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IO	US	REVISION HISTORY		CUI//SP-EXPT
INDEX		DATE	DESIGNER	DESCRIPTION
1.0	1.0	18/05/2017	L. KONKEL	ISSUED FOR INFORMATION
2.0	2.0	22/08/2024	A. ARNOLD	REVISED FOR PDR
2.1	2.1	28/02/2025	S.JADHAV	Update of In-Vess and Ex-Vess layout for PDR design.

NOTES: Symbols Legend : *ITER_D_3ZSVRS - ITER Symbol Legend Specification for Fluid Diagrams : PFDs and P&IDs* (https://user.iter.org/?uid=3ZSVRS)

Key:
- Automatic Recirculation Valve
- Bellows W/ Double Containment
- Control Valve
- Diaphragm Actuator
- Electrical Heater
- Electrical Isolation Break
- Flange / Double Containment
- RF Tuning Stub
- Liquid Pump
- Mirror
- Motor
- Needle Valve
- Pneumatic Actuator (Normally Closed W/ Arrow Pointing Down)
- Relief Valve
- Shutter
- Solenoid Actuator
- 2 Way Valve
- 3 Way Valve

Key to codes:
ATC = Actuator for VC Regulating Valve
ATG = Actuator for VG General On/Off Valve
CMO = Motion Controller
DI = Diaphragm (apart for measurement) Flow restrictor/Nozzle
DIA = Diagnostic Assembly
EFT = Electrical feed through
EIB = Electrical isolation break for fluid
EP = Electro-pneumatic converter
FE = Fluid feed through
GM = Motor (General)
GS = Starter
HT = Electrical heater
HX = Heat Exchanger
JH = Flanged Connection
JO = Expansion joint or bellows
LEA = Lens assembly
MFS = (Measurement) Flow Switch
MI = Current Transducer, Electrical
MFE = (Measurement) Flow Element
MFT = (Measurement) Flow Transmitter
MP = (Measurement) Pressure Transmitter
MPE = (Measurement) Pressure Element
MPH = Pressure Switch (High Value)
MPS = Pressure Switch (Intermediate Valve)
MPT = (Measurement) Pressure Transmitter
MT = (Measurement) Temperature transmitter
MTD = (Measurement) Differential Temperature
MTE = (Measurement) Temperature Element, Typically thermocouple or RTD
MZE = (Measurement) Position Element
MZH = (Measurement) Position open limit switch
MZL = (Measurement) Position closed limit switch
PL = Pump, liquid
PSU = Power supply
SCI = Quadrant Detection Signal Processor
SHU = Shutter
SVS = Service Vacuum System
TA = Tank, Vessel, or Gas Cylinder
TMF = Fixed transmission Line mirror
TMM = Movable transmission line mirror)
VC = Valve, control
VG = Valve, general
VR = Discharging & Pressure Regulators
WA = Window assembly
WMM = Mirror Element
WS = Penetration

Interface limit: System scope | Other scope (supply)

