



PROJECT ENGINEER *for*

National Mission for Clean Ganga- Development, Rehabilitation with
Operation & Maintenance of STPs at Kanpur under Hybrid Annuity based PPP mode

Shah Technical Consultants Private Limited

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Ref. STC / PE / KNP / 2007 / Jajmau -43

Date : 27 / 02 / 2023

To,
SE
Construction circle
Uttar Pradesh Jal Nigam (Rural)

Sub: HAM KANPUR: Inspection Report of 43 MLD STP Jajmau facilities, Inspection done on
10.02.2023

Following UPJN, STC & KRMPL officials were present.

UPJN

1. Mr. Vipin Pal, UPJN, JE (Civil)

STC Team

2. Mr. Anil Kumar Seth, Team Leader (STC Kanpur)
3. Mr. Indra Deo Pandey, Support Engineer (Civil)
4. Mr. Ajay Kumar Goyal, Support Engineer (Mechanical)
5. Mr. Rahul, Support Engineer (Electrical)

KRMPL Team

1. Mr Shri Ram (Plant In-charge)
2. Mr. Akashay Tripathi (Process Engineer)

With reference to above subject the Inspection Report of 43 MLD STP Jajmau of joint inspection held on 10.02.2023 is
attached here with for your information and necessary action.

Encl: Inspection report of 43 MLD STP

(Anil Kumar Seth)

Team Leader

STC Kanpur

Copy to the following for information & necessary action:

1. Mr. Rajat Gupta , SWMS,NMCG, New Delhi
2. Ms. Nidhi Dwivedi, Project officer (Technical),NMCG, New Delhi
3. Chief Engineer, Kanpur Zone, UP Jal Nigam, Kanpur.
4. PM-I & PM-E&M, GPCU, UP Jal Nigam, Kanpur.
5. Mr. P.C. Shukla, Concessionaire's Representative
6. Project Manager, Kanpur River Management Pvt. Ltd., Kanpur.
7. O&M in charge, Kanpur River Management Pvt. Ltd., Kanpur.

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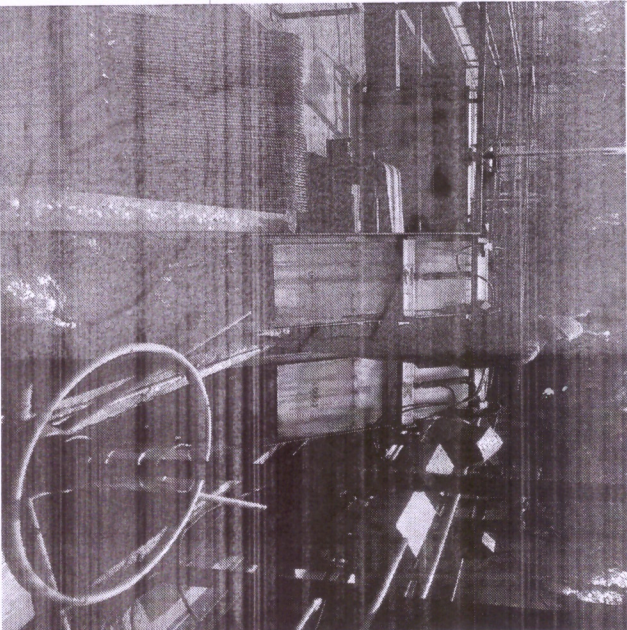
SITE INSPECTION REPORT FOR 43 MLD JAJMAU PHASE-II STP

