

Minutes of Meeting # 6

Project : Development of STPs and TTP Projects along with associated infrastructure in Mathura under Hybrid Annuity based PPP mode, Uttar Pradesh

Date : 7thDecember 2018

Location : Office of the Project Manager, Drainage and Sewerage Unit, UPJN, Mathura

List of Attendees:

1. Mr. Maharaj Singh, Project manager (D&SU), UP Jalnigam, Mathura
2. Mr. Deepak Chauhan, Project Manager (E&M), UP Jal Nigam, Agra.
3. Mr. Waseem Athar, Project Engineer, UP Jal Nigam, Mathura.
4. Mr. Sumit Project Engineer (E&M), UP Jal Nigam, Agra
5. Mr. A.Srinivasan, General Manager – MACE
6. Mr. Sathish Kamaraju, Senior Process Engineer, MACE
7. Mr. M. Jayakrishnan, Project Engineer, MACE
8. Mr. K.C.Agarwal, GM, Triveni
9. Mr. Kailash chand Dhawan, AGM - Triveni
10. Mr. Sunil Bhargava, Process Engineer, Triveni
11. Ms, Kajal Verma, Asst. Manager- Triveni
12. Mr. Biswajit Majumdar, Triveni

Agenda of the Meeting:

- To discuss and approve HFC and HFD for 30 MLD STP at Masani

The following points were discussed during the meetings held on 7th December 2018 at UPJN office Mathura

Sr. No.	Description	Action by	Remarks
A	HFC of 30 MLD NEW STP at Masani		
1	HFC calculation need to include diversion 6.80MLD flow upto existing WSP inlet	MWMPL	MWMPL agreed for the same and will submit the revised document and drawings on or before 10 th December 2018. MACE to review and provide the status of compliance and observations if any

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2	Input Data: Design flow values to be corrected as per approved version of Process and mechanical design calculation.	MWMPL	<p>MWMPL agreed for the same and will submit the revised document on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>
3	1.From disposal drain to Chlorine contact tank: For disposal line, IL of pipe is 177.36mwhereas the existing drain WL is 177.859m. Further, the existing pipeline from WSP is 178.128m. Hence, all the structures proposed before disposal line to be suitably increased over and above the WL of drain preferably to match with the WSP line.	MWMPL	<p>MWMPL agreed to keep the invert level of disposal pipe line at the disposal point as 117.36 m and extend the pipe till disposal point instead of leaving it to the existing channel since the existing channel is designed for 6.8 MLD capacity.</p> <p>MWMPL agreed to increase the discharge pipe from CCT to disposal point to 800 mm instead of 700 mm.</p> <p>MWMPL also agreed to raise the entire system to 0.3 m from the proposed IL/TWL in PXD-1305-101-11-003-R1 Dated 29-11-2018 document and drawing</p> <p>MWMPL will submit the revised document and drawing on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>
4	1.From disposal drain to Chlorine contact tank: Length of the treated effluent pipeline to be verified as per the site condition and to be	MWMPL	<p>MWMPL agreed to revise the pipe length to 200 m as per site condition and will submit the</p>

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	incorporated in the HFC.		revised document and drawing on or before 10 th December 2018. MACE to review and provide the status of compliance and observations if any
5	1.From disposal drain to Chlorine contact tank: Head over weir calculation need to be adopted as per CPHEEO manual/ Indian standard	MWMPL	MWMPL will submit the revised document and drawing on or before 10 th December 2018 MACE to review and provide the status of compliance and observations if any
6	2.SBR system: Decanting level and head loss through gate to mentioned separately. MACE enquired how the decanting is envisaged during peak flow condition. MACE enquired about the decanter vendor to understand the requirement. MWMPL informed that they are yet to finalise the vendor for the same	MWMPL	MWMPL informed that they will provide two decanters to handle peak flow, where as the same is shown as one in the drawing. After words it is informed that the weir decanter will be provided to handle the flow conditions. Since there is a discrepancy between the above two statement, they informed that they will review internally and come up with the firm solution on or before 8 th December 2018.
7	3.Parshall Flume channel: Length of downstream channel need to be rechecked and corrected.	MWMPL	MWMPL agreed for the same and will check and modify if required and submit the revised document and drawing on or before 10 th December 2018. MACE to review and provide the status of compliance and observations if any
8	3.Parshall Flume channel: For all calculations and design, the priority should be given to CPHEEO manual followed by Indian standards. In case	MWMPL	MWMPL will submit the revised document and drawing on or before 10 th December 2018

