

**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**

**April - 2021**



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Uttar Pradesh Jal  
Nigam  
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Kanpur  
Uttar Pradesh -  
208002



**Funding Agency**  
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MoWR, River  
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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

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## 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 GoI approved the flagship Namami Gange program for cleaning, rejuvenation, and protection of the river Ganga. In January 2016, the GoI 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 GoI 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) and their O&M for 15 years;
- rehabilitation of existing 130 MLD Jajmau Phase-I STP facility with O&M for 15 years and;
- O&M for three existing STP facilities (43 MLD Jajmau Phase-II, 210 MLD Bingawan & 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)

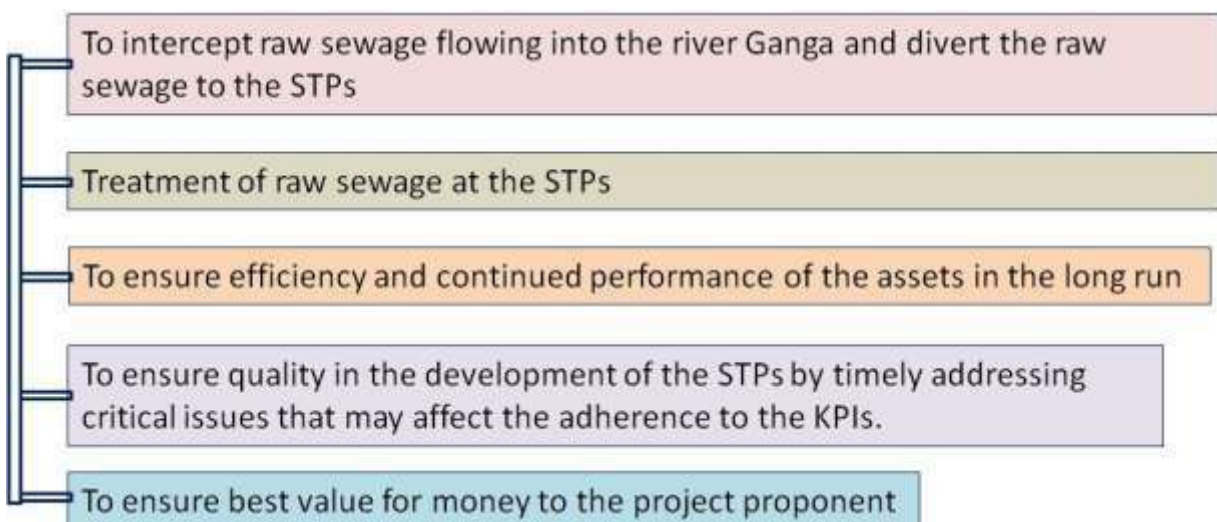
Government of India has approved the Namami Gange program as an integrated approach for effective abatement of pollution in river Ganga and Yamuna. As part of this and to ensure that no untreated domestic sewage flow into the river Ganga and Yamuna, various interventions are planned such as Interception & 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 4<sup>th</sup> February 2019 and agreement signed between the parties on 12<sup>th</sup> April 2019.

## 3. OBJECTIVES

To achieve above objectives effective development of STPs at Unnao, Shuklaganj and Pankha rehabilitation of existing STPs with O&M for 15 years in Kanpur 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**

<b>Name of Project</b>	:	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)
<b>Client</b>	:	National Mission for Clean Ganga (NMCG), New Delhi and UP Jal Nigam
<b>Execution Agency</b>	:	Uttar Pradesh Jal Nigam (UPJN)
<b>Consultant</b>	:	Shah Technical Consultants (P) Ltd. as ‘Project Engineer’
<b>Agreement &amp; LOA</b>	:	STC Agreement dated 12.04.2019 & LOA: Pr-12012/41/2018-PPP/NMCG dated 04.02.2019
<b>Concessionaire</b>	:	Kanpur River Management Private Limited (KRMPL) an SPV of Shapoorji Pallonji & Company Private Limited, Mumbai
<b>Concessionaire’s Agreement</b>	:	14/GM/2018-19 dated 21.12.2018
<b>Cost of Project (CAPEX+OPEX)</b>	:	Rs. 816.25 Cr. (CAPEX 255.50 Cr. + OPEX 560.75 Cr.)
<b>Effective Date</b>	:	11.10.2019
<b>Completion date (as per contract)</b>	:	24 Months from effective date (21 months construction + 3 months trial run)
<b>O&amp;M period</b>	:	15 years after last Commercial Operation Date (COD)
<b>Description of Work</b>	:	<ul style="list-style-type: none"> <li>➤ 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&amp;M;</li> <li>➤ Rehabilitation of 130 MLD (Phase-I) STP at Jajmau with construction of 200 MLD TEPS and 173 MLD CCT at Jajmau with O&amp;M for 15 years;</li> <li>➤ O&amp;M of 43 MLD (Phase-II) Jajmau facilities, O&amp;M of 210 MLD Bingawan facilities and O&amp;M of 42 MLD Sajari facilities for 15 years;</li> </ul>

## 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 Facilities	Capacity/dia. /size	No. of units/length
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- New Construction and O&M		
1.1	STP	30 MLD	1
1.2	MPS	115MLD	1
1.3	ICI Nala IPS	25 MLD	1
1.4	Sundar Nagar IPS	20 MLD	1
1.5	Thermal Nala (A)(tapping)	22 MLD	1
1.6	Thermal Nala (B)(tapping)	8 MLD	1
1.7	ICI Nala (tapping)	7.85 MLD	1
1.8	Rising main (ICI Nala IPS to collection chamber)	800mm-φ	6.91km
1.9	Rising main (Sundar Nagar IPS to collection chamber)	800mm-φ	0.651km
1.10	Common Gravity main (collection chamber to MPS)	2000mm- φ	1.948Km
1.11	Sewage network	350mm-φ	2.771km
		400 mm-φ	1.359km
		450 mm-φ	1.272km
		500 mm-φ	1.243km
		600 mm-φ	1.778km
		700 mm-φ	1.487km
		800 mm-φ	1.012km



900 mm-φ	2.170km
1200 mm-φ	3.634km
1600 mm-φ	1.596km
2000 mm-φ	1.948km

## 5.2 UNNAO FACILITIES

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

**Table 5.2: Unnao Facilities**

SN	STP Facilities	Capacity/dia. /size	No. of units/length
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- New Construction and O&M		
1.1	STP	15 MLD	1
1.2	Sump cum Pump house (MPS)	40 MLD	1
1.3	Trunk Sewer	1200mm φ	3.6Km
1.4	I&D works (Nala tapping)	90 MLD	1
1.5	Trash screen	7mx1.7mx 0.8m	1
1.6	Grit chamber	12mx4m x1m	2
1.7	Collection chamber	3mx5.3mx2m	1
1.8	Rising main (MPS to STP)	750mm φ	100m
1.9	Rising main (bypass)	750mm φ	100m
1.10	Effluent gravity channel (STP to discharge point)	1.5m x1.0m	300m
1.11	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 Facilities	Capacity/dia. /size	No. of units/length
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- New Construction and O&M		
1.1	STP	5 MLD	1
1.2	Sump cum Pump house (MPS)	20 MLD	1
1.3	Connecting sewer (in zone 2)	400-500mm φ	200m
	Effluent Disposal line	400mm φ	310m
	(I&D to STP)	600mm φ	430m
1.4	I&D works (Nala tapping)	45 MLD	1
1.5	Collection chamber	3.5mx3.6mx1m	1
1.6	Rising main (MPS to STP)	500mm φ	50m
1.7	Rising main (bypass)	500mm φ	50m
1.9	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 Facilities	Capacity/dia./size	No. of units/length
<b>A</b>	<b>Phase-I</b>		
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- Renovation and O&M		
1.1	STP 1 on ASP technology with power Generation	130 MLD	1
1.2	Sump cum Pump house (TEPH)	200 MLD	1
1.3	CCT	173 MLD	1
1.4	Nawabganj IPS	1.09 MLD	1
1.5	Parmat IPS	54.24 MLD	1
1.6	Baba Ghat / Muar mill IPS	4.03 MLD	1
1.7	Guptar Ghat IPS	1.44 MLD	1
1.8	Jajmau CSPS	136 MLD	1

#### 5.5 JAJMAU PHASE II STP FACILITY

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

SN	STP Facilities	Capacity/dia./size	No. of units/length
	Schedule Handing Over Date- 01.10.2019		
	Scope of Work- O&M		
1.1	STP 2 on ASP technology with power Generation	43 MLD	1
1.2	Sanjaypuram IPS	3.5 MLD	1
1.3	Khalasi lane IPS	45 MLD	1
1.4	Jajmau MPS	25 MLD	1

#### 5.6 BINGAWAN FACILITIES

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

**Table 5.5: Bingawan Facilities**

SN	STP Facilities	Capacity /dia./size	No. of units/length
	Schedule Handing Over Date- 01.04.2019		
	Scope of Work- Renovation and O&M for 15 years		
1.1	STP on UASB Technology with power generation	210 MLD	1
1.2	Installation of online monitoring system (RTOLMS)		L.S.
1.3	Bingawan MPS	200 MLD	1
1.4	Rakhimandi IPS	100 MLD	1
1.5	Halwakhanda IPS	20 MLD	1

1.6	Munshipurwa IPS	67 MLD	1
1.7	ShisamauNala (tapping)	8MLD	1

## 5.7 SAJARI FACILITIES

Project wise component detail of Sajari is given in table 5.6

**Table 5.6: Sajari Facilities**

SN	STP Facilities	Capacity/dia./size	No. of units/length
	Schedule Handing Over Date- 11.10.2019		
	Scope of Work- O&M for 15 years		
1.1	STP on ASP technology	42 MLD	1
1.2	MPS	42 MLD	1
1.3	Chakeri IPS	14 MLD	1
1.4	Sanigawan IPS	14 MLD	1

## 6. PHYSICAL PROGRESS OF WORK

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

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%. Due to COVID-19 nationwide lockdown, progress of work was hampered. Once process of unlock started, the Concessionaire was asked to speed up the work. The Concessionaire submitted revised construction plan compensating relevant construction milestone works with extended timeline. The scheduled date of project completion was 10<sup>th</sup> October 2021 i.e. 24 months from the effective date. The progress of construction of new STP facilities is given in following headings.