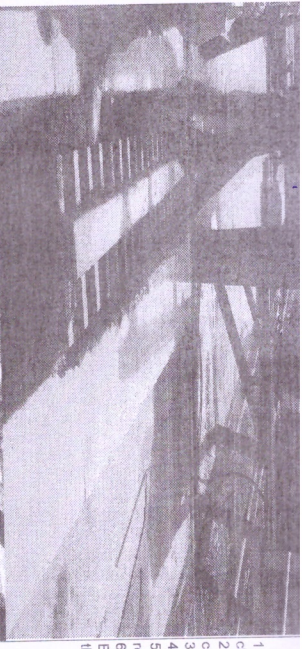
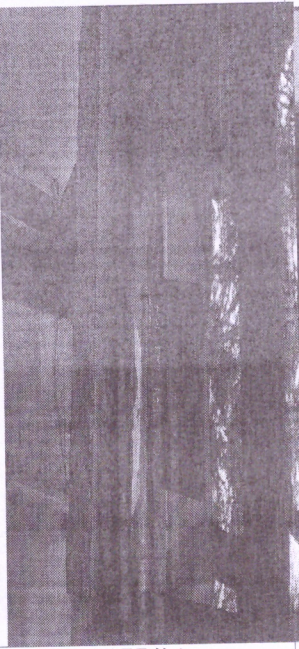
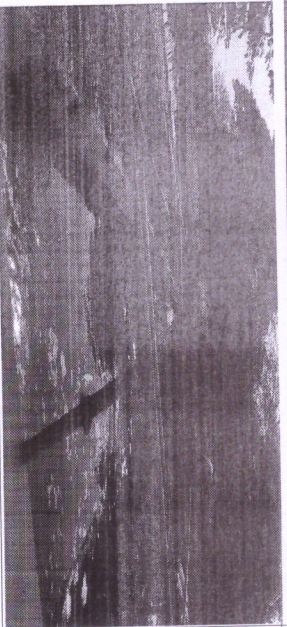
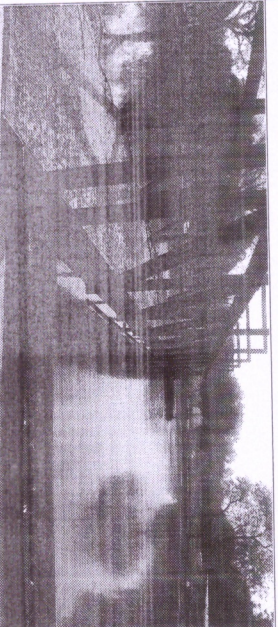
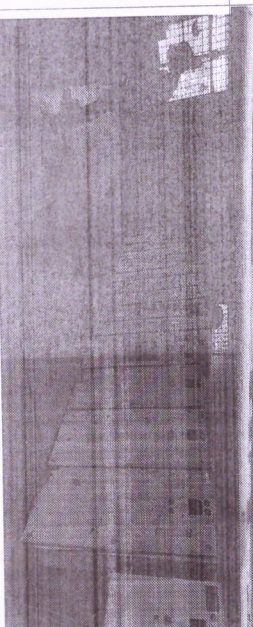
JAJMAU PHASE-II
STP - 43 MLD


