

NATIONAL MISSION FOR CLEAN GANGA (NMCG)

MINISTRY OF JAL SHAKTI DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION, GOVT. OF INDIA



जल शक्ति मंत्रालय
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION

DEVELOPMENT OF NEW SEWAGE TREATMENT PLANTS,
REHABILITATION OF EXISTING SEWAGE TREATMENT
INFRASTRUCTURE AND O&M FOR 15 YEARS IN KANPUR

UNDER

ONE CITY ONE OPERATOR CONCEPT THROUGH HYBRID ANNUITY
BASED PPP MODE (HAM – KANPUR)

(STC agreement dated 19.04.2019 & LOA: Pr-12012/41/2018-PPP/NMCG dated 04.02.2019)

Monthly Progress Report

Of

Project Engineer

JULY - 2023



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ABBREVIATIONS

| | |
|--------|---|
| ASP | Activated Sludge Process |
| BEP | Basic Engineering Package |
| BOD | Biochemical Oxygen Demand |
| CETP | Common Effluent Treatment Plant |
| COD | Chemical Oxygen Demand |
| COD | Commercial Operation Date |
| CPs | Condition Precedent |
| CTE | Consent To Establish |
| CTO | Consent to Operate |
| DFGs | Dual Fuel Generators |
| DPR | Detailed Project Report |
| ESHS | Environment, Social, Health And Safety |
| GOI | Government of India |
| HAM | Hybrid Annuity Model |
| I&D | Interception & Diversion |
| IPS | Intermediate Pumping Station |
| KPIs | Key Performance Indicators |
| KRMPL | Kanpur River Management Private Limited |
| LOA | Letter of Award |
| MOM | Minutes of Meeting |
| MPS | Main Pumping Station |
| O&M | Operation and Maintenance |
| PLC | Programmable Logic Control |
| PMC | Project Management Consultant |
| PDD | Proposal Due Date |
| PDMC | Project Development and Monitoring Consultant |
| PPP | Public Private Partnership |
| QAP | Quality Assurance Plan |
| RFP | Request for Proposal |
| RTU | Remote Terminal Unit |
| RTOLMS | Real Time Online Monitoring System |
| TOR | Terms of Reference |
| SBR | Sequential Batch Reactors |
| STP | Sewage Treatment Plant |
| TEPH | Treated Effluent Pump House |
| UASB | Up-Flow Anaerobic Sludge Blanket Reactor |

MONTHLY PROGRESS REPORT – HAM KANPUR

1. INTRODUCTION

The Govt. of India, recognizing that long-term rejuvenation of the river Ganga will have significant social and economic benefits on the lives of the 500 million people living along its basin, has identified cleaning of the river Ganga as one of its priorities. For this purpose, in May 2015, the Gol approved the flagship Namami Gange program for cleaning, rejuvenation, and protection of the river Ganga. In January 2016, the Gol approved a hybrid annuity model to implement STP projects under the Namami Gange program on a PPP basis.

Subsequently, the MoWR issued the River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016 (Ganga 2016 Order) to constitute various authorities to assist the Gol in achieving its aim of effective abatement of pollution in the river Ganga. The Ganga 2016 Order applies to all states in the catchment of the river Ganga basin, including Uttar Pradesh. The Ganga 2016 Order revised the legal status of NMCG (which was initially constituted as a registered society under the Societies Registration Act, 1860) to an authority constituted under the Environment (Protection) Act, 1986 and designated NMCG as the nodal agency for the implementation of the Ganga 2016 Order.

Rapidly increasing population, rising standards of living and exponential growth of industrialization and urbanization have exposed water resources, in general, and rivers, in particular, to various forms of degradation. The mighty Ganga is no exception. The deterioration in the water quality impacts the people immediately. Ganga, in some stretches, particularly during lean seasons has become unfit even for bathing. The threat of global climate change, the effect of glacial melt on Ganga flow and the impacts of infrastructural projects in the upper reaches of the river, raise issues that need a comprehensive response.

The Uttar Pradesh Jal Nigam (Jal Nigam) is a statutory body constituted under the Uttar Pradesh Water Supply and Sewerage Act 1975, and has the power to develop, maintain and regulate water supply and sewerage works in Uttar Pradesh. With a view to implement the Namami Gange program and the Ganga 2016 order in the State of Uttar Pradesh, the Jal Nigam, in association with NMCG has decided to undertake the development of:

- three new STP facilities(30 MLD Pankha, 15 MLD Unnao&5 MLD Shuklaganj)andtheir O&M for 15 years;
- rehabilitation of existing 130 MLD Jajmau Phase-I STP facility with O&M for 15 yearsand;
- O&M for three existing STP facilities (43 MLD Jajmau Phase-II, 210 MLDBingawan&42 MLD Sajari) in Kanpur under Hybrid Annuity based PPP mode.

While the Jal Nigam will be the principal executing agency and bidding authority for the Project, NMCG will be responsible for making payments to the Concessionaire and Project Engineer.

2. HYBRID ANNUITY MODEL (HAM)

Government of India has approved the Namami Gange program as an integrated approach for effective abatement of pollution in river Ganga and Yamuna. As part of this and to ensure that no untreated domestic sewage flow into the river Ganga and Yamuna, various interventions are planned such as Interception & Diversion works and development & operation of Sewage Treatment Plants (STPs).

Considering various development models in practice for the construction, operation and maintenance of Sewage Treatment Plants, Government of India has approved the Hybrid Annuity based Public Private Partnership (PPP) mode as one of the options for the development & operation of STPs. Under this model, private investor/developer will design, build, finance, construct, rehabilitate, renovate, operate and maintain the asset (STPs, IPS, and MPS) to the Project Executing Agency/Jal Nigam at the end of the Concession Period (15 years). 40% of the Capital cost will be paid to the developer during construction of the STP. Balance 60% along with Operation & Maintenance (O&M) cost will be paid over the Concession Period on achievement of key performance indicators as per the contract. Entire cost of development and operation of the STPs will be 100% funded by the Government of India as central sector scheme.

NMCG & UPJN appointed M/s. Shah Technical Consultant Pvt. Ltd., as third party engineering firm as Project Engineer for this project through tendering process. Letter of Award is issued dated 4th February 2019 and agreement signed between the parties on 12th April 2019.

3. OBJECTIVES

To achieve above objectives, effective development of three new STP facilities at Pankha, Unnao and Shuklaganj with O&M for 15 years, rehabilitation of existing Jajmau 130 MLD STP with O&M for 15 years and O&M of existing 210 MLD USAB based Bingawan STP facilities, 43 MLD Jajmau and for 42 MLD Sajari STP facilities for 15 years are proposed under this program. The objectives that NMCG and the UP Jal Nigam wish to achieve through the Project are mentioned in Figure 1.

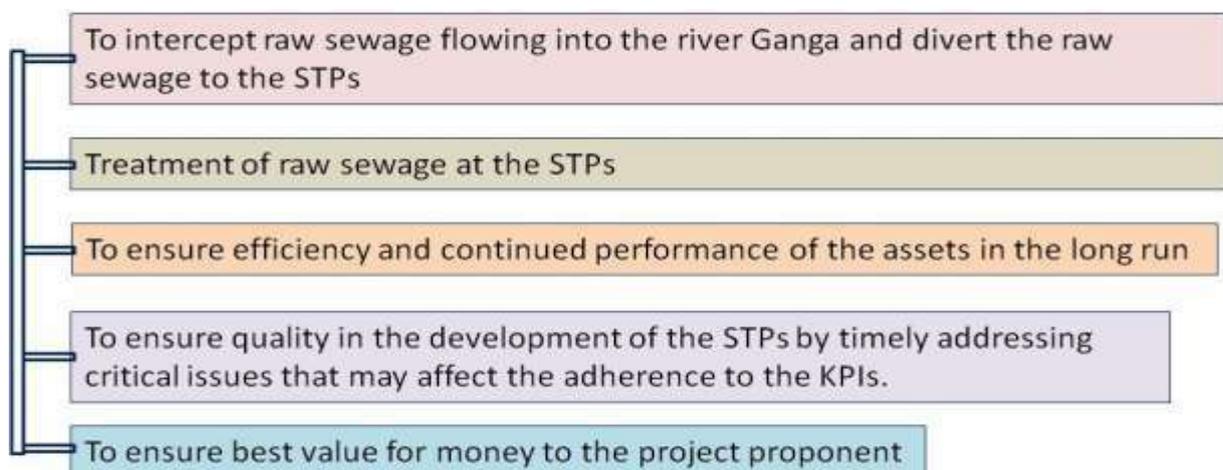


Figure 1: Objectives of NMCG and UP JAL NIGAM

4. HAM KANPUR PROJECT AT A GLANCE

Details of HAM Kanpur project are given in the following table:

Table 2.1: HAM Kanpur Project at a Glance

| | | |
|-----------------------------------|---|--|
| Name of Project | : | Development of new Sewage Treatment Plants and O&M for 15 years, Rehabilitation of existing Sewage Treatment Infrastructure and O&M for 15 years in Kanpur under One City One Operator concept through Hybrid Annuity based PPP mode. (HAM – Kanpur) |
| Client | : | National Mission for Clean Ganga (NMCG), New Delhi and UP Jal Nigam |
| Execution Agency | : | Uttar Pradesh Jal Nigam (UPJN) |
| Consultant | : | Shah Technical Consultants (P) Ltd. as ‘Project Engineer’ |
| Agreement & LOA | : | STC Agreement dated 12.04.2019 & LOA: Pr-12012/41/2018-PPP/NMCG dated 04.02.2019 |
| Concessionaire | : | Kanpur River Management Private Limited (KRMPL) an SPV of Shapoorji Pallonji & Company Private Limited, Mumbai |
| Concessionaire’s Agreement | : | 14/GM/2018-19 dated 21.12.2018 |
| Cost of Project (CAPEX+OPEX) | : | Rs. 816.25 Cr. (CAPEX 255.50 Cr. + OPEX 560.75 Cr.) |
| Effective Date | : | 11.10.2019 |
| Completion date (as per contract) | : | 24 Months from effective date (21 months construction + 3 months trial run) |
| O&M period | : | 15 years after last Commercial Operation Date (COD) |
| Description of Work | : | <ul style="list-style-type: none"> ➤ Construction of three new STPs (SBR) at different locations (30 MLD at Pankha, 15 MLD at Unnao and 5 MLD STP at Shuklaganj) and related infrastructure with 15 years of O&M; ➤ Rehabilitation of 130 MLD (Phase-I) STP at Jajmau with construction of 200 MLD TEPS and 173 MLD CCT at Jajmau with O&M for 15 years; ➤ O&M of 43 MLD (Phase-II) Jajmau facilities, O&M of 210 MLD Bingawan facilities and O&M of 42 MLD Sajari facilities for 15 years; |

5. PROJECT WISE DETAILS OF COMPONENTS UNDER HAM KANPUR PROJECT

HAM Kanpur project is divided into 5 districts of the Kanpur– Pankha (District –III, Kanpur), Unnao & Shuklaganj – (District Unnao), Jajmau – (District I, Kanpur), Bingawan – (District II, Kanpur) and Sajari – (District IV, Kanpur).

Under this project, development and O&M work of total seven STP facilities are proposed in which three new STP facilities based on SBR technology with associated infrastructure have been proposed for - 30 MLD Pankha (District III, Kanpur), 15 MLD Unnao&5 MLD Shuklaganj.

Rehabilitation and O&M for 15 years is proposed for 130 MLD Jajmau STP facilities (Phase-I) and O&M of 210 MLD USAB based Bingawan STP facilities, 43 MLD Jajmau Phase-II and for 42 MLD ASP based Sajari STP facilities for 15 years.

5.1 PANKHA FACILITIES

Project wise components details of Pankha Facilities are given in table 5.1:

Table 5.1: Pankha Facilities

| SN | STP Facility | Capacity/Dia./Size | Nos./Length |
|--|--|--------------------|-------------|
| Date of Start- Effective Date (11.10.2019) | | | |
| Scope of Work- New Construction and O&M | | | |
| 1 | STP | 30 MLD | 1 |
| 2 | MPS | 115MLD | 1 |
| 3 | ICI Nala IPS | 25 MLD | 1 |
| 4 | Sundar Nagar | 20 MLD | 1 |
| 5 | Thermal Nala (A) tapping | 22 MLD | 1 |
| 6 | Thermal Nala (B)(tapping) | 8 MLD | 1 |
| 7 | ICI Nala (tapping) | 7.85 MLD | 1 |
| 8 | Rising main (IC Nala IPS to collection chamber) | 800mm- ϕ | 6.450 km |
| 9 | Rising main (Sundar Nagar IPS to collection chamber) | 800mm- ϕ | 0.547 km |
| 10 | Common Gravity main (collection chamber to MPS) | 2000mm- ϕ | 1.948Km |
| 11 | Sewer network | | 16.624 km |
| | | 350mm- ϕ | 2.258 km |
| | | 400 mm- ϕ | 0.611 km |
| | | 450 mm- ϕ | 0.704 km |
| | | 500 mm- ϕ | 0.718 km |
| | | 600 mm- ϕ | 1.046 km |
| | | 700 mm- ϕ | 1.079 km |
| | | 800 mm- ϕ | 3.226 km |
| | | 900 mm- ϕ | 1.171 km |
| | | 1000 mm- ϕ | 0.060 km |
| | | 1200 mm- ϕ | 2.290 km |
| | | 1600 mm- ϕ | 1.635 km |
| | | 2000 mm- ϕ | 1.826 km |
| 12 | Manhole | | 308 nos. |

5.2 UNNAO FACILITIES

Project wise components details of Unnao Facilities are given in table 5.2:

Table 5.2: Unnao Facilities

| SN | STP Facility | Capacity/Dia./Size | Nos./Length |
|--|--|--------------------|-------------|
| Date of Start- Effective Date (11.10.2019) | | | |
| Scope of Work- New Construction and O&M | | | |
| 1. | STP | 15 MLD | 1 |
| 2. | Sump cum Pump house (MPS) | 40 MLD | 1 |
| 3. | I&D works (Nala tapping) | 90 MLD | 1 |
| 4. | Trunk Sewer | 1200mm ϕ | 3.6Km |
| 5. | Manholes | | 46 nos. |
| 6. | Rising main (MPS to STP) | 750mm ϕ | 100m |
| 7. | Rising main (bypass) | 750mm ϕ | 100m |
| 8. | Effluent gravity channel (STP to discharge point) | 1.5m x1.0m | 300m |
| 9. | Effluent disposal drain | 700mm | 570m |

5.3 SHUKLAGANJ STP FACILITIES

Project wise components details of Shuklaganj STP are given in table 5.3:

Table 5.3: Shuklaganj Facilities

| SN | STP Facility | Capacity/Dia./Size | Nos./Length |
|--|---|--------------------|-------------|
| Date of Start- Effective Date (11.10.2019) | | | |
| Scope of Work- New Construction and O&M | | | |
| 1. | STP | 5 MLD | 1 |
| 2. | Sump cum Pump house (MPS) | 20 MLD | 1 |
| 3. | Connecting sewer (in zone 2) | 400-500mm ϕ | 200m |
| | Effluent Disposal line | 400mm ϕ | 310m |
| | (I&D to STP) | 600mm ϕ | 430m |
| | I&D works (Nala tapping) | 45 MLD | 1 |
| 4. | Collection chamber | 3.5mx3.6mx1m | 1 |
| 5. | Rising main (MPS to STP) | 500mm ϕ | 50m |
| 6. | Rising main (bypass) | 500mm ϕ | 50m |
| 7. | Effluent channel (STP to discharge point) | 1.5m x1m | 100m |

5.4 JAJMAU (PHASE I) FACILITIES

Project wise components details of Jajmau are given in table 5.4:

Table 5.4: Jajmau Facilities

| SN | STP Facility | Capacity/Dia./Size |
|---|---------------------------------|--------------------|
| Date of Start- Effective Date (11.10.2019) | | |
| Scope of Work- Renovation and O&M | | |
| 1 | STP (ASP) with power Generation | 130 MLD |
| 2 | Sump cum Pump house (TEPH) | 200 MLD |
| 3 | CCT | 173 MLD |
| 4 | Nawabganj IPS | 14.35 MLD |
| | PH1 | 5.35 MLD |
| | PH2 | 9 MLD |
| 7 | Parmat IPS | 66.67 MLD |
| | PH1 | 32.83 MLD |
| | PH2 | 21.6 MLD |
| | PH3 | 12.4 MLD |
| 11 | Baba Ghat / Muar mill IPS | 7.42 MLD |
| | Guptar Ghat IPS | 1.44 MLD |
| | Jajmau CSPS | 129.6 MLD |