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	<p>if there is no information or workings available then the reference from other text book can be considered.</p> <p>Accordingly revise the calculation. Separate drawing need to be provided as per CPHEEO manual.</p>		<p>MACE to review and provide the status of compliance and observations if any</p>
9	<p>4 &5.Mechanical and Manual grit separator: Head over weir calculation need to be adopted as per CPHEEO manual/ Indian standard</p>	MWMPL	<p>MWMPL will submit the revised document and drawing on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>
10	<p>7.Mechanical screen channel:</p> <p>Water depth at screen channel need to be verified with process and mechanical design calculation and corrected</p>	MWMPL	<p>MWMPL informed that the head loss is crossing beyond the allowable limit, they are revising the approved process and mechanical design calculation based on the water depth mentioned in HFC and HFD.</p>
11	<p>Head loss calculation for arriving at the lowest point water level at the thickener launder, thickener launder to SBR Basin, sludge thickener bottom to thickened sludge sump</p>	MWMPL	<p>MWMPL will submit the revised document and drawing on or before 10th December 2018</p>
12	<p>Pump head calculation for SAS, centrifuge feed to be included in HFC.</p>	MWMPL	<p>MWMPL informed that the pump head calculation will be provided separately on or before 14th December 2018.</p> <p>MACE to review and provide the status of compliance and observations if any</p>
13	<p>HFC calculation for SBR outlet channel to CCT inlet to be provided for decanter peak flow.</p>	MWMPL	<p>Same as serial No.6</p>

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14	8.Manual screen channel: Water depth at screen channel need to be verified with process and mechanical design calculation and corrected	MWMPL	MWMPL informed that the head loss is crossing beyond the allowable limit, they are revising the approved process and mechanical design calculation based on the water depth mentioned in HFC and HFD. MWMPL to submit the revised process and mechanical design calculation on or before 10 th December 2018
15	Document title to be corrected as "Hydraulic flow calculation"	MWMPL	MWMPL will submit the revised document and drawing on or before 10 th December 2018 MACE to review and provide the status of compliance and observations if any
B	HFD of 30 MLD NEW STP at Masani		
1	HFC calculation need to include diversion 6.80MLD flow upto existing WSP inlet.	MWMPL	MWMPL agreed for the same and will submit the revised document and drawing on or before 10 th December 2018 MACE to review and provide the status of compliance and observations if any
2	For disposal line, IL of pipe is 177.36m whereas the existing drain WL is 177.859m. Further, the existing pipeline from WSP is 178.128m. Hence, all the structures proposed before disposal line to be suitably increased over and above the WL of drain preferably to match with the WSP line.	MWMPL	MWMPL agreed to keep the invert level of disposal pipe line at the disposal point as 117.36 m and extend the pipe till disposal point instead of leaving it to the existing channel since the existing channel is designed for 6.8 MLD capacity.

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			<p>MWMPL agreed to increase the discharge pipe from CCT to disposal point to 800 mm instead of 700 mm.</p> <p>MWMPL also agreed to raise the entire system to 0.3 m from the proposed IL/TWL in PXD-1305-101-11-003-R1 Dated 29-11-2018 document and drawing</p> <p>MWMPL will submit the revised document and drawing on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>
3	Gate and cut out section to be shown as considered in hydraulic flow calculation and Process and hydraulic flow calculation	MWMPL	<p>MWMPL agreed for the same and will submit the revised document and drawing on or before 10th December 2018.</p> <p>MACE to review and provide the status of compliance and observations if any</p>
4	Mechanical screen channel: Water depth at screen channel need to be verified with process and mechanical design calculation and corrected	MWMPL	<p>MWMPL informed that the head loss is crossing beyond the allowable limit, they are revising the approved process and mechanical design calculation based on the water depth mentioned in HFC and HFD.</p> <p>MWMPL to submit the revised process and mechanical design calculation on or before 10th</p>

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			December 2018
5	Manual screen channel: Water depth at screen channel need to be verified with process and mechanical design calculation and corrected	MWMPL	<p>MWMPL informed that the head loss is crossing beyond the allowable limit, they are revising the approved process and mechanical design calculation based on the water depth mentioned in HFC and HFD.</p> <p>MWMPL to submit the revised process and mechanical design calculation on or before 10th December 2018</p>
6	SBR system: BWL of the SBR basin need to be shown	MWMPL	<p>MWMPL agreed for the same and will submit the revised document on or before 10th December 2018.</p> <p>MACE to review and provide the status of compliance and observations if any</p>
7	Top level of SBR outlet chamber ,SBR outlet channel and CCT should be minimum 0.5m above the FGL.	MWMPL	<p>MWMPL agreed for the same and will submit the revised document and drawing on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>
8	Level of thickened sludge sump need to be shown and TL need to corrected with respect to HFC.	MWMPL	<p>MWMPL agreed for the same and will submit the revised document and drawing on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>