### 6.1 MILESTONE WISE ACTIVITIES AND PROGRESS: PANKHA STP FACILITIES

Milestone wise activities and their progress of work for Pankha STP are given in table 6.1:

**Table 6.1: Pankha STP Facilities**

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
A	<b>Design &amp; Drawing &amp; STP &amp; Sewer Laying works</b>									
	A. On approval of BEP									
	B. On approval of design & drawings for Civil & Sewerage works									
B	<b>CONSTRUCTION</b>									
	<b>STP (30 MLD)</b>									
1	<b>SBR Basin Area</b>									
	<b>CIVIL WORK</b>			-			-			-
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft			-			-			-
	Wall 50% of total lift work			-			-			-
	Walls (balance 50% of Total Lift work)	60%	60%	1,47,57,600.00	40%	35%	86,08,600.00			-
	Baffle Walls work			-	75%	75%	92,23,500.00	25%	15%	18,44,700.00
	Walkway/Platform			-			-	50%	10%	12,29,800.00
	Finishing Work			-			-			-
2	<b>Chlorine Contact Tank Area</b>									
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft			-			-			-
	Wall 50% of total lift work			-			-			-
	Walls (balance 50% of Total Lift work)	100%	100%	27,67,050.00			-			-
	Baffle Walls work			-	100%	90%	33,20,460.00			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Finishing Work			-			-	100%		-
3	<b>Chlorination House Area</b>									
	<b>CIVIL WORK</b>									
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Column footing			-			-			-
	Column & Beam	50%	50%	4,61,175.00			-			-
	Ground floor Slab	100%	100%	9,22,350.00			-			-
	Column & Beam			-	100%	100%	9,22,350.00			-
	Roof Slab			-	50%	50%	9,22,350.00	50%	40%	7,37,880.00
	Brickwork & Plaster			-			-	100%	10%	1,84,470.00
	Finishing Work			-			-			-
4	<b>Sludge Thickener Area</b>									
	<b>CIVIL WORK</b>									
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation wall/base slab			-			-			-
	Wall 50% of total lift work			-			-			-
	Walls (balance 50% of Total Lift work)	60%	60%	16,60,230.00	40%	30%	8,30,115.00			-
	Finishing Work			-			-	100%		-
5	<b>Inlet / Stilling Chamber Area</b>									
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	RCC Foundation/Column footing			-			-			-
	Column & Beam	100%	100%	9,22,350.00			-			-
	RCC Slab			-	100%	100%	9,22,350.00			-
	RCC Wall			-			-	100%		-
	Final finishing including Staircases, Railing, Shade, Painting, etc.			-			-			-
6	<b>Manual &amp; Mechanical Fine Bar Screen Chamber Area</b>									
	Site Clearance	100%	100%	50,000.00			-			-
	Excavation	100%	100%	2,45,960.00			-			-
	PCC	100%	100%	3,68,940.00			-			-
	RCC Foundation	100%	100%	12,29,800.00			-			-
	Column & Beam			-	100%	100%	18,44,700.00			-
	RCC Slab			-			-	100%		-
	RCC Wall			-			-			-
	Walkway/Platform			-			-			-
	Finishing Work			-			-			-
7	<b>Grit Chamber (Mechanical Cleaned) &amp; (Manually Cleaned)</b>									
	Site Clearance	100%	100%	50,000.00			-			-
	Excavation	100%	100%	2,45,960.00			-			-
	PCC	100%	100%	3,68,940.00			-			-
	RCC Foundation	100%	100%	12,29,800.00			-			-
	Column & Beam			-	100%	100%	18,44,700.00			-
	RCC Slab			-	100%	40%	4,91,920.00			-
	RCC Wall			-			-	100%		-
	Walkway/Platform			-			-	100%		-
	Finishing Work			-			-			-
8	<b>Flow Measurement Channel Area</b>									

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Site Clearance	100%	100%	50,000.00			-			-
	Excavation	100%	100%	2,45,960.00			-			-
	PCC	100%	100%	3,68,940.00			-			-
	RCC Foundation	100%	100%	12,29,800.00			-			-
	Column & Beam			-	100%	90%	16,60,230.00			-
	RCC Slab			-	100%		-			-
	RCC Wall			-			-	100%		-
	Walkway/Platform			-			-			-
	Finishing Work			-			-			-
9	<b>Admin Bldg Area</b>									
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	Column footings/Foundation			-			-			-
	Column & Beam	100%	100%	18,44,700.00			-			-
	Ground Floor Slab			-	100%		-			-
	1st Floor Slab			-			-	50%		-
	Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
				-			-			-
10	<b>Air Blower Room Area</b>									
	Site Clearance			-	100%	100%	1,00,000.00			-
	Excavation			-	100%	100%	3,07,450.00			-
	PCC			-	100%	100%	4,61,175.00			-
	Column footings/Foundation			-	100%	100%	15,37,250.00			-



SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Column & Beam			-			-	100%	50%	7,68,625.00
	RCC Ground Floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
<b>11</b>	<b>Staff Quarter Area</b>									
	Site Clearance			-	100%	100%	50,000.00			-
	Excavation			-	100%	100%	3,44,344.00			-
	PCC			-	100%	100%	5,16,516.00			-
	RCC Foundation/column footing			-	100%		-			-
	Column & Beam			-			-	100%		-
	RCC Ground Floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Electrical work			-			-			-
	Finishing Work			-			-			-
<b>12</b>	<b>Guard Room Area</b>									
	Site Clearance			-	100%	100%	50,000.00			-
	Excavation			-	100%		-			-
	PCC			-	100%		-			-
	RCC Foundation/column footing			-			-	100%		-
	Column & Beam			-			-	100%		-
	RCC Ground Floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Electrical work			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Finishing Work			-			-			-
13	<b>Sludge Dewatering System Area (Centrifuge Pump House, Sludge sump &amp; Poly dosing tank)</b>									
	Site Clearance	100%	100%	1,00,000.00			-			-
	Excavation	100%	100%	6,14,900.00			-			-
	PCC	100%	100%	9,22,350.00			-			-
	RCC Foundation			-	100%	100%	15,37,250.00			-
	1st Column & Beam			-	100%	50%	15,37,250.00			-
	Ground Floor Slab			-			-	100%		-
	2nd Column & Beam			-			-	100%		-
	RCC Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
14	<b>Supernatant Recirculation Sump Area</b>									
	Site Clearance			-	100%	100%	50,000.00			-
	Excavation			-	100%	100%	7,37,880.00			-
	PCC			-	100%	100%	11,06,820.00			-
	RCC Foundation wall/base slab			-			-	100%	100%	27,67,050.00
	Wall 50% of total lift work			-			-	100%	100%	27,67,050.00
	Walls (balance 50% of Total Lift work)			-			-			-
	Final finishing including Staircases, Railing, Shade, Painting etc.			-			-			-
				-			-			-
15	<b>Transformer Yard Area</b>									
	Site Clearance			-	100%		-			-
	Excavation & PCC			-	100%		-			-
	Foundation Work			-			-	100%		-
	Finishing Work			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
16	<b>DG Area</b>									
	Site Clearance			-			-	100%		-
	Excavation & PCC			-			-	100%		-
	Foundation Work			-			-	100%		-
	Finishing Work			-			-			-
17	<b>Sludge Storage Platform</b>									
	Site Clearance			-			-	100%		-
	Excavation & PCC			-			-	100%		-
	Foundation Work			-			-	100%		-
	Finishing work			-			-			-
18	<b>EXTERNAL DEVELOPMENT</b>									
A.	Roads, Storm Water Drain & Miscellaneous work			-			-			-
B.	<b>Compound Wall with Gate (As per Approved Drg)</b>									
	Excavation & PCC	20%	20%	12,29,800.00	20%	20%	12,29,800.00			-
	RCC Column footing	20%	20%	12,29,800.00	10%	10%	6,14,900.00	5%	5%	3,07,450.00
	RCC Column & Beam	20%	20%	12,29,800.00	10%	10%	6,14,900.00	5%	5%	3,07,450.00
	Brickwork & Plaster	20%	20%	12,29,800.00	10%	10%	6,14,900.00	20%	20%	12,29,800.00
	Finishing Work			-	20%		-	12%		-
19	<b>MPS-2 ( 115MLD)</b>									
	<b>CIVIL</b>									
A	<b>Construction of Raw Sewage Sump</b>									
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft	50%	50%	28,76,445.00			-			-
	Wall 50% of total lift work	100%	100%	38,35,260.00			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Column & Beam			-	100%	35%	13,42,341.00			-
	Walls (balance 50% of Total Lift work)			-			-	100%	50%	19,17,630.00
	Ground Floor Slab			-			-			-
	Finishing Work			-			-			-
<b>B</b>	<b>Construction of Inlet Chamber &amp; Screen Channel</b>									
	Site Clearance			-			-			-
	Excavation	100%	100%	6,81,824.00			-			-
	PCC	100%	100%	10,22,736.00			-			-
	RCC Foundation/Raft			-	100%	100%	17,04,560.00			-
	Wall 50% of total lift work			-	100%	50%	8,52,280.00			-
	Walls (balance 50% of Total Lift work)			-			-	100%		-
	Walkway/Platform			-			-			-
<b>C</b>	<b>Construction of Raw Sewage Pump House</b>									
	Column & Beam			-			-			-
	Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
<b>D</b>	<b>MECHANICAL WORK</b>									
<b>20</b>	<b>ICI Nala IPS</b>									
	<b>CIVIL</b>									
<b>A</b>	<b>Construction of Raw Sewage Sump</b>									
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft	50%	50%	12,78,000.00			-			-
	Wall 50% of total lift work	100%	100%	25,56,000.00			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Column & Beam			-	100%		-			-
	Walls (balance 50% of Total Lift work)			-			-	100%	30%	7,66,800.00
	Ground Floor Slab			-			-			-
	Finishing Work			-			-			-
<b>B</b>	<b>Construction of Inlet Chamber &amp; Screen Channel</b>									
	Site Clearance	100%	100%	50,000.00			-			-
	Excavation	100%	50%	1,70,400.00			-			-
	PCC	100%					-			-
	RCC Foundation/Raft			-	100%		-			-
	Wall 50% of total lift work			-	100%		-			-
	Walls (balance 50% of Total Lift work)			-			-	100%		-
	Walkway/Platform			-			-			-
	Finishing work			-			-			-
<b>C</b>	<b>Construction of Raw Sewage Pump House</b>									
	Column & Beam			-			-			-
	Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
<b>D</b>	<b>Construction of Office Room</b>									
	Site Clearance			-	100%		-			-
	Excavation & PCC			-	100%		-			-
	RCC Foundation/column footing			-			-	100%		-
	Column & Beam			-			-	100%		-
	RCC Ground floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brick work & Plaster			-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Electrification, plumbing, fixtures			-			-			-
	Finishing work			-			-			-
E	<b>Construction of Guard Room</b>									
	Site Clearance			-			-	100%		-
	Excavation & PCC			-			-	100%		-
	RCC Foundation/column footing			-			-	100%		-
	Column & Beam			-			-			-
	RCC Ground floor Slab			-			-			-
	RCC Roof Slab			-			-			-
	Brick work & Plaster			-			-			-
	Electrification, plumbing, fixtures			-			-			-
	Finishing work			-			-			-
F	<b>Transformer Yard,DG Yard</b>									
	Site Clearance			-			-	100%		-
	Excavation & PCC			-			-	100%		-
	Foundation Work			-			-	100%		-
	Finishing Work			-			-			-
I	<b>Construction of Boundary wall &amp; Internal Road</b>									
	Site Clearance	100%	100%	-			-			-
	Excavation & PCC	100%	30%	95,881.50			-			-
	RCC Column footing	100%		-			-			-
	RCC Column & Beam			-	100%		-			-
	Brickwork & Plaster			-			-	100%		-
	Finishing			-			-			-
	Construction of Internal road			-			-			-
21	<b>IPS-6 (Sundar Nagar- 20 MLD)-Pankha Area</b>									