5.5 JAJMAU PHASE II STP FACILITY

Project wise components details of Jajmau Phase II are given in table 5.4:

| SN | STP Facility | Capacity/Dia./Size |
|---|------------------|--------------------|
| Date of Start- Effective Date (11.10.2019) | | |
| Scope of Work- Renovation and O&M | | |
| 1 | Khalasi Lane IPS | 50.69 MLD |
| 2 | Sanjaypuram IPS | 4.03 MLD |
| 3 | Jajmau MPS | 25 MLD |

5.6 BINGAWAN FACILITIES

Project wise component detail of Bingawan is given in table 5.5:

Table 5.5: Bingawan Facilities

| SN | STP Facility | Capacity/Dia./Size |
|---|---|--------------------|
| Schedule Handing Over Date- 01.04.2019 | | |
| Scope of Work- Renovation and O&M | | |
| 1 | STP (USAB) | 210 MLD |
| 2 | Installation of online monitoring system (RTOLMS) | |
| 3 | Bingawan MPS | 200 MLD |
| 4 | Rakhimandi IPS | 108 MLD |
| 5 | Halwakhanda IPS | 69.12 MLD |
| | Munshipurwa IPS | 18.79 MLD |
| 7 | Sisamau Nala (tapping) | 8 MLD |

5.7 SAJARI FACILITIES

Project wise component detail of Sajari is given in table 5.6

Table 5.6: Sajari Facilities

| SN | STP Facility | Capacity/Dia./Size |
|---|-----------------------|--------------------|
| Schedule Handing Over Date- 11.10.2019 | | |
| Scope of Work- O&M for 15 years | | |
| 1 | STP on ASP Technology | 42 MLD |
| 2 | MPS | 42.24 MLD |
| 3 | Chakeri IPS | 14.33 MLD |
| 4 | Sanigawan IPS | 14.33 MLD |

6. PHYSICAL PROGRESS OF WORK

As per the provision of Concessionaire Agreement, effective date of the project was to be declared before 19th April 2019. Effective date for work execution under HAM Kanpur project was declared on 11th October 2019. Hence, work related to construction / execution of new STP facilities and related infrastructure started after effective date i.e.

- i. transfer of land for STP in Pankha from KDA;
- ii. permission of laying of sewer line along road in Pankha from KDA;
- iii. Unnao & Shuklaganj and renovation of existing facilities i.e. Jajmau 130 MLD.

The overall physical progress of the facilities have been taken in the same proportion as financial progress as per milestones in approved Construction Plan. Overall progress can be monitored as project works have been divided in eight milestones each having progress of 12.5%. Execution of works of new STP facilities and O&M of existing facilities were hampered because of COVID-19 pandemic. Nationwide lockdown was imposed in April 2020 to June 2020 due to which work progress was affected severely. Again in April 2021, due to second wave of COVID-19 progress of work was again affected as majority of workers, staff and officials were affected by the second wave of COVID pandemic.

Once process of unlock started, the Concessionaire was asked to speed up the work. The Concessionaire submitted revised construction plans for new STP construction facilities compensating relevant construction milestone works with extended timeline. Originally, the scheduled date of project completion was 10th October 2021 i.e. 24 months from the effective date. But due to COVID pandemic and heavy rainfall during monsoon season of 2021, milestone works were lagging far behind the schedule. On dated 03.09.2021, in the JMD UPJN meeting, new target date for completion of balance works of Pankha and Unnao STPs was given i.e. 15th Dec. 2021. But the works of these STPs couldn't be completed on 15th Dec. 2021 due to inadequate deployment of manpower and poor work planning / lack of double shift working at these facilities. In the NMCG meeting dated 30.12.2021, the Concessionaire assured to make Pankha plant operational on 15.01.2022 by taking Thermal Nala-A flow into the STP. For Unnao STP, NMCG directed the Concessionaire to complete the works of STP by 31.01.2022.

In the NMCG meeting dated 17.02.2022 the Concessionaire requested for final time extension due to COVID-19 1st & 2nd waves as per guidelines released by GOI and also requested for extension due to additional works under variation. With above, the Concessionaire requested for EOT for Pankha till 25/04/2022 and for Unnao till 15/05/2022. DG NMCG discussed EOT with UPJN and PE and it was decided to grant the EOT for the aforesaid period with condition of double penalty if works still not completed within extended time. The progress of construction of new STP facilities is given in following headings.

During 11th & 12th April 2022, ED (T) along with Mr. Rajat Kumar Gupta, SWMS NMCG visited Kanpur to know about the status and progress of the project. It was noted that due to fund issues with KRMPL, desired progress of STPs has not been achieved. PE informed that at Pankha and Unnao STPs 85-90% of civil works are completed but due to non supply / erection of E&M

equipments and incomplete works of sewer laying/manholes and IPS (Sundar Nagar & ICI Nala) progress is not increasing. Also, since last month manpower is extremely low (15-20) and KRMPL will not be able to complete the Pankha and Unnao STPs at scheduled extended dates.

In the NMCG meeting dated 27.04.2022, chaired by DG, progress and status of HAM Kanpur project was again discussed. It was noted that KRMPL has missed the final deadline i.e. 25.04.2022 for the completion of Pankha STP and will also miss the Unnao STP completion date i.e. 15.05.2022. DG, NMCG expressed displeasure towards KRMPL and after discussion completion dates of Pankha and Unnao were decided as 15.07.2022 and 15.06.2022 respectively. DG, NMCG also put condition that failing to complete the mentioned plants on time KRMPL will be subjected to triple fold penalty.

On dated 5th & 6th June 2022, DG, NMCG along with ED (T) and Mr. R.K. Gupta, SWMS NMCG visited Kanpur for progress review of HAM Kanpur Project. During visit DG NMCG was disappointed with the KRMPL regarding slow progress of the project. DG NMCG gave strict directions to increase the manpower, required machinery and expedite the Pankha, Unnao, Jajmau and Sajari STP works. New timeline to complete Pankha & Unnao STP with full plant operation on SCADA control given is 31/07/2022 and 15/07/2022 respectively.

In the NMCG meeting dated 02/08/2022 and Kanpur visit dated 08/08/2022, ED (P) NMCG gave strict directions to increase the manpower, required machinery and expedite the Pankha, Unnao, Jajmau and Shuklaganj STP works. New timeline to complete Pankha, Unnao & Shuklaganj STP with full plant operation on SCADA control given is 31/10/2022, 15/10/2022 and 13/06/2022 respectively.

In the NMCG meeting dated 05/09/2022 ED (P) NMCG again reviewed the progress status and gave strict directions to increase the manpower, required machinery and expedite the Pankha, Unnao, Jajmau and Shuklaganj STP works.

In the NMCG meeting dated 01/11/2022 ED (P) NMCG reviewed the progress status and gave strict directions to increase the manpower, required machinery and expedite the Pankha, Unnao, Jajmau and Shuklaganj STP works. New date for completion of Pankha and Unnao STPs is 20/12/2022.