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9	Section of mechanical grit separator need to be corrected.	MWMPL	<p>MWMPL agreed for the same and will submit the revised document and drawing on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>
10	IL of sludge pipeline at gravity thickener and at thickened sludge sump.	MWMPL	<p>MWMPL agreed for the same and will submit the revised document and drawing on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>
11	Line need to shown indicating recycle flow from centrifuge.	MWMPL	<p>MWMPL agreed for the same and will submit the revised document and drawing on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>
12	FFL of centrifuge feed pump to be indicated	MWMPL	<p>MWMPL agreed for the same and will submit the revised document and drawing on or before 10th December 2018</p> <p>MACE to review and provide the status of compliance and observations if any</p>
13	Blower room may also be shown indicating FFL and air header line	MWMPL	MWMPL informed that it is not a practice to show the same in HFC

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			and hence denied the same
14	Agitator to be shown in the thickened sludge sump	MWMPL	MWMPL agreed for the same and will submit the revised document and drawing on or before 10 th December 2018
15	Pump duty points ,decanter duty point and centrifuge duty point to be provided including number working and standby units.	MWMPL	MWMPL agreed to incorporate the same in the final document once the engineering phase is complete and approved.
16	The legend HP, LP and FFL not utilized and shown anywhere in the drawing.	MWMPL	MWMPL agreed for the same and will submit the revised document and drawing on or before 10 th December 2018 MACE to review and provide the status of compliance and observations if any
17	FGL line to be extended till the end of Disposal drain.	MWMPL	MWMPL agreed for the same and will submit the revised document and drawing on or before 10 th December 2018 MACE to review and provide the status of compliance and observations if any
18	Centrifuge Building IL need to be corrected as FFL.	MWMPL	MWMPL agreed for the same and will submit the revised document and drawing on or before 10 th December 2018 MACE to review and provide the status of compliance and observations if any
19	Centrifuge Building ground floor level to be increased to 7.00m and first floor level to be provided as per the	MWMPL	MWMPL informed that the same will be maintained as per the

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	industrial standard.		requirement and shall be adhered during detailed engineering
20	As per MBD it mentioned as dilution water is withdrawn before CCT inlet, whereas in CCT mechanical GA drawing water is withdrawn from CCT tank. MWMPL need to verify and correct it. The same need to be included in the HFD.	MWMPL	MWMPL informed that the water will be withdrawn as specified in the MBD and pumps shall be kept outside the CCT and will submit the revised document and drawing on or before 10 th December 2018 MACE to review and provide the status of compliance and observations if any
21	Project Engineer name to be included in all document and drawing title	MWMPL	MWMPL agreed for the same and will submit the revised document and drawing on or before 10 th December 2018 MACE to review and provide the status of compliance and observations if any
22	HFDNeed to be revised based on the comments for Hydraulic flow calculation	MWMPL	MWMPL agreed for the same and will submit the revised document and drawing on or before 10 th December 2018 MACE to review and provide the status of compliance and observations if any
23	Drawing title to be corrected as "Hydraulic flow diagram"	MWMPL	MWMPL agreed for the same and will submit the revised document and drawing on or before 10 th December 2018

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			MACE to review and provide the status of compliance and observations if any
24	MWMPL informed that they are maintaining finished floor level as 450 mm above the finished ground level	UPJN	UPJN informed that the same should be kept as 500 mm as per CA conditions. MWMPL agreed for the same
25	MWMPL informed that there is no mention about the height of sump to be maintained above the FGL. They further mentioned that they will keep 300 mm above the FGL with a handrail for a height of 0.7m	UPJN and MACE	UPJN and MACE agreed for the same
26	MWMPL requested to clear the HFC from CCT onwards to proceed with the preparation of construction drawing due to discrepancy in the decant flow.	UPJN and MACE	UPJN and MACE agreed for the same subject to revise the HFC and HFD based on the decisions made on the above all points. Also HFC and HFD for the remaining sections right from inlet chamber to SBR outlet to be finalized on or before 10 th December 2018

UPJN informed that if there is any discrepancy in the minutes of meeting content then the same need to be raised by the concern person within a day from the date of receipt of MOM. Otherwise it is deemed that the minutes of meeting is accepted by everyone and there should not be discussion / apprehension on the same in the upcoming meetings.

MWMPL UPJALNIGAM

PROJECT ENGINEER