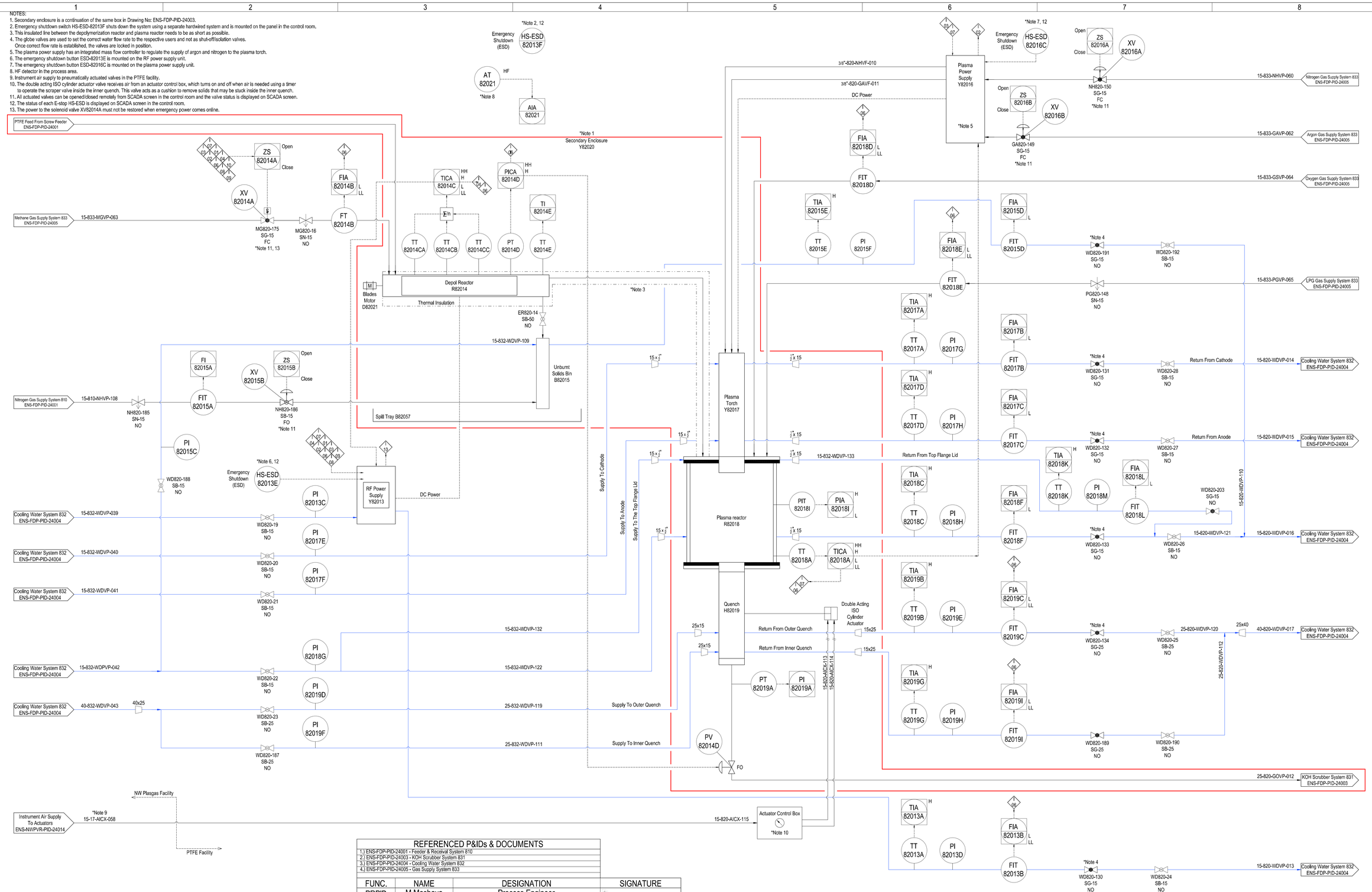
NOTES:
1. Secondary enclosure is a continuation of the same box in Drawing No: ENS-FDP-PID-24003.
2. Emergency shutdown switch HS-ESD-82013F shuts down the system using a separate hardwired system and is mounted on the panel in the control room.
3. This insulated line between the depolymerization reactor and plasma reactor needs to be as short as possible.
4. The globe valves are used to set the correct water flow rate to the respective users and not as shut-off/isolation valves.
   Once correct flow rate is established, the valves are locked in position.
5. The plasma power supply has an integrated mass flow controller to regulate the supply of argon and nitrogen to the plasma torch.
6. The emergency shutdown button ESD-82013E is mounted on the RF power supply unit.
7. The emergency shutdown button ESD-82016C is mounted on the plasma power supply unit.
8. HF detector in the process area.
9. Instrument air supply to pneumatically actuated valves in the PTFE facility.
10. The double acting ISO cylinder actuator valve receives air from an actuator control box, which turns on and off when air is needed using a timer
    to operate the scraper valve inside the inner quench. This valve acts as a cushion to remove solids that may be stuck inside the inner quench.
11. All actuated valves can be opened/closed remotely from SCADA screen in the control room and the valve status is displayed on SCADA screen.
12. The status of each E-stop HS-ESD is displayed on SCADA screen in the control room.
13. The power to the solenoid valve XV82014A must not be restored when emergency power comes online.



REFERENCED P&IDs & DOCUMENTS

1.) ENS-FDP-PID-24001 - Feeder & Receival System 810
2.) ENS-FDP-PID-24003 - KOH Scrubber System 831
3.) ENS-FDP-PID-24004 - Cooling Water System 832
4.) ENS-FDP-PID-24005 - Gas Supply System 833

FUNC.	NAME	DESIGNATION	SIGNATURE
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CHK'D	M.Correia	Senior Process Engineer	
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REV	DESCRIPTION	PRP'D	DATE
3.0	Third revision - Changed PIB2014F to PIB2018I and moved it to the plasma reactor with remote indication	N.M	22/10/2024
4.0	Fourth revision - Updated note 10 and added new primary cooling water lines (supply and return) to the plasma reactor and outer quench	N.M	04/11/2024
5.0	Fifth revision - Updated all needle to globe valves in the primary cooling water return lines	N.M	13/02/2025
6.0	Sixth revision - Addressing outstanding HAZOP3 recommendations	N.M	24/03/2025
7.0	Seventh revision - Incorporate changes due to ENS-FDP-ECP-25002	M.M	11/06/2025

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PROJECT	PTFE FILTER DESTRUCTION PROJECT
TITLE	P&ID DIAGRAM REACTOR SYSTEM 820
DRG.No.	ENS-FDP-PID-24002
SHEET	1 OF 1
TEAMCENTRE No.	-

DESTROY ALL PREVIOUS PRINTS
CODE-A0
7.0
REVISION

ENS-FDP-PID-24002