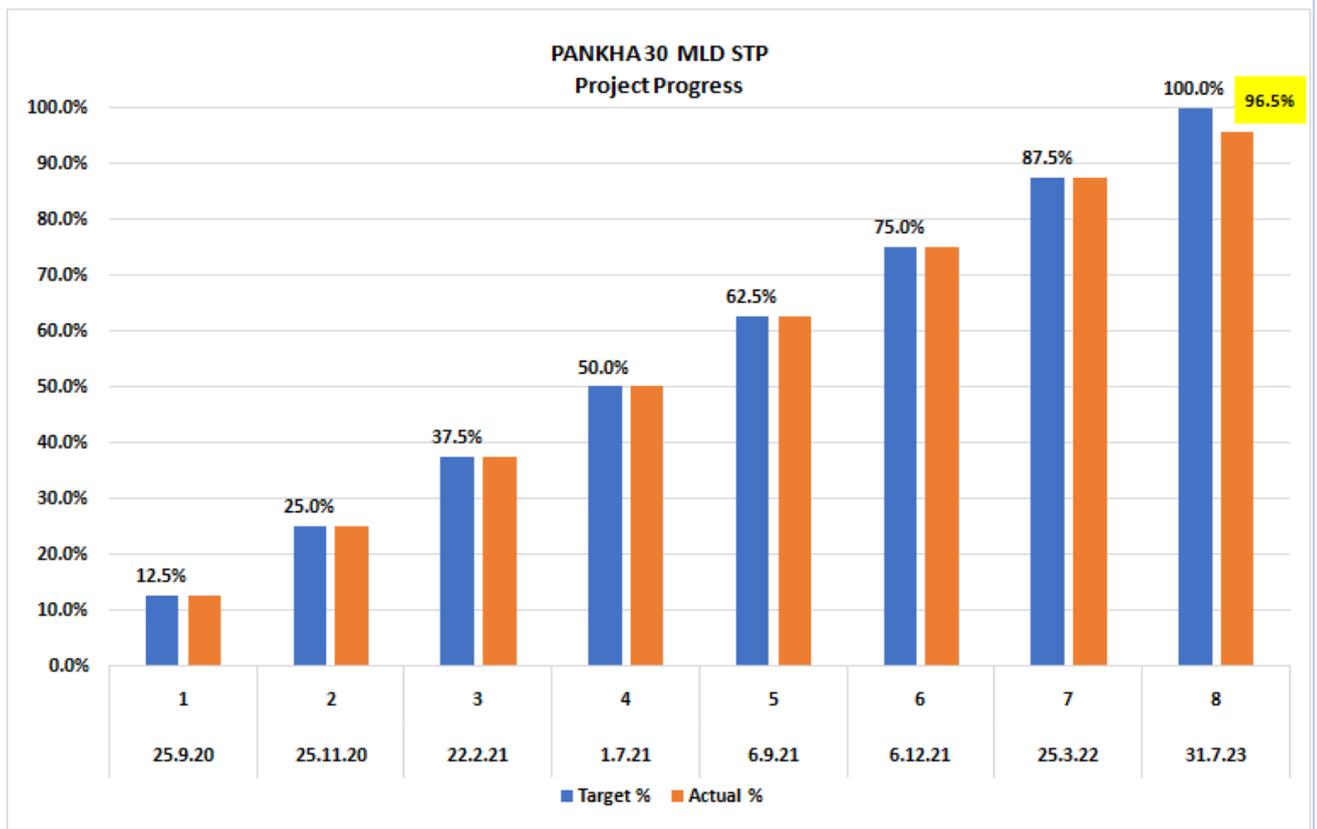
In the NMCG meeting dated 06/02/2023 ED (P) NMCG reviewed the progress status and gave strict directions to increase the manpower, required machinery and expedite the Pankha, Unnao, Jajmau and Shuklaganj STP works. New date for completion of Pankha and Unnao STPs are 15/03/2023 and 30/04/2023 respectively.

During Secretary GOI Kanpur visit dated 14-15 May 2023, the Concessionaire was directed to complete the balance works of Pankha, Unnao and Jajmau STP by 15 June 2023. For Shuklaganj STP, directions were given to expedite the installation of EMI equipments in the presence of OEMs and complete the plant by Oct 2023.

A meeting for review of the progress and balance works of HAM Kanpur project was held on 27/07/2023 at the office of MD, UPJN (Rural) Lucknow. Considering critical situation of the project, MD, UPJN directed KRMPL to complete the balance works of the Pankha, Unnao and Shuklaganj STP and associated infrastructure on emergency level and to ensure the compliance of the O&M plants of Bingawan, Sajari and 43 MLD STP Jajmau Phase II at the earliest.

6.1 MILESTONE WISE ACTIVITIES AND PROGRESS: PANKHA STP FACILITIES

- Total progress of 30 MLD Pankha STP till June 2023 is 96.5%.
- Manpower deployed was 30-50 nos.
- 7 milestones have been achieved out of total 8.
- 8th Milestone was due on 25/03/2023;
- During meeting on dated 27/07/2023 at the office of MD, UPJN (Rural) Lucknow, the Concessionaire was directed to complete the balance works of Pankha STP by 15 August 2023.



Balance Works of Pankha STP:

- Horticulture
- RTOLMS data work is pending
- DO Analyzer installation pending as per CA
- All Mechanical equipment testing & commissioning work is pending.
- Finishing works of STP and IPSs, campus development, internal roads and drainage are pending in Civil works. Anti skid tiles are to be installed at all new STPs.
- Supply and installations of some equipments are balance in E&M works. Punch list of balance works is attached in Annexure 2.
- MD, UPJN directed that 8th milestone shall be released when 100% works of Pankha STP will be completed by KRMPL.

SUMMARY OF MILESTONE WISE PROGRESS AT PANKHA STP

| Milestone | Schedule Completion date | Actual completion date | Milestone Amount (Rs.) | Targeted Progress till 31.07.2023 | | |
|---------------|--------------------------------|------------------------|------------------------|-----------------------------------|-------------|---------------|
| | | | | Milestone Amount (Rs.) | % Target | % Achieved |
| 1st milestone | 25.09.2020 | 25.09.2020 | 12,48,39,750.00 | 1248,39,750 | 12.50% | 12.50% |
| 2nd milestone | 25.11.2020 | 25.11.2020 | 12,48,39,750.00 | 1248,39,750 | 12.50% | 12.50% |
| 3rd Milestone | 22.02.2021 | 22.02.2021 | 12,48,39,750.00 | 1248,39,750 | 12.50% | 12.50% |
| 4th Milestone | 01.07.2021 | 01.07.2021 | 12,48,39,750.00 | 1248,39,750 | 12.50% | 12.50% |
| 5th Milestone | 06.09.2021 | 06.09.2021 | 12,48,39,750.00 | 1248,39,750 | 12.50% | 12.50% |
| 6th milestone | 06.12.2021 | 06.12.2021 | 12,48,39,750.00 | 1248,39,750 | 12.5% | 12.50% |
| 7th milestone | 25.03.2022 | 25.03.2022 | 12,48,39,750.00 | 1248,39,750 | 12.5% | 12.50% |
| 8th milestone | 25.03.2023 Approval pending | Not completed | 12,48,39,750.00 | 907,27,739 | 12.5% | 9.08% |
| | | | 99,87,18,000.00 | 9646,05,989 | 100% | 96.58% |

Unit Wise Progress Status of 30 MLD STP Pankha

| STP Units | Target % | Achieved % |
|---------------------------------|----------|------------|
| I&D structure (All 3) | 100% | 93% |
| Sewer Laying (15 km of 16.624) | 100% | 90% |
| Manholes (245 completed of 308) | 100% | 87% |
| Rising Main (6.65 km of 7 km) | 100% | 97% |
| MPS | 100% | 97% |
| PTU | 100% | 95% |
| SBR | 100% | 98% |
| Air Blower | 100% | 96% |
| CCT | 100% | 98% |
| Chlorination Room | 100% | 95% |
| Supernatant Sump | 100% | 98% |
| Sludge Thickener | 100% | 98% |
| Centrifuge Building | 100% | 95% |
| Effluent Disposal System | 100% | 95% |
| Admin Building | 100% | 96% |
| Staff Quarter | 100% | 98% |
| Guard Room | 100% | 98% |
| Transformer Yard | 100% | 97% |
| DG Set | 100% | 97% |

Boundary Wall

100%

95%

Milestone Wise Progress of Work

Detail of Milestone wise progress is given in the **Annexure 1** attached separately with this MPR.

