

KKS NUMBER	TAG NO.	EC-05PUS02/03/04	HT-TX-05PUS02/03/04	T-05PUS02/03/04	K-00PUS08/09/10/11/12/13	T-00PUS05/06/07
	SERVICE	ELECTROCHLORINATOR	TRANSFORMER RECTIFIER	H2 HYDROCYCLONE SEPARATOR	AIR BLOWER	H2 RELEASE TANK
	CAPACITY	45KG/HR/UNIT@1500PPM	1500A DC/200V DC	255L	2500M/HR@1500Pa	420L
	DESIGN PRESSURE	5.0BARG	N/A	5.0BARG	1500Pa	FULL LIQUID
	POWER	1155A DC/148V DC	380V AC/3PHASE/50HZ/360KVA	N/A	380V AC/3PHASE/50HZ/7.5KW	N/A
	MATERIAL	TITANIUM PLATE	MS WITH EPOXY COATED	GRP	HDPE/PP	GRE

DETAIL OF FLOOR PENETRATION			
FLOOR SERIES NUMBER	PENETRATION NUMBER	APPLICATION	DEMENSION
1	FLOOR PENETRATION 1	FOR INCOMING POWER CABLE FROM 1ST FLOOR	800 x 400 (L x W)
2	FLOOR PENETRATION 2	FOR INCOMING SEAWATER SUPPLY PIPING FROM 1ST FLOOR	ø160
3	FLOOR PENETRATION 3	FOR SEAWATER SUPPLY ACID CLEANING SKID FROM 2ND FLOOR	ø80
4	FLOOR PENETRATION 4	FOR 5% HCL RETURN TO ACID CLEANING TANK AT 1ST FLOOR	ø80
5	FLOOR PENETRATION 5	FOR COMMON UNIT DRAIN 1 TO 1ST FLOOR	ø80
6	FLOOR PENETRATION 6	FOR 5% HCL SUPPLY TO ELECTROCHLORINATOR	ø80
7	FLOOR PENETRATION 7	FOR COMMON UNIT DRAIN 2 TO 1ST FLOOR	ø80
8	FLOOR PENETRATION 8	FOR COMMON UNIT DRAIN 3 TO 1ST FLOOR	ø80
9	FLOOR PENETRATION 9	FOR POWER AND INSTRUMENTS CABLE TO 1ST FLOOR	ø200