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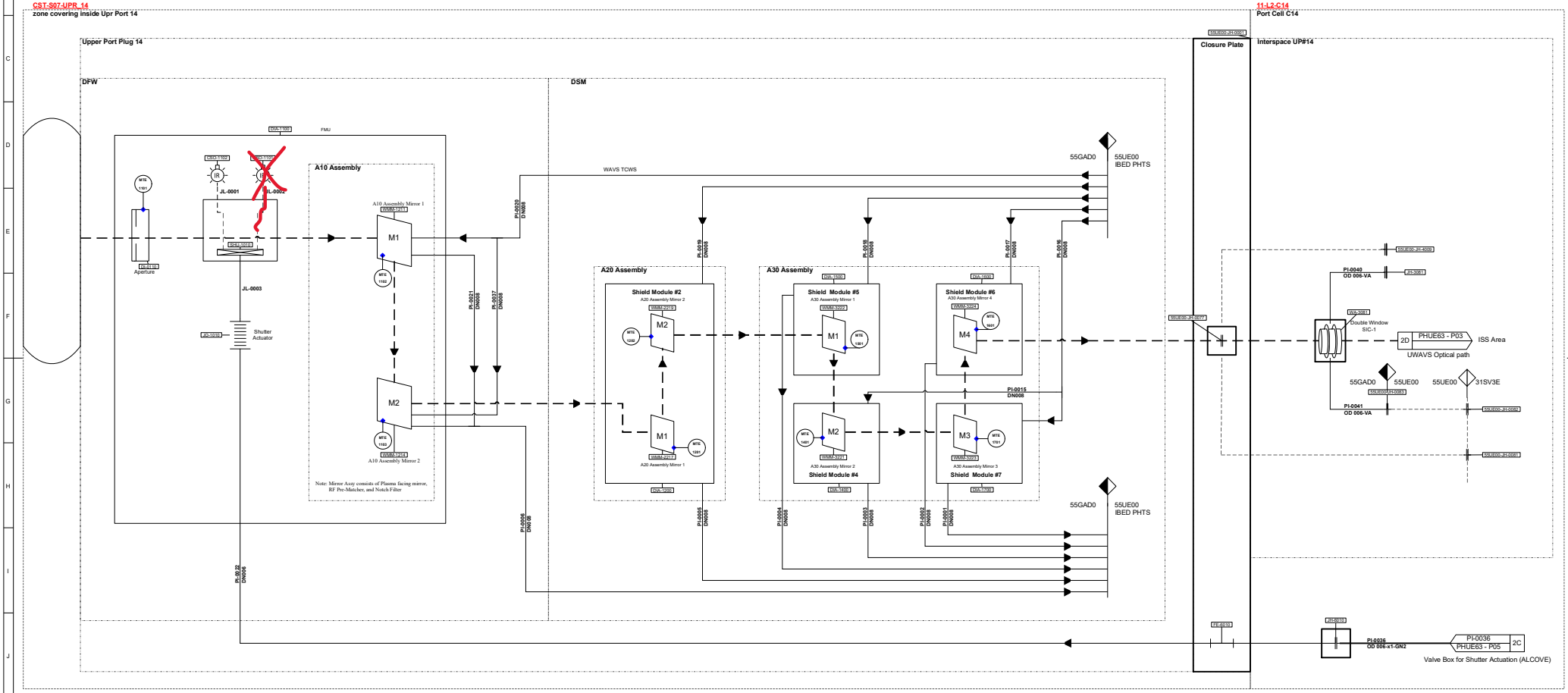
DESIGN AGENCY:	CREATED BY:	TECHNICAL REFERENCE:	APPROVER	DATE:
USDA	A.ARNOLD	M. SMITH	R. BATHIA	28/02/2025

DIAGRAM TITLE:
WIDE ANGLE VIEWING SYSTEM (VIS-IR) (PID)
UPPER PORT #14 (WAVS)
ITER_55GAD0_PID_001.vsd

PBS TITLE: Vis/IR Up#D

DOCUMENT TYPE:	SAFETY CLASS:	QUALITY CLASS:	DATE OF ISSUE:	DESIGN AGENCY DOCUMENT STATUS:	Sheet Size:
PID	SIC-1	QC1	28/02/2025	In work	A3

PBS NODE:	IO REFERENCE:	EXTERNAL REFERENCE:	VERSION:	Sheet N°:
55GAD0	PHUE63	80435c37	2.1	1/5



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SHEET TITLE: Port Plug and Closure Plate
DIAGRAM TITLE: WIDE ANGLE VIEWING SYSTEM (VIS-IR) (PID)
UPPER PORT #14 (WAVS)
ITER_55GAD0_PID_001.vsd

FBS NODE:	DOCUMENT TYPE:	DATE OF ISSUE:	DESIGN AGENCY DOCUMENT STATUS:	Sheet Size:
55GAD0	PID	28/02/2025	In work	A1
ID REFERENCE: PHUE63	EXTERNAL REFERENCE: 80435c37		VERSION: 2.1	Sheet N°: 2/5

