

P & I Design Ltd. – Report Register

CLIENT: Inter Terminals Immingham East Terminal	ISSUE A	DATE 16.01.17	BY MM	CHKD DBF	APPD MM	CLIENT REF. 4 East GOMC Batching P & I REF. 16062REG001 SHT 1 OF 1
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<u>DOCUMENT NO.</u>	<u>REVISION</u>	<u>DESCRIPTION</u>
16062RPT001	C	User Requirement Specification
16062RPT004	A	Microload Operating Instructions
16062RPT006	A	Meter Adjustment Instructions
16062INS001	B	Installation Scope of Work

P & I Design Ltd

Specification Register

CLIENT:
Inter Terminals
Immingham East Terminal

ISSUE **DATE** **BY** **CHKD** **APPD**
A 16.01.17 MM DBF MM

CLIENT REF
4 East GOMC Batching
P & I REF.
16062REG002
SHT 1 OF 2

DOCUMENT NO.	REVISION	MANUFACTURER	TAG No.	ITEM
16062SPC001	A	Endress & Hauser	LSL4-66	Pump Dry Run Level Switch
16062SPC001	A	Endress & Hauser	LSL4-67	Pump Dry Run Level Switch
16062SPC002	A	Pyropress	TSH4-66	Pump Temperature Switch
16062SPC002	A	Pyropress	TSH4-67	Pump Temperature Switch
16062SPC003	B	Endress & Hauser	FT1	Mass Flowmeter (GOMC)
16062SPC003	B	Endress & Hauser	FT2	Mass Flowmeter (GOMC)
16062SPC003	B	Endress & Hauser	FT3	Mass Flowmeter (GOMC)
16062SPC003	B	Endress & Hauser	FT4	Mass Flowmeter (GOMC)
16062SPC003	B	Endress & Hauser	FT5	Mass Flowmeter (GOMC)
16062SPC003	B	Endress & Hauser	FT6	Mass Flowmeter (GOMC)
16062SPC004	A	Endress & Hauser	FQ1	Batcher (GOMC)
16062SPC004	A	Endress & Hauser	FQ2	Batcher (GOMC)
16062SPC004	A	Endress & Hauser	FQ3	Batcher (GOMC)
16062SPC004	A	Endress & Hauser	FQ4	Batcher (GOMC)
16062SPC004	A	Endress & Hauser	FQ5	Batcher (GOMC)
16062SPC004	A	Endress & Hauser	FQ6	Batcher (GOMC)
16062SPC005	A	Dafram	XV1	Batching Valve (GOMC)
16062SPC005	A	Dafram	XV2	Batching Valve (GOMC)
16062SPC005	A	Dafram	XV3	Batching Valve (GOMC)
16062SPC005	A	Dafram	XV4	Batching Valve (GOMC)
16062SPC005	A	Dafram	XV5	Batching Valve (GOMC)
16062SPC005	A	Dafram	XV6	Batching Valve (GOMC)
16062SPC006	A	ASCO	XSV1	Batching Solenoid Valve (GOMC)
16062SPC006	A	ASCO	XSV2	Batching Solenoid Valve (GOMC)
16062SPC006	A	ASCO	XSV3	Batching Solenoid Valve (GOMC)
16062SPC006	A	ASCO	XSV4	Batching Solenoid Valve (GOMC)
16062SPC006	A	ASCO	XSV5	Batching Solenoid Valve (GOMC)
16062SPC006	A	ASCO	XSV6	Batching Solenoid Valve (GOMC)

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Inter Terminals
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4 East GOMC Batching

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DOCUMENT NO.	REVISION	MANUFACTURER	TAG No.	ITEM
16062SPC007	C	Weidmuller	JB4/210	Pump Control Junction Box
16062SPC007	C	Weidmuller	JB4/211	Pump Control Junction Box
16062SPC008	B	Weidmuller	JB4/212	Loading Point 1 AC Junction Box
16062SPC008	B	Weidmuller	JB4/213	Loading Point 2 AC Junction Box
16062SPC008	B	Weidmuller	JB4/214	Loading Point 3 AC Junction Box
16062SPC008	B	Weidmuller	JB4/215	Loading Point 4 AC Junction Box
16062SPC008	B	Weidmuller	JB4/216	Loading Point 5 AC Junction Box
16062SPC008	B	Weidmuller	JB4/217	Loading Point 6 AC Junction Box
16062SPC009	B	Weidmuller	JB4/218	Comms Junction Box 1
16062SPC009	B	Weidmuller	JB4/219	Comms Junction Box 2
16062SPC010	A	CEAG	-	Batcher AC Isolator

