

15 MLD STP AT UNNAO
CHECKLIST OF BALANCE WORKS

Date of Issue: 01-12-2022

Issued by: STC, Kanpur

S. No.	Unit /Location	Items / Description of Work	Supply	Installation / Construction	Commissioning / Testing / Inspection	Remarks / Balance Works
D	15 MLD STP					
D.1	Receiving Chamber					
1		Automatic systems for all gates	Completed	Completed	Pending	Cable termination work pending
2		Sediment/Silt removal work	NA	Not Started	Pending	
D.2	Mechanical & Manual Coarse screen chamber					
1		Mechanical coarse screen, 1 No.	Completed	Completed	Pending	
2		Manual coarse screen,1 No.	Completed	Completed	Pending	
3		Conveyor belt & chute Arrangement, 1 No.	Completed	Pending	Pending	
4		Wheeled trolley, 1 No.	Pending	Pending	NA	
5		Sluice gate, 6 Nos	Completed	Completed	Pending	
6		Cable	Completed	Completed	Pending	
7		Cable tray	Completed	Completed	Completed	
8		Ultra Differential level transmitter -1 Lot	Completed	Pending	Pending	
9		Automatic systems for all equipment	Completed	Pending	Pending	Cable termination work pending
D.3	Raw Sewage sump & Main Pump station (MPS)					
1		Raw Sewage pumps, 4 Nos.	Completed	Completed	Pending	
2		Sluice gate, 1 Nos.	Completed	Pending	Pending	
3		Non return valve (NRV), 4 Nos.	Completed	Completed	Pending	
4		Knife gate valves, 4 Nos	Completed	Completed	Pending	
5		Isolation valve, 750mm, 2 Nos.	Completed	Completed	Pending	
6		Pipe reducers,400X 250, 4 Nos.	Pending	Pending	Pending	
7		Blind flange(DI) ,750 mm , 1 Nos.	Pending	Pending	Pending	
8		EOT hoist, 1 No.	Completed	Pending	Pending	
9		Monorail beam, 1 No.	Completed	Completed	Pending	
10		Pressure indicator ,4 Nos	Pending	Pending	Pending	
11		Valves for pressure indicator ,8 Nos	Pending	Pending	Pending	
12		Ultrasonic level sensor-1 Nos.	Completed	Pending	Pending	

13	Inlet flow meter -1 Nos.	Completed	Pending	Pending	
14	Inlet flow meter Chamber	NA	Pending	Pending	
15	Water quality Analyzer -1nos.	Completed	Pending	Pending	
16	LCS Panel-4Nos.	Completed	Completed	Pending	
D.4 Primary Treatment Unit (PTU)					
1	Mechanical fine screen, 2 Nos.	Completed	Pending	Pending	
2	Manual fine screen, 1 No.	Completed	Pending	Pending	
3	Sluice gate, 9 Nos	Completed	Completed	Pending	
4	Sluice Gate valves, 3 Nos.	Completed	Completed	Pending	
5	Conveyor belt & chute Arrangement, 1 No.	Completed	Pending	Pending	
6	Grit Mechanism, (2w+1S) Nos	Completed	Completed	Pending	
7	Organic Pumps , 2 Nos	Completed	Completed	Pending	
8	Screw Classifier , 2 Nos	Completed	Completed	Pending	
9	torque Switch-2Nos.	Pending	Pending	Pending	
10	Grit washer unit, 2 Nos	Pending	Pending	Pending	
11	Wheeled trolley, 2 Nos.	Pending	Pending	Pending	
12	Automatic systems for all gates	Completed	Completed	Pending	Cable termination work pending
13	Cable	Completed	Completed	Pending	
14	Cable tray	Completed	Completed	Pending	
15	Differential level transmitter -1 lot .	Completed	Pending	Pending	
16	Automatic systems for all equipment	Completed	Pending	Pending	Cable termination work pending
17	LPBS-6 Nos.	Completed	Completed	Pending	Cable termination work pending
18	Open channel flow meter-1 Nos.	Completed	Pending	Pending	
D.5 Sequential Batch Reactor (SBR)					
1	Mechanical sluice Gate, 2 Nos	Completed	Completed	Pending	
2	Decanter , 2 Nos.	Completed	Completed	Pending	
3	Diffuser , 688 Nos.	Completed	Completed	Pending	
4	Return activated sludge pumps (RAS), (2w+1S)Nos	Completed	Completed	Pending	
5	Surplus activated sludge pumps (SAS), (2w+1S)Nos	Completed	Completed	Pending	
6	Selector Zone diffuser	Completed	Completed	Pending	

