

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 /1417-A/ Shuklaganj

Date 31/01/2022

To,

Superintendent Engineer,
3rd Circle, UP Jal Nigam
Lucknow

Sub: HAM KANPUR: 05 MLD STP Shuklaganj Inspection Report dated 11th & 27th Jan 2022

Dear Sir,

With reference to the above said subject inspection report of 05 MLD Shuklaganj for the month of January 2022 is attached herewith for your information.

Yours Sincerely,



(Dr. Giridhar Prabhukumar)
Team Leader STC Kanpur

Copy to the following with enclosure for information and necessary action:

1. Mr. R.K. Gupta, SWMS, NMCG, New Delhi
2. Chief Engineer, UP Jal Nigam Lucknow
3. SE, (E&M), 23rd Circle UP Jal Nigam, Lucknow
4. EE, CD, UP (Rural) Jal Nigam, Unnao.
5. EE, (E&M), 13rd circle, UP Jal Nigam Lucknow
6. Project Manager Kanpur River Management Pvt. Ltd., Kanpur
7. Mr. Sumit Katiyar, Manager- Construction, KRMPL

SITE INSPECTION REPORT - 05 MLD STP AT SHUKLAGANJ

Date of site Inspection	11 th & 27 th January 2022
STC Site Inspection team	Dr. Giridhar Prabhukumar, TL, STC Kanpur Mr. Priyesh Shukla, Support - Engg. STC Kanpur Mr. Karm Veer Singh - Supp. Sup. STC Kanpur
KRMPL Personal	Mr. Vimal Verma, AE UP Jal Nigam, Unnao Mr. Ankur Saxena, JE UPN Lucknow Mr. Ashok Khandve KRMPL Mr. Bhusan ,Safety Officer, KRMPL Kanpur

1. COVID 19 precautions followed at site

Compliance of COVID 19 protocols like wearing face masks, installation of hand sanitizer units etc. were not followed at the site. Workers were also not found wearing PPE's like Ear Plugs, Goggles, Hand gloves and Safety helmets. Disinfection spray fogging is being done in labour camps. Personal screening and awareness programmerare implemented. It is advised for procurement and usage of the PPE usage during work by workers, staff and visitors.

2. Specific Points related to the site inspection

- i. Dr. Giridhar Prabhukumar, Team Leader STC Kanpur discussed about the progress of work, no. of labours, quality checks with UPJN and STC representatives.
- ii. During inspection total 38 nos. of manpower / workers were deployed at the site.
- iii. Despite directions given during several NMCG meetings, manpower has not been increased by KRMPL up to 80-100.
- iv. During visit, progress of different STP components was checked as per the approved construction plan and it was found that progress of 05 MLD STP is very slow. **Total progress till 27th January 2022 was found approx 28%. In this KRMPL has considered progress of 1st, 2nd, 3rd, 4th & 5th milestone.**
- v. **KRMPL missed 3rd milestone which was schedule to be completed on 12th Jan 2022.** Works of 3rd, 4th and 5th milestone are in progress. KRMPL needs to expedite the progress by increasing the manpower and working on multiple fronts.
- vi. One major issue of Approach road to the plant is narrow and congested. The alternate route was suggested by UPJN for which KRMPL need to pursue the matter as it is very difficult to carry heavy machinery and material in bulk to the site through present route.
- vii. **Progress of different STP components as per milestone 1st,2nd &3rd on dated 27.01.2022 are as following:**

SN	Proposed Works of STP	Progress of Works till 27-01-2022	Actual Progress till 27-01-2022
	STP Units	Target Progress, %	Achieved %
i.	I&D structure	40%	0%
ii.	Supply of pipe (900 mm, 400 mtr)	40%	19%
iii.	Manholes	40%	0%
iv.	Rising Main	40%	0%
v.	MPS	40%	13%
vi.	PTU	40%	
	Inlet Chamber		0%
	Manual & Mechanical Fine Bar Screen		0%
	Grit Chamber		0%
	Parshall Flume		0%
vii.	SBR	40%	15%
viii.	Air Blower	40%	10%
ix.	CCT	40%	10%
x.	Chlorination Room	40%	10%
xi.	Supernatant Sump	40%	65%
xii.	Sludge Thickener	40%	50%
xiii.	Centrifuge Building	40%	0%
xiv.	Effluent Disposal System	40%	0%
xv.	Admin Building	40%	10%
xvi.	Staff Quarter	40%	15%
xvii.	Guard Room	40%	60%
xviii.	Transformer Yard Area	40%	0%
xix.	DG Shed Area	40%	0%
xx.	Sludge Storage Platform	40%	0%
xxi.	Boundary Wall	40%	40%

viii. KRMPL has not started excavation of PTU and Centrifuge Building yet.