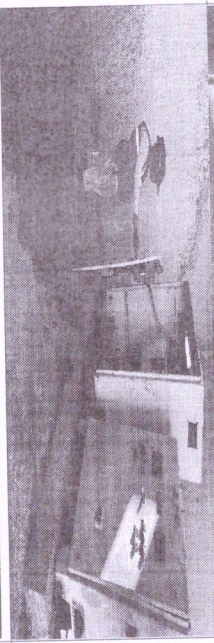
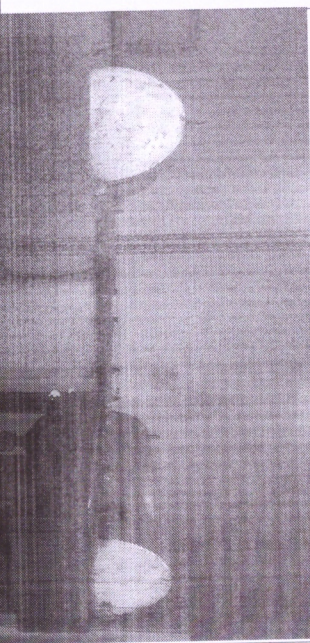
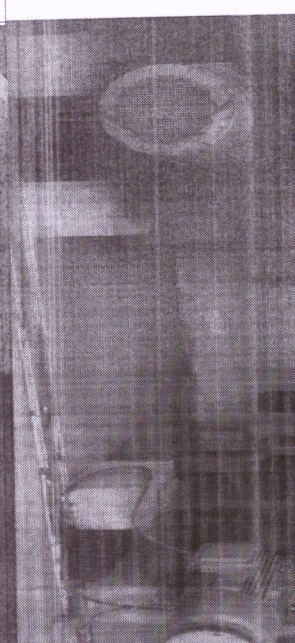
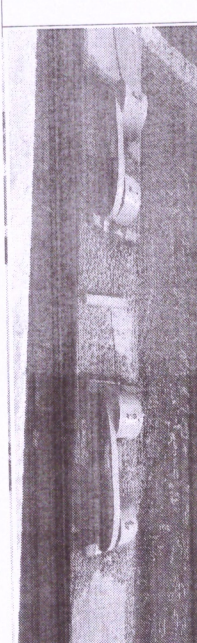
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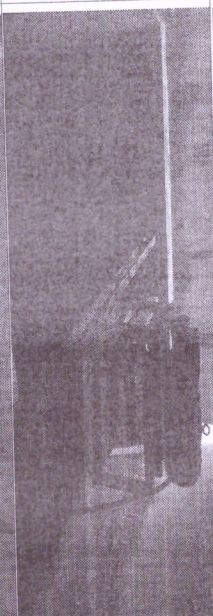
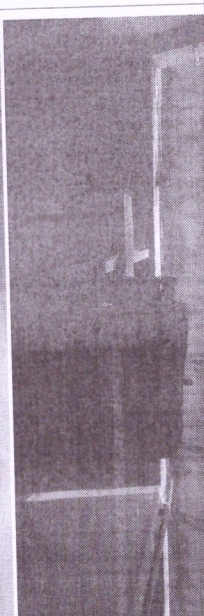
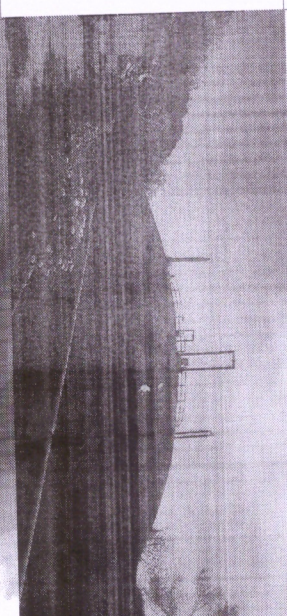
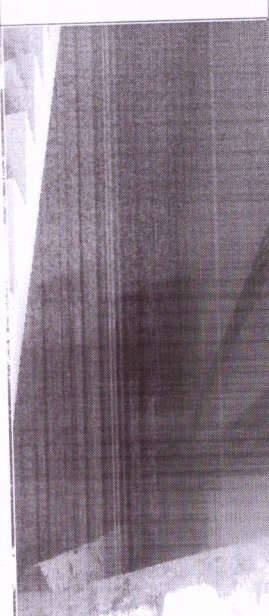
INSPECTED BY:
1. Vipin Pal, JE Civil
STC Team
2. Mr. Anil Kumar Sethi (Team leader, STC Kanpur)
3. Mr. Indra Deo Pandey, Support Engineer (Civil)
4. Mr. Ajay Kumar Goyal, Support Engineer (Mechanical)
KRMPL Team
1. Mr. Shrikant (Plant Incharge)
2. Mr. Akashy Tripathi (Process Engineer)