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11-L2-C14
Port Cell C14

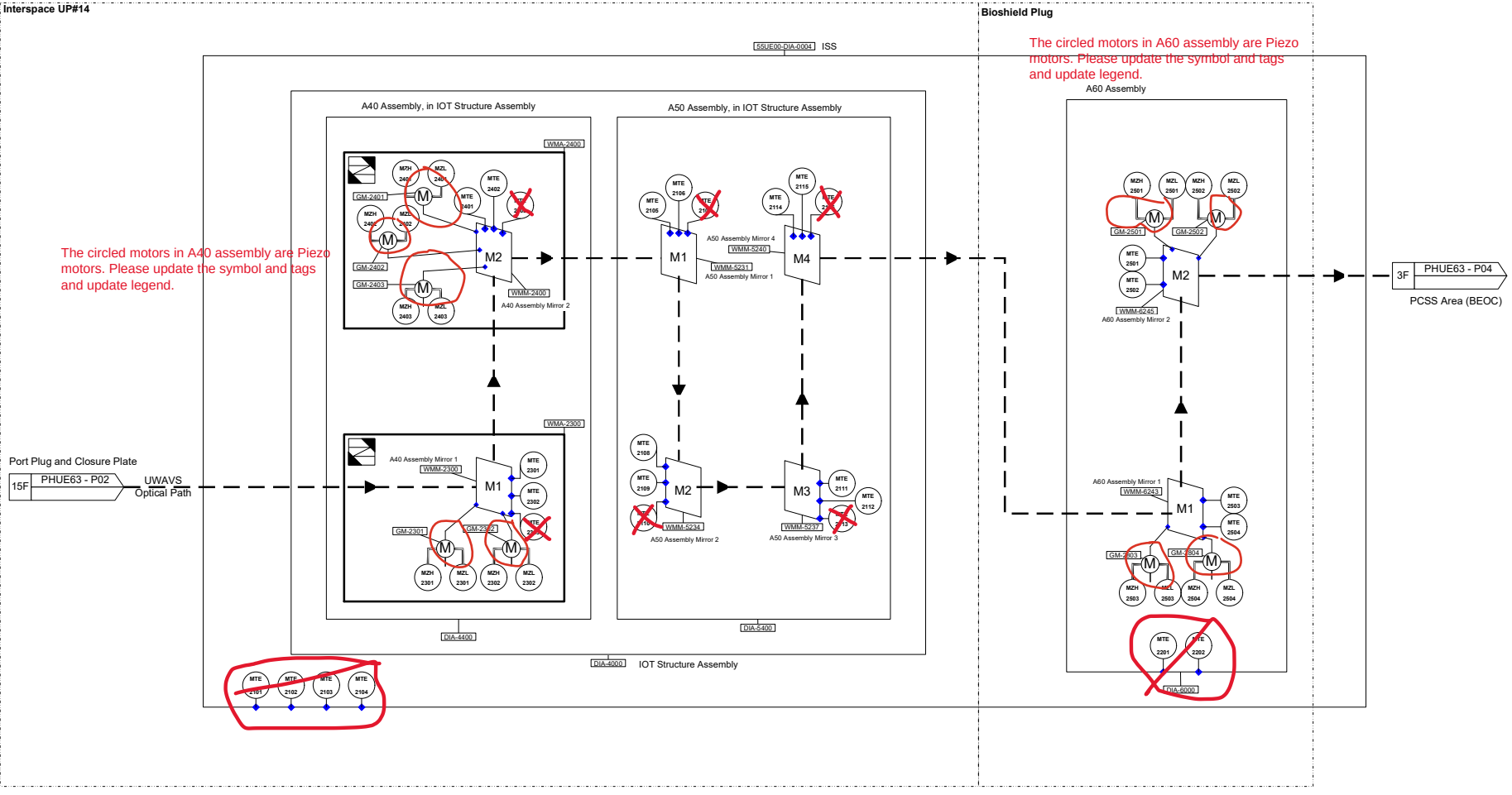
Interspace UP#14

Bioshield Plug

55UE00-DIA-0004 ISS

The circled motors in A60 assembly are Piezo motors. Please update the symbol and tags and update legend.

The circled motors in A40 assembly are Piezo motors. Please update the symbol and tags and update legend.



Port Plug and Closure Plate

15F PHUE63 - P02 UWAVS Optical Path

3F PHUE63 - P04
PCSS Area (BEOC)

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SHEET TITLE: ISS Area

DIAGRAM TITLE: WIDE ANGLE VIEWING SYSTEM (VIS-IR) (PID)

UPPER PORT #14 (WAVS)

