
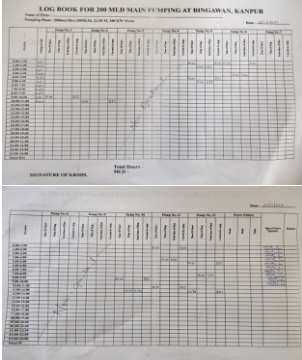

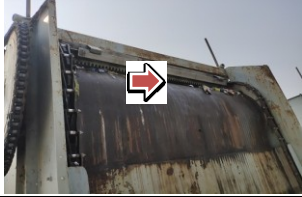


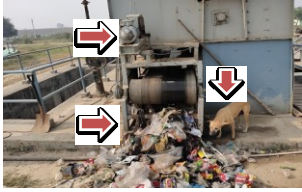



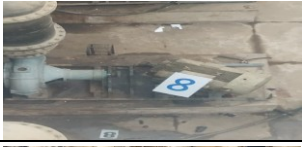
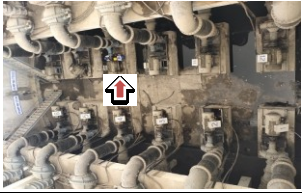



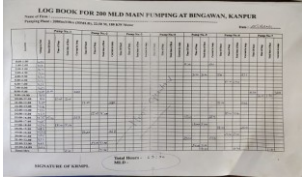




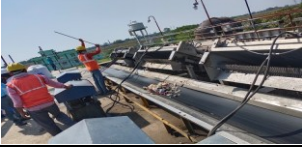
SITE INSPECTION REPORT FOR 210 MLD STP BINGAWAN





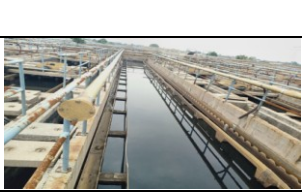
BINGAWAN STP - 210
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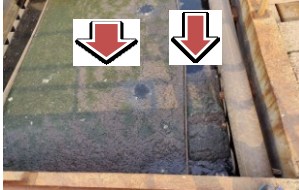





Date:
26.11.2021





S. No	Equipment	Assessment of Current Condition	Assessment of Current Condition photo	Corrective Action Required	Corrective Action Completed by KRML	Original Date of Issue	Proposed Date to Resolve by KRML
1	Bypass Sluice Gate	Operational Leakage was found through the gates		Leakage through bypass sluice gate must be rectified at earliest		26-10-2021	
2	Reverse flow	When STC / UPJN team reached the site, reverse flow was being found in the inlet chamber because from the 8 nos. of provided working pumps, only 2nos. / 3nos. pumps was being run by KRML at every time		At an average of 130 MLD flow (which is 62 % of the average design flow) is coming, therefore atleast 5 nos. of pumps has to be operated during peak flow & atleast 3 nos. pumps to be operated during non peak flow on regular basis in rotational way to tackle the problem of backflow/ reverse flow. In case the flow increase more than 130 MLD, more pumps needed to be operated.		26-10-2021	
3	Sluice gates	When STC / UPJN team reached the site, none of the gates were found in fully opened condition. Upon asking by STC team, they started opening the sluice gates		1) Sluice gates must be opened fully. 2) Lubrication must be done on regular basis.		26-10-2021	
4	Mechanical Coarse screen (No.01)	1) When STC / UPJN team reached the site, it was found that the screen was only running but not functioning. 2) Rake has not been aligned yet 3) Plates has not been replaced yet 4) No motor cover found on Mechanical Screen		1) Mechanical screen must be overhauled at earliest. 2) Provide canopy on motor 3) Provide marking of screens in bold letters so that it can be seen from far positions.		28-01-2020	
5	Mechanical Coarse screen (No.02)	1) When STC / UPJN team reached the site, it was found that the screen was only running but not functioning. 2) Rake has not properly aligned yet 3) No motor cover found on Mechanical Screen		1) Mechanical screen must be overhauled at earliest. 2) Provide naming in bold letters so that it can be seen from far positions.		03-02-2021	30.10.2021
6	Manual bar Screen no.01	After about 4 months of non operational, it was made operational on 30.10.2021 but not doing cleaning work on regular basis.		Regular cleaning must be done		26.11.2021	
7	Manual bar Screen no.02	Operational		Regular cleaning must be done			








