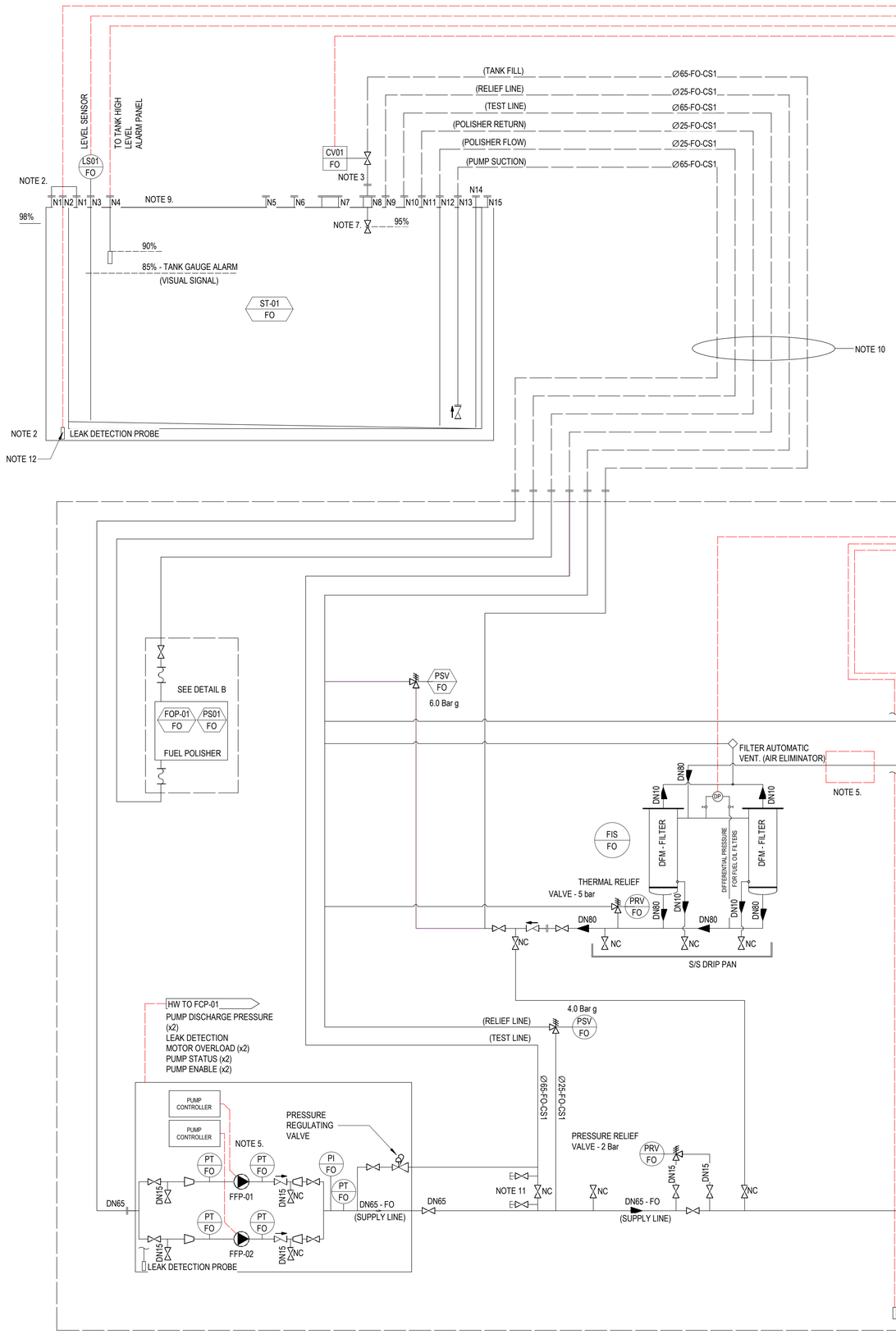
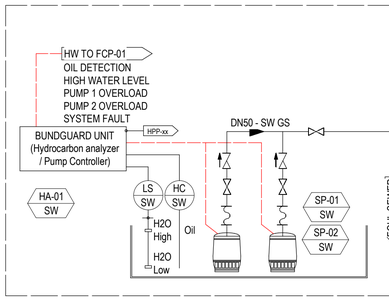
Appendix 03 – 05 Fuel Schematics