P & I Design Ltd. – Drawing Register

CLIENT: Inter Terminals Immingham East Terminal	ISSUE A	DATE 16.01.17	BY MM	CHKD DBF	APPD MM	CLIENT REF. 4 East GOMC Batching P & I REF. 16062REG003 SHT 1 OF 1
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<u>DOCUMENT NO.</u>	<u>REVISION</u>	<u>DESCRIPTION</u>
16062DWG001	E	Cable Overview
16062DWG003	E	GOMC General Arrangement
16062DWG005	B	GOMC DC Junction Box Connection Details
16062DWG006	B	GOMC Loading Point FQ01 Connection Details
16062DWG007	B	GOMC Loading Point FQ02 Connection Details
16062DWG008	B	GOMC Loading Point FQ03 Connection Details
16062DWG009	B	GOMC Loading Point FQ04 Connection Details
16062DWG010	B	GOMC Loading Point FQ05 Connection Details
16062DWG011	B	GOMC Loading Point FQ06 Connection Details
16062DWG016	A	P4-66 Pump Starter Drawing
16062DWG017	A	P4-67 Pump Starter Drawing
16062DWG018	A	Printer Enclosure Wiring Drawing
16062SCH002	D	Cable Schedule
16062SCH003	B	JB4/210 Connection Schedule
16062SCH004	B	JB4/211 Connection Schedule

CLIENT:	REV	DATE	BY	CHKD	APPD	CLIENT REF.
Immingham Storage Co Ltd ISCo East Terminal	A	15.4.99	AJH	DRR	DRR	4 East Rail Loading
	B	06.07.99	AJH	DRR	DRR	P & I REF.
	C	06.12.11	DS	MM	MM	SI039001_RGD
	D	24.01.17	MM	PP	MM	SHT 1 OF 1

DRAWING NO	REVISION					DESCRIPTION
	ISSUE 0	A	B	C	D	
Drawings						
SI039001_DWG	B	C	E	F		4 East Rail Loading System Cable Overview
SI039002_DWG	A	C	E	F		4 East Rail Loading System Logic Drawing 1 (001 to 120)
SI039003_DWG	A	B	C			4 East Rail Loading System Logic Drawing 2 (121 to 240)
SI039004_DWG	A	B	C			4 East Rail Loading System Logic Drawing 3 (241 to 360)
SI039005_DWG	A	B	C			4 East Rail Loading System Logic Drawing 4 (361 to 480)
SI039006_DWG	A	B	C			4 East Rail Loading System Logic Drawing 5 (481 to 600)
SI039007_DWG	A	B	D			4 East Rail Loading System Logic Drawing 6 (601 to 720)
SI039008_DWG	A	B	D			4 East Rail Loading System Logic Drawing 7 (721 to 840)
SI039009_DWG	B	C				4E Rail Loading Offloading Pump 1 MCC Wiring
SI039012_DWG	B	C	E	F		4E Rail Loading MUX 1 & 2 Panel Loop Sheet
SI039013_DWG	B	C	E	F		4E Rail Loading MUX 3 & 4 Panel Loop Sheet
SI039014_DWG	A	B	D	E		4E Rail Loading Danload to PC Comms Diagram
SI039015_DWG	A	B				4E Rail Loading Mercury Keypad Comms Diagram
SI039016_DWG	B	C	E			4E Rail Loading Control Panel Layout
SI039017_DWG	A					Pump Local JB Terminal Arrangement
SI039018_DWG	A					DC Junction Box Layout
SI039019_DWG	A					AC Junction Box Layout
SI039020_DWG	C		D			Operators Control Panel Layout
SI039022_DWG				B		4 East Rail Loading System Logic Drawing 8 (841 to 960)
SI478006_DWG		H	I			P2-25 Pump MCC Diagram
SI760001_DWG		C	E			4E Rail Loading System – P2-25 JB Interconnection Details
SI760002_DWG		B				4E Rail Loading System – P5-12 JB Interconnection Details
SI760005_DWG	A	B				4E Rail Loading System – Tank 601, 602 & 603 Valve Loop Sheet
Schedules						
SI039100_SCH	B	C	E			4 East Rail Loading Cable Schedule
SI760001_SCH		A				4E Rail Loading Cable Schedule
SI760002_SCH		A				600 Series ROSOVs Cable Schedule
SI760100_SCH		B				4E Rail Loading trip Matrix

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CLIENT:
 Immingham Storgae Co Ltd
 ISCo East Terminal