8	Coarse Screen Panel	Operational		1) Panel door need to be repaired. 2) All Panel indicator need to be repaired/replace		28-01-2020	15.11.2021
9	Conveyor belt	1) When STC / UP Jal Nigam team reached the site, we found huge piles of debris which means KRMPL is not removing the debris on regular basis. 2) Conveyor belt was not found properly aligned. 3) Also no trolley for shifting debris was found at the required place. 4) Animal was found near the debris. 5) Casing of motor was found damaged.		1) Conveyor belt must be aligned properly so that complete debris can be removed. 2) Debris disposal from the belt conveyor to be done regularly. 3) Trolley must be provided. 4) Stray animals entry must be prohibited in plant. 5) Motor casing must be replaced.		26-10-2021	
10	Sluice Gate Slab	Some repairing has been done		Proper curing must be done.		26-10-2021	
11	Main Pump House Sump	Filled With floating garbage. This situation is coming due to not operating the Mechanical coarse screens at inlet.		To take action immediately for cleaning and ensure this situation never repeats.		18.08.2021	30.11.2021
12	Cable tray	Cable tray was found rusted		Needs to be painted		18-08-2021	
13	Butterfly Valve chamber (Civil work)	Slab casting, finishing works etc found not completed		1) To complete renovation at the earliest. 2) Steps to be provided to go inside the chamber. 3) Slab casting and placing work needs to be done at the earliest. 4) Painting and finishing works needs to be done		01.04.2021	30.10.2021
14	Pump no.1	Operational		Leakages from the Impeller must be fixed		26-10-2021	
15	Pump no.2	Operational		Leakages from the Impeller must be fixed		26-10-2021	
16	Pump no.3	Pump was found running but not pumping sewage		1) Need to be overhauled at earliest. 2) Leakages from the Impeller must be fixed. 3) Voltmeter must be fixed.		26-10-2021	
17	Pump no.4	1) Pump was found running but not pumping sewage. 2) Uneven sound was heard coming from the pump		1) Need to be overhauled at earliest. 2) Leakages from the Impeller must be fixed.		06.05.2021	30.11.2021
18	Pump no.5	Operational		1) Ampere meter must be changed. 2) Leakages from the Impeller must be fixed		26-10-2021	
19	Pump no.6	Operational Uneven sound was heard coming from the pump		1) Leakages from the Impeller must be fixed. 2) Sounding issue must be rectified at the earliest		26-10-2021	
20	Pump no.7	1) After about 1 month of non operational, it was made operational on 25.11.2021. 2) Voltmeter not working		1) Voltmeter must be replaced. 2) Leakages from the Impeller must be fixed.		26.11.2021	
21	Pump no.8	Non Operational		1) Need to be overhauled at earliest. 2) Leakages from the Impeller must be fixed.		28.07.2021	30.10.2021
22	Pump no.9	Non Operational		1) Need to be overhauled at earliest. 2) Leakages from the Impeller must be fixed.		25.08.2021	