7	Ball valves , 14 Nos	Completed	Completed	Pending	
8	Butterfly valves (BFV), 4 Nos	Completed	Completed	Pending	
9	Non return valve (NRV), 4 Nos.	Completed	Completed	Completed	
10	Manual chain pulley block ,2 Nos	Completed	Completed	Pending	
11	Solenoid (SOV), 2 Nos	Completed	Pending	Completed	
12	Automatic systems for all gates	Completed	Completed	Pending	
13	LPBS-2Nos.	Completed	Completed	Pending	Cable termination work pending
14	Hydrostatic level transmeter- 2Nos.	Completed	Work in Progress	Pending	
15	DO -16 Nos.	Pending	Pending	Pending	To be installed as per CA
16	LCS Panel-4Nos.	Completed	Completed	Pending	
D.6 Air Blower Unit (For SBR)					
1	Air Blowers,3 Nos	Completed	Completed	Pending	
2	Butterfly Valves, 3 Nos	Completed	Completed	Pending	
3	Non return Valves,3 Nos	Completed	Completed	Pending	
4	Ball Valves, 3 Nos	Completed	Completed	Pending	
5	EOT hoist, 1 No.	Completed	Completed	Pending	
6	Pressure indicator, 3 Nos	Completed	Pending	Pending	
7	Acoustic hood ,3 Nos	Completed	Completed	Pending	
8	LPBS-3 nos.	Completed	Completed	Pending	
9	Exhaust fan, ceiling fan, internal electrification, earthing, AC for panel room	Completed	Pending	Pending	
D.7 Sludge Thickener Unit					
1	Sludge Thickener , 1 No.	Completed	Completed	Pending	
2	Knife gate Valve (KGV), 2 Nos	Completed	Completed	Pending	
3	Butterfly Valve (BFV),1 No.	Completed	Completed	Pending	
4	Ball Valves, 1 No.	Pending	Pending	Pending	

5	Torque switch , 1 Nos	Pending	Pending	Pending	
6	LPBS-1 Nos.	Completed	Completed	Pending	Cable termination work pending
7	Automation work of all equipments	Completed	Completed	Pending	
D.8 Supernatant Sump					
1	Supernatant pumps, 4 Nos	Completed	Completed	Pending	
2	Agitator, 1 Nos	Completed	Completed	Pending	
3	Non return Valves, 4Nos	Completed	Completed	Pending	
4	Butterfly Valves, 2 Nos	Completed	Completed	Pending	
5	Ultrasonic Level transmitter -1 Nos.	Completed	Pending	Pending	
6	LPBS-5 Nos.	Completed	Pending	Pending	
7	Automation work of all equipments	Completed	Pending	Pending	Cable termination work pending
D.9 Sludge Sump					
1	Sludge sump agitator , 1 No.	Completed	Pending	Pending	
2	Overflow line	Completed	Pending	Pending	
3	Level transmitter	Completed	Pending	Pending	
D.10 Centrifuge Feed pump Unit					
1	Centrifuge Feed pumps, 2 Nos	Completed	Pending	Pending	
2	Knife Gate Valve (KGV), 5 Nos	Completed	Completed	Pending	
3	Non Return Valves, 2 Nos	Completed	Completed	Pending	
4	Ball Valves, 8 Nos.	Completed	Pending	Pending	
5	pressure indicator ,2 Nos	Pending	Pending	Pending	
D.11 Centrifuge Building					
1	Centrifuge, 2 Nos	Completed	Completed	Pending	
2	Knife gate Valve (KGV), 2 Nos	Completed	Completed	Pending	
3	Ball Valves, 3 Nos.	Completed	Completed	Pending	
4	Centrifuge chute Arrangement, 2 Nos	Completed	Work in Progress	Pending	
5	EOT hoist, 1 No.	Completed	Completed	Pending	
6	Monorail beam, 1 No.	Completed	Completed	Pending	