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	<b>CIVIL</b>									
A	<b>Construction of Raw Sewage Sump</b>									
	Site Clearance			-			-			-
	Excavation			-			-			-
	PCC			-			-			-
	RCC Foundation/Raft	100%	100%	25,56,000.00			-			-
	Wall 50% of total lift work	100%	100%	25,56,000.00			-			-
	Column & Beam			-	100%	40%	10,22,400.00			-
	Walls (balance 50% of Total Lift work)			-			-	100%	25%	6,39,000.00
	Ground Floor Slab			-			-			-
	Finishing Work			-			-			-
B	<b>Construction of Inlet Chamber &amp; Screen Channel</b>									
	Site Clearance	100%		-			-			-
	Excavation & PCC	100%	100%	4,26,000.00			-			-
	RCC Foundation/Raft	100%	80%	3,40,800.00			-			-
	Wall 50% of total lift work			-	100%	20%	85,200.00			-
	Walls (balance 50% of Total Lift work)			-			-	100%		-
	Walkway/Platform			-			-			-
	Finishing work			-			-			-
C	<b>Construction of Raw Sewage Pump House</b>									
	Column & Beam			-			-			-
	Roof Slab			-			-			-
	Brickwork & Plaster			-			-			-
	Finishing Work			-			-			-
D	<b>Construction of Office Room</b>									
	Site Clearance	100%	100%	-			-			-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Excavation & PCC	100%	100%	2,13,000.00			-			-
	RCC Foundation/column footing	100%		-			-			-
	Column & Beam	100%		-			-			-
	RCC Ground floor Slab			-	100%		-			-
	RCC Roof Slab			-			-	100%		-
	Brick work & Plaster			-			-	100%		-
	Electrification, plumbing, fixtures			-			-			-
	Finishing work			-			-			-
<b>E</b>	<b>Construction of Guard Room</b>									
	Site Clearance	100%		-			-			-
	Excavation & PCC	100%	100%	2,13,000.00			-			-
	RCC Foundation/column footing	100%	100%	6,39,000.00			-			-
	Column & Beam	100%		-			-			-
	RCC Ground floor Slab			-	100%		-			-
	RCC Roof Slab			-			-	100%		-
	Brick work & Plaster			-			-	100%		-
	Electrification, plumbing, fixtures			-			-			-
	Finishing work			-			-			-
<b>F</b>	<b>Transformer Yard, DG Yard</b>									
	Site Clearance	100%		-			-			-
	Excavation & PCC	100%		-			-			-
	Foundation Work			-	100%		-			-
	Finishing Work			-	100%		-			-
<b>I</b>	<b>Construction of Boundary wall &amp; Internal Road</b>									
	Site Clearance			-	100%		-			-
	Excavation & PCC			-	100%		-			-



SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	RCC Column footing			-			-	100%		-
	RCC Column & Beam			-			-			-
	Brickwork & Plaster			-			-			-
	Construction of Internal road			-			-			-
	Finishing			-			-			-
22	<b>I&amp;D Works</b>									
A	<b>ICI Nala</b>									
	Construction Work	67%	67%	14,90,080.00	20%	16%	3,55,840.00			-
	Tapping of Nallahs			-	55%		-	45%		-
	Electro-Mechanical work			-			-			-
	Testing			-			-			-
B	<b>Thermal Nala -A</b>									
	Construction Work	67%	55%	12,23,200.00	20%		-			-
	Tapping of Nallahs			-	55%		-	45%		-
	Electro-Mechanical work			-			-			-
	Testing			-			-			-
C	<b>Thermal Nala -B</b>									
	Construction Work	63%		-	23%		-			-
	Tapping of Nallahs			-	55%		-	45%		-
	Electro-Mechanical work			-			-			-
	Testing			-			-			-
23	<b>Rising Main Works</b>									
A	<b>ICI Nala Area</b>									
	Site Clearance from Client	50%		-	50%		-			-
	Supply of Pipes			-	25%	6.25%	3,18,750.00	20%	6.25%	3,18,750.00
	Excavation, Laying & backfilling of Pipes			-	18%		-	20%		-

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	Testing			-			-	15%		-
B	<b>Sundar Nagar IPS Area</b>									
	Site Clearance from Client	50%		-	50%		-			-
	Supply of Pipes			-	25%		-	20%		-
	Excavation, Laying & backfilling of Pipes			-	18%		-	20%		-
	Testing			-			-	15%		-
24	<b>Sewer System Area (RCC Pipes-NP3 Types)</b>									
	Site Clearance	20%		-	20%		-	10%		-
	Supply of pipes	29%	29%	4,65,31,738.88	20%		-	7%		-
	Excavation and Laying of pipes including bed preparation & backfilling	35%	25%	25,07,098.00	20%		-	10%		-
	Manholes	35%	18%	18,05,110.56	15%		-	10%		-
	Testing			-			-			-
	Road Restoration work			-			-			-
25	<b>Design, Supply, Testing &amp; Commissioning of Sewer line (crossing National Highway-2 &amp; Railway Track)</b>									
	Statutory approvals from Railway & Road dept	50%		-			-			-
	Supply of Carrier & Casing Pipes	50%		-	40%		-	10%		-
	Construction of Pit	55%		-			-			-
	Excavation & Laying of Pipes thru Jack push method	45%		-	30%		-	15%		-
	Testing			-			-			-
26	<b>Design ,Supply,Testing &amp; Commissioning of Treated Effluent line from STP to River Pandu</b>									
	Site Clearance			-			-			-
	Construction of Effluent line from STP to River Pandu			-			-			-
	Testing			-			-			-
	<b>TRIAL RUN &amp; COMMISSIONING</b>									
	Trial Run & Commissioning									

SN	Description of Items	Milestone-3 (From 26th Nov.'20 to 25th Jan'21)			Milestone-4 (From 26th Jan'21 to 25th Mar'21)			Milestone-5 (From 26th Mar'21 to 25th May.'21)		
		% Target	% Achieved	Amount	% Target	% Achieved	Amount	% Target	% Achieved	Amount
	<b>Total Amount</b>			<b>10,86,43,578.94</b>			<b>4,76,83,081.00</b>			<b>1,57,86,455.00</b>

Milestone	Target Value	Achieved till 30.04.2021	Remarks
1st milestone	1248,39,750.00	1248,39,750.00	100.00%
2nd milestone	1248,39,750.00	1204,11,721.90	96.45%
3rd Milestone	1248,39,750.00	10,86,43,578.94	87.00%
4th Milestone	1248,39,750.00	4,76,83,081.00	38.20%
5th Milestone	1248,39,750.00	1,57,86,455.00	12.64%
6th milestone	1248,39,750.00	-	-
7th milestone	1248,39,750.00	-	-
8th milestone	1248,39,750.00	-	-
<b>Overall Progress</b>	<b>9987,18,000.00</b>	<b>417,364,586.84</b>	<b>41.79%</b>
<b>Total %</b>	<b>100.00%</b>	<b>42.00%</b>	

**\*Note:**

- i. 3<sup>rd</sup> milestone (12.5%) completion was due on 25.01.2021 but it was completed on 22.02.2021 due to unforeseen reasons.
- ii. Works of sewer laying are lagging behind schedule. There is delay in clearance for road cutting from KDA at some parts;
- iii. 4<sup>th</sup> milestone was due on 25.03.2021. The Concessionaire was asked to complete the milestone by completing other works of 4<sup>th</sup>/5<sup>th</sup> Milestone and submit a revised construction plan for the same.
- iv. Total Progress till 30.04.2021 (including works of 4<sup>th</sup> and 5<sup>th</sup> milestone) is 42.00% out of 57.29%.