1 DIESEL STORAGE SCHEMATIC
SCALE: NTS



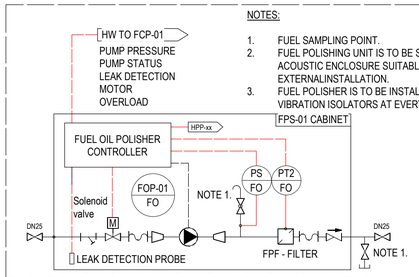
NOTES:

1. CONNECT TO UNDERGROUND FOUL SEWER SYSTEM C/W OIL INTERCEPTOR.
2. SUBMERSIBLE PUMPS AUTOMATICALLY START AND STOP UNLESS PROHIBITED BY HA01-SW.
3. DUTY/STANDBY PUMP OPERATION IS CONTROLLED BY THE BUNDGUARD UNIT.
4. ALL ALARMS ARE PROVIDED VIA MODBUS.

SEQUENCE OF OPERATION:

1. THE BUNDGUARD UNIT SHALL CONTROL THE
2. PUMPS ON A DUTY STANDBY ARRANGEMENT BASED ON AN INTEGRAL LEVEL SENSOR.
3. IN THE EVENT OF AN OIL DETECTION ALARM, THE BUNDGUARD UNIT SHALL SIGNAL AN ALARM TO THE FUEL TOP-UP AND STOP THE PUMPS.
4. IN THE EVENT OF A HIGH WATER DETECTION, THE BUNDGUARD UNIT SHALL SEND AN ALARM TO THE FUEL TOP-UP.
5. PUMP OVERLOAD AND SYSTEMS FAULT ALARMS ARE MONITORED AND ALARMED AT THE FUEL TOP UP.

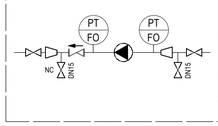
2 DETAIL A - SUMP PUMP PIPING + CONTROL DIAGRAM
SCALE: NTS



NOTES:

1. FUEL SAMPLING POINT.
2. FUEL POLISHING UNIT IS TO BE SUPPLIED WITH AN ACOUSTIC ENCLOSURE SUITABLE FOR EXTERNALINSTALLATION.
3. FUEL POLISHER IS TO BE INSTALLED WITH VIBRATION ISOLATORS AT EVERY CONNECTION

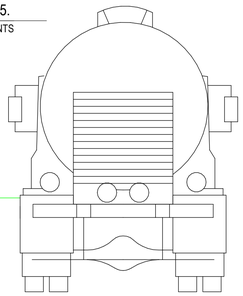
3 DETAIL B - FUEL POLISHER SYSTEM
SCALE: NTS



NOTES:

1. INSTALL UNIT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. EACH PUMP SET SHALL BE PART OF A PACKAGED, SKID-MOUNTED, AND FACTORY-ASSEMBLED SYSTEM, AND SHALL BE TESTED PRIOR TO DELIVERY TO THE JOB SITE.
3. PROVIDE EACH PUMP SET WITH AN INDEPENDENT CONTROL PANEL INCLUDING POWER DISCONNECT.
4. POSITIVE DISPLACEMENT PUMPS SHALL BE PROVIDED WITH INTERNAL PRESSURE RELIEF VALVE, PRESSURE SET AS NOTED BY MANUFACTURER.

4 NOTE 5.
SCALE: NTS



NOTES:

1. ADEQUATE FILTER WITHDRAWAL SPACE IS TO BE PROVIDED AT THE TOP OF EACH FILTER.
2. INTAKE FILTER TO BE COMPLETE WITH EXTERNAL WEATHERED ACCESSIBLE ENCLOSURE.
3. VENT FROM METER AND MONITOR VESSELS DIRECTED INTO CATCH POT

NOZZLE **NOZZLE SCHEDULE**

	DIMENSION(mm∅)	ITEM	NOTES
N1	80	OVERFLOW	PIPED TO LOW LEVEL EXTERNAL TO TANK
N2	25	BUND LEAK DETECTION	
N3	25	LEVEL SENSOR	
N4	25	HIGH LEVEL ALARM	
N5	50	TANK VENT	WITH DESSICANT BREATHER
N6	50	SPARE	
N7	600	ACCESS MANWAY	
N8	200	FILL POINT	65mm CONNECTIONWITH 200mm FLANGE TO ALLOW OFP VALVE REMOVAL
N9	65	RELIEF LINE	
N10	65	TEST LINE	
N11	25	POLISHER RETURN	PROTUDES 60mm BENEATH ROOF
N12	25	POLISHER FLOW	PIPED TO BASE OF TANK
N13	65	PUMP SUCTION	
N14	25	TANK PUMP OUT POINT	PIPED TO BASE OF TANK