ITER_55GAD0_PID_001.vsd

PBS NODE:	DOCUMENT TYPE:	DATE OF ISSUE:	DESGIN AGENCY DOCUMENT STATUS:	Sheet Size:
55GAD0	PID	28/02/2025	In work	A2

IO REFERENCE:	EXTERNAL REFERENCE:	VERSION:	Sheet N°:
PHUE63	80435c37	2.1	3/5

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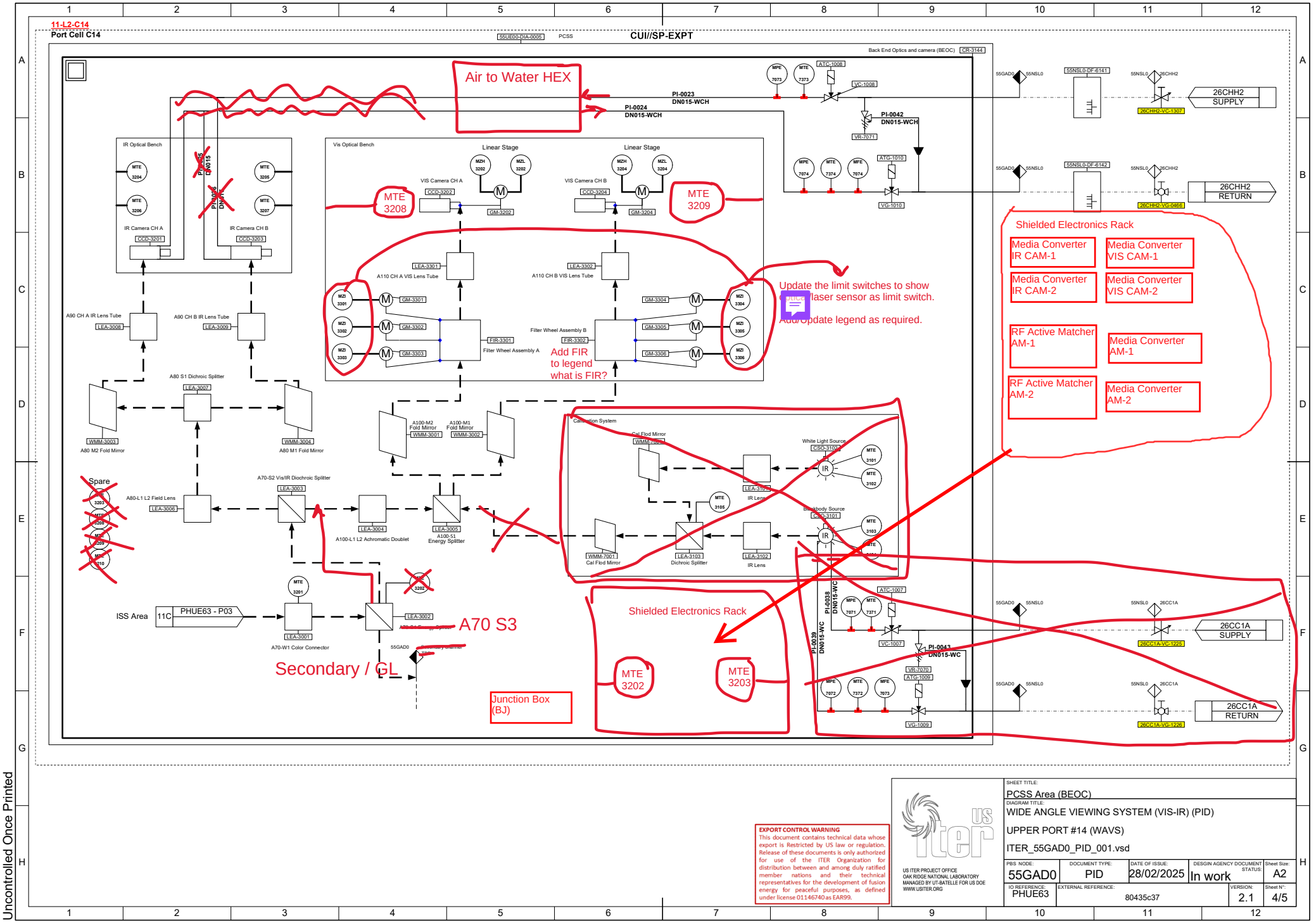