Instrument Specification Register

ISSUE	DATE	BY	CHKD	APPD	CLIENT REF.
A	09.04.99	AJH	DRR	DRR	4 East Rail Loading
B	25.04.11	DBF	MM	MM	P & I REF. SI039000_SPC SHT 1 OF 2

P&I REF.	REVISION					SUPPLIER	TAG No.	ITEM
	ISSUE 0	A	B	C	D			
SI039001_SPC		B				CEAG	N/A	Isolators
SI039002_SPC		A				Allen West	N/A	Loading Pump Stop/Start
SI039004_SPC		B				CEAG	N/A	Control Panel
SI039005_SPC		A				Allen West	N/A	ESD
SI039006_SPC		A				RS	N/A	Alarm Sounder
SI039007_SPC		A				J Hemy Systems	N/A	Junction Box
SI039008_SPC		A				J Hemy Systems	N/A	Junction Box
SI039009_SPC		A				RGS	XSV1	Actuator
SI039009_SPC		A				RGS	XSV2	Actuator
SI039009_SPC		A				RGS	XSV3	Actuator
SI039009_SPC		A				RGS	XSV4	Actuator
SI039009_SPC		A				RGS	XSV5	Actuator
SI039009_SPC		A				RGS	XSV6	Actuator
SI039009_SPC		A				RGS	XSV7	Actuator
SI039009_SPC		A				RGS	XSV8	Actuator
SI039009_SPC		A				RGS	XSV9	Actuator
SI039009_SPC		A				RGS	XSV10	Actuator
SI039009_SPC		A				RGS	XSV11	Actuator
SI039009_SPC		A				RGS	XSV12	Actuator
SI039010_SPC		A				Bartec	N/A	MUX Panel Heater
SI039011_SPC		A				Coutant Lambda	N/A	Power Supply
SI039012_SPC		A				MTL	N/A	MUX
SI039013_SPC		A				Mitsubishi	N/A	Main Processor
SI039014_SPC		B				CEAG	N/A	Isolator
SI039015_SPC		A				Armah	N/A	Control Panel
SI039016_SPC		A				Armah	N/A	Control Panel
SI039017_SPC		A				J Hemy Systems	N/A	Enclosure
SI760001_SPC		A				Endress & Hauser		LS2-25 P5-25 Low Suction Level Switch
SI760002_SPC		B				RGS	XSV1	Gantry North Siding Loading Point 1 Solenoid

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Instrument Specification Register

CLIENT:

Immingham Storgae Co Ltd
ISCo East Terminal

ISSUE	DATE	BY	CHKD	APPD	CLIENT REF.
A	09.04.99	AJH	DRR	DRR	4 East Rail Loading
B	25.04.11	DBF	MM	MM	P & I REF. SI039000_SPC SHT 2 OF 2

P&I REF.	REVISION					SUPPLIER	TAG No.	ITEM
	ISSUE 0	A	B	C	D			
SI760002_SPC			B			RGS	XSV2	Gantry North Siding Loading Point 2 Solenoid
SI760002_SPC			B			RGS	XSV3	Gantry North Siding Loading Point 3 Solenoid
SI760002_SPC			B			RGS	XSV4	Gantry North Siding Loading Point 4 Solenoid
SI760002_SPC			B			RGS	XSV5	Gantry North Siding Loading Point 5 Solenoid
SI760002_SPC			B			RGS	XSV6	Gantry North Siding Loading Point 6 Solenoid
SI760002_SPC			B			RGS	XSV7	Gantry South Siding Loading Point 7 Solenoid
SI760002_SPC			B			RGS	XSV8	Gantry South Siding Loading Point 8 Solenoid
SI760002_SPC			B			RGS	XSV9	Gantry South Siding Loading Point 9 Solenoid
SI760002_SPC			B			RGS	XSV10	Gantry South Siding Loading Point 10 Solenoid
SI760002_SPC			B			RGS	XSV11	Gantry South Siding Loading Point 11 Solenoid
SI760002_SPC			B			RGS	XSV12	Gantry South Siding Loading Point 12 Solenoid
SI760002_SPC			B			RGS	XSVESD	Gantry ESD Solenoid

CLIENT:

Immingham Storage Co Ltd
ISCo East Terminal

ISSUE	DATE	BY	CHKD	APPD	CLIENT REF.
A	09.04.99	AJH	DRR	DRR	4 East Rail Loading
B	06.07.99	AJH	DRR	DRR	P & I REF.
C	26.04.11	DBF	MM	MM	SI039001_REG SHT 1 OF 1