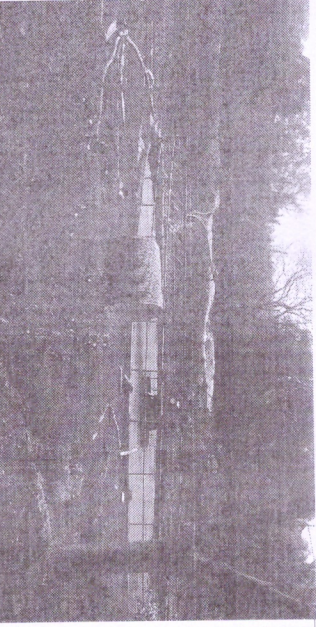
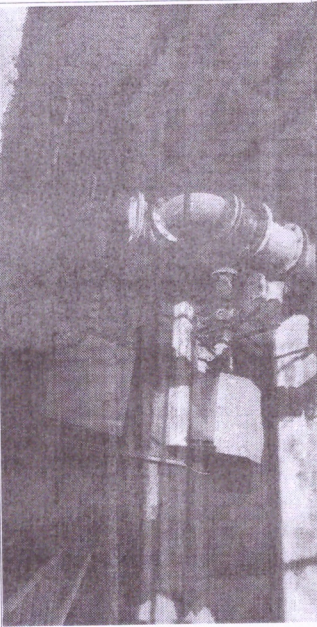
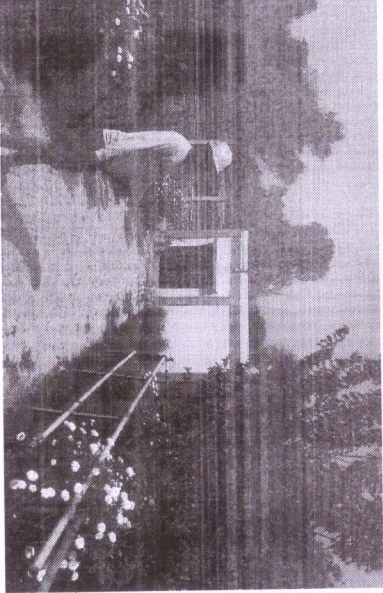
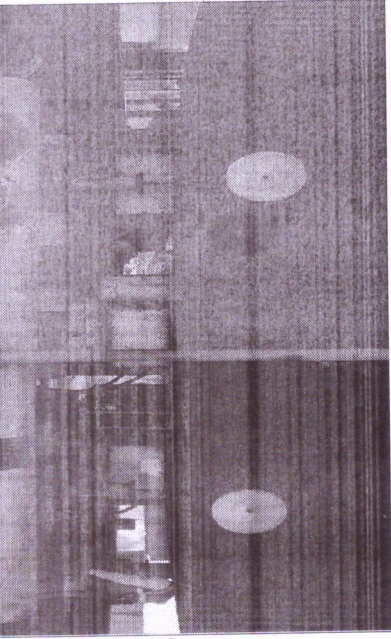
UPJN