23	Pump no.10	Operational Uneven sound was heard coming from the pump		1) Leakages from the Impeller must be fixed 2) Sounding issue must be rectified at the earliest.		26-10-2021	
24	Pump no.11	Operational		Leakages from the Impeller must be fixed		26-10-2021	
25	Pump no.12	1) After about 1 month of non operational, it was made operational on 16.11.2021. 2) Voltmeter not working. 3) Heavy leakage was found from the gate valve & pump impeller. 4) Uneven sound was heard coming from the pump		1) Voltmeter must be replaced at the earliest. 2) Leakages from the gate valve & Impeller must be fixed. 3) Sounding issue must be rectified at the earliest.		26.11.2021	
26	Pump Logbooks	Pump log book is not filled properly and not signed by operator and site incharge		1) Must be filled properly along with signing of the operator and site incharge. 2) Mark the non operational pumps in the log book. 2) Flow must be written daily in MLD		26-10-2021	
27	Inlet Flow Meter	Non Operational		Flow meter need to be fixed at the earliest		28.01.2020	
28	Level Sensor of MPS Sump	Non functional		Must be calibrated at the earliest and proper recording must be maintained on hourly basis per day.		26-10-2021	
29	Mechanical Fine screen no.01	After about 22 months (Since 28.01.2020) of non operational, it was made operational on 13.11.2021 but still not functional. None of the disposal material is getting removed by the screen and also sewage level in upstream is higher than that of the level at downstream. Screen bars are choked with disposal materials.		Must be Overhauled at the earliest		28/1/2020	15.11.2021
30	Mechanical Fine screen no.02	When STC / UP Jal Nigam team reached the site, we found that the screen is not functioning properly. None of the disposal material is getting removed by the screen and also sewage level in upstream is higher than that of the level at downstream. Screen bars are choked with disposal materials.		Must be rectified at the earliest		26-10-2021	
31	Mechanical Fine screen no.03	Non Operational		Must be rectified at the earliest		26-10-2021	
32	Mechanical Fine Screen Panel	1) Panel door damaged. 2) Some of the indicators not working.		1) Panel door need to be repaired. 2) All Panel indicator need to be repaired/replace. 3) Cable tray need to be painted.		28-01-2020	
33	Conveyor belt	When STC / UPJN team reached the site, Belt conveyor was not found operated, upon asking by STC, the operator started the conveyor belt.		It must be run continuously.		26-10-2021	
34	Manual Screen no. 1 & 2			Regular cleaning of manual screens must be done.		26-10-2021	
35	Sluice Gates	STC & UPJN found that the sluice gates present after manual screen are not working properly and upon closing aslo, sewage is passing through the gate.		Must be rectified at the earliest		26-10-2021	

36	Bio remediation	When STC / UPJN team reached the site, the box for bio remediation was found choked and filled with sludge		Needs to be cleaned on regular basis.		26.11.2021	
37	Grit removal mechanism- Detritor no.01 Main drive, Classifier drive, Organic pump	1) Very less quantity of grit was being removed by the grit classifier. 2) Organic return pump was non operational. 3) No canopy found on motors of equipments.		1) Proper alignment work of grit classifier must be done at earliest. 2) ORP must be overhauled at the earliest. 3) Canopy must be provided on all motors. 4) Proper marking in bold must be done so that it can be seen from far position also.		25.08.2021	
38	Grit removal mechanism- Detritor no.02 Main drive, Classifier drive, Organic pump	Very less quantity of grit is being removed by the grit classifier.		1) Proper alignment work of grit classifier must be done at earliest. 2) Canopy must be provided on all motors. 3) Proper marking in bold must be done so that it can be seen from far position also.		25.08.2021	
39	Grit removal mechanism- Detritor no.03 Main drive, Classifier drive, Organic pump	Operational Less quantity of grit was being removed by the grit classifier.		1) Proper alignment work of grit classifier must be done at earliest. 2) Canopy must be provided on all motors. 3) Proper marking in bold must be done so that it can be seen from far position also. 4) Grit disposal tray must be cleaned.		26-10-2021	
40	Grit removal mechanism- Detritor no.04 Main drive, Classifier drive, Organic pump	Operational OPR was found non operational		1) ORP must be overhauled at the earliest. 2) Canopy must be provided on all motors. 3) Proper naming in bold must be done so that it can be seen from far position also. 4) Grit disposal tray must be cleaned.		26-10-2021	
41	External Lights on PTU	Out of 23 lights, 15 are not working		Must be replaced at earliest		26-10-2021	
42	Parshall Flume	No ultrasonic level sensor and no scale were found at site		1) Level sensor must be installed at earliest. 2) Scale & chart for flow measurement must be fixed at earliest.		Since Handover 08-07-2019	
43	Grit Disposal Area	Non availability of tractor trolley at every place and not removing grits and disposals are creating pollution & unhygienic environmental condition		Trolley at every location need to be provided for collection of Grit from chutes every time as directed by NMCG team and PE also. This point till date not complied by KRMPL. PCC need to be provided as required for this area.		26-10-2021	30.10.2021
44	UASB Reactor-no.1	Cleaned and filled but sludge blanket not formed		Reactivation of the UASB reactor required		23-01-2021	-
45	UASB Reactor-no.2	Cleaned and filled but sludge blanket not formed		Reactivation of the UASB reactor required		21-04-2021	-
46	UASB Reactor-no.3	Cleaned and filled		Reactivation of the UASB reactor required		20-08-2020	
47	UASB Reactor-no.4	Cleaned and filled but sludge blanket not formed		Reactivation of the UASB reactor required		23-01-2021	
48	UASB Reactor-no.5	Cleaned and filled but sludge blanket not formed		1) Reactivation of the UASB reactor required 2) Need to replace ball valves		15-03-2021	