REPORT NO	REVISION					DATE	DESCRIPTION
	ISSUE	0	A	B	C		
SI760001_RPT				B		08.09.10	4 East Rail Loading Modifications User Requirement Specification
SI760001_INS				A		30.09.10	4 East Rail Loading Modifications Installation Specification
SI760002_INS				A		02.12.10	600 Series ROSOVs Installation Specification

CLIENT:
Immingham Storage Co Ltd
ISCo East Terminal

REV	DATE	BY	CHKD	APPD	CLIENT REF.
A	24.12.10	DBF	MM	MM	4 East Rail Loading

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SI039002_REG
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<u>Cert No.</u>	<u>Tag. No.</u>	<u>Instrument Type</u>	<u>Service</u>
LS2-25-0	LS2-25	Dry Run Protection	Pump P2-25 Protection

CLIENT:
Inter Terminals Immingham Ltd
East Terminal

REV	DATE	BY	CHKD	APPD
A	12.06.14	DS	MM	MM
B	12.05.15	DS	MM	MM
C	15.07.16	DS	MM	MM

CLIENT REF.
Site Services
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SI353001_REG
SHT 1 OF 1

DRAWING NO	REVISION					DESCRIPTION
	ISSUE 0	A	B	C	D	
SI353001_DWG		B	C			Logic Panel Internal Layout
SI353002_DWG		B	D			Logic Panel Wiring Details
SI353003_DWG			A			Logic Drawing 1
SI353004_DWG			A	B		Logic Drawing 3
SI394005_DWG				D		Boiler Feed Water Low Pressure Loop Sheet
SI353002_SCH		B				PLC Control System Alarms Schedule

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Report Register

CLIENT:
Inter Terminals Immingham Ltd
East Terminal

REV	DATE	BY	CHKD	APPD
A	12.06.14	DS	MM	MM
B	20.10.15	DS	MM	MM
C	15.07.16	DS	MM	MM

CLIENT REF.
Site Services
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SI353002_REG
SHT 1 OF 1

REPORT NO	REVISION					DATE	DESCRIPTION
	ISSUE	0	A	B	C		
SI353001_RPT		A				30.09.13	Functional Specification
SI353002_RPT		A				09.12.13	Site Acceptance Test (CC 02.06.14)
SI353001_SCH		A	D	E		19.04.16	A680 I/O Schedule

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SI353003_REG
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P&I REF.	ISSUE 0	REVISION A B C D E	SUPPLIER	TAG No.	ITEM
SI394001_SPC		A	Endress & Hauser	PT-004	Pressure Transmitter

CLIENT:
Inter Terminals Immingham Ltd
East Terminal

REV	DATE	BY	CHKD	APPD
A	14.07.15	DS	MM	MM

CLIENT REF.

P & I REF.
SI494001_REG
SHT 1 OF 1

REPORT NO	REVISION	DATE	DESCRIPTION
ISSUE	0 A B C D E		
SI494001_INS	B	19.06.15	Scope of Work

CLIENT:
Inter Terminals Immingham Ltd
East Terminal

REV	DATE	BY	CHKD	APPD
A	14.07.15	DS	MM	MM

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SI494002_REG
SHT 1 OF 1

DRAWING NO	REVISION						DESCRIPTION
	ISSUE	0	A	B	C	D	
EA657A					D		GA No.4 Switchroom LV Switchboard Sheet 1/4
EA657A					C		GA No.4 Switchroom LV Switchboard Sheet 2/4
EA657A					C		GA No.4 Switchroom LV Switchboard Sheet 3/4
EA657A					C		GA No.4 Switchroom LV Switchboard Sheet 4/4
SI494001_SCH					D		Cable Schedule

CLIENT:
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East Terminal

REV	DATE	BY	CHKD	APPD
A	14.07.15	DS	MM	MM

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SI494002_REG
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DRAWING NO	REVISION	DESCRIPTION
	ISSUE 0 A B C D E	

Note: A3 drawings are produced to A4, A1 drawings may be produced to A1 or A3

CLIENT:
Inter Terminals Immingham Ltd
East Terminal

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A	14.07.15	DS	MM	MM

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SI494003_REG
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CALC NO	REVISION					DESCRIPTION
	ISSUE 0	A	B	C	D	
SI494001_CAL			B			Cable Calculations & Protection Settings