**PHOTOGRAPHS OF PANKHA STP SITE**



**1200 dia pipe laying during GM visit**



**MPS and Receiving chamber**





**Supernatant Sump**



**I&D Thermal Nalla A**



**Tonner (Chlorination) room**



**IPS Sundar Nagar**

## 6.2 MILESTONE WISE ACTIVITIES AND PROGRESS: UNNAO STP

Milestone wise activities and their progress of work for Unnao STP are given in table 6.2.

**TABLE 6.2: UNNAO FACILITIES**

SN	Description of Items	BOQ Amount	Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		Milestone-4 From 26th Mar'21 to 05 May'21		
			%	Amount	%	Amount	% Target	Achieved	Amount
<b>I</b>	<b>Design &amp; Drawing &amp; STP &amp; Sewer Laying works</b>								
1	On approval of BEP	191,34,500.00							
2	On approval of design & drawings for Civil & Sewerage works	191,34,500.00	75%	143,50,875.00					
<b>II</b>	<b>CONSTRUCTION</b>								
<b>A</b>	<b>UNNAO STP (15 MLD)</b>								
<b>i)</b>	<b>SBR Basin Area</b>								
1	Site Clearance	5,00,000.00		-		-			
2	Excavation wall footing	22,46,137.60		-		-			-
3	PCC wall footing	27,46,137.60		-		-			-
4	RCC Foundation/Raft of wall	54,92,275.20	100%	54,92,275.20		-			-
5	Wall 50% of total upto base slab	54,92,275.20	20%	10,98,455.04	80%	43,93,820.16			-
6	Walls (balance 50% of upto base slab)	54,92,275.20		-	100%	54,92,275.20			-
7	PCC Base Slab	27,46,137.60		-	100%	27,46,137.60			-
8	RCC Foundation base slab	27,46,137.60		-	25%	6,86,534.40	75%	55%	15,10,375.68
9	Wall 50% of total lift work	27,46,137.60		-		-			-
10	Walls (balance 50% of Total Lift work)	27,46,137.60		-		-			-
11	Walkway/Platform	27,46,137.60		-		-			-
12	Piping & fitting works	21,96,910.08		-		-			-
13	Testing /Finishing works	36,80,000.00		-		-			-
<b>ii</b>	<b>Sludge Thickener Area</b>								
1	Site Clearance	1,50,000.00		-		-			-
2	Excavation	3,64,900.80		-		-			-

SN	Description of Items	BOQ Amount	Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		Milestone-4 From 26th Mar'21 to 05 May'21		
3	PCC	5,14,900.80	50%	2,57,450.40		-			-
4	RCC Foundation Wall/base slab	6,86,534.40	50%	3,43,267.20	50%	3,43,267.20			-
5	Wall 50% of total lift work	6,86,534.40	100%	6,86,534.40		-			-
6	Walls (balance 50% of Total Lift work)	3,78,534.20		-	75%	2,83,900.65	25%		-
7	Testing /Finishing works	3,08,000.00		-		-			-
iii	<b>Supernatant Sump Area</b>								
1	Site Clearance	1,00,000.00		-		-			-
2	Excavation	1,14,422.40		-		-			-
3	PCC	1,14,422.40		-		-			-
4	RCC Foundation wall/base slab	1,28,844.80		-		-			-
5	Wall 50% of total lift work	1,43,044.80	100%	1,43,044.80		-			-
6	Walls (balance 50% of Total Lift work)	1,71,633.60		-	100%	1,71,633.60			-
7	Testing /Finishing works	85,800.00		-		-	100%		-
iv	<b>Chlorination Tank Area</b>								
1	Site Clearance	1,50,000.00		-		-			-
2	Excavation	4,22,112.00		-		-			-
3	PCC	5,72,112.00		-		-			-
4	RCC Foundation/Raft	9,15,000.00		-		-			-
5	Wall 50% of total lift work	8,58,168.00	100%	8,58,168.00		-			-
6	Walls (balance 50% of Total Lift work)	8,58,168.00		-	100%	8,58,168.00			-
7	Baffle Walls work	3,44,336.00		-	100%	3,44,336.00			-
8	Testing /Finishing works	4,57,000.00		-		-	100%		-
v	<b>Air Blower Room Area</b>								
1	Site Clearance	2,50,000.00		-		-			-
2	Excavation	3,43,267.20		-		-			-
3	PCC	3,43,267.20		-		-			-
4	RCC Foundation/column footing	6,86,534.40	100%	6,86,534.40		-			-
5	Column & Beam	6,29,801.60	100%	6,29,801.60		-			-
6	RCC Ground floor Grade Slab	6,86,534.40		-		-	100%		-
7	Cable Trench Work	6,86,534.40		-		-	100%		-
8	RCC Roof Slab	8,29,801.60		-		-	100%		-





SN	Description of Items	BOQ Amount	Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		Milestone-4 From 26th Mar'21 to 05 May'21		
1	Site Clearance	1,50,000.00		-		-			-
2	Excavation	4,57,689.60		-		-			-
3	PCC	4,57,689.60	50%	2,28,844.80		-			-
4	RCC Foundation/Column footing	4,57,689.60	100%	4,57,689.60		-			-
5	Column & Beam	4,57,689.60	100%	4,57,689.60		-			-
6	Ground floor Slab	6,86,534.40	18.31%	1,25,672.96	81.69%	5,60,861.44			-
7	Roof Slab	4,86,534.40		-	50%	2,43,267.20	50%	50%	2,43,267.20
8	Brickwork	2,96,689.60		-		-	100%		-
9	Plaster	2,57,689.60		-		-			-
10	Testing/Finishing works	4,11,000.00		-		-			-
ix	<b>Admin Bldg Area (G+1)</b>								
1	Site Clearance			-	100%	-			-
2	Excavation	78,958.70		-	100%	78,958.70			-
3	PCC	78,958.70		-	100%	78,958.70			-
4	Column footings/Foundation	1,18,438.05		-	50%	59,219.03	50%		-
5	Column & Beam up to First Floor	1,18,438.05		-		-			-
6	Ground Floor Slab	1,35,357.77		-		-			-
7	1st Floor Slab	1,35,357.77		-		-			-
8	Column & Beam First Floor to Roof Slab	1,18,438.05		-		-			-
9	Roof Slab	1,35,357.77		-		-			-
10	Brickwork	1,35,357.77		-		-			-
11	Plaster	1,06,594.69		-		-			-
12	Electrification, plumbing, fixtures , sanitary works, AC work	94,750.00		-		-			-
13	finishing works	1,39,000.00		-		-			-
x	<b>Sludge Dewatering System Area (Centrifuge Pump House, Sludge sump &amp; Poly dosing tank)</b>								
1	Site Clearance	1,50,000.00	100%	1,50,000.00		-			-
2	Excavation	1,84,788.00		-	100%	1,84,788.00			-
3	PCC	1,84,788.00		-	100%	1,84,788.00			-
4	RCC Foundation	3,69,576.00		-	100%	3,69,576.00			-
5	Column & Beam Upto First Floor	3,69,576.00		-	100%	3,69,576.00			-

SN	Description of Items	BOQ Amount	Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		Milestone-4 From 26th Mar'21 to 05 May'21		
6	Ground Floor Slab	3,69,576.00		-		-	100%		-
7	First Floor Slab	3,19,576.00		-		-			-
8	Column & Beam First Floor to Roof Slab	3,38,576.00		-	100%	3,38,576.00			-
9	Roof Slab	3,19,576.00		-		-			-
10	Brickwork	1,84,788.00		-		-			-
11	Plaster	1,84,788.00		-		-			-
12	Piping & fittings Work	1,84,364.00		-		-			-
13	Testing/Finishing works	3,51,000.00		-		-			-
<b>xi</b>	<b>Inlet Chamber Area</b>								
1	Site Clearance	1,50,000.00	100%	1,50,000.00		-			-
2	Excavation & PCC	2,09,217.60		-	50%	1,04,608.80	50%		-
3	RCC Foundation/Column footing	4,18,435.20		-		-	100%		-
4	Column & Beam	3,13,826.40		-		-	100%		-
5	RCC Slab	3,13,826.40		-		-			-
6	RCC Wall	2,89,652.40		-		-			-
7	Testing/Finishing works	1,88,000.00		-		-			-
<b>xii</b>	<b>Manual &amp; Mechanica Fine Bar Screen Chamber AreaArea</b>								
1	Site Clearance	1,50,000.00	100%	1,50,000.00		-			-
2	Excavation	1,21,633.60		-	100%	1,21,633.60			-
3	PCC	1,57,450.40		-		-	100%		-
4	RCC Foundation	1,82,450.40		-		-	100%		-
5	Column & Beam	1,82,450.40		-		-	100%		-
6	RCC Slab	2,57,450.40		-		-			-
7	RCC Wall	1,71,633.60		-		-			-
8	Walkway/Platform	1,67,633.60		-		-			-
9	Testing/Finishing works	1,54,000.00		-		-			-
<b>xiii</b>	<b>Grit Chamber Area</b>								
1	Site Clearance	1,50,000.00	100%	1,50,000.00		-			-
2	Excavation	2,23,844.80		-	100%	2,23,844.80			-
3	PCC	2,68,267.20		-		-	100%		-
4	RCC Foundation	2,68,267.20		-		-	100%		-