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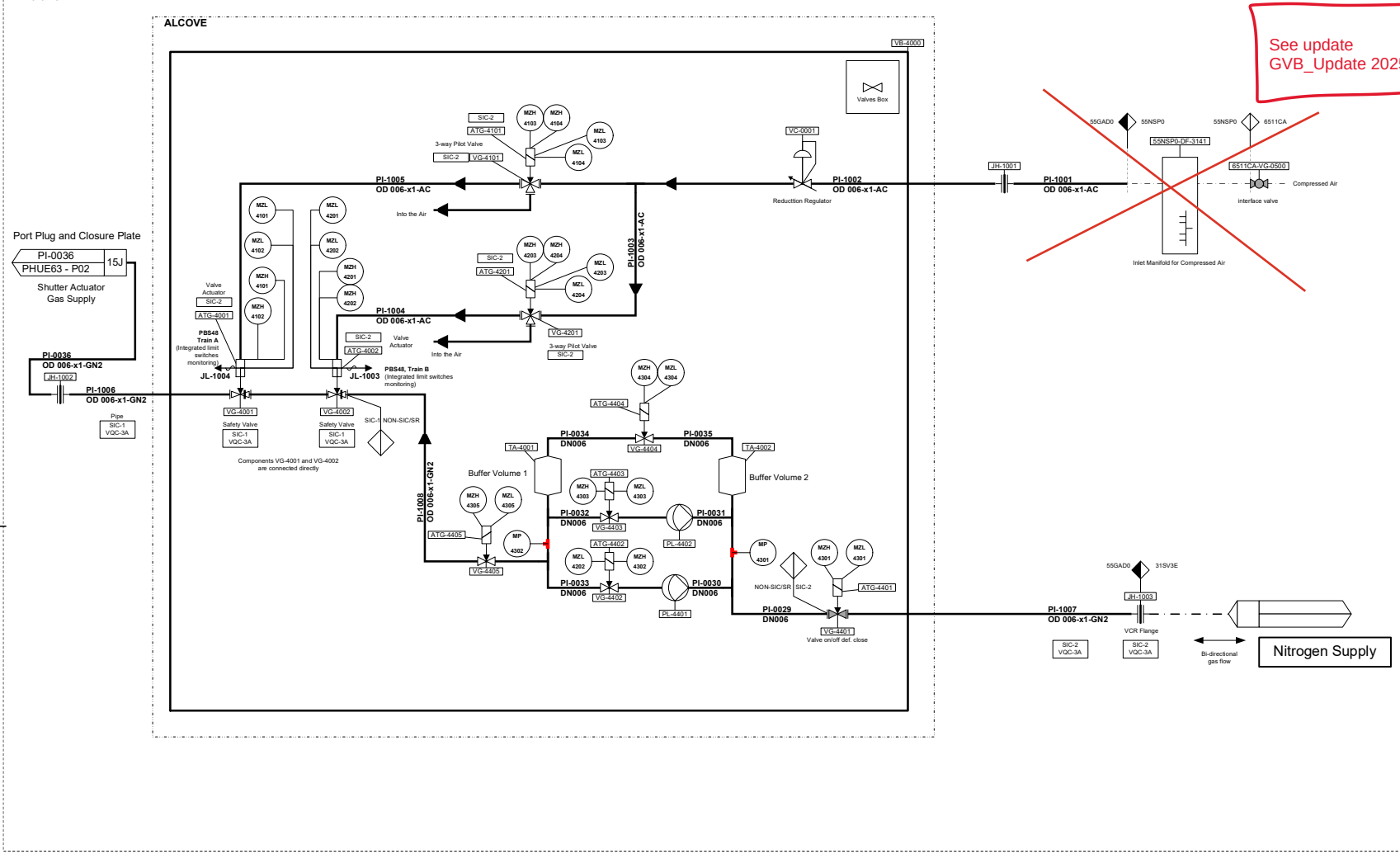
SHEET TITLE: PCSS Area (BEOC)
DIAGRAM TITLE: WIDE ANGLE VIEWING SYSTEM (VIS-IR) (PID)
UPPER PORT #14 (WAVS)
ITER_55GAD0_PID_001.vsd

PBS NODE:	DOCUMENT TYPE:	DATE OF ISSUE:	DESIGN AGENCY DOCUMENT STATUS:	Sheet Size:
55GAD0	PID	28/02/2025	In work	A2

IO REFERENCE:	EXTERNAL REFERENCE:	VERSION:	Sheet N°:
PHUE63	80435c37	2.1	4/5

11-L2-C14
Port Cell C14



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SHEET TITLE: Valve Box for Shutter Actuation (ALCOVE)
DIAGRAM TITLE: WIDE ANGLE VIEWING SYSTEM (VIS-IR) (PID)
UPPER PORT #14 (WAVS)
ITER_55GAD0_PID_001.vsd

PBS NODE:	DOCUMENT TYPE:	DATE OF ISSUE:	DESGIN AGENCY DOCUMENT STATUS:	Sheet Size:
55GAD0	PID	28/02/2025	In work	A2

IO REFERENCE:	EXTERNAL REFERENCE:	VERSION:	Sheet N°:
PHUE63	80435c37	2.1	5/5

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