PHOTOGRAPHS OF PANKHA STP SITE



MPS works



VCB Panel & Admin Building



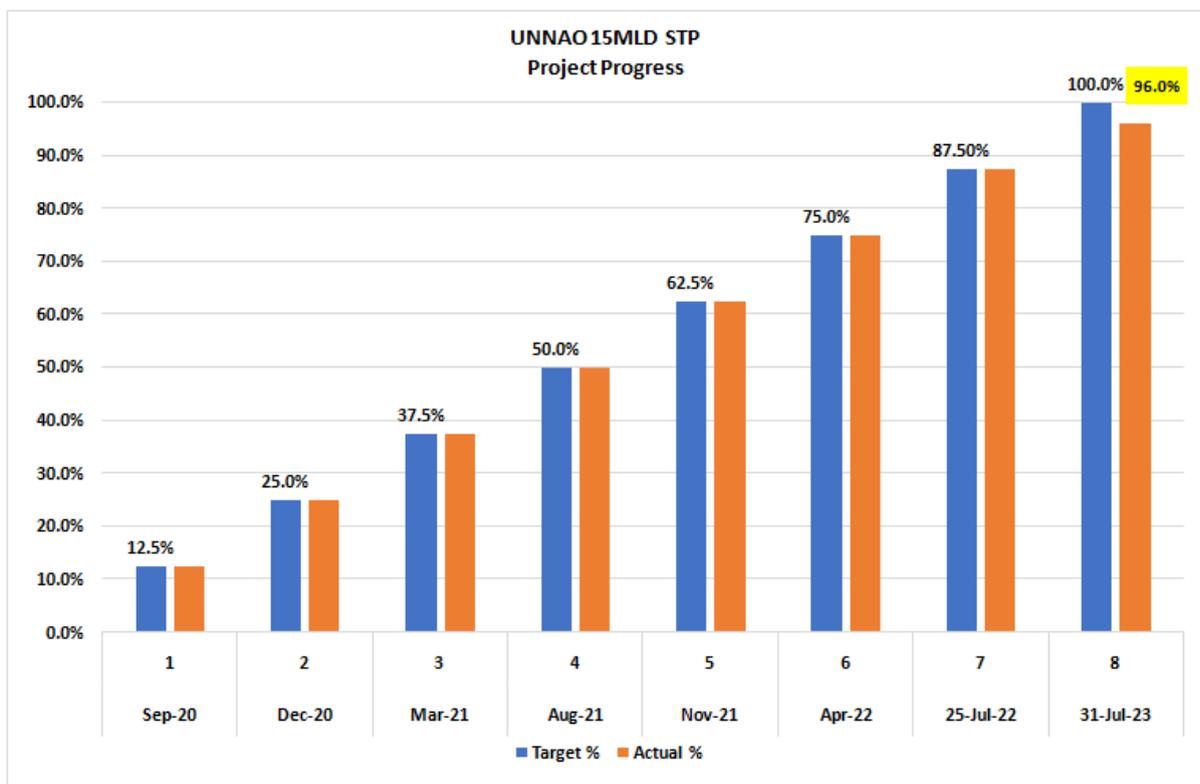
Chlorination Room



Centrifuge Building

6.2 MILESTONE WISE ACTIVITIES AND PROGRESS: UNNAO STP

- Total progress till July 2023 is 96%.
- Till date 7 milestones out of 8 completed.
- Manpower deployed at the 15 MLD STP Unnao site was in the range of 20-30 nos.
- Sewer Line cleaning Works - To be completed by August 2023
- Intake of sewer - To be completed by September 2023
- KRMPPL assured that by October 2023 plant will be operational.



SEWER LINE CLEANING:

- Cleaning / de-silting work of 2800m Sewer line out of 3200m has been done.
- Pipe cleaning work in progress - 587 meters,
- Pipe cleaning work balance- 224 meters,
- Manhole - 2 Nos. Pending.
- Desilting through manhole no. 37 & dewatering through manhole no. 38 in progress for rectification of manhole no. 38.
- KRMPPL has been directed to increase the no. of manpower and expedite the cleaning / repair works before rain starts.

EARTH FILLING STATUS:

- Total 13,000 cum earth filling was done by KRMPPL out of total 19,000 cum. 8000 cum earth filling is still pending.
- Earth filling activity was stopped since 11.02.2023 and despite many letters by PE and UPJN, KRMPPL has not started balance earth filling work.

- Due to lack of above activities, there is no progress in STP campus development and following works are not completed:
 - Internal roads and drainage works are pending.
 - Plinth protection work not started till date.
 - Fixing of entrance gate is pending.
 - Coping and painting work is pending.
 - Electric pole & lighting fixing work is pending.
- During visit it was noticed that due to negligence of KRMPL on backfilling and proper compaction works, the STP campus is in very bad condition. There are frequent undulations, big ditches and accumulation of rain water due to which major part of the plant campus is inaccessible and risky. Photographs are attached below for reference.



- KRMPL need to expedite the earth filling and related activities including layer by layer mechanical compaction. UPJN and PE directed KRMPL for compaction test/field dry density test (FDD) in presence of UPJN/STC and submit IIT report for compaction test of back filling but KRMPL not complied till date.
- KRMPL needs to expedite earth filling and related activities including layer by layer mechanical compaction. Further Field Dry Density (FDD) test should be conducted for each layer after compaction.

STATUS OF DIFFERENT STP UNITS ARE:

| STP Units | Target % | Achieved % |
|---------------------------------|----------|-----------------------------------|
| I&D structure | 100% | 100% |
| Sewer Laying (3.2 km of 3.2 km) | 100% | 90% (Cleaning and testing due) |
| Manholes (42 completed of 42) | 100% | 90% (Cleaning and testing due) |
| MPS | 100% | 100% |
| PTU | 100% | 100% |

| | | |
|--------------------------|------|-------------|
| SBR | 100% | 100% |
| Air Blower | 100% | 100% |
| CCT | 100% | 95% |
| Chlorination Room | 100% | 95% |
| Supernatant Sump | 100% | 95% |
| Sludge Thickener | 100% | 95% |
| Centrifuge Building | 100% | 100% |
| Effluent Disposal System | 100% | 100% |
| Admin Building | 100% | 93% |
| Staff Quarter | 100% | 95% |
| Guard Room | 100% | 97% |
| Transformer Yard | 100% | 95% |
| DG Set | 100% | 95% |
| Boundary Wall | 100% | 90% |

SUMMARY OF OVERALL PROGRESS AT UNNAO STP

| Milestone | Schedule Completion date | Actual completion date | Milestone Amount (Rs.) | Progress till 31.07.2023 | | |
|-------------------------|--------------------------|------------------------|------------------------|--------------------------|---------------|---------------|
| | | | | Milestone Amount (Rs.) | % Target | % Achieved |
| 1st milestone | 25.09.2020 | 25.09.2020 | 4,78,36,250.00 | 47836250.0 | 12.50% | 12.50% |
| 2nd milestone | 06.12.2020 | 06.12.2020 | 4,78,36,250.00 | 47836250.0 | 12.50% | 12.50% |
| 3rd Milestone | 25.03.2021 | 25.03.2021 | 4,78,36,250.00 | 47836250.0 | 12.50% | 12.50% |
| 4th Milestone | 07.08.2021 | 07.08.2021 | 4,78,36,250.00 | 47836250.0 | 12.50% | 12.50% |
| 5th Milestone | 15.11.2021 | 15.11.2021 | 4,78,36,250.00 | 47836250.0 | 12.50% | 12.50% |
| 6th milestone | 25.03.2022 | 04.04.2022 | 4,78,36,250.00 | 47836250.0 | 12.50% | 12.50% |
| 7th milestone | 25.04.2022 | Not completed | 4,78,36,250.00 | 47836250.0 | 12.50% | 12.50% |
| 8th milestone | 15.06.2022 | Not completed | 4,78,36,250.00 | 325,41,212.0 | 12.50% | 8.50% |
| Overall Progress | | | 38,26,90,000.00 | 3673,94,963 | 100% | 96.00% |

Milestone Wise Progress of Work

Detail of Milestone wise activities and their progress of work for Unnao STP is given in the **Annexure 2** attached separately with this MPR.