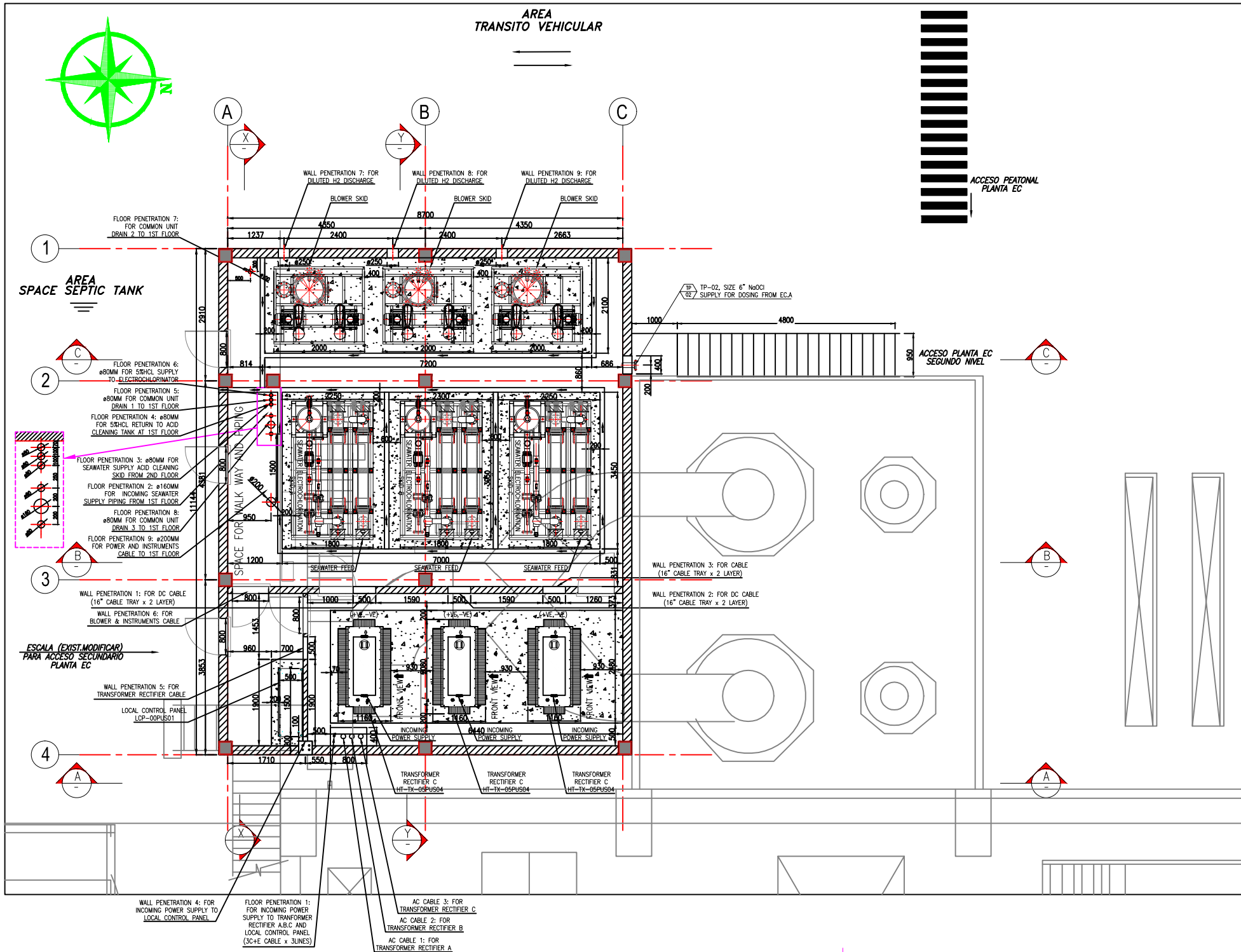
DETAIL OF WALL PENETRATION				
WALL SERIES NUMBER	PENETRATION NUMBER	APPLICATION	DEMENSION	ELEVATION LEVEL FLOOR
1	WALL PENETRATION 1	FOR DC CABLE (16" CABLE TRAY x 2 LAYER)	500 x 350 (L x H)	3800
2	WALL PENETRATION 2	FOR DC CABLE (16" CABLE TRAY x 2 LAYER)	500 x 350 (L x H)	3800
3	WALL PENETRATION 3	FOR DC CABLE (16" CABLE TRAY x 2 LAYER)	500 x 350 (L x H)	3800
4	WALL PENETRATION 4	FOR INCOMING POWER SUPPLY TO LOCAL CONTROL PANEL	ø100	250
5	WALL PENETRATION 5	FOR CONTROL SIGNAL BALORE BETWEEN TRANSFORMER RECTIFIER & LCP	500 x 250 (L x H)	2500
6	WALL PENETRATION 6	FOR BLOWER & INSTRUMENTS CABLE	800 x 400 (L x H)	2900
7	WALL PENETRATION 7	FOR DILUTED H2 DISCHARGE	ø250	5000
8	WALL PENETRATION 8	FOR DILUTED H2 DISCHARGE	ø250	5000
9	WALL PENETRATION 9	FOR DILUTED H2 DISCHARGE	ø250	5000

ITEM	TIE-IN	APPLICATION	SIZE	MATERIAL	STANDARD	TYPE OF JOINT	LOCATION
1	TP-01	INCOMING SEAWATER SUPPLY	4"	SDSS	ANSI#150	FLANGED TYPE	WITHIN EC PLANT
2	TP-02	NaOCl SUPPLY TO INJECTION PIONT	6"	UPVC	ANSI#150	FLANGED TYPE	WITHIN EC PLANT
3	TP-03	COMMON UNIT DRAIN 1	2"	UPVC	ANSI#150	FLANGED TYPE	WITHIN EC PLANT
4	TP-04	FRESH WATER SUPPLY	1"	UPVC	ANSI#150	FLANGED TYPE	WITHIN EC PLANT
5	TP-05	WASTE WATER DISCHARGE	2.5"	UPVC	ANSI#150	FLANGED TYPE	WITHIN EC PLANT
6	TP-06	COMMON UNIT DRAIN 2	1.5"	UPVC	ANSI#150	FLANGED TYPE	WITHIN EC PLANT
7	TP-07	COMMON UNIT DRAIN 3	2"	UPVC	ANSI#150	FLANGED TYPE	WITHIN EC PLANT