CLIENT:
Inter Terminals Immingham Ltd
East Terminal

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A 14.03.17 DS DBF DBF

CLIENT REF.
IMMEAS-SIS1
P & I REF.
SI057001_REG
SHT 1 OF 1

DRAWING NO	REV	DESCRIPTION
SI483001_DWG	C	Schematic Overview
SI483005_DWG	D	External Layout
SI483006_DWG	D	Internal Layout
SI483007_DWG	D	Logic Drawing 1 : Power Distribution
SI483008_DWG	D	Logic Drawing 2 : ESD
SI483009_DWG	D	Logic Drawing 3 : Tank 561
SI483010_DWG	D	Logic Drawing 4 : Tank 564
SI483011_DWG	D	Logic Drawing 5 : Tank 568
SI483019_DWG	A	No.4 East SIS ESD Loop Sheet
SI483020_DWG	B	LE56101 – Tank 561 High High Level Loop Sheet
SI483021_DWG	B	XV56101 – Tank 561 Import / Export Valve Loop Sheet
SI483022_DWG	B	LE56401 – Tank 564 Import / High High Level Loop Sheet
SI483023_DWG	B	XV56401 – Tank 564 Import / Export Valve Loop Sheet
SI483024_DWG	B	LE56801 – Tank 568 High High Level Loop Sheet
SI483025_DWG	B	XV56801 – Tank 568 Import / Export Valve Loop Sheet
SI483010_SCH	B	IME-SIS1 Instrument Schedule
SI483001_SCH	E	No.4 Switchroom SIS Cable Overview
SI483003_SCH	A	No.4E 500 Series Tanks – Safety Functions Matrix
SI483004_SCH	B	JB4/197 Tank Level J/B Connection Schedule
SI483005_SCH	B	JB4/198 Tank Level J/B Connection Schedule
SI483006_SCH	B	JB4/199 Tank Valve J/B Connection Schedule
SI483007_SCH	B	JB4/200 Tank Valve J/B Connection Schedule
SI483012_SCH	A	IME-SIS1 Trip Matrix

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IMMEAS-SIS1
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SI057002_REG
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REPORT NO	REV	DESCRIPTION
SI277010_RPT	G	Safety Requirement Specification
SI277001_RPT	F	SIS Design
SI483005_RPT	A	Factory Acceptance Test Procedure
SI483017_RPT	A	Document Verification Procedure
SI483018_RPT	A	Shutdown Conditions Proof Testing Procedure
SI483019_RPT	A	Equipment Failure Proof Testing Procedure

P & I Design Ltd

Specification Register

CLIENT:
Inter Terminals Immingham Ltd
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SI057003_REG
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P&I REF.	REV	SUPPLIER	TAG No.	ITEM
SI277015_SPC	B	TBC	JB4/199	Tank Valve Junction Box
SI277016_SPC	B	TBC	JB4/200	Tank Valve Junction Box
SI277017_SPC	B	TBC	JB4/197	Tank Level Junction Box
SI277018_SPC	B	TBC	JB4/198	Tank Level Junction Box
SI483001_SPC	A	Endress & Hauser	LE56101	Tank 561 Independent High High Level Probe
SI483002_SPC	A	Endress & Hauser	LE56401	Tank 564 Independent High High Level Probe
SI483003_SPC	A	Endress & Hauser	LE56801	Tank 568 Independent High High Level Probe

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CLIENT REF.
IMMEAS-SIS1
P & I REF.
SI057004_REG
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CALC NO	REV	DESCRIPTION
SI483001_CAL	A	IS Calculation
SI483002_CAL	A	IS Calculation
SI483003_CAL	A	IS Calculation

CLIENT:

Inter Terminals Immingham Ltd
East Terminal

REV	DATE	BY	CHKD	APPD	CLIENT REF.
A	27.11.09	DS	MM	MM	Overfill Protection
B	02.12.11	DBF	MM	MM	P & I REF.
C	20.03.17	DS	DBF	DBF	SI208004_REG
					SHT 1 OF 1

