXXX/_ _ _ GENERAL

0001 Plant Map
0002 Dressing Plant

2200-1-XXXX/_ _ _ CIVIL

0001 Surveys
0002 Roads & Drains
0004 Railways
0005 Bin Footings
0006 Precast Concrete Panel/Retaining Wall

2200-2-XXXX/_ _ _ STRUCTURAL

0001 Building / Bin / Dressing Plant
0002 Staff House

2200-4-XXXX/_ _ _ MECHANICAL

0001 Bulk Receivals Conveyor
0002 No. 1 Elevator
0003 Shuttle Conveyor
0004 Beater
0005 Vibrating Screen
0006 Cross Feed Conveyor
0007 No. 2 Elevator
0008 Main Conveyor
0009 Hopper
0010 Bulk Shuttle Conveyor
0011 Truck Loading Conveyor

2200-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1

APPENDIX 18 - DALWALLINU FERTILISER DEPOT (2300)

(REFERENCE ONLY – PLANTS PRE MAY 1998)

2300-0-XXXX/_ _ _ GENERAL

0001 Plant Map
0002 Services

2300-2-XXXX/_ _ _ CIVIL

0001 Surveys
0002 Roads

2300-3-XXXX/_ _ _ STRUCTURAL

0001 Super Shed
0002 Stock Yards

2300-4-XXXX/_ _ _ MECHANICAL

0001 20T Crane
0002 Fire Water Pump
0003 Weighbridge

2300-9-XXXX/_ _ _ ELECTRICAL

As per Plants Designed Post May 1998 and Appendix 1