GENERAL INTRODUCTION

- A. ELYSISPURE SERIES SK-H-PTET-S1080 ELECTRO-CHLORINATION SYSTEM PRODUCED SODIUM HYPOCHLORITE FROM SEAWATER AT 45KG/HR x 3UNITS.
- B. ELECTROCHLORINATION ROOM AND AIR BLOWER ROOM BASED ON ZONE HAZARDOUS AREA APPLICATION(MOTOR & INSTRUMENTS ATEX CERTIFIED)
- C. DC SOFT BUSBAR CONNECTED FROM TRANSFORMER RECTIFIER ROOM TO EC ROOM SHALL BE SEALED IN THE WALL AFTER INSTALLATION.
- D. CABLE CONNECTED FROM LOCAL CONTROL PANEL ROOM TO EC ROOM SHALL BE SEALED IN THE WALL AFTER INSTALLATION.
- E. GENERAL INFORMATION OF SKID
1. BLOWER SKID:
DIMENSION: 2000 x 1700 x 1600 (L x W x H)
WEIGHT: 322KG EMPTY/422KG OPERATING
COLOUR CODE: RAL7032
2. SEAWATER ELECTROCHLORINATOR SKID:
DIMENSION: 3050 x 1800 x 2400 (L x W x H)
WEIGHT: 1800KG EMPTY/2200KG OPERATING(INCLUDE HYDROCYCLONE H2 SEPARATOR)
COLOUR CODE: SKID RAL 7032/EC CODE RAL1003
3. OIL COOLED TRANSFORMER RECTIFIER:
DIMENSION: 2080 x 1160 x 2040 (L x W x H)
WEIGHT: 2200KG
COLOUR CODE: RAL 7032
4. LOCAL CONTROL PANEL:
DIMENSION: 1500 x 500 x 2200 (L x W x H)
WEIGHT: 350KG
COLOUR CODE: RAL 7032
- F. POWER SUPPLY:
1. TRANSFORMER RECTIFIER 1: 380V AC/3PHASE/50HZ/360KVA (3C+E)
2. TRANSFORMER RECTIFIER 2: 380V AC/3PHASE/50HZ/360KVA (3C+E)
3. TRANSFORMER RECTIFIER 3: 380V AC/3PHASE/50HZ/360KVA (3C+E)
4. LOCAL CONTROL PANEL : 380V AC/3PHASE/50HZ/50KVA (3C+N+E)
- G. INCOMING SUPPLY:
1. INCOMING SEAWATER SUPPLY: 68M³/HR
2. FRESH WATER SUPPLY: N/A
3. INSTRUMENTS AIR SUPPLY: 5M³/HR
4. 32% HCL SUPPLY: 1020L/YEAR(50L/Cleaning x 12 Cleaning /year)
5. 50% NaOH SUPPLY: 600L/YEAR(50L/Cleaning x 12 Cleaning /year)

2nd LEVEL



CLIENT:

AES Gener

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LOG	DATE	IN	COMM NO	APPROVED	APPROVED AS NOTED	NOT APPROVED	INFORMATION	APPROVAL DOES NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERROR OR DEVIATIONS FROM CONTRACT REQUIREMENTS	BY	DATE	OUT	COMM NO	CIVIL	MECH	ELECT	I & C	SUPPORT	CONTRACTOR	RECORD	WORKING DOCUMENT

EC SYSTEM SUPPLIER:

KALF

KALF ENGINEERING PTE LTD
10, Science Park Road, #03-03, The Alpha
Singapore Science Park II, Singapore 117684
Tel: (+65) 6449 1677 Fax: (+65) 6778 1160

PROJECT TITLE:

Electrochlorination Plant Norgener For Nueva Tocopilla Power Plant ,Tocopilla,Chile.

DRAWING TITLE:

General Arrangement Drawing

SCALE											
G	REVIEW	ELECTROCHLORINATION SYSTEM	02-08-17	MOHD	WOLFGANG	TAN	JOHN				
F	REVIEW	ELECTROCHLORINATION SYSTEM	25-07-17	MOHD	WOLFGANG	TAN	JOHN				
E	REVIEW	ELECTROCHLORINATION SYSTEM	11-11-16	MOHD	WOLFGANG	TAN	JOHN				
D	REVIEW	ELECTROCHLORINATION SYSTEM	27-09-16	MOHD	WOLFGANG	TAN	JOHN				
C	REVIEW	ELECTROCHLORINATION SYSTEM	04-08-16	MOHD	WOLFGANG	TAN	JOHN				
B	REVIEW	ELECTROCHLORINATION SYSTEM	03-08-16	MOHD	WOLFGANG	TAN	JOHN				
A	REVIEW	ELECTROCHLORINATION SYSTEM	27-07-16	MOHD	WOLFGANG	TAN	JOHN				
REV	STATUS	DESIGN & SUPPLY		DATE	DESIGN	CHECK	REVIEW	APPR			

KALF REF. NO. : SKFEC-S0060815

CONSULTANT:

				REV		SIZE	
APPROVED BY		CHECKED BY		TITLE:			
REVIEWED BY		DESIGNED BY					
DATE		SCALE		DWG No. :			SHEET 2 OF