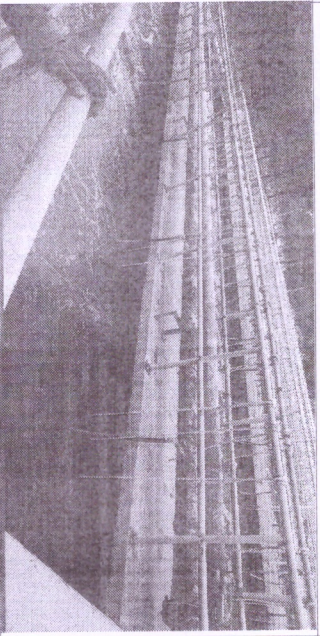

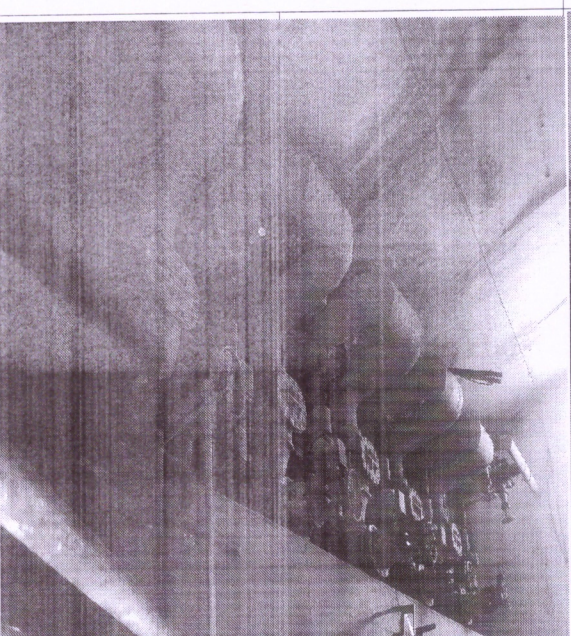
S. No.	Equipment	Assessment of Current Condition	Assessment of Current Condition Photo	Corrective Action Suggested by STC	Original Date of Issue	Proposed Date to Resolve by KRMPL	Current Status of Compliance
A	Inlet Chamber			1. Chamber and hand railing painting work done. 2. Pipe hood to be installed on each rotating wheel. 3. Sluice gate need to be lubricated. 3. Cleaning of inlet chamber need to be done.	21.09.2021		Pending.
1	Fine Screen No. 1 (Mechanical)				21.09.2021		Pending.
2	Fine Screen No. 2 (Mechanical)			1. Fine Screen need to be cleaning properly. 2. Screen Level Sensor need to be replaced. 3. Screen panel auto/system need to be repaired. 4. Panel stand need to be painted. 5. Cable tray need to be replaced and painted. 6. All light in the screen area areed to be replaced. 7. Disposal material need to be removed on regular basis. 8. Manual trolly need to be provided for Disposal material. 9. All motors need to be covered by canopies. 10. Fine screen 2 (mechanical) need to maintenance for proper functional.	21.09.2021		Pending.
3	Fine Screen No. 2 (Manual)				16.12.2021		Pending.
B	Grit Mechanism						

1	Grit chamber-1 1)Organic pump withMotor 2)Scraper 3)Classifier Mechanism	During site visit it was found that KRMP.L has taken shutdown sluice gate so during site visit it was found non-functional since 11.07.2022		<ol style="list-style-type: none"> Grit removal system is functional and classifier system is functional. Painting needs to be done to equipment / covers wherever rusting. Alignment of classifier found non-functional. Cable tray need to be painted. All E&M equipments shall be lubricate on regular basis and maintain the log book at site. Log book need to be maintained. Baffle plates are found to be corroded and therefore need to be replaced. 	30.09.2021		Pending
C	Inlet flow meter	During the visit it was found operational.		<ol style="list-style-type: none"> Log book need to be maintained. At the time of power failure there are no powerbackup is available for flow meter, So KRMP.L has to provided power backup facility. Level scale needs to be painted. 	21.09.2021		Pending
	Open Channel	Operational		<ol style="list-style-type: none"> Open channel need to be cover with frame cover. Repairing and Painting work need to be done. 	16.12.2021		Pending
D	Primary Unit						
1	Primary sedimentation tank	Primary sedimentation tank found operational.		<ol style="list-style-type: none"> Cleaning work done of PST. Painting work need to be done. "V" notch need to be replaced. Handrailing work need to be paint. Alignment need to be rectified for PST. Log book need to be maintained. Scum chamber need to be clean. loose concrete work need to be cleaned and track should be proper groud. Housekeeping need to be done. Need to Cleaning of sludge. 	21.09.2021		Pending
E	Panel room	Operational		<ol style="list-style-type: none"> Screen panel voltmeter need to be replaced. Dosing agitator ammeter need to be replaced. 	21.09.2021		Pending