PHOTOGRAPHS OF UNNAO STP SITE



MPS final works



PTU



SBR



Sludge Thickener



HT VCB Panel testing done

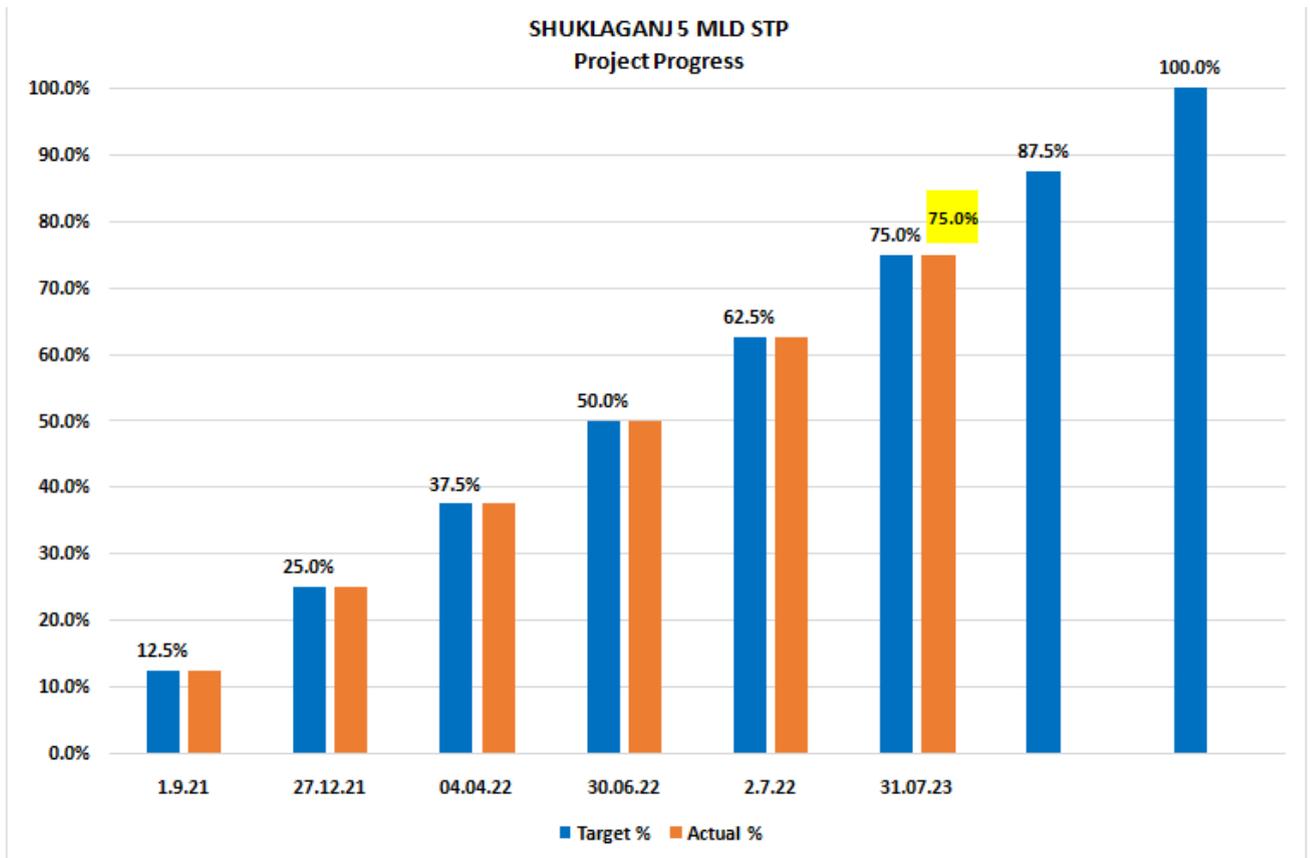


Sewer Line and Manhole Cleaning at MH 37 on 26.07.2023

6.3 MILESTONE WISE ACTIVITIES AND PROGRESS: SHUKLAGANJ STP

Progress of construction works for 05 MLD STP at Shuklaganj is very slow. Total progress till July 2023 is 75%. Status and progress of Shuklaganj STP is as following:

- During July 2023, the manpower deployed at the 05 MLD STP site was 15-20 nos. KRMPPL need to increase the manpower up to 100 to achieve the target on time;
- Total 6 milestones have been completed out of 8.
- In the MOM dated 03.07.2023, date for completion of plant is given 30 Dec. 2023.
- KRMPPL assured to complete the plant by December 2023.
- Civil works of STP completed – MPS, Sewer Line, Thickener, Supernatant Sump, Coarse screen chamber, Inlet Chamber, CCT, Staff Quarter and Guard Room;



- Mechanical equipment shifting (Decanter, CCT Panel, DG and Pumps) has been done. KRMPPL need to expedite installation of mechanical equipments in the presence of OEMs.
- During visit, progress of different STP components was checked. Detail is given below:

| STP Units | Target % | Achieved % |
|--------------------------------|----------|------------|
| I&D | 38% | 10% |
| Sewer Laying (900 mm, 424m) | 38% | 10% |
| Manhole (09 nos.) | 38% | 0% |
| Pumping Main (500mm dia, 80 m) | 38% | 0% |

| | | |
|-----------------------------|-----|-----|
| MPS | 38% | 75% |
| PTU | 38% | 20% |
| SBR | 38% | 65% |
| Blower | 38% | 20% |
| CCT, Chlorination Building | 38% | 50% |
| Thickener, Supernatant Sump | 38% | 75% |
| Centrifuge | 38% | 15% |
| Admin Building | 38% | 20% |
| Staff Quarter | 38% | 45% |
| Guard Room | 38% | 70% |
| Boundary Wall | 38% | 50% |

SUMMARY OF OVERALL PROGRESS AT SHUKLAGANJ STP

| Milestone | Schedule Completion date | Actual completion date | Milestone Amount (Rs.) | Progress till 31.07.2023 | | |
|-------------------------|--------------------------|------------------------|------------------------|--------------------------|-------------|---------------|
| | | | | Milestone Amount (Rs.) | % Target | % Achieved |
| 1st milestone | 01.09.2021 | 01.09.2021 | 2,66,18,775.0 | 266,18,775.0 | 12.50% | 12.50% |
| 2nd milestone | 27.12.2021 | 27.12.2021 | 2,66,18,775.0 | 266,18,775.0 | 12.50% | 12.50% |
| 3rd Milestone | 25.03.2022 | 04.04.2022 | 2,66,18,775.0 | 266,18,775.0 | 12.50% | 12.50% |
| 4th Milestone | 02.05.2022 | 29.06.2022 | 2,66,18,775.0 | 266,18,775.0 | 12.50% | 12.50% |
| 5th Milestone | 13.12.2022 | 10.02.2023 | 2,66,18,775.0 | 193,11,049 | 12.50% | 9.07% |
| 6th milestone | 13.02.2023 | 11.07.2023 | 2,66,18,775.0 | 174,07,484 | 12.50% | 8.17% |
| 7th milestone | 12.11.2022 | - | 2,66,18,775.0 | 80,26,192 | 12.50% | 3.77% |
| 8th milestone | 14.12.2022 | - | 2,66,18,775.0 | 86,50,908 | 12.50% | 4.06% |
| Overall Progress | | | 21,29,50,200.0 | 1598,70,732 | 100% | 75.07% |

Milestone Wise Progress of Work

Detail of Milestone wise activities and their progress of work for Shuklaganj STP is given in the **Annexure 3** attached separately with this MPR.

Photographs of Shuklaganj STP



MPS works



PTU column casting



Supernatant Sump



CCT Building works

7. STATUS AND ISSUES OF JAJMAU (PHASE – 1) 130 MLD STP AND IPS REHABILITATION

Till July 2023 overall progress is **82.40%**.

- **Aeration Tank** – All 18/18 aerators replaced; 3 of 3 tanks rehabilitation completed.
- **Thickener** – One thickener testing and commissioning still pending.
- **New CCT** – Caustic tank, neutralization tank and recirculation pumps, ejector pipes and valves etc. supply and installation pending
- **TEPH** – 11 pumps have been supplied but all accessories of valves, NRV, pipe and Dismantling Joint and ARV etc pending
- **Sludge Digester (2 nos)** – 2nd Digester cleaning still pending
- **Gas holder (02 nos).**- Supply done installation pending
- **BFP** – 2 BFP installed out of 4 and 4 BFP supply still pending

MILESTONE WISE ACTIVITIES AND PROGRESS

| Milestone | Schedule Completion date | Actual Completion date | Milestone Amount | Targeted progress till 31.07.2023 | | |
|-------------------------|--------------------------|------------------------|----------------------|-----------------------------------|----------|---------------|
| | | | | Milestone Amount | % Target | % Achieved |
| 1st | 15.10.2021 | 15.10.2021 | 240160000.00 | 240,160,000 | 25% | 25% |
| 2nd | 15.03.2022 | 15.03.2022 | 240160000.00 | 240,160,000 | 25% | 25% |
| 3rd | 15.06.2022 | 06.03.2023 | 240160000.00 | 234,858,228 | 25% | 24.44% |
| 4th | 09.08.2022 | Not completed | 240160000.00 | 76,426,047 | 25% | 7.95% |
| Overall progress | | | 960640000.000 | 791,604,275 | 100% | 82.40% |