7	LPBS-9 nos	Completed	Work in Progress	Pending	Cable termination work pending
8	level transmitter in agitator-2nos.	Completed	Pending	Pending	
9	Cable	Completed	Work in Progress	Pending	
10	Cable tray	Completed	Work in Progress	Pending	
11	LCS Panel-2 nos.	Completed	Completed	Pending	
12	Exhaust fan, ceiling fan, internal electrification,	Completed	Work in Progress	Pending	
13	Automation work of all equipments	Completed	Work in Progress	Pending	Cable termination work pending
14	Ultrasonic level sensor-1 Nos.	Completed	Pending	Pending	

D.12 Poly Dosing System

1	Dewatering polymer agitator , 2 Nos	Completed	Completed	Pending	
2	Polymer dosing pumps, 2 Nos	Completed	Completed	Pending	
3	Ball Valves, 06 Nos.	Completed	Pending	Pending	
4	Solenoid Valve (SOV), 2 Nos.	Pending	Pending	Pending	
5	Overflow & drain line work	Completed	Pending	Pending	
6	Non return Valves, 4 Nos	Completed	Pending	Pending	
7	Pressure indicator, 2 Nos	Completed	Pending	Pending	
8	Level switch, 2 Nos	Completed	Pending	Pending	
9	Polymer material stock	Pending	Pending	Pending	

D.13 Chlorination Building

1	EOT hoist, 1 No.	Completed	Completed	Pending	
2	Monorail beam, 1 No.	Completed	Completed	Pending	
3	Chlorinators, 2 Nos	Completed	Completed	Pending	
4	Chlorine Booster Pumps, 2 Nos	Completed	Completed	Pending	
5	Recirculation pumps ,1 No.	Completed	Completed	Pending	
6	Leak absorbaton system,1 Nos	Completed	Completed	Pending	
7	Air Blowers, 2 Nos	Completed	Pending	Pending	
8	Valves, 1 lot	Completed	Pending	Pending	
9	Pressure gauges, 7 Nos	Completed	Pending	Pending	

D.14 Chlorine contact Tank (CCT)

1	Level switch, 1 Nos	Completed	Pending	Pending
2	Utility water pumps, 2 Nos	Pending	Pending	Pending
3	Butterfly Valve (BFV), 4 Nos.	Pending	Pending	Pending
4	Non return Valves, 2 Nos	Pending	Pending	Pending
5	Pressure gauges, 2 Nos	Pending	Pending	Pending
6	Panel, 1 Lot	Completed	Completed	Pending
7	LPBS, 2 nos.	Completed	Pending	Pending
8	Level transmitter, 1 nos.	Completed	Pending	Pending
9	Exhaust fan, ceiling fan, internal electrification, earthing, AC for panel room	Completed	Pending	Pending
10	Water quality Anylzer, 1nos.	Completed	Pending	Pending
11	Open channel flow meter, 1 Nos.	Completed	Pending	Pending
12	Conductivity level switch, 1 Nos	Completed	Pending	Pending
13	Chlorine leak detector, 1 Nos.	Completed	Pending	Pending

D.15 PLC / SCADA

1	SBR PANEL	Completed	Completed	Pending	
2	BOP Panel	Completed	Completed	Pending	
3	Cable	Completed	Work in Progress	Pending	Cable termination work pending
4	Exhaust fan, ceiling fan, internal electrification, earthing, AC for panel room	Completed	Work in Progress	Pending	

D.16 VFD Panel room

1	VFD PANEL-3 nos.	Completed	Work in Progress	Pending
2	Exhaust fan, ceiling fan, internal electrification, earthing, AC for panel room	Completed	Work in Progress	Pending