F	Sludge System						
1	Centrifuge feed pump (No. 1 & 2)	Operational		<ol style="list-style-type: none"> 1. Pump cleaning need to be required. 2. Pump lubrication need to be done on regular basis by KRMPL. 3. Pump RPM need to be increase as per design. 4. Vibration and Temperature need to be measure on regular basis. 	21.09.2021		Pending
2	Centrifuge panel	Operational		<ol style="list-style-type: none"> 1. Panel no. 1 need to be repaired. 2. Panel no. 2 voltmeter need to be replaced. 3. Panel door damage need to be repair. 	21.09.2021		Pending
3	Centrifuge No. 1	Operational		<ol style="list-style-type: none"> 1. Need to be overhauled & servicing. 2. Dosing of PACL in sludge feed line not properly tapping according to design. Therefore dosing line tapping from upward to downward direction. KRMPL has not taken action as same. 3. Pipe support shall be installed properly for sludge feed line and dosing line. 4. Electrical cables need to be lineup properly. 5. 1 CCTV need to be arranged for sludge removal from Trolley on urgent basis. 6. The quality of dewatered sludge is not adequate since liquid is being noticed during site visit. 7. 2 nos centrifuges operated by KRMPL, 12 Hrs each due to non-availability of VFD only one at a time operated. 	21.09.2021		Pending
4	Centrifuge No. 2	Operational		<ol style="list-style-type: none"> 1. Need to be overhauled & servicing. 2. Dosing of PACL in sludge feed line not properly tapping according to design. Therefore dosing line tapping from upward to downward direction. KRMPL has not taken action as same. 3. Dosing line has not been connected with sludge feed line of centrifuge No. 2. 4. Pipe support shall be installed properly for sludge feed line and dosing line. 5. The quality of dewatered sludge is not adequate since liquid is being noticed during site visit. 6. 2 nos centrifuges operated by KRMPL, 12 Hrs each due to non-availability of VFD only one at a time operated. 	21.09.2021		Pending
5	Centrifuge thickener sludge sump + Agitator 2 Nos.	1 - Operated 1 - Operated		<ol style="list-style-type: none"> 1. Sludge cleaning work need to be done. 2. Need to be overhauled & servicing as required. 3. Log book need to be maintained. 	16.12.2021		Pending

6	Poly Dosing(No.1 & 2)	Operational		<ol style="list-style-type: none"> 1. Leakage was observed in Pump No. 1 2. Need to be Overhauled & Servicing. 3. Log book need to be maintained. 4. Polymixer was not in operation during site visit. 	21.09.2021		Pending
7	Agitator No. 1	Non-Operational		<ol style="list-style-type: none"> 1. Need to be rectified 2. Need to Be cleaned the Sump bottom 3. Needs to be replaced 4. Cleaning work of tank needs to be done 	21.09.2021		Pending
8	Agitator No. 2	Operational		<ol style="list-style-type: none"> 1. Rusted steel Structure need to be replaced. 	21.09.2021		Pending
9	Digester No. 1	Non-operated		<ol style="list-style-type: none"> 1. Digster Need to be cleaned. 2. Civil Leakage need to be repaired. 3. Pressure relieve valve need to be calibration. 4. All four nos of motors need to be repaired. 5. Canopies need to be replace. 6. HDPE gas pipe line need to be proper support. 7. Sludge digester taken offline since 8 months and it was found that the sludge is being diverted to sludge holding ponds which are already brim. It is very urgent that KRMPL address this issue at the highest priority. 	21.09.2021		Pending
10	Thickened sludge Pump(No. 1 & 2)	pump 1 Non-operational		<ol style="list-style-type: none"> 1. Need to be overhail and servicing. 2. Lubrication of pump need to be done. 	21.09.2021		Pending