SN	Description of Items	BOQ Amount	Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		Milestone-4 From 26th Mar'21 to 05 May'21		
5	Column & Beam	2,43,267.20		-		-	100%		-
6	RCC Slab	2,43,267.20		-		-			-
7	RCC Wall	2,28,844.80		-		-			-
8	Walkway/Platform	2,28,844.80		-		-			-
9	Testing/Finishing works	1,85,400.00		-		-			-
xiv	<b>Parshall Flume Channel Area</b>								
1	Site Clearance	1,50,000.00	100%	1,50,000.00		-			-
2	Excavation	2,43,267.20		-	100%	2,43,267.20			-
3	PCC	2,93,267.20		-		-	100%		-
4	RCC Foundation	3,43,267.20		-		-	100%		-
5	Column & Beam	3,43,267.20		-		-	100%		-
6	RCC Slab	3,43,267.20		-		-			-
7	RCC Wall	3,43,267.20		-		-			-
8	Walkway/Platform	3,43,267.20		-		-			-
9	Piping & fitting Work	1,71,633.60		-		-			-
10	Testing	2,57,400.00		-		-			-
xv	<b>Sludge Storage Platform Area</b>								
1	Site Clearance	1,00,000.00	100%	1,00,000.00		-			-
2	Excavation	1,00,000.00		-		-			-
3	PCC	2,50,000.00		-		-			-
4	Foundation Work	3,00,000.00		-		-			-
5	Finishing work	1,50,000.00		-		-			-
xvi	<b>Transformer Yard Area</b>								
1	Site Clearance			-		-			-
2	Excavation	3,88,045.00		-		-			-
3	PCC	3,88,045.00		-		-			-
4	Foundation Work	3,88,045.00		-		-			-
xvii	<b>DG Shed Area</b>								
1	Site Clearance			-		-			-
2	Excavation	4,36,555.00		-		-			-
3	PCC	4,36,555.00		-		-			-
4	Foundation Work	4,36,555.00		-		-			-

SN	Description of Items	BOQ Amount	Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		Milestone-4 From 26th Mar'21 to 05 May'21		
xviii	<b>EXTERNAL DEVELOPMENT</b>								
	<b>Boundary Wall with Gate</b>								
1	Site Clearance			-		-			-
2	Excavation	3,34,750.00	50%	1,67,375.00	10%	33,475.00			-
3	PCC	5,02,125.00	45%	2,25,956.25		-			-
4	RCC Column footing	5,02,125.00	45%	2,25,956.25		-	15%		-
5	RCC Column & Beam	5,02,125.00	25%	1,25,531.25	19%	95,631.70	15%		-
6	Brickwork	5,02,125.00	35%	1,75,743.75	20%	1,00,425.00	16%		-
7	Plaster	5,02,125.00		-	20%	1,00,425.00	22%		-
8	Retaining wall	16,02,550.00		-		-	15%		-
9	Finishing Work	5,02,125.00		-		-	15%		-
	<b>Earthfilling, Internal Roads ,Landscaping</b>								
1	Earthfilling, Internal Roads ,Landscaping	17,48,800.00		-		-			-
<b>C</b>	<b>MPS-40 MLD</b>								
	<b>Civil Work</b>								
<b>i</b>	<b>Construction of Raw Sewage Sump</b>								
1	Site Clearance	5,00,000.00		-		-			-
2	Excavation	15,91,480.00	30%	4,77,444.00	70%	11,14,036.00			-
3	PCC	5,91,480.00		-	100%	5,91,480.00			-
4	RCC Foundation/Raft	6,87,220.00		-		-	100%	20%	1,37,444.00
5	Wall 50% of total lift work	6,87,220.00		-		-			-
6	Walls (balance 50% of Total Lift work)	8,87,220.00		-		-			-
7	Column & Beam	7,87,220.00		-		-			-
8	Ground Floor Slab	5,91,480.00		-		-			-
9	Testing/Finishing work	5,91,480.00		-		-			-
<b>ii</b>	<b>Construction of Raw Sewage Pump House</b>								
1	Column & Beam	9,24,187.50		-		-			-
2	Roof Slab	9,24,187.50		-		-			-
3	Brickwork	9,24,187.50		-		-			-
4	Plaster	9,24,187.50		-		-			-

SN	Description of Items	BOQ Amount	Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		Milestone-4 From 26th Mar'21 to 05 May'21		
iii	<b>Construction of Inlet Chamber &amp; Screen Channel</b>								
1	Site Clearance	1,50,000.00		-		-			-
2	Excavation	1,84,837.50		-	100%	1,84,837.50			-
3	PCC	1,84,837.50		-		-	100%		-
4	RCC Foundation/Raft	1,84,837.50		-		-	100%		-
5	Wall 50% of total lift work	1,84,837.50		-		-			-
6	Walls (balance 50% of Total Lift work)	1,84,837.50		-		-			-
7	Column & Beam	1,51,504.17		-		-			-
8	Ground Floor Slab	1,84,837.50		-		-			-
9	Walkway/Platform	1,84,837.50		-		-			-
10	Testing/Finishing work	1,59,500.00		-		-			-
<b>D</b>	<b>SEWER SYSTEM AREA (3.2 Km)</b>								
1	Site Clearance			-		-			-
				-		-			-
2	Supply of pipes	553,11,702.00	35%	193,59,095.70	43%	237,83,650.90	2%	1.20%	6,63,740.42
3	Excavation and Laying of pipes including bed preparation & backfilling	55,31,170.20		-	6.0%	3,31,870.21	14%	11.96%	6,61,768.12
4	Manholes	36,87,446.80		-		-	10%		-
5	Flow/Hydraulic Testing	73,74,893.60		-		-			-
6	Road restoration work	18,43,723.40		-		-			-
<b>E</b>	<b>RISING MAIN PIPING WORK (100 m)</b>								
1	Site Clearance			-		-			-
2	Supply of pipes	5,48,000.00		-		-			-
3	Cutting,Excavtion,Laying of Pipes, backfilling	68,500.00		-		-			-
4	Testing	68,500.00		-		-			-
<b>F</b>	<b>EFFLUENT DISPOSAL SYSTEM</b>								
									-
1	Site Clearance			-		-			-
2	Construction of Effluent Channel from Distribution Chamber to Agriculture Land	15,11,999.97		-		-			-
						-			-

SN	Description of Items	BOQ Amount	Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		Milestone-4 From 26th Mar'21 to 05 May'21		
3	Construction of Rectangular Channel from STP to Distribution Chamber	11,33,999.98		-		-			-
4	Construction of Distribution Chamber	11,33,999.98		-		-			-
G	<b>E&amp;M WORK</b>								
i)	<b>GRIT CHAMBER AREA</b>			-		-			
	A. On supply - Grit Scraper Mechanism	21,60,000.00		-	100%	21,60,000.00		100%	21,60,000.00
	B. On Installation - Grit Scraper Mechanism	5,40,000.00		-		-			-
v)	<b>MEP</b>			-		-			
	A.Supply - Screen	76,00,000.00		-		-	100%		-
	B.Installation - Screen			-		-			-
	C.Supply - Hoist	7,00,000.00		-		-		100%	5,60,000.00
	D.Installation - Hoist			-		-			-
	E.Supply - Pumps & Motors(MEP)	1,16,00,000.00		-		-	100%		-
	F.Installation - Pumps & Motors(MEP)			-		-			-
	G.Supply - Gate & Valves(MPS)	52,00,000.00		-		-	100%		-
	H.Installation - Gate & Valves(MPS)			-		-			-
	I.Supply Instruments(like flow meter, Guages, level, Transmitter)	32,00,000.00		-		-			-
	J.Installation - Instruments(like flow meter, Guages, level, Transmitter)			-		-			-
vii)	<b>FINE SCREEN AREA</b>			-		-			
	A.On supply -Fine Screen	32,00,000.00		-		-	100%		-
	B.On Installation -Fine Screen			-		-			-
viii)	<b>SBR BASIN AREA</b>			-		-			
	A.On supply - Decanter Equipment	193,00,000.00		-		-			-
	B.Installation - Decanter Equipment			-		-			-
	C.On supply - Diffuser	193,00,000.00		-		-			-
	D.On Installation - Diffuser			-		-			-
	E.On supply - RAS Pump, SAS Pump	54,00,000.00		-		-	100%		-