49	UASB Reactor-no.6	Under Maintenance		1. NMCG has directed KRMPL to deploy more team for cleaning of UASB reactors to complete the process with in 3 to 4 week for each reactor.		28..01.2021	15-09-2021
50	UASB Reactor-no.7	Operated but filled with sludge		NMCG has directed KRMPL to deploy more team for cleaning of UASB reactors to complete the process with in 3 to 4 week for each reactor.		28.01.2020	
51	UASB Reactor-no.8	Cleaned and filled but sludge blanket not formed		Need to be Reactivation of the UASB reactor		23-01-2021	
52	UASB Reactor-no.9	Under Maintenance KRMPL had requested for inspection of reactor no. 9 on 26.11.2021. Accordingly STC along with UPJN visited the site and it was found that about 30% work is still remaining.		NMCG has directed KRMPL to deploy more team for cleaning of UASB reactors to complete the process with in 3 to 4 week for each reactor.		28.01.2020	
53	UASB Reactor-no.10	Under Maintenance		NMCG has directed KRMPL to deploy more team for cleaning of UASB reactors to complete the process with in 3 to 4 week for each reactor.		28.01.2020	
54	UASB Reactor-no.11	Under Maintenance		NMCG has directed KRMPL to deploy more team for cleaning of UASB reactors to complete the process with in 3 to 4 week for each reactor.		28.01.2020	
55	UASB Reactor-no.12	1) After about 22 months (since 28.01.2020) of non operational, it was cleaned on 08.11.2021. 2) Filled but sludge blanket not formed		1) Reactivation of the UASB reactor required. 2) Need to provide the compliance for giving conditional clearance.		26.11.2021	
56	UASB Reactor-no.13	Operated but filled with sludge		NMCG has directed KRMPL to deploy more team for cleaning of UASB reactors to complete the process with in 3 to 4 week for each reactor.		28.01.2020	
57	UASB Reactor-no.14	Operated but filled with sludge		NMCG has directed KRMPL to deploy more team for cleaning of UASB reactors to complete the process with in 3 to 4 week for each reactor.		28.01.2020	
58	UASB Reactor-no.15	Operated but filled with sludge		NMCG has directed KRMPL to deploy more team for cleaning of UASB reactors to complete the process with in 3 to 4 week for each reactor.		28.01.2020	
59	UASB Reactor-no.16	Under Maintenance		NMCG has directed KRMPL to deploy more team for cleaning of UASB reactors to complete the process with in 3 to 4 week for each reactor.		28.01.2020	
60	Sampling Chamber	When STC / UPJN team reached the site, it was found that the sampling chambers beside reactors were filled with sewage/ water and many sampling points were packed with concrete.		1) All Sampling chambers must be cleaned at the earliest. 2) Sampling points must be cleaned and valves to the point needs to be fixed.		26.11.2021	