Mechanical equipment Status for 130 MLD STP Jajmau

| SN | Mechanical Equipment Name | TotalQTY. (Nos) | Supplie d (Qty.) | Pending Supply Qty.(Nos) | Drawing Submission pending from KRMPL ends |
|----|---|-----------------|------------------|--------------------------|--|
| 1 | Poly Dosing Tank | 8 | 8 | 0 | |
| 2 | Belt Filter press | 4 | 4 | 0 | |
| 3 | Floculator Tank | 4 | 2 | 0 | |
| 4 | Belt | 8 | 4 | 4 | |
| 5 | EOT | 1 | 0 | 1 | Pending |
| 6 | Valves(NRV, Sluice Valve) for Supernatant pumps | 1 Lot | 0 | 0 | Pending |
| 7 | Caustic Solution Tank | 1 | 0 | 1 | |
| 8 | Caustic pump | 2 | 0 | 2 | |
| 9 | Absorption tower | 1 | 0 | 1 | |
| 10 | Booster Pumps | 3 | 0 | 0 | |
| 11 | Ejector | 3 | 0 | 0 | |
| 12 | PVC Pipe & Fittings for chlorination system | 1 Lot | 0 | 1 Lot | |
| 13 | Chlorine Tonners | 25 | 0 | 25 | |

| SN | Mechanical Equipment Name | TotalQTY. (Nos) | Supplie d (Qty.) | Pending Supply Qty.(Nos) | Drawing Submission pending from KRMPL ends |
|----|---|-----------------|------------------|--------------------------|--|
| 14 | Piping / valves for Chlorine gas line Gas chlorine pipework | 1 Lot | 0 | 1 Lot | |
| 15 | Landia system | 1 Lot | 100% | | |
| 16 | Gas Holder Membrane type domeaccessories | 1 lot | 0 | | |
| 17 | Multistage Centrifugal Blowers | 2 | 0 | 0 | |
| 17 | BEM heat Exchanger | 3 | 2 | 1 | |
| 18 | Dehumidifier | 1 | 0 | 1 | |
| 19 | Radiator | 2 lot | 0 | 2 lot | |
| 20 | Ventilation system | 2 lot | 0 | 2 lot | |
| 21 | Gas Engine feeding blower | 2 | 0 | 2 | |
| 22 | Main Water Pump | 2 | 0 | 2 | |
| 23 | Auxiliary Water Pump | 2 | 0 | 2 | |
| 28 | Valves, NRV& DJ for TEPH | 1 Lot | 1 lot | 0 | |
| 29 | Valves, NRV & Fittings for TSPH | 1 Lot | 1 lot | 0 | |
| 30 | Valves, NRV& DJ for RSPH | 1 Lot | 0 | 1 Lot | Pending |
| 31 | Filtrate pump-7.5 kw | 2 | 2 | 0 | |
| 32 | Sluice Gates | 15 | 0 | 15 | Pending |

EMI equipment Status for 130 MLD STP Jajmau

| Electrical Equipment Name | Total QTY. (Nos) | Supplied (Qty.) |
|------------------------------|------------------|-----------------|
| DG set-2 nos. | 2 nos. | Pending |
| LPBS-91 nos. | 91 nos. | Pending |
| Main LT PCC Panel-1nos | 1 sets | Pending |
| LT distribution panel-1 nos. | 1 nos. | Pending |
| T.E.P.H panel-1 nos. | 1 nos. | Pending |
| APFC Panel -2 nos. | | |

EMI equipment Status for 130 MLD STP Jajmau

| Unit /Location | Items / Description of Work | Total Quantity | Supply |
|---|--------------------------------------|----------------|-----------|
| Mechanical & Manual Fine screen chamber | Differential Ultra level transmitter | 6 Nos | Pending |
| Grit Chamber | torque Switch | 3Nos. | Completed |
| Parshall flume | Open channel flow meter | 1nos. | Completed |
| | Online water quality Analyzer | 1 nos. | Pending |
| Distribution Chamber | Ultrasonic level transmitter | 1 nos. | Pending |
| Primary sedimentation tank (PST) | torque Switch | 3 nos. | Pending |
| Aeration tank | DO meter | 3 nos. | Pending |
| Final Sedimentation tank (FST) | torque Switch | 3 nos. | Completed |
| | Pressure indicators | 4 nos. | Pending |

| Unit /Location | Items / Description of Work | Total Quantity | Supply |
|-----------------------------------|--------------------------------|----------------|-----------|
| Return sludge Pump house | Ultrasonic level transmitter | 1 nos. | Pending |
| Sludge Thickener & Blending Tank | torque Switch | 2 nos. | Completed |
| | level indicating transmitter | 1nos. | Pending |
| | Ultrasonic level transmitter | 2nos. | Pending |
| Thickened Sludge Sump | level indicating transmitter | 1nos. | Pending |
| | Ultrasonic level transmitter | 1nos. | Pending |
| Digester Unit | level indicating transmitter | 1nos. | Pending |
| | Ultrasonic level transmitter | 1nos. | Pending |
| | Radar level transmitter | 2nos. | Pending |
| Belt filter press feed pumps unit | pressure indicator | 4 nos. | Pending |
| Supernatant Sump unit | pressure indicator | 4 nos. | Pending |
| | level indicating transmitter | 1 nos. | Pending |
| Poly Dosing System | Ultrasonic level transmitter | 1nos. | Pending |
| | Pressure indicator | 1 nos. | Pending |
| | Level switch, | 1 nos. | Pending |
| | conductivity type level switch | 8 nos. | Pending |
| Biogas handling unit | Flow meter, | 2 nos. | Pending |
| | Temperature gauge | 1 nos. | Pending |
| | Level transmitter | 1 nos. | Pending |
| | Gas Analyzer | 1 nos. | Pending |
| Chlorination Building | Leak absorption system | 1 nos. | Pending |
| | Pressure gauges | 1nos. | Pending |
| Chlorine contact Tank (CCT) | Level switch | 1nos. | Pending |
| | Pressure gauges | 1nos. | Pending |
| Treated effluent Pump house | Pressure gauges | 11 nos. | Pending |
| | Ultrasonic level transmitter | 1 nos. | Pending |
| Overhead Ground water tank | Floating type level switch | 2 nos. | Pending |
| PLC / SCADA | | Sets | Pending |

Nawabganj IPS: Supply of Electrical & Instrumentation equipments List:

| Unit /Location | Items / Description of Work | Total Qty | Supply |
|----------------|------------------------------|-----------|---------|
| Wet well | Ultrasonic Level transmitter | 2 nos. | Pending |
| Pump House-1 | Pressure indicator | 3 nos. | Pending |
| | pressure transmitter | 3 nos. | Pending |
| | Inlet flow meter | 1 nos. | Pending |
| Pump House-2 | Pressure indicator | 4 nos. | Pending |
| | pressure transmitter | 4 nos. | Pending |
| | Inlet flow meter | 1 nos. | Pending |

Parvat IPS: Supply of Electrical & Instrumentation equipments List:

| Unit /Location | Items / Description of Work | Total QTY | Supply |
|----------------|------------------------------|-----------|---------|
| Wet well | Ultrasonic Level transmitter | 1nos. | Pending |
| Pump House-1 | Pressure indicator | 3nos. | Pending |
| | pressure transmitter | 3nos. | Pending |
| | Inlet flow meter | 1nos. | Pending |
| Pump House-2 | Pressure indicator | 2nos. | Pending |
| | pressure transmitter | 2nos. | Pending |
| | Inlet flow meter | 1 nos. | Pending |
| Pump House-3 | Pressure indicator | 2nos. | Pending |
| | pressure transmitter | 2nos. | Pending |
| | Inlet flow meter | 1nos. | Pending |

Babaghat IPS: Supply of Electrical & Instrumentation equipments List

| Unit /Location | Items / Description of Work | Total QTY | Supply |
|------------------------------|------------------------------|-----------|---------|
| Manual coarse screen channel | Ultrasonic Level transmitter | 1 nos. | Pending |
| Wet Well | Pressure indicator | 3nos. | Pending |
| | pressure transmitter | 3nos. | Pending |
| | Inlet flow meter | 1nos. | Pending |
| | PMCC Panel | 1nos. | Pending |
| | APFC Panel | 1nos. | Pending |

CSPS: Supply of Electrical & Instrumentation equipments

| Unit /Location | Items / Description of Work | Total QTY | Supply |
|------------------------------------|--------------------------------------|-----------|-----------|
| Coarse screen channel (Mechanical) | Level indicating transmitter, 2 Nos. | 2nos. | Pending |
| Wet well | Ultrasonic level transmitter, 1 Nos. | 1nos. | Pending |
| Pump House | Pressure indicator , 7 Nos. | 7 nos. | Pending |
| | pressure transmitter , 7 Nos. | 7nos. | Pending |
| | Inlet flow meter-1nos | 1 nos. | Pending |
| Electrical & Related Works | Transformer 630 KVA -2nos | 2 nos. | Completed |
| | DG set | 2 nos. | Pending |
| | VFD Starter -7 nos | 7 nos. | Pending |
| | Power Distribution board-3 nos. | 3 nos. | Pending |
| | APFC Panel-2 nos | 2 nos. | Pending |