G	Sludge Thickener No. 1	Operational			21.09.2021		
	Thickened Sludge Sump (Feed pump no 1 & 2)	Operational		<ul style="list-style-type: none"> 1. We have found some vibration at Pump no 2 during visit KRMPL, need to be repair. 2. Pipe support need to be replace as required. 3. Vibration and Temperature need to be measure on regular basis. 4. Dewatering from the sump need to be required. 	16.12.2021		Pending
	Thickened Sludge Pump house	Operational		<ul style="list-style-type: none"> 1. Need to be Overhaul and repair. 2. Cleaning work need to be done. 3. Vibration and Temperature need to be measure on regular basis. 	21.09.2021		Pending
H	Blower Room						
	Air Blower No. 1	Operated		<ul style="list-style-type: none"> 1. Air Blower remote system cable need to dressed properly. 2. Air blower no 1 need to be rectified. 3. Acoustic hood need to be installed. 4. Vibration and Temperature need to be measure on regular basis. 5. Log book need to be maintained. 6. Pressure gauges need to be installed. 7. PRV need to be checked. 8. Insulation work in discharge line needs to be done by KRMPL. 	21.09.2021		Pending
	Air Blower No. 2	operational					

3	Air Blower No. 3	Operational since 08.07.2022				
I	Aeration Tank	Operated		<p>1. Air pipes were observed to be rusted. 2. Pipe lines need to be changed. 3. Valves need to be changed. 4. Handrails need to be painted. 5. Diffuser line need to be Cleaned and maintained records also. 6. Insulation required for discharge line of blower. 7. Rope need to be replaced. 8. 4 Sets of diffuser needs to be repired on urgent basis. 9. Blower nos3 NRV leakage need to repair</p>	21.09.2021	Pending
J	Final Sedimentation tank	Operated		<p>1. Cleaning work need to be done. 2. Painting work need to be done. 3. Alignment of Mechanism need to be rectified. 4. "V" notch need to be replace.</p>	21.09.2021	Pending
K	43 MLD TEPH5 Nos Pumps)	Operational		<p>1. Pump No. 2 was non operational. 2. Pressure gauges not working in all pumps. 3. Internal lights were not working. 4. Each pump capacity 900m3/hr. 5. Lubrication of each equipment need to be done. 6. Log book need to be maintain properly. 7. Vibration and Temperature need to be measure on regular basis. 8. Ammeter need to be repaired.</p>	21.09.2021	Pending

L	<div data-bbox="1305 248 1589 1025" data-label="Image"> </div> <div data-bbox="1414 1025 1468 1283" data-label="Text"> <p>1. Pump no. 4 is non-operational since 10.02.2023. 2. Ammeter need to be repaired.</p> </div>	21.9.2021		Pending
RSPH	<div data-bbox="1104 248 1305 1025" data-label="Image"> </div> <div data-bbox="1104 1025 1305 1357" data-label="Text"> <p>1. Pump no. 4 is non-operational since 10.02.2023. 2. Ammeter need to be repaired.</p> </div>	21.9.2021		Pending
Remarks:-	<p>Important Note- ED (Technical) visited on 07.10.2021 directed to KRMPL to dispose the sludge as per UPPCB/ NGT norms.</p> <ol style="list-style-type: none"> 1. At the time of power failure there are no power backup is available, KRMPL has been shutting down the STP which was deteriorated process of the 43 MLD STP plant. 2. CCTV cameras required to be installed immediately at centrifuge equipments as agreed by KRMPL. 3. Landscaping work need to be done by KRMPL. 4. All mechanical, electrical and instrumentation equipments need to be functional properly. 5. Painting work need to be done by KRMPL, because acceptance criteria not fulfilled yet given below:- <ol style="list-style-type: none"> i) All painted surfaces shall be uniform and pleasing appearance ii) The colour, textures etc shall match exactly with approved samples. iii) All stains, splashes and splatters of paint shall be removed from surrounding surfaces. 			

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