DRAWING NO	REVISION	DESCRIPTION
SI208001_DWG	E	Arcton Site SIS Infrastructure & Tank T615 Cable Overview
SI208002_DWG	C	Arcton Site SIS Infrastructure & Tanks T616-T619 Cable Overview
SI208006_DWG	A	Bund R Tanks T601, T602 & T603 Cable Overview
SI208008_DWG	E	No.5 Switchroom – JB5/31 SIS Panel External Layout
SI208009_DWG	E	No.5 Switchroom – JB5/31 SIS Panel Internal Layout
SI208010_DWG	E	No.5 Switchroom – JB5/31 SIS Logic Drawing 1
SI208011_DWG	D	No.5 Switchroom – JB5/31 SIS Logic Drawing 2 (Tank 615)
SI208012_DWG	D	No.5 Switchroom – JB5/31 SIS Logic Drawing 3 (Tank 616)
SI208013_DWG	D	No.5 Switchroom – JB5/31 SIS Logic Drawing 4 (Tank 617)
SI208014_DWG	D	No.5 Switchroom – JB5/31 SIS Logic Drawing 5 (Tank 618)
SI208015_DWG	D	No.5 Switchroom – JB5/31 SIS Logic Drawing 6 (Tank 619)
SI208016_DWG	A	No.5 Switchroom – JB5/31 SIS Logic Drawing 7
SI208017_DWG	A	No.5 Switchroom – JB5/31 SIS Logic Drawing 8 (Tank 601)
SI208018_DWG	A	No.5 Switchroom – JB5/31 SIS Logic Drawing 9 (Tank 602)
SI208019_DWG	A	No.5 Switchroom – JB5/31 SIS Logic Drawing 10 (Tank 603)
SI208020_DWG	C	Tank 615 High High Level Loop Sheet
SI208021_DWG	B	Tank 615 Import Valve Loop Sheet
SI208022_DWG	B	Tank 615 Export Valve Loop Sheet
SI208023_DWG	C	Tank 616 High High Level Loop Sheet
SI208024_DWG	B	Tank 616 Import Valve Loop Sheet
SI208025_DWG	B	Tank 616 Export Valve Loop Sheet
SI208026_DWG	C	Tank 617 High High Level Loop Sheet
SI208027_DWG	B	Tank 617 Import Valve Loop Sheet
SI208028_DWG	B	Tank 617 Export Valve Loop Sheet
SI208029_DWG	C	Tank 618 High High Level Loop Sheet
SI208030_DWG	B	Tank 618 Import Valve Loop Sheet
SI208031_DWG	B	Tank 618 Export Valve Loop Sheet
SI208032_DWG	C	Tank 619 High High Level Loop Sheet
SI208033_DWG	B	Tank 619 Import Valve Loop Sheet
SI208034_DWG	B	Tank 619 Export Valve Loop Sheet
SI208060_DWG	A	LE60101 Tank 601 High High Level Loop Sheet
SI208061_DWG	A	XV60101 Tank 601 Import Valve Loop Sheet
SI208062_DWG	A	XV60102 Tank 601 Import / Export Valve Loop Sheet
SI208063_DWG	A	LE60201 Tank 602 High High Level Loop Sheet
SI208064_DWG	A	XV60201 Tank 602 Import Valve Loop Sheet
SI208065_DWG	A	XV60202 Tank 602 Import / Export Valve Loop Sheet
SI208066_DWG	A	LE60301 Tank 603 High High Level Loop Sheet
SI208067_DWG	A	XV60301 Tank 603 Import Valve Loop Sheet
SI208068_DWG	A	XV60302 Tank 603 Import / Export Valve Loop Sheet
SI208069_DWG	A	No2 East ESD SIS Logic Solver Loop Sheet
SI208001_SCH	E	SIS & ROSOV Cable Schedule
SI208032_SCH	A	IME-SIS2 Bund R Instrument Schedule
SI208033_SCH	A	IME-SIS2 Bund R Trip Matrix
SI208100_SCH	B	Arcton Tanks Trip Matrix

P & I Design Ltd

Instrument Specification Register

CLIENT:
Inter Terminals Immingham Ltd
East Terminal

ISSUE	DATE	BY	CHKD	APPD	CLIENT REF
A	10.06.09	DS	MM	MM	Overfill Protection
B	31.10.14	DBF	MM	MM	P & I REF.
C	20.03.17	DS	DBF	DBF	SI208006_REG