SN	Description of Items	BOQ Amount	Milestone-2 (Achieved) From 26th Sep'20 to 25th Nov.'20		Milestone-3 (Achieved) From 26th Nov.'20 to 25th Mar'21		Milestone-4 From 26th Mar'21 to 05 May'21		
	F.On Installation - RAS Pump, SAS Pump			-		-			-
	G.On supply - Chain Pulley Block	5,60,000.00		-	100%	5,60,000.00			-
	H.On Installation - Chain Pulley Block	1,40,000.00		-		-			-
x)	<b>CHLORINATION ROOM AREA</b>			-		-			-
	A.Supply - Chlorination system(Dosing pumps, chlorinators, Tonners, Chemicals & Piping work	29,00,000.00		-		-			-
	B. Installation - Chlorination system(Dosing pumps, chlorinators, Tonnes, Chemicals & Piping work			-		-			-
	C.Supply - Chlorine Neutralization Tank	5,00,000.00		-		-			-
	D.Installation - Chlorine Neutralization tank			-		-			-
	E.Supply - Hoist Work	7,00,000.00		-		-	100%		5,60,000.00
	F.Installation - Hoist Work			-		-			-
xi)	<b>CENTRIFUGE HOUSE &amp; FEED PUMP AREA</b>			-		-			-
	A.On supply -Centrifuge & Feed Pump	1,03,00,000.00		-		-	100%	100%	82,40,000.00
	B.On Installation -Centrifuge & Feed Pump			-		-			-
<b>III</b>	<b>TRIAL RUN &amp; COMMISSIONING</b>								
1	Trial Run & Commissioning								
		<b>3826,90,000.00</b>		<b>478,36,250.00</b>		<b>478,36,250.00</b>			<b>14736595.42</b>
	<b>Progress out of target of 12.5% for each milestone</b>			<b>12.50%</b>		<b>12.50%</b>			<b>3.85%</b>
	<b>Total Progress up to 3<sup>rd</sup> Milestone</b>					<b>41.35%</b>			



**\*Note:**

- i. *3<sup>rd</sup> milestone (12.5%) completion was due on 25.01.2021 but due to land acquisition issue of proposed I&D works; it was completed on 25.03.2021;*
- ii. *The Concessionaire was asked to complete the milestone by completing other works of 4<sup>th</sup>/5<sup>th</sup> milestones and submit a revised construction plan for the same. Revised construction plan submitted having 4<sup>th</sup> milestone revised completion date as 05.05.2021 and the same has been principally approved;*
- iii. *Total Progress till 30.04.2021 is 41.35% out of target 48.45%.*

**PHOTOGRAPHS OF UNNAO STP SITE**



**MPS steel binding work**



**SBR Raft casting work**



**MPS wall 3rd lift RCC**



**SBR floor curing**





**Safety Awareness Drive**



**Staff Quarter**



**CCT Building Roof Slab**



**Sewer laying**



### 6.3 WORK PROGRESS AT SHUKLAGANJ STP

- CTE from the UPPCB has been received on 10.07.2020 (Ref No. - 97724/UPPCB/Unnao (UPPCBRO)/CTE/UNNAO/2020 Dated 07/07/2020).
- Shuklaganj site clearance has been done on 18.01.2020.
- Excavation works related to the boundary wall of proposed STP has been started;
- Footing marking completed SBR side;
- BEP vetting and approval is in progress.



**CE UPJN, Lucknow visit dated 09.04.2021**



**Boundary Wall excavation work**



**Fencing of the STP site**



**Boundary Wall excavation work**



## 7. PRESENT STATUS AND ISSUES OF HAM PROJECT KANPUR

### 7.1 PANKHA 30 MLD STP FACILITIES

- Total averagely 90 nos. of manpower / workers were deployed at the site. The number of workers should be increased to about 150 to achieve further targets / milestones on time;
- 1st and 2nd milestone have been completed;
- 3rd milestone was due on 25.01.2021 which was completed on 22.02.2021 (37.5%);
- Works of 4th & 5th milestone are in progress. Till 30.04.2021, 42.0% progress has been done.
- The Concessionaire submitted revised construction plan asking 2 months time extension (revised date for completion of 8th milestone is 25.10.2021);
- Works of sewer laying are not completed. There was delay in clearance for road cutting from KDA at some parts;
- Now permission has been granted from KDA for Road cutting. Total 3.91 kms lines has been laid against 16.62 Kms.
- Progress is slow. KRMPPL need to expedite construction works to achieve timely completion of the project.

### 7.2 UNNAO 15 MLD STP FACILITIES

- Total averagely 60 nos. of manpower / workers were deployed at the site. The number of workers should be increased to about 120 to achieve further targets / milestones on time.
- 1st and 2nd milestone have been completed;
- 3rd milestone was due on 25.01.2021 which was completed on 25.03.2021. Total progress up to 30.04.2021 is 41.5%.
- Acquisition of land for I&D structure is in progress, necessary amount for the purchase has been sanctioned by the competent authority;
- Works of sewer laying started from MPS side. Approx 600 m sewer has been laid out of 3.2 kms.
- 4th milestone completion is due on 5th May 2021 (as per revised construction plan);
- KRMPPL need to expedite the works and simultaneously work on more fronts to achieve targets on time.
- KRMPPL submitted revised construction plan (R2) on 12.03.2021 which has been vetted by PE and in principle approved by UPJN.
- Entrance gates (1 main gate + 1 alternate), Internal roads, staff quarter and labor huts with all basic facilities need to be constructed by the Concessionaire on urgent basis.
- Number of CCTVs units need to be increased from at present 2 nos. to minimum 4 nos.



### 7.3 JAJMAU (PHASE – 1) 130 MLD STP AND IPS : REHABILITATION

All BEPs approved except Control philosophy and observations on the control philosophy has been submitted by PE on 09.04.2021.

**i. Handover of 130 MLD STP Jajmau Ph-I**

130 MLD Jajmau STP and CSPS has been handed over to KRMPL on 01/03/2021 but as per CA schedule handing over date for Jajmau Facilities is Effective Date. Associated facilities i.e. IPSs have not been taken over by KRMPL yet.

**ii. Compliance of Inspection Report**

UPJN inspected 130 MLD Jajmau on 05.03.2021 and issued Inspection report vide their letter no. 546/w-30/20 dated 05.03.2021 but no compliance report has been submitted by Concessionaire.

PE inspected 130 MLD STP Jajmau along with UPJN officials on 16.03.2021 and submitted a draft inspection report to UPJN vide email dated 20.03.2021 and the same has been official issued by UPJN vide letter no. 798/w-30/38 dated 07.04.2021 (Inspection report attached). Compliance report on the inspection done on 16.03.2021 has not been submitted by KRMPL till the end of April 2021.

**iii. Control / Power Cable and sizing calculation:** Concessionaire had submitted the compliances regarding control / power cable vide email dated 28.04.2021 and PE recommends it for approval after review vide letter no. 807 dated 29.04.2021.

**iv. Action / Renovation plan:** Renovation plan has been submitted by Concessionaire vide letter no. 1187 dated 22.04.2021 which is under review by PE.

**v. Treated Effluent Pump**

Minimum 08 nos. of Treated effluent pumps should be available / operational in TEPH at all the time at 130 MLD STP but only 7 pumps are operational till the end of April 2021.

**NOTE:** It is also directed to concessionaire not to discharge untreated sewage directly into the river without treatment as per PCB & UPPCB norms.

### 7.4 43 MLD JAJMAU (PHASE II) : O&M

Handover of the 43 MLD STP Jajmau Ph-II is pending and KRMPL is emphasizing to take over the plant on compliance of Joint inspection report submitted by them vide their letter no. 854 dated 11.01.2021.

43 MLD STP plant should be taken immediately on the basis of CA para 3.8 a) "as is where is" basis.

## 7.5 42 MLD SAJARI STP

42 MLD Sajari facilities were handed over to KRMPL on 29/05/2019 but as per CA schedule handing over date for Sajari Facilities is Effective Date i.e. 11/10/2019. Therefore, ultimate handing over date of Sajari has been treated as effective date i.e. 11.10.2019. Till Dec. 2019 KPIs (especially COD) of treated effluent was not under control and KRMPL was asked by NMCG to suggest improvements for COD to be within prescribed limit. KRMPL proposed to add one additional Aeration Tank. Mr. Madhav Kumar NMCG requested Mr. S. Kamaraju, Process Expert STC to visit the Sajari Plant to give his recommendations. Mr. S. Kamaraju Process Expert visited the Sajari Plant on 27-28 Dec 2019 and concluded that the Sajari Plant is designed for all 12 aerators to run without any standby but the plant was being run with 8 aerators only keeping 4 aerators as stand by. All the 12 aerators got functional on 04/01/2020 in the presence of Mr. J. P. Tripathi, O & M Engineer STC. After that it has been observed that since 04/01/2020 all the parameters of treated effluent are within prescribed limits except for the days when parameters of raw sewage are above the prescribed limits for which concessionaire is not responsible. Hence there is no need for any improvement in the plant as suggested by KRMPL.

Commercial Operation Date was declare as 20.06.2020 vide UPJN letter no. 1545/w-20/127 dated 17.06.2020, and again revised as 11.10.2019 i.e. effective date of the CA by UPJN vide their letter no. 2574/w-20/267 dated 26.09.2020. O&M charges from 11.10.2019 to sept.2020 have been paid to the concessionaire.

### Following points are to be addressed by the KRMPL:-

#### I. Compliance of Inspection Reports

PE again inspected 42 MLD STP Sajari on 27.04.2021 and found some defects and deficiencies (Inspection Report Enclosed). Rectification of defects indicated in different inspection reports from the start of the project has not been done by the KRMPL and they are extending dates continuously every month.

#### II. O&M Manual

O&M Manual already approved by UP Jal Nigam.

#### III. Insurance Policies

Even after instructions by ED (Project) NMCG and by SMCG. KRMPL has not submitted Insurance Policies as per article 11.2 except All Risk Industrial Insurance Policy. KRMPL is required to submit all 5 insurance policies as per article 11.2. As per MOM of NMCG Review Meeting dated 05.03.2021 by the Video conferencing was conducted between KRMPL Head Office Mumbai and STC Head Office Mumbai and matter has been refer to insurance expert the report of insurance expert is awaited.

#### IV. Performance of Plant

All KPIs are within prescribed limit since 04.01.2020 except the dates when the parameters of raw sewage are beyond prescribed limit for which concessionaire is not responsible. Performance Report of April 2021 enclosed.