61	Aeration Compartment-02	Under Maintenance		Need to be cleaning as per schedule maintenance work		18.08.2021	
62	Aerator no.01	Operational					
63	Aerator no.02	After about 6 months (since 31.05.2021) of non operational, it was made operational on 13.11.2021.				26.11.2021	
64	Aerator no.03	Operational					
65	Aerator no.04	Operational					
66	Aerator no.05	Operational					
67	Aerator no.06	Operational					
68	Aerator no. 07	After about 1.5 months (since 23.09.2021) of non operational, it was made operational on 07.11.2021.				26.11.2021	
69	Aerator no. 08	After about 2 months (since 23.09.2021) of non operational, it was made operational.				26.11.2021	
70	Aerator no. 09	Operational					
71	Aerator no. 10	Non Operational		Need to be rectified at the earliest.		26.11.2021	
72	Aerator no. 11	Operational					
73	Aerator no. 12	Operational					
74	Aerator no. 13	After about 2 months (since 23.09.2021) of non operational, it was made operational on 26.11.2021. Stray animals were found inside the plant.		Animal entry must be prohibited inside the plant.		26.11.2021	
75	Aerator no. 14	Operational					
76	Aerator no. 15	Operational					
77	Aerator no. 16	Operational					
78	Aerator no. 17	After about 1.5 months (since 23.09.2021) of non operational, it was made operational on 02.11.2021.				26.11.2021	
79	Aerator no. 18	Operational					
80	Aeration Lagoon no. 1	When STC / UPJN team reached the site, a joint depth measurement for aeration lagoon no. 1 was done at three different points, and sludge was found at an average depth of 0.6m below the top water level, which means 3.4 m approx. sludge is present inside aeration lagoon no. 1. 2) It was also found that no desludging work was taking place at the site.		Desludging needs to be done on immediate basis.		26.11.2021	
Belt Filter Press Unit							
81	Poly dosing pump No.1	Operational					
82	Poly dosing pump No.2	Operational					
83	Poly dosing pump No.3	Non Operational		Need to be repalced		07.10.2021	30.10.2021

84	Service water pump No.1 (For BFP)	Operational					
85	Service water pump No.2 (For BFP)	Non Operational		Need to be repalced		Since Handover 08-07-2019	15.11.2021
86	Belt filter Press No.1	Non Operational Discharge sludge box was found totally rusted and damaged.		1) Needs to be rectified at the earliest. 2) Need to be required lubrication on daily basis 3) Panel door, ammeter, voltmeter, limit switch need to be repaired. 4) Cable tray need to be painted. 5) BFP panel no. 1 buzzer need to be replace. 6) Discharge sludge box must be replaced.		23-09-2021	30.11.2021
87	Belt filter Press No.2	Operational Discharge sludge box was found totally rusted and damaged.		1) Need to be required lubrication on daily basis 2) Panel door, ammeter, voltmeter, limit switch need to be repaired. 3) Cable tray need to be painted. 4) Discharge sludge box must be replaced.		23-09-2021	30.11.2021
88	Belt filter Press No.3	Operational Discharge sludge box was found totally rusted and damaged.		1) Need to be required lubrication on daily basis 2) Panel door, ammeter, voltmeter, limit switch need to be repaired. 3) Cable tray need to be painted. 4) Discharge sludge box must be replaced.		23-09-2021	30.11.2021
89	Tractor Trolley	No spare trolley was present		Provide spare trolley		26.10.2021	
Chlorination Area							
90	Booster Pump No.1	Operational Leakage found from the Impeler		Leakages must be fixed at the earliest		26.11.2021	
91	Booster Pump No.2	Operational					
92	Chlorine Tonners (Total 20 Nos)	1) 17 nos tonners available at site ,03 nos are missing after handover. 2) Only 1 no. chlorine tonner is connected for discharge chlorine line & 1 no. tonner was found filled and rest were found empty. 3) As per design capacity 5 PPM dosing required and for 130 MLD flow 650 Kg chlorine to be consumed per day means 27.1 Kg/ lit dosing required but KRMPL is doing only 21 kg/lit dosing.		1) Bring 3 nos. tonner back. 2) Arrange Chlorine stock for one week. 3) Take license for storing chlorine. 4) Chlorine tonner entry & exit register must be made available at this unit. 5) Dose proper amount of chlorine.		After Handover on 08-07-2019	
93	Gas Holder No.01	Operational		1 Gas level indicaor is missing . 2.Pressure guage shall be install			
94	Gas Holder No.02	Non Operational		1) Gas level indicaor is missing. 2) Pressure guage shall be install. 3) Gas holder not aligned		28-01-2020	