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P&I REF	REVISION	SUPPLIER	TAG No.	ITEM
SI208006_SPC	A	Endress & Hauser	LE615	Tank 615 High High Level
SI208006_SPC	A	Endress & Hauser	LE616	Tank 616 High High Level
SI208006_SPC	A	Endress & Hauser	LE617	Tank 617 High High Level
SI208006_SPC	A	Endress & Hauser	LE618	Tank 618 High High Level
SI208006_SPC	A	Endress & Hauser	LE619	Tank 619 High High Level
SI208009_SPC	A	J. Hemy	JB5/32	Tank High Level Switch Junction Box
SI208010_SPC	A	J. Hemy	JB5/33	SIS & ROSOV Valve Control Junction Box
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61501	SIS & ROSOV Solenoid Valve
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61502	SIS & ROSOV Solenoid Valve
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61601	SIS & ROSOV Solenoid Valve
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61602	SIS & ROSOV Solenoid Valve
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61701	SIS & ROSOV Solenoid Valve
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61702	SIS & ROSOV Solenoid Valve
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61801	SIS & ROSOV Solenoid Valve
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61802	SIS & ROSOV Solenoid Valve
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61901	SIS & ROSOV Solenoid Valve
SI003102_SPC	A	Seitz (Hima-Sella)	XSV61902	SIS & ROSOV Solenoid Valve
SI277002_SPC	D	Magnetrol	LSHH601	Tank 601 High High Level Switch
SI277006_SPC	C	Vanessa	XV60101	Tank 601Import/Export Valve
SI277006_SPC	C	Vanessa	XV60201	Tank 602Import/Export Valve
SI277006_SPC	C	Vanessa	XV60301	Tank 603Import/Export Valve
SI277007_SPC	A	Dafram	XV60102	Tank 601Import/Export Valve
SI277007_SPC	A	Dafram	XV60202	Tank 602Import/Export Valve
SI277007_SPC	A	Dafram	XV60302	Tank 603Import/Export Valve
SI277008_SPC	B	Magnetrol	LSHH602	Tank 602 High High Level Switch
SI277009_SPC	B	Magnetrol	LSHH603	Tank 603 High High Level Switch
SI277010_SPC	A	Pepperl & Fuchs	LS601	Tank 601 High High Level Isolated Switch Amplifier
SI277010_SPC	A	Pepperl & Fuchs	LS602	Tank 603 High High Level Isolated Switch Amplifier
SI277010_SPC	A	Pepperl & Fuchs	LS603	Tank 603 High High Level Isolated Switch Amplifier

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ISSUE	DATE	BY	CHKD	APPD	CLIENT REF
A	27.11.09	DS	MM	MM	Overfill Protection
B	20.03.17	DS	DBF	DBF	P & I REF SI208012_CAL SHT 1 OF 1

CALC. NO	REVISION	DATE	DESCRIPTION
SI208002_CAL	C	27.11.09	SIS Panel DC Power Consumption
SI208003_CAL	B	27.11.09	SIS Panel DC Power Consumption
SI208009_CAL	A	06.05.09	E&H Liquephant
SI208010_CAL	A	27.11.09	SIS Panel Power
SI277007_CAL	B	31.10.14	Magnetrol Level Switch

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REV	DATE	BY	CHKD	APPD
A	30.07.12	DBF	MM	MM
B	30.07.13	DBF	MM	MM

CLIENT REF.
P & I REF.
SI222001_REG
SHT 1 OF 1

REPORT NO	REVISION	DESCRIPTION
SI222001_RPT	B	Functional Specification
SI222003_RPT	A	FAT Procedure (CC 05.12.12)
SI222004_RPT	A	SAT Procedure (CC 25.01.13)
SI222001_INS	A	Installation Scope of Work
SI222002_INS	A	Changeover & Commissioning Scope of Work

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Specification Register

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ISSUE	DATE	BY	CHKD	APPD
A	30.07.12	DBF	MM	MM
B	30.07.13	DBF	MM	MM

CLIENT REF
P & I REF.
SI222002_REG
SHT 1 OF 1

P&I REF.	REVISION	SUPPLIER	TAG No.	ITEM
SI222001_SPC	A	Endress & Hauser	LE70301	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE70501	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE70701	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE70801	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE71001	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE71101	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE71201	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE71301	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE71401	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE71501	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE71701	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE72001	700 Series Tanks HiHi Level Probes
SI222001_SPC	C	Endress & Hauser	LE72201	700 Series Tanks HiHi Level Probes
SI222002_SPC	B	Endress & Hauser	LS70301	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS70501	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS70601	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS70701	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS70801	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS71001	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS71101	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS71201	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS71301	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS71401	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS71501	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS72001	High Level Panel Units
SI222002_SPC	B	Endress & Hauser	LS72201	High Level Panel Units
SI222005_SPC	B	Endress & Hauser	LS50001	High Level Panel Units
SI222005_SPC	B	Endress & Hauser	LS70001	High Level Panel Units

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REV	DATE	BY	CHKD	APPD	CLIENT REF.
A	30.07.12	DBF	MM	MM	
B	30.07.13	DBF	MM	MM	P & I REF.
C	13.05.15	DBF	MM	MM	SI222003_REG
D	16.03.17	DBF	DS	DS	SHT 1 OF 1