OTHER ISSUES AND STATUS

| SN | Equipment | Status in May2023 | Status in June 2023 | Compliance / Remarks |
|----|---|---|---|--|
| 1 | Collection Chamber | <ul style="list-style-type: none"> Toe-guard is not Installed. | <ul style="list-style-type: none"> Toe-guard is not installed. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 2 | Fine screen chamber (Mechanical/Manual) | <ul style="list-style-type: none"> Mechanical Fine Screen no. 1 & 2 are operational but not serving its purpose. Automation System is not installed. | <ul style="list-style-type: none"> Mechanical Fine Screen no. 1 & 2 are operational but not serving its purpose. Automation System is not installed. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 3 | Grit Chamber | <ul style="list-style-type: none"> Installation of LPBS pending Grit classifier no. 2 not working properly. Grit Mechanism No. 3 torque switch was not in working condition. | <ul style="list-style-type: none"> Installation of LPBS pending Grit classifier no. 2 not working properly. Grit Mechanism No. 3 torque switch was not in working condition. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 4 | Inlet Flow Meter | <ul style="list-style-type: none"> Flow chart and level scale not installed. | <ul style="list-style-type: none"> Flow chart and level scale not installed. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 5 | Primary Sedimentation Tank | <ul style="list-style-type: none"> Overflow was observed in PST No. 1 & PST No.2. Scum box rectification Work pending. Installation of LPBS pending. Torque Switch not working properly for PST No.2. PST-1 Torque switch hooter alarm was not working properly. | <ul style="list-style-type: none"> Overflow was observed in PST No. 1 & PST No.2. Scum box rectification Work pending. Installation of LPBS pending. Torque Switch not working properly for PST No.2. PST-1 Torque switch hooter alarm was not working properly. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 6 | Sludge Thickener Tank | <ul style="list-style-type: none"> Sludge thickener no. 1 is operational but torque switch are not working properly & Thickener no.2 is under renovation | <ul style="list-style-type: none"> Sludge thickener no. 1 is operational but torque switch are not working properly & Thickener no.2 renovation completed | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 7 | Blending Tank Agitator | <ul style="list-style-type: none"> Installation of LPBS pending | <ul style="list-style-type: none"> Installation of LPBS pending | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |

| | | | | |
|----|----------------------------|---|---|--|
| 8 | Aeration Tank | <ul style="list-style-type: none"> 3 out of 3 Aeration tank operational. | <ul style="list-style-type: none"> 3 out of 3 Aeration tank operational. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 9 | Return Sludge PumpHouse | <ul style="list-style-type: none"> Out of 4 pumps only 2 pumps were operational. Renovation work for Pump no. 4 pending. Replacement of valves, NRVs and pipes are pending. Cable tray, LCS Panel, internal electrification work pending. | <ul style="list-style-type: none"> Out of 4 pumps only 2 pumps were operational. Renovation work for Pump no. 4 pending. Replacement of valves, NRVs and pipes are pending. Cable tray, LCS Panel, internal electrification work pending. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 10 | Treated Effluent PumpHouse | <ul style="list-style-type: none"> 8 nos. of pumps are found in operation & 1 nos. of pumps was not in working condition and balance 02 nos. is missing since handover. Cable tray, LCS Panel, internal electrification work pending. | <ul style="list-style-type: none"> 8 nos. of pumps are found in operation & 1 nos. of pumps was not in working condition and balance 02 nos. is missing since handover. Cable tray, LCS Panel, internal electrification work pending. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 11 | BFP System | <ul style="list-style-type: none"> 2 no BFP operational and 2 no installation pending | <ul style="list-style-type: none"> 2 no BFP operational and 2 no installation Pending. BFP painting and shed work pending | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 12 | Supernatant Pumps | <ul style="list-style-type: none"> Supply of pumps & renovation work | <ul style="list-style-type: none"> Pending | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 13 | Sludge Digester | <ul style="list-style-type: none"> Civil renovation work Supply of equipments | <ul style="list-style-type: none"> Pending Pending | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |

| | | | | |
|----|----------------------------|---|--|--|
| 14 | Final Sedimentation Tank | <ul style="list-style-type: none"> FST-1 Torque switch is not working. FST-2 Torque switch hooter alarm was not working properly. Overflow was observed in FST-1 | <ul style="list-style-type: none"> FST-1 Torque switch is not working. FST-2 Torque switch hooter alarm was not working properly. Overflow was observed in FST-1. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 15 | New CCT & TEPH | <ul style="list-style-type: none"> Wall construction for the TEPH-CCT in progress. TEPH pump foundation walkwayslab in progress. Chlorine building foundation work on progress. | <ul style="list-style-type: none"> Wall construction for CCT in progress. TEPH pump lintel beam in progress. Chlorine building coloumn work on progress. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 16 | Power Backup (DGset & DFG) | All 5 out of 5 Nos.DFG sets are non functional, and only 2 no. 1250 KVA rental DG set are available at site for proper operation of plant during shutdown of Power | <ul style="list-style-type: none"> All 5 out of 5 Nos. DFG sets are non functional, and only 2 no. 1250 KVA rental DG set are available at site for proper operation of plant during shutdown of Power. | <ul style="list-style-type: none"> Refer STC Letter No. 2012 and 1974 |
| 17 | RTOLMS | <ul style="list-style-type: none"> Design, drawing still pending | Submitted | Pending from KRMP L'send |
| 18 | Sludge disposal system | <ul style="list-style-type: none"> Mr. Madhav Kumarasked KRMP L to Submit the calculation of sludge generation & maintain the daily sludge removal record. NMCG Team directedKRMP L to remove sludge from STP site at the Earliest. | <ul style="list-style-type: none"> Not complied by KRMP L Not complied by KRMP L | Refer STC LetterNo. 2012 and 1974 |
| 19 | New Laboratory | Established but not functional | Established but not functional | Refer STC Letter No. 2012 and 1974 |
| 20 | Scrubbing & Flaring System | Civil foundationwork done | Installation in progress | Refer STC Letter No. 2012 and 1974 |

| | | | | |
|----|--|--------------------------------------|--------------------------------|------------------------------------|
| 21 | Combined Sewage Pumping Station (CSPS) | Pending Civil Work in progress | Pending Civil Work in progress | Refer STC Letter No. 2012 and 1974 |
| 22 | Substation | HT & LT room civil construction work | Pending | Refer STC Letter No. 2012 and 1974 |

130MLD STP JAJMAU Site Pictures during renovation period



CCT-TEPH under construction 29.07.2023



HT-LT Panel building under construction



Renovation of Aeration 3 is in completed



Installation of 2 nos of BFP in progress

8. STATUS OF BEP & OTHER DETAILS

Status of BEPs & other detail are given in following table 8.1:

Table 8.1: BEPs and Design & Drawings detail

| SN | STP Facility | Design & Drawing Status | | Remarks |
|--|-----------------------|--|--|---|
| A Construction of New STP Facilities | | | | |
| 1. | 30 MLD STP Pankha | BEPs: Approved Construction Plan: Approved Structural Design Drawings: All Approved Sewer Network : Approved O&M Plan: Under Review | | Observations on Control philosophy has been sent vide STC letter no. 1923 dated 23.12.2022. KRMPPL compliance is pending. |
| 2. | 15 MLD STP Unnao | BEPs: Approved Construction Plan: Approved Structural Design Drawings: All Approved Sewer Network : Approved O&M Plan: Not Submitted | | Observations on Control philosophy has been sent vide STC letter no. 1949 dated 08.01.2023. KRMPPL compliance is pending. |
| 3. | 05 MLD STP Shuklaganj | BEPs: Approved Construction Plan: Approved Structural Design Drawings: All Approved Sewer Network : Approved O&M Plan: Not Submitted | | Observations on Control philosophy has been sent vide STC letter no. 1949 dated 08.01.2023. KRMPPL compliance is pending. |
| B Rehabilitation and O&M for 15 years | | | | |
| 4. | 130 MLD STP Jajmau I | BEPs: Approved Renovation Plan: Approved Structural Design Drawings: All Approved O&M Plan: Not Submitted | | Control Philosophy Under Review. |

ANNEXURE

Annexure 1: Milestone Progress of Pankha STP

(Attached Separately)

Annexure 2: Milestone Progress of 15 MLD STP Unnao

(Attached Separately)

Annexure 3: Milestone Progress of 05 MLD STP Shuklaganj

(Attached Separately)

Annexure 4.1: Milestone Progress Report Jajmau 130 MLD

(Attached Separately)

Annexure 4.2: Monthly Activity Report for 130 MLD STP Jajmau

(Attached Separately)

**Annexure 5: Inspection Reports of Pankha, Unnao, Shuklaganj &
Jajmau for July 2023**

Annexure 6: IIT Lab report for July 2023

(Attached Separately)

Annexure 7: Timesheets of Experts

(Attached Separately)

ANNEXURE 8: Monthly Staff Activity – HAM Project Kanpur