95	Gas Blower	Non Operational		Need to be rectified		26.11.2021	
96	Gas scrubber Unit	Non Operational		1. Need to be repair/replace		28.01.2020	
97	Gas Flaring Unit at DG yard	Non Operational		Need to be repaired and painted immediately.		28-01-2020	
98	DFG no. 1	Operational		Need to be painted		23-09-2021	
99	DFG no. 2	Operational		Need to be painted		20-09-2021	
100	House Keeping			House keeping work of the plant needs to be done regularly.		26.10.2021	
101	Leakage at Civil Unit	leakage		Need to be repair		28.01.2020	
102	Log Boogs/ Registers			Log Books of each unit must be maintained regularly		26-10-2021	
103	Internal Road Restoration	Internal roads were found damaged at various places		Internal road restorational must be started at earliest and should be done on phased manner.		26-10-2021	
104	Marking Equipments			Each equipments of every units must be marked (like 1st, 2nd etc) in bold letters.		26-10-2021	
105	Laboratory	<p>1) Samples being collected are not labelled.</p> <p>2) In the last inspection carried out by STC on 26.10.2021, no date wise base data was found, so it was instructed to KRMPL to maintain date wise base data record. Now upon asking to show the base data in the inspection carried on 26.11.2021, KRMPL has provided the base data from 01.10.2021, which means back data (from 01.10.2021 to 26.10.2021) had been documented and falsely produced.</p> <p>3) It was found that the BOD test was being carried out for 3 days at Bingawan facilities and for rest sites, it was carried out for 5 days.</p> <p>4) It was found that on one day, fecal coliform test are completed in 24 hrs whereas on other days they are taking 2 to 3 days for its completion.</p> <p>5) Standard operating procedures are</p>		<p>1) Samples collected must be labelled.</p> <p>2) Lab. Chemist has to maintain date wise base data of all the testings done and must not provide any false data.</p> <p>3) BOD test must be carried out as per standard operating procedure as per CA / CPHEEO manual.</p> <p>4) There is an inconsistency in fecal coliform test. Kindly follow the standard operating procedure as per CA / CPHEEO manual.</p> <p>5) Standard operating procedure sheet must be provided in the laboratory at the earliest.</p>		26.10.2021	
106	MS structures, Hand rails, MS staires	Various MS Structures, MS staires and all the hand rails on UASB reactors etc were found totally rusted		Needs to be painted		26.11.2021	

Note:- 1) No operator was found for PTU equipment operation and only one sweeper was there who was operating the equipments.
2) No operators were found for PTU panel, HT and LT panel, Sludge pump, aerators etc operations.

<div>INSPECTED BY: UPJN Team 1) Mr. Mahipal Singh (JE, E&M) 2) Mr. Ajit Singh (JE, Civil) STC Team: 1) Dr. Gridhar Prabhu Kumar (TL) 2) Mr. J.P.Tripathi (O&M Expert) 3) Mr. Satish Kamaraju (Process Expert) 4) Mr. Rohit Suman (Supp. Engr. Mech.) 5) Mr. Pankaj Rawat (Support Supervisor)</div>
Current Status of Compliance
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