#### V. Mechanical Screens (Coarse & Fine Screens)

Auto System of both Mechanical Screens still not repaired and Concessionaire ensured to procure the Auto System by 31.05.2021.

**VI. Gas Generators**

Out of total 3 no's of Gas Generators installed, 2 nos. are in working condition and remaining 1 no. is still under maintenance.

**VII. Sludge Digester**

Out of 2 nos. sludge digester mixers installed, 01 no. is not in working condition since June 2020. Also, EMF at the outlet of the digester installed is not in working condition.

**VIII. Joint Sampling and Testing by IIT Kanpur**

It was decided in the meeting of GM GPCU UPJN on 16-12-2019 (MOM issued vide letter no 3847/M-2A/116 dated 18-12-2019) that at least once in a month joint sampling of raw sewage and treated effluent will be done by UPJN and KRMPL and testing to be done by IIT Kanpur. KRMPL has taken the sample jointly on 09.04.2021 and sent it for testing. Testing reports from NABL accredited Laboratory Spectro Research Lab Ventures (P) Ltd of joint samples taken on 18.08.2020, 15.09.2020, 19.10.2020, 13.02.2021, 18.03.2021 & 09.04.2021 has not been received yet.

**IX. Power backup and Online Monitoring System**

DG set for power backup has been made operational by UPJN on 14.07.2020. RTOLMS has been installed and calibrated.

Outlet Analyser Panel with sensor installed at site and synchronized with RTOLMS.

**X. Work plan For Sludge Disposal**

KRMPL had submitted the work plan for sludge disposal but not following it on site.

**XI. Submission of Schedule Maintenance Program**

KRMPL has not done any schedule maintenance works as per approved O&M manual for the first year and Concessionaire submitted schedule maintenance program for the year-2 vide KRMPL letter no. 1135 dated 06.04.2021. PE has submitted the observation on the same vide STC letter no. 788 dated 12.04.2021.

**XII. KPIs Adherence Report**

KPIs Adherence Report for the month of February 2021 has been submitted by PE vide letter no.771 dated 05.04.2021. Online Analyser report up to January month has been submitted by concessionaire.

**7.6 210 MLD BINGAWAN FACILITIES**

The schedule date of handover of 210 MLD Bingawan Facilities as per CA was 01/04/2019 but actually could be handed over on 08/07/2019. From handover date itself it was observed and informed from time to time to Concessionaire that the operation and maintenance of the plant was not up to the mark. Commercial Operation Date of Bingawan facility declared by UPJN as 10.08.2020 vide their letter no. 2324/w-37/100 dated 10.09.2020. O&M bill for Bingawan for 1<sup>st</sup> quarter i.e. from 10<sup>th</sup> Aug. 2020 to Oct. 2020 has been submitted by KRMPL. Renovation (Installation of RTLOMS and rectification of pumps) completion certificate have been issued by UPJN as 10.08.2020 vide their letter no. 2033/w-37/67 dated 18.08.2020 but calibration certificate with witness certificate is yet to be submitted by KRMPL. Out of 2 nos.

electro-magnetic flow meters in inlet, 01 no. has been installed at site and it has been synchronized with RTLOMS. It is not calibrated. Need to be provided calibration report. Another 2<sup>nd</sup> no. electro -magnetic flow meters has not been installed yet.

**Following points need to be addressed:-**

**i. Compliance of Inspection Reports**

PE inspected 210 MLD Bingawan STP on 21.10.2020, 12.11.2020, 02.01.2021, 02.02.2021, 03.03.2021 and issued inspection reports on 23<sup>rd</sup> October 2020, 21<sup>st</sup> November 2020, 19<sup>th</sup> January 2021, 4<sup>th</sup> February 2021 & 15<sup>th</sup> March 2021. Compliance reports of inspection reports of 23.10.2020, 21.11.2020, 19.01.2021, 04.02.2021 & 15.03.2021 have not been submitted by KRMPL. Again Inspection done at 210 MLD Bingawan STP on 28.04.2021 and observed the same defects and deficiencies as mentioned in previous inspection reports. Since 28<sup>th</sup> January 2020 rectifications of defects indicated in different inspection reports have not been done by the KRMPL and they are extending dates continuously every month. (Inspection report of Inspection done on 28.04.2021 has been enclosed).

**ii. O&M Manual**

Revised O&M manual of Bingawan has been approved by UPJN on 24.08.2020.

**iii. Insurance Policies**

Even after instructions by ED (Project) NMCG and by SMCG, KRMPL has not submitted Insurance Policies as per article 11.2 except All Risk Industrial Insurance Policy. KRMPL is required to submit all 5 insurance policies as per article 11.2. As per MOM of NMCG Review Meeting dated 05.03.2021 by the Video conferencing was conducted between KRMPL Head Office Mumbai and STC Head Office Mumbai and matter has been refer to insurance expert the report of insurance expert is awaited.

**iv. Cleaning and reactivation of UASB Reactors**

All the KPIs are not being met during the month of April 2021. Out of 16 no's reactors, UASB reactor no. 1, 2, 4 & 8 has been filled for reactivation after cleaning. Reactor no. 3, 5 & 6 has been taken up for cleaning from 20.08.2020, 15.03.2021 & 15.03.2021 and under process. The present conditions of all the 16 UASB reactors have been explained in detail in the inspection report of inspection done on 15/02/2021 (inspection report issued on 17/02/2021) which clearly indicates that no sludge blanket has been formed in the reactors nos. 1, 4 & 8, cleaned and refilled earlier. Reactors no. 3, 5 & 6 are still open for cleaning since Aug. 2020 & March 2021 resp. and KRMPL assured to get no. 3 reactor operational after cleaning by 31.03.2021. Remaining 09 reactors are filled with sludge. The Concessionaire is immediately required to submit the action plan for cleaning and reactivation of remaining UASB reactors and take up the work of cleaning and reactivation on war footing. Performance report of April 2021 is enclosed.

**v. Belt Filter Press**

All 3nos. Belt Filter Press system has been made functional by KRMPL but only 2 nos. BFP are being used at a time. Only 02 nos. trolleys are available at site. Also, atleast 2 more trolleys are required at site. All 3 nos. poly dosing pumps installed, 1 no. is not in working condition due to diaphragm portion is fully damaged. This matter has been pending since 07.10.2020.

**vi. Sludge Disposal**

All the reactors are filled with sludge which means that sludge extraction from the reactors is not proper. Also, Sludge testing arrangement is not available at site Laboratory.

**vii. Joint Sampling and Testing by IIT Kanpur**

It was decided in the meeting of GM GPCU UPJN on 16-12-2019 (MOM issued vide letter no. 3847/M-2A/116 dated 18-12-2019) that at least once in a month joint sampling of raw sewage and treated effluent will be done by UPJN and KRMPL and testing to be done by IIT Kanpur. KRMPL has taken the sample jointly on 09.04.2021 for testing. Testing report from Spectra research Lab ventures (P) Ltd. of the Joint sample taken on 29.09.2020, 16.10.2020, 28.02.2021, 18.03.2021 & 09.04.2021 has not been submitted by concessionaire.

**viii. Gas Holder**

Out of 2 nos. gas holder installed, both are not in working condition. Gas holder no.1 is not properly aligned and gas holder no.2 was under maintenance but during site visit dated 28.04.2021, no manpower was found engaged by concessionaire.

**ix. Schedule Maintenance Works for 1<sup>st</sup> year**

Schedule maintenance works as per approved O&M manual were to be started from 1/08/2020, but not started yet. Concessionaire has submitted the revised schedule maintenance plan for 1<sup>st</sup> year vide KRMPL letter no.936 dated 19.02.2021. PE submitted the observations on the Revised Schedule Maintenance plan for 1<sup>st</sup> year post COD Bingawan facility vide STC letter no. 795 dated 15.04.2021.

**x. KPIs Adherence Report**

A joint sampling for inflow and treated outflow has been carried out on 3<sup>rd</sup> Feb. 2021 and observed that the results are against the lab result submitted by KRMPL for the month of Nov. 2020 to Jan. 2021 and result from KRMPL lab are not reliable. Therefore, KPIs Adherence Report for the month of Nov. 2020 and Dec. 2020 sent by PE may be treated as cancelled and Revised KPIs Adherence report for the month of Nov. 2020 to Feb. 2021 based on the lab results for the month of Feb. 2021 (which seems to be reliable) are submitted by PE vide letter no. 762 dated 24.03.2021. Also, PE submitted KPIs Adherence report for the month of March 2021 along with the attached Non-availability report vide STC letter no. 796 dated 16.04.2021.