D.17 Electrical & Related Works

1	Transformer-2 nos	Completed	Completed	Pending
2	DG set-1 nos.	Completed	Completed	Pending

3	LPBS-lots	Completed	Pending	Pending	
4	Exhaust fan, ceiling fan, internal electrification, earthing, AC for panel room	Pending	Pending	Pending	
5	Indoor & Outdoor Lighting	Completed	Pending	Pending	
6	LT Panel-1Lot	Completed	Work in Progress	Pending	
7	Metering Room	Completed	Completed	Completed	
D.18 Civil work					
1	I&D, Structure, 3.2 km	NA	Completed	Pending	Finishing and painting works are pending
2	Sewer System	NA	Completed	Pending	All 3.2 km Cleaning and hydro testing works are due.
3	Manholes, 42 Nos	NA	Completed	Pending	42 of 42 Cleaning and leakage repair pending
4	MPS	NA	Completed	Pending	Walkway platform from receiving chamber to pump house pending
5	PTU	NA	Completed	Pending	Finishing, painting work pending
6	Admin Building	NA	Pending	NA	Plumbing, finishing works pending
7	SBR Basins	NA	Completed	Pending	Leakage correction, Finishing, painting, railing Pending.
8	CCT,Chlorination room	NA	Completed	Pending	Stair, hand rail and paint, door window pending
9	Air Blower Building	NA	Completed	Pending	Stair railing and internal paint works pending
10	Sludge Thickener	NA	Completed	Pending	Floor leveling, finishing and Railing work pending
11	Supernatant Sump	NA	Pending	Pending	Stair railing and finishing works pending
12	Centrifuge Building	NA		Pending	Final coat paint work, flooring and Stair railing pending
13	Transformer Yard	NA	Completed	Pending	Gravel work pending
14	DG Area	NA	Completed	Pending	DG platform was to be increased 1m for O&M Pending
15	Parshall Flumes	NA	Pending	Pending	Level of Parshall flume wrt to SBR need to be corrected
16	VFD Panel Room	NA	Completed	Pending	DG chimney work pending
17	Staff Quarter	NA	Completed	Pending	Final coat painting work pending
18	Guard Room	NA	Completed	Pending	Plumbing, flooring works pending
19	Effluent Chamber	NA	Completed	Pending	Finishing, leakage work pending
D.19 Civil & Site Improvement Works					

1	Service water pumps & plumbing all units	Pending	Pending	Pending
2	Tiling / Flooring at all Buildings	NA	Pending	Pending
3	All Buildings Roof rainwater drains, Roof treatment, Plinth protection	NA	Pending	Pending
4	Indoor & Outdoor Painting	NA	Pending	Pending
5	Doors, Windows, Shutters, etc.	Pending	Pending	Pending
6	Stormwater drains	NA	Pending	Pending
7	Backfilling, Grading	NA	Pending	Pending
8	Landscaping	NA	Pending	Pending
9	Entry Road	NA	Pending	Pending
10	Internal Pathways / Access Roads	NA	Pending	Pending
D.20 Site Safety & Security				
1	Guard Room	NA	Completed	Work in Progress
2	Entrance Gate	NA	Work in Progress	Pending
3	Boundary Wall	NA	Work in Progress	Pending
4	Handrailing	NA	Work in Progress	Pending
5	Fire fighting extinguishers	Completed	Work in Progress	Pending
6	Nomenclature on Units / Buildings, Signboards, Site Plan, Project Banner, Site Name Banner, etc.	Completed	Pending	Pending
7	Site Surveyance / CCTV	Pending	Pending	Pending
8	Safety shower at Chlorination unit	Completed	Pending	Pending
9	Logbooks - Attendance Register, Visitor logs, RSPS logs, DG logs, Maintenance logs, etc.	Pending	Pending	Pending
D.21 Miscellaneous				
1	Lab Setup	Pending	Pending	Pending
2	Permanent Gasket	Pending	Pending	Pending
3	Hydrotest for all pumps, air blower, centrifuge , chlorinations etc. discharge lines	Pending	Pending	Pending
4	Hydrotest for all water retaining units	NA	NA	Pending
5	Pipe support for all units	Pending	Pending	Pending
6	Stud bolt & Nuts at all units	Pending	Pending	NA