REPORT NO	REVISION	DESCRIPTION
SI222001_DWG	C	Tank High Level Switches Cable Overview
SI222003_DWG	E	Panel External Layout
SI222004_DWG	E	Panel Internal Layout
SI222005_DWG	F	Logic Drawing 1 (Power)
SI222006_DWG	D	Logic Drawing 2 (T703 & 705)
SI222007_DWG	E	Logic Drawing 3 (T706 & 707)
SI222008_DWG	E	Logic Drawing 4 (T708 & 709)
SI222009_DWG	E	Logic Drawing 5 (T710 & 711)
SI222010_DWG	D	Logic Drawing 6 (T712 & 713)
SI222011_DWG	D	Logic Drawing 7 (T714 & 715)
SI222012_DWG	D	Logic Drawing 8 (T716 & 717)
SI222013_DWG	D	Logic Drawing 9 (T718 & 720)
SI222014_DWG	D	Logic Drawing 10 (T722)
SI222002_SCH	C	700 Series Tanks HiHi Level Instrument Cable Schedule
SI222003_SCH	B	JB2/162 – 700 Series Level Switch Connection Schedule
SI222004_SCH	B	JB2/163 – 700 Series Level Switch Connection Schedule
SI222006_SCH	B	JB2/164 – 700 Series Level Switch Connection Schedule
SI222007_SCH	B	JB2/140 – 700 Series Level Switch Connection Schedule
SI222010_SCH	B	JB2/168 – 700 Series Tank Isolation Pushbutton Connection Schedule
SI222100_SCH	D	700 Series HiHi Level & ROSOV Tank Farm Trip Matrix

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ISSUE	DATE	BY	CHKD	APPD
A	30.07.13	DBF	MM	MM

CLIENT REF.

P & I REF.
SI222004_CAL
SHT 1 OF 1

REPORT NO	REVISION	DESCRIPTION
SI222003_CAL	A	Intrinsically Safe Descriptive System Doc

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Specification Register

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ISSUE	DATE	BY	CHKD	APPD
A	29.11.11	DBF	MM	MM

CLIENT REF

P & I REF.
SI241001_REG
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P&I REF	REVISION	SUPPLIER	TAG No.	ITEM
SI241002_SPC	B	Endress & Hauser	LS9-1	P9-1 Dry Run Probe

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REV	DATE	BY	CHKD	APPD
A	28.11.11	DBF	MM	MM
B	19.01.12	DBF	MM	MM
C	22.03.17	DS	DBF	DBF

CLIENT REF.

P & I REF.
SI241002_REG
SHT 1 OF 1

DRAWING NO	REVISION	DESCRIPTION
SI241001_DWG	E	Logic Drawing 1
SI241002_DWG	A	Logic Drawing 2
SI241101_DWG	A	XV68001 J52 ROSOV Valve Loop Sheet
SI241102_DWG	A	XV68002 J51 ROSOV Valve Loop Sheet
SI241104_DWG	A	XV90801 Tank 908 Valve Loop Sheet
SI241105_DWG	A	LS68001 Tank 680 High Level Loop Sheet
SI241106_DWG	B	LS68201 Tank 682 High Level Loop Sheet
SI241107_DWG	A	LS68301 Tank 683 High Level Loop Sheet
SI241108_DWG	A	LS68401 Tank 684 High Level Loop Sheet
SI241109_DWG	B	LS68601 Tank 686 High Level Loop Sheet
SI241110_DWG	A	LS90801 Tank 908 High Level Loop Sheet
SI241111_DWG	A	XV68201 J50 ROSOV Valve Loop Sheet
SI241001_SCH	C	Overfill Protection Cable Schedule
SI241100_SCH	B	3 East Heavy Fuel Oil Trip Matrix
SI241101_SCH	B	900 Series Tanks Trip Matrix
SI241102_SCH	A	PASCO Heavy Fuel Oil Tanks Trip Matrix

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REV	DATE	BY	CHKD	APPD
A	23.03.17	DBF	DS	DS

CLIENT REF.

P & I REF.
SI003002_REG
SHT 1 OF 1

DRAWING NO	REVISION	DESCRIPTION
SI003100_SCH	F	Overfill Protection Trip Matrix
SI003101_SCH	B	Overfill Protection Wet Testing Lifecycle Matrix
SI003111_HDR	A	No.1 Switchroom IHLA and ROSOV Testing Matrix
SI003112_HDR	A	No.2 Switchroom IHLA and ROSOV Testing Matrix
SI003113_HDR	A	No.3 Switchroom IHLA and ROSOV Testing Matrix
SI003114_HDR	A	No.4 Switchroom IHLA and ROSOV Testing Matrix
SI003115_HDR	A	No.5 Switchroom IHLA and ROSOV Testing Matrix
SI003116_HDR	A	No.6 Switchroom IHLA and ROSOV Testing Matrix