NOTES

GENERAL NOTES:

A. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
B. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRODUCTION OF FABRICATION AND INSTALLATION DRAWINGS, SHALL BE FAMILIAR WITH OTHER WORKS PACKAGES WHICH DIRECTLY INTERFACE WITH HIS PACKAGE AND COORDINATE WITH THE FABRICATION AND INSTALLATION DRAWINGS ACCORDINGLY.
C. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, SUPPLY AND INSTALLATION OF SUPPORTS, BRACKETING SYSTEMS, AND SECONDARY STEELWORK SUPPORTS REQUIRED FOR THIS WORKS PACKAGE, UNLESS OTHERWISE STATED.
D. SHOULD ANY DISCREPANCIES BE APPARENT IN THIS DRAWING, THE ENGINEER SHALL BE MADE AWARE OF THIS FOR FURTHER ACTION.
E. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLY AND INSTALLATION OF THE MECHANICAL WIRING AND CONTAINMENT BETWEEN THE PACKAGED PUMP-ROOM AND THE STORAGE TANK AND GENERATORS. INTERCONNECTING WIRING DIAGRAMS TO BE PROVIDED BY THE FUEL EQUIPMENT VENDOR.

SHEET NOTES:

1. SAMPLING POINT
2. OVERFLOW TO OUTER CONTAINMENT LAYER
3. FUEL OIL CONTROL PANEL TO BE LOCATED WITHIN THE CONTAINER, REMOTE HMI TO PROVIDE INFORMATION AT THE FILL POINT. ALL POINTS TO BE PRE-COMMISSIONED BEFORE THE CONTAINER IS DISPATCHED TO SITE
4. PUMPS TO BE PROVIDED WITH AUTOMATIC AIR VENTS
5. OPTIONAL OFFLOADING PUMP IN REGIONS WHERE TANKERS DON'T HAVE ONBOARD PUMPS - REFER TO DETAIL C
6. ANTI-SIPHON DEVICES ON INLET TO STORAGE TANKS
7. MECHANICAL OVERFLOW PREVENTION VALVE
8. DIESEL PLANTROOM TO BE A 10ft ISO CONTAINER
9. TANK TO BE AN ATMOSPHERIC TANK BUILT TO BS799 TYPE J AND UL142
10. CONNECTING PIPEWORK BETWEEN THE TANK AND PLATROOM TO BE INSTALLED ON SITE
11. DN65 CONNECTIONS TO BE VALVED AND BLANKED TO ASSIST FLUSHING
12. THE GC SHALL INSTALL A LAYER OF BITUMINIOUS FELT, SAND OR ASPHALT IMPRGNATED BOARD, OR OTHER SUITABLE MATERIAL UNDER THE TANK TO PREVENT RUBBING, SCRAPPING OF THE TANK BOTTOM WHAN INSTALLING, DUE TO EXPANSION AND CONTRACTION OF THE TANK AND TO SMOOTH OUT ANY MINOR DIFFERENCES IN TANK FOUNDATION LEVEL. EDGE OF TANK SHALL THEN BE SEALED WIYH SUITABLE MASTIC OR ADEQUATE SEALING MEMBRANE SUCH AS BELZONA 3111 TO PREVENT WATER INGRESS TO THE UNDERSIDE OF THE TANK.

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0	20SEP2024	CONSTRUCTION DOCUMENTS	JJ	DS	NF	TJ

