

**15 MLD STP AT UNNAO**  
**CHECKLIST OF BALANCE WORKS**

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S. No.	Unit /Location	Items / Description of Work	Supply	Installation / Construction	Commissioning / Testing / Inspection	Remarks / Balance Works
<b>A</b>	<b>15 MLD STP</b>					
<b>A.1</b>	<b>Receiving Chamber</b>					
1		Automatic systems for all gates	Completed	Completed	Pending	Cable dressing work pending
2		Sediment/Silt removal work	NA	Not Started	Pending	
<b>A.2</b>	<b>Mechanical &amp; Manual Coarse screen chamber</b>					
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	<b>Completed</b>	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	
<b>A.3</b>	<b>Raw Sewage sump &amp; Main Pump station (MPS)</b>					
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.	<b>Completed</b>	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	<b>Completed</b>	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	
	<b>Internal electrification, earthing,</b>	<b>Completed</b>	<b>Pending</b>	<b>Pending</b>	
16	LCS Panel-4Nos.	Completed	Completed	Pending	
<b>A.4</b>	<b>Primary Treatment Unit (PTU)</b>				
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	
13	Cable	Completed	Completed	Pending	
14	Cable tray	Completed	Completed	Pending	
15	Differential level transmitter -1 lot .	Completed	Pending	Pending	
16	LPBS-6 Nos.	Completed	Completed	Pending	Cable dressing work pending
17	Open channel flow meter-1 Nos.	Completed	Pending	Pending	
<b>A.5</b>	<b>Sequential Batch Reactor (SBR )</b>				
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 dressing work pending
14	Hydrostatic level transducer- 2Nos.	Completed	<b>Completed</b>	Pending	
15	DO -16 Nos.	Pending	Pending	Pending	To be installed as per CA
16	LCS Panel-4Nos.	Completed	Completed	Pending	
<b>A.6 Air Blower Unit ( For SBR)</b>					
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, internal electrification, earthing,	Completed	Pending	Pending	
<b>A.7 Sludge Thickener Unit</b>					
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 dressing work pending

**A.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	<b>Work in Progress</b>	Pending

**A.9 Sludge Sump**

1	Sludge sump agitator , 1 No.	Completed	Pending	Pending
2	Overflow line	Completed	Pending	Pending
3	Level transmitter	Completed	<b>Completed</b>	Pending

**A.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

**A.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, internal electrification, earthing,	Completed	Work in Progress	Pending
13	Ultrasonic level sensor-1 Nos.	Completed	Pending	Pending
<b>A.12 Poly Dosing System</b>				
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
<b>A.13 Chlorination Building</b>				
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 absorption 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
<b>A.14 Chlorine contact Tank (CCT)</b>				
1	Level switch, 1 Nos	Completed	<b>Work in Progress</b>	Pending
2	Utility water pumps, 2 Nos	<b>Completed</b>	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	<b>Work in Progress</b>	Pending	
9	Exhaust fan, internal electrification, earthing,	Completed	<b>Work in Progress</b>	Pending	
10	Water quality Anylzer, 1nos.	Completed	Pending	Pending	
11	Open channel flow meter, 1 Nos.	Completed	<b>Work in Progress</b>	Pending	
12	Conductivity level switch, 1 Nos	Completed	Pending	Pending	
13	Chlorine leak detector, 1 Nos.	Completed	Pending	Pending	
<b>A.15 PLC / SCADA</b>					
1	SBR PANEL	Completed	<b>Work in Progress</b>	Pending	Cable termination work pending
2	BOP Panel	Completed	<b>Work in Progress</b>	Pending	Cable termination work 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	
<b>A.16 VFD Panel room</b>					
1	VFD PANEL-3 nos.	Completed	<b>Completed</b>	Pending	
2	Exhaust fan, internal electrification, earthing,	Completed	Work in Progress	Pending	
<b>A.17 Electrical &amp; Related Works</b>					
1	Transformer-2 nos	Completed	Completed	Pending	
2	DG set-1 nos.	Completed	Completed	Pending	
3	LPBS-lots	Completed	<b>Work in Progress</b>	Pending	
4	Exhaust fan, ceiling fan, internal electrification, earthing, AC for panel room	Completed	<b>Work in Progress</b>	Pending	
5	Indoor & Outdoor Lighting	Completed	Pending	Pending	
6	LT Panel-1Lot	Completed	Work in Progress	Pending	
7	Metering Room	Completed	Completed	Completed	
<b>A.18 Civil work</b>					

1	I&D, Structure, 3.2 km	NA	<b>Work in Progress</b>	Pending	<b>Finishing and painting works, Railing work and fencing are pending</b>
2	Sewer System	NA	Completed	Pending	All 3.2 km Cleaning and hydro testing works are due. Cleaning of sewer line pending
3	Manholes, 42 Nos	NA	Completed	Pending	<b>Only 4 Nos. Manholes (Manhole ID - 4,116, 34, 28) cleaned out of 42. Leakage repair pending</b>
4	MPS	NA	<b>Work in Progress</b>	Pending	Silt Cleaning, finishing work Pending
5	PTU	NA	<b>Work in Progress</b>	Pending	Finishing, painting work pending, Grouting work pending
6	Admin Building	NA	<b>Work in Progress</b>	Pending	Plumbing, finishing works pending, painting work in progress
7	SBR Basins	NA	Completed	Pending	Leakage correction, Finishing, painting, railing Pending.
8	CCT,Chlorination room	NA	Completed	Pending	Stair-hand rail, and painting pending
9	Air Blower Building	NA	Completed	Pending	paint works pending
10	Sludge Thickener	NA	Completed	Pending	finishing and Railing work pending
11	Supernatant Sump	NA	Completed	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	<b>Completed</b>	Pending	
16	VFD Panel Room	NA	Completed	Pending	
17	Staff Quarter	NA	Completed	Pending	Final coat painting work pending
18	Guard Room	NA	Completed	Pending	Finishing work pending
19	Effluent Chamber	NA	Completed	Pending	Finishing
<b>D.19 Civil &amp; Site Improvement Works</b>					
1	Service water pumps & plumbing all units	<b>Completed</b>	<b>Work in Progress</b>	Pending	<b>Conection pending</b>
2	Tiling / Flooring at all Buildings	NA	<b>Completed</b>	Pending	
3	All Buildings Roof rainwater drains, Roof treatment, Plinth protection	NA	Pending	Pending	
4	Indoor & Outdoor Painting	NA	<b>Work in Progress</b>	Pending	
5	Doors, Windows, Shutters, etc.	Pending	<b>Work in Progress</b>	Pending	

6	Stormwater drains	NA	<b>Not Started</b>	Pending	
7	Backfilling, Grading	NA	<b>Work in Progress</b>	Pending	
8	Landscaping	NA	Pending	Pending	
9	Entry Road	NA	Pending	Pending	
10	Internal Pathways / Access Roads	NA	Pending	Pending	
<b>D.20 Site Safety &amp; Security</b>					
1	Guard Room	NA	Completed	Pending	<b>Gate of installation pending</b>
2	Entrance Gate	Pending	<b>Pending</b>	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	
<b>D.21 Miscellaneous</b>					
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	