## 8. STATUS OF BEP & OTHER DETAILS

Status of BEPs & other detail are given in following table 6.2:

**Table 6.2: BEPs and Design & Drawings detail (Civil)**

SN	STP Facility	Status / Remarks				
		BEPs	Structure Design & Drawings	Sewer Network	Construction Plan	O&M
<b>A New Facilities</b>						
i	30 MLD STP - Pankha	Approved	All Approved	Approved	Revised CP (R2) vetted by PE. Under approval at UPJN	-
ii	15 MLD STP - Unnao	Approved	All Approved except I&D	Approved	Revised CP (R2) vetted by PE. Under approval at UPJN	-
iii	05 MLD STP – Shuklaganj	Approved	MPS, Sludge Thickener, Guard Room, Boundary Wall vetted by PE & IIT (R), under approval at UPJN;  Rest design & drawings yet to be submitted by KRMPL	Yet to be submitted	CP vetted by PE. Under approval at UPJN	-
<b>B Rehabilitation and O&amp;M for 15 years</b>						
i	130 MLD STP - Jajmau (Phase I)	Approved except Control philosophy	GA & RCC design & drawing of CCT & TEPH is approved	-	Renovation plan / Action plan submitted by Concessionaire and are under review.	-
SN	STP Facility	O&M Manual		Schedule Maintenance Program		Remarks
<b>C O&amp;M for 15 years</b>						
i	43 MLD STP - Jajmau (Phase II)	-		-		Handover pending
ii	42 MLD STP - Sajari	Approved		Under Review		-
iii	210 MLD STP - Bingawan	Approved		Under Review		-

# ANNEXURE

### ANNEXURE 1: Progress of Work – HAM Project Kanpur

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
01.04.2021	Unnao STP Site Inspection on dated 1 <sup>st</sup> April, 2021.	-	01.04.2021 S-769A	-	20	-	-	C.M. Dimri J.P. Tripathi O.P. Asati Preetam Linga Rao Priyesh Kapil Mahendra	1+1+1+ 1+1+1+ 1+1	-	-	-	Submission of Site Inspection Report for Unnao.
02.04.2021	<b>Good Friday</b>												
03.04.2021	<b>Holi Ganga Mela</b>												
04.04.2021	<b>SUNDAY</b>												
05.04.2021	Recommendation for approval of GA & datasheet along with QAP for Thickener for 15 MLD STP Unnao	18.03.21 J-512/M-47/23	05.04.2021 S-770	18	20	-	-	C.M. Dimri J.P. Tripathi O.P. Asati A.K. Seth Linga Rao Priyesh Pankaj Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1+ 1+1	-	-	-	Vetted and recommended for approval
05.04.2021	KPIs Adherence Report of Sajari for the month of Feb 2021.	17.03.21 K-984	05.04.2021 S-771	19	20	-	-	J.P. Tripathi O.P. Asati Linga Rao Pankaj Vikas Ajay Rahul Kapil	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Submitted the KPI Adherence report for the month of Feb. 2021



Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Mahendra					
05.04.2021	Regarding Submission of design drawing & Calculation without covering letter and without informing to UPJN/NMCG.	03.04.21 K-email	05.04.2021 S-772	2	20	-	-	C.M. Dimri J.P. Tripathi O.P. Asati A.K. Seth Preetam Linga Rao	1+1+1+ 1+1+1	-	-	-	Directed KRMPL not send any documents for vetting without covering letter or without prior information of UPJN
05.04.2021	Environment & Social impact assessment progress (ESIA) report of Quarter.	-	05.04.2021 S-773	-	20	-	-	C.M. Dimri J.P. Tripathi O.P. Asati A.K. Seth Preetam Linga Rao Satendra Pankaj Vikas Ajay Rahul	1+1+1+ 1+1+1+ 1+1+1+ 1+1	-	-	-	It is request to direct KRML to inspect all STP Plants/Projects by their experts along with safety expert of STC/UPJN.
05.04.2021	Reminder of STC inspection and Compliance by KRMPL.	-	05.04.2021 S-774	-	20	-	-	J.P.Tripathi O.P.Asati A.K. Seth Preetam Linga Rao Satendra Priyesh Pankaj Vikas Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1+ 1+1+1+ 1	-	-	-	Requested UPJN to direct KRMPL to submit compliance reports immediately.
05.04.2021	Submission of RCC design and	31.03.21 K-1124	05.04.2021 S-775	5	20	-	-	C.M. Dimri J.P. Tripathi	1+1+1+ 1+1+1+	-	-	-	Vetted and recommended for

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	drawing of Compound wall at 5 MLD Shuklaganj STP.							O.P. Asati Preetam Linga Rao Anil Seth Satendra Priyesh Kapil Mahendra	1+1+1+ 1				approval.
05.04.2021	Submission of Unnao STP outlet disposal line layout with civil GA of Shaft & Manhole.	K-668	05.04.2021 S-776	-	20	-	-	C.M.Dimri O.P.Asati Preetam Priyesh Vikas Kapil Mahendra	1+1+1+ 1+1+1+ 1	-	-	-	Requested to UPJN to direct the Concessionaire for the compliance of above points and submit revised drawing for vetting/approval.
06.04.2021	Submission of methodology of Engineering filling at 5 MLD STP Shuklaganj.	20.03.21 K-1006	-	-	20	-	-	J.P.Tripathi Prasoon A.K. Seth Preetam Linga Rao Priyesh Kapil Mahendra	1+1+1+ 1+1+1+ 1+1	-	-	-	Under review
07.04.2021	Submission of action plan and list of manpower for 130MLD STP Jajmau.	-	07.04.2021 S-777	-	20	-	-	J.P.Tripathi O.P.Asati A.K. Seth Linga Rao Vikas	1+1+1+ 1+1	-	-	-	Reminder letter to direct KRMPL to furnish the documents / compliance without any further delay.
07.04.2021	Submission of methodology of Engineering filling at 5 MLD STP Shuklaganj.	20.03.21 K-1006	07.04.2021 S-778	18	20	-	-	C.M.Dimri O.P.Asati Prasoon S. Kamaraju Preetam	1+1+1+ 1+1+1+ 1+1+1	-	-	-	KRMPL should submit the compliance report before adopting Engineering Refills

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Linga Rao Priyesh Kapil Mahendra					technique.
08.04.2021	Information related to the Mechanical, Electrical & Instrumental equipment purchased under HAM project Kanpur for Jajmau STP and Facilities.	-	08.04.2021 S-779	-	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati A.K. Seth Satendra Pankaj Ajay Rahul	1+1+1+ 1+1+1+ 1+1	-	-	-	Requested to direct the Concessionaire to submit the requested documents on urgent basis.
08.04.2021	Information related to the Mechanical, Electrical & Instrumental equipment purchased under HAM project Kanpur for Pankha STP and Facilities.	-	08.04.2021 S-780	-	20	-	-	J.P.Tripathi O.P.Asati A.K. Seth Satendra Pankaj Ajay Rahul Mahendra	1+1+1+ 1+1+1+ 1+1	-	-	-	Requested to direct the Concessionaire to submit the requested documents on urgent basis.
08.04.2021	Information related to the Mechanical, Electrical & Instrumental equipment purchased under HAM project Kanpur for Unnao STP and Facilities.	-	08.04.2021 S-781	-	20	-	-	C.M.Dimri J.P.Tripathi A.K. Seth Satendra Priyesh Pankaj Ajay Rahul Kapil	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Requested to direct the Concessionaire to submit the requested documents on urgent basis.

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
08.04.2021	Information related to the Mechanical, Electrical & Instrumental equipment purchased under HAM project Kanpur for Shuklaganj STP and Facilities	-	08.04.2021 S-782	-	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati A.K. Seth Priyesh Pankaj Ajay Rahul Kapil	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Requested to direct the Concessionaire to submit the requested documents on urgent basis.
08.04.2021	Submission of compliance report for design drawing of MPS at 5 MLD STP Shuklaganj.	22.03.21 K-1008	08.04.2021 S-783	17	20	-	-	C.M. Dimri S. Kamaraju Linga Rao Priyesh Pankaj Vikas Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1+ 1	-	-	-	Vetted and recommended for approval.
09.04.2021	Request for Jajmau 130 MLD Unnao 15 MLD and Shuklaganj 5 MLD ESHS Plant soft copy and Hard copy-Reg.	-	09.04.2021 S-784	-	20	-	-	J.P. Tripathi O.P. Asati Sunil A.K. Seth Preetam Linga Rao Satendra Priyesh Pankaj Vikas	1+1+1+ 1+1+1+ 1+1+1+ 1	-	-	-	Instruct KRMPL to send the approved ESHS Document as soon as possible.
09.04.2021	Development of sewage treatment Plants on Hybrid annuity PPP basis	-	09.04.2021 S-785	-	20	-	-	C.M.Dimri J.P.Tripathi Preetam Linga Rao	1+1+1+ 1+1+1+ 1+1	-	-	-	Requested to direct KRMPL to comply the points as mentioned in letter



Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	at Kanpur & Unnao.							Satendra Priyesh Vikas Mahendra					for all of STP under Constructions & O&M's.
09.04.2021	Observation on Submission Control & operational Philosophy for 130 MLD STP Jajmau.	20.03.21 K-991	09.04.2021 S-786	20	20	-	-	J.P.Tripathi O.P.Asati A.K. Seth Preetam Pankaj Vikas Ajay Rahul	1+1+1+ 1+1+1+ 1+1	-	-	-	Requested UPJN to direct KRMPL to submit the compliances of the observations at the earliest.
10.04.2021	<b>Second Saturday</b>												
11.04.2021	<b>Sunday</b>												
12.04.2021	O&M Bill for Bingawan Facilities for Aug-Oct Quarter 2020.	J-158/w-37/14 K-886	12.04.2021 S-787	-	20	-	-	J.P. Tripathi O.P. Asati A.K. Seth Pankaj Vikas Ajay Rahul	1+1+1+ 1+1+1+ 1	-	-	-	Requested to direct KRMPL to submit the compliance on urgent basis.
12.04.2021	Comment on Schedule Maintenance Plan for year-2 Sajari facilities.	06.04.21 K-1135	12.04.2021 S-788	6	20	-	-	J.P. Tripathi O.P. Asati A.K. Seth Preetam Linga Rao Priyesh Pankaj Vikas Ajay Rahul	1+1+1+ 1+1+1+ 1+1+1+ 1	-	-	-	Requested to direct KRMPL to submit the compliance on urgent basis.
12.04.2021	Observation on submission of Power Cable, Control Cable	26.03.21 K-1110	12.04.2021 S-789	17	20	-	-	J.P.Tripathi O.P.Asati A.K. Seth Preetam	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Requested to direct KRMPL to submit the compliance on urgent basis.

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Schedule and civil assignment drawing of HT panel room for 130 MLD STP Jajmau.							Linga Rao Pankaj Vikas