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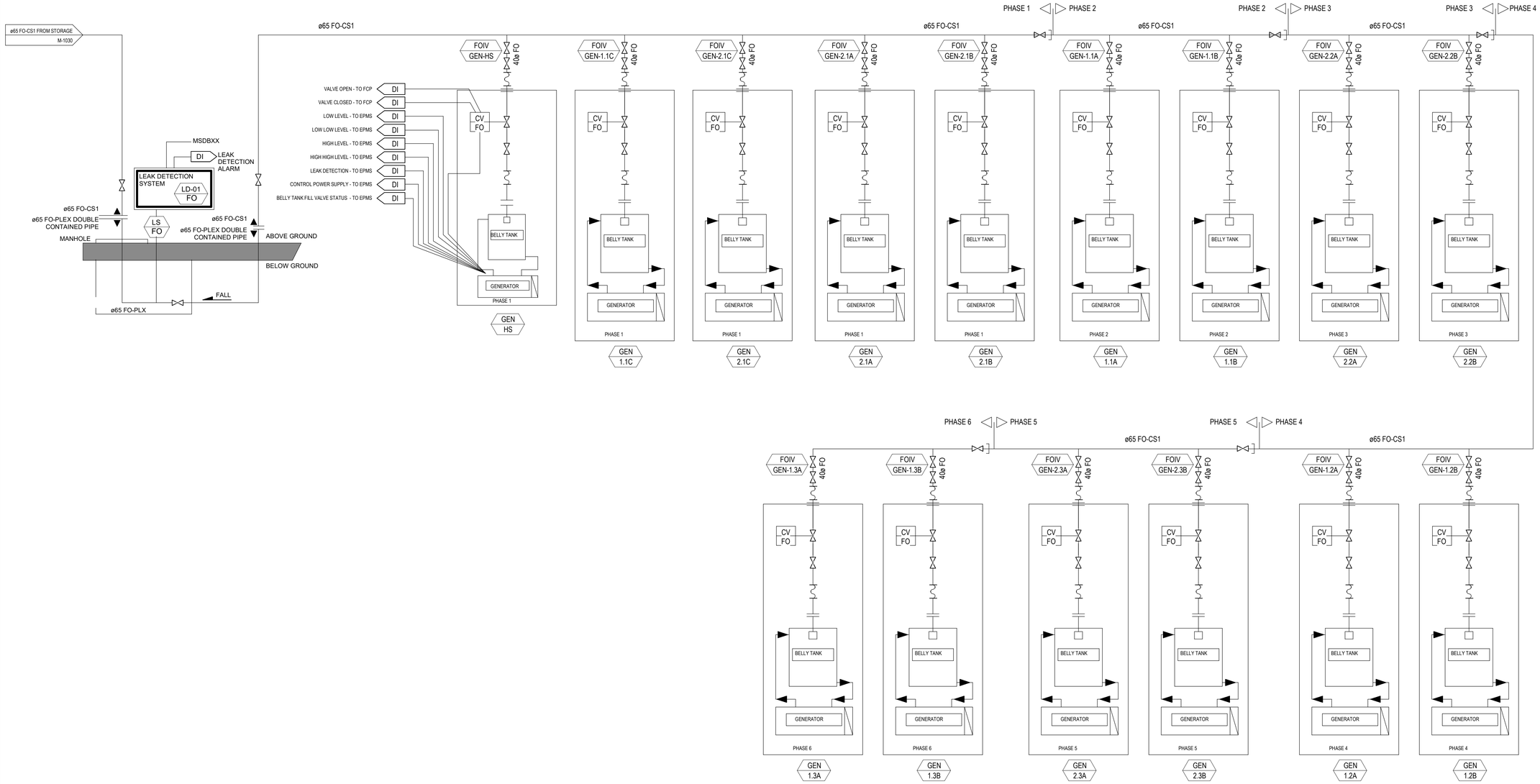

NOTES

GENERAL NOTES:

A. ISOLATION VALVE LOCATED ON THE INLET TO THE GENERATOR ENCLOSURE TO BE POSITIONED AT A HEIGHT OF 1.4M ABOVE FINISHED PLATFORM LEVEL. FINAL LEVEL TO BE COORDINATED ON SITE.
B. FIXED SUPPORT TO BE APPLIED TO THE FUEL OIL PIPEWORK AT THE MIDDLE OF THE PIPEWORK RUN. ALL OTHER PIPEWORK TO BE SUSPENDED AT LEAST 300mm FROM THE CABLE RACKING.
C. BMS CABLING ROUTE FROM FUEL COMPOUND TO BE INSTALLED ON CABLE RACKING. TO BE COORDINATED BY GC ON SITE.
D. HYDROSTATIC PRESSURE TESTING TO BE CARRIED OUT FOR ALL FUEL OIL PIPEWORK. GC TO COORDINATE NECESSARY HEALTH AND SAFETY REQUIREMENTS PER LOCAL REQUIREMENTS.