ix. Raft of MPS and Soil filling up to base slab was done steel binding of RCC wall in progress.

x. RCC wall of SBR was done up to level 113.047 and reinforcement of wall work in progress.

xi. During inspection Found, Severe honey combing, spread and improper alignment almost total length in RCC wall of SBR which also reduces the Strength of Wall. KRMPL needs to improve the workmanship, quality and finishing of the works.

xii. Footing of Staff Quarter was done and castings of column work in Progress. Vertical bars in RCC column at found joggled, improper alignment of vertical bars reduces the Strength of Column. Sever honey combing in RCC Column found at Staff Quarter which also reduces the Strength of column.

xiii. Supernatant sump, casting of wall work was completed. And reinforcement of Stair and Slab is in progress.

xiv. Sludge thickener, casting of wall in progress. Columns vertical bars should not lap at h/4 from beam-column junction.

Photographs of Shuklaganj STP work progress:-



Reinforcement and Shuttering of SBR is in Progress



Steel binding is in progress of MPS



Supernatant Sump, Reinforcement of Slab and Stair is in progress



Footing of Staff Quarter

- xv. During visit quality check register was inspected by PE, STC for different construction materials like, cement, brick, concrete cube, construction water sample etc.

3. General Points related to the site

- i. Excavation of soil was done for the Construction of SBR/Staff quarters/Administrative building. To increase of the soil bearing capacity layers of sand and morum etc., was pressed with roller.
- ii. Hard barricading around the excavated structures completely not provided which may lead to unwarranted mishap.
- iii. Around excavated MPR, SBR and along with excavated units hard barricading is urgently needed. IS 3764: 1992, IS 7323: 1994
- iv. Number of Site safety slogan boards and caution boards display are to be increased in different places of site area like: DANGER-DEEP EXCAVATION, MEN AT WORK, ELECTRICAL HAZARD, ASSEMBLY POINT, SITE ENTRANCE MAIN BOARD, FIRE EXTINGUISHER, FIRE POINT, and EMERGENCY TELEPHONE NOS.etc. IS 3764 -1992, IS 1642: 1989. IS 9457; 1980.
- v. Proper site house-keeping need to be done.
- vi. Basic PPE's to be arranged to workers. Safety helmets and safety shoes and safety face masks to be provided to all workers, staff and visitors.
- vii. Permanent fire hydrant plan to be planned and incorporated in the Shuklaganj 5 MLD STP Construction site.
- viii. Monthly safety committee meeting to be conducted by KRMPL along with workers, staff from each department, consultant representative and client representative. Such committee meeting minutes need to be circulated and resolved by the next month
 - i. Scrap yard to be developed for storage of scrap material in the site. Hot work area to be marked and barricaded separately work-wise for each sub-contractor.
 - ii. Mock drills need to be conducted at site once in a month Example of topics for mock drill:
 - i. Fire mock drill
 - ii. Incident mock drill
 - iii. Poison mock drill
 - iv. Electrical shock mock drill
 - v. Excavation collapse mock drills.
 - iii. Every mock drill report to be prepared and response, response time and the gap analysis to be done accordingly. It can be used as lesson learning and improvement on mock drills as part of onsite emergency plan. Mock drill schedule information to be given at least a week in advance to PE and UPJN.
 - iv. Workers monthly payment has not being done before 7th of every month. January 2022 payment details not provided by KRMPL during visit. This is against applicable labor laws of State and against commitment of KRMPL on statutory compliance as per CA. KRMPL to comply to the same immediately.
- v. Concessioner site in charge along with site safety officer safety audit and safety

inspections to be done periodically and such reports along with the compliance to be sent to UPJN / STC. IS 14489; 1998.

vi. As per IS 8990:1978 Code of practice of maintenance and care of industrial safety clothing to be followed.

vii. As per IS 11972:1980 Safety colours and Safety signs not following by KRMPL.

viii. KRMPL must follow work permit system including but not limited to:

- vi. Excavation
- vii. Electrical work(HV/LV)
- viii. Opening manholes, covers and grills
- ix. Blasting operations
- x. Works on plant,
- xi. Machinery & other power-driven equipment
- xii. Working at height
- xiii. Working at night.

It is requested UPJN to advise KRMPL to rectify the shortfalls, expedite the progress and submit compliance of inspection report.