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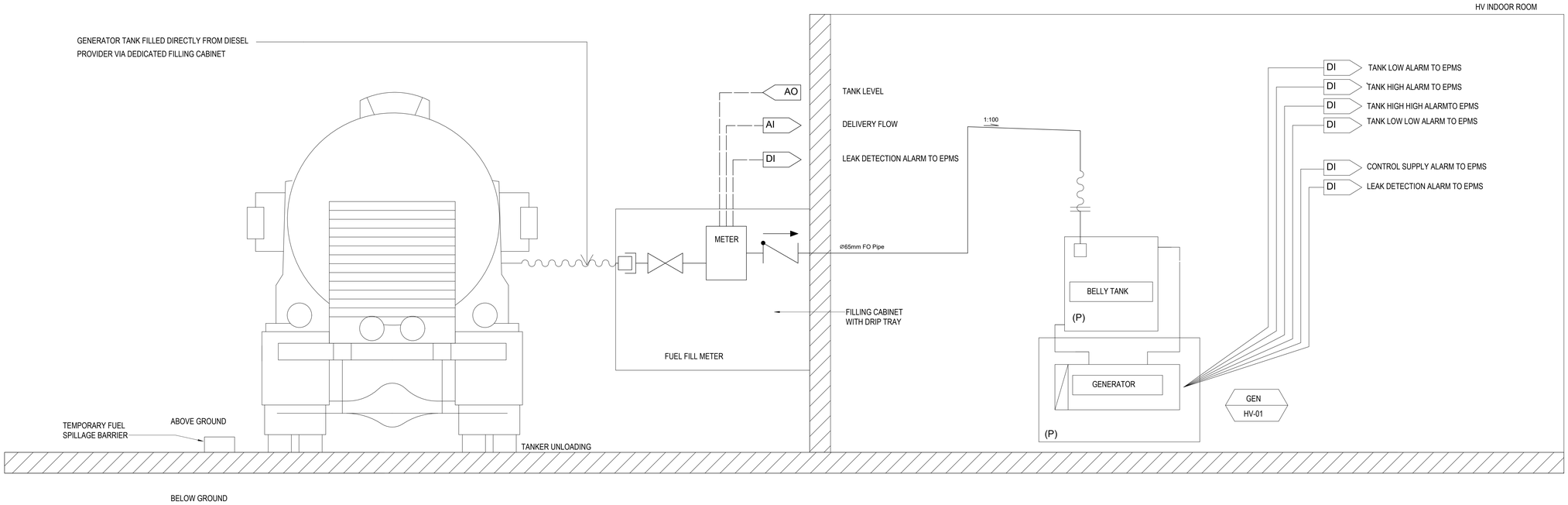

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1. THIS DRAWING HAS BEEN DEVELOPED TO A DETAILED DESIGN LEVEL OF INFORMATION IN LINE WITH AWS REQUIREMENTS.
2. ALL DIMENSIONS ARE IN MILLIMETRES (MM) UNLESS NOTED OTHERWISE. ALL LEVELS ARE IN METRES (M) UNLESS NOTED OTHERWISE.
3. THIS DRAWING SHOULD BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH ALL ASSOCIATED DESIGN DOCUMENTATION, PROVIDED AS PART OF THIS DESIGN PACKAGE.
4. DO NOT SCALE FROM THIS DRAWING. REFER TO ARCHITECT'S DRAWINGS FOR BUILDING DIMENSION INFORMATION

PARTICULAR NOTES

1. DIESEL FILL VALVE AND UPSTAND TANK PART OF GENERATOR PACKAGE
2. REFER TO P&R MATRIX FOR OFCI EQUIPMENT
3. THE SCOPE OF THE GENERATOR MANUFACTURER/VENDOR'S PACKAGE SHALL ALSO ENCOMPASS THE BELLY TANK SELECTION VALVES, DAY TANK SELECTION VALVES, AND ALL ASSOCIATED FUEL OIL PIPING SYSTEMS AND ACCESSORIES.
4. WHEREVER POSSIBLE, PIPEWORK TO FREE DRAIN TOWARDS GENERATOR BELLY TANK
5. FUEL STORAGE TO BE INSTALLED WITHIN BUND CAPABLE OF CAPTURING 110% VOLUME OF A SINGLE TANK IN THE EVENT OF A SPILL.
6. CONSULT THE FUEL SUPPLIER BEFORE FINALIZING THE TANK'S MINIMUM NET CAPACITY. GROSS CAPACITY MUST INCLUDE:
   - MINIMUM FUEL DELIVERY VOLUME
   - ADDITIONAL VOLUME (DEAD SPACE) FOR SLUDGE AND WATER AT THE BOTTOM
   - EXTRA VOLUME (ULLAGE) AS A SAFETY MARGIN AGAINST OVERFILLING AND THERMAL EXPANSION
   - SPACE FOR HEATING EQUIPMENT AND ANY OTHER INSTALLED EQUIPMENT

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B	31MAY2024	SCHEMATIC DESIGN	LA	LA	FH	ML
C	12JUL2024	DETAILED DESIGN	LA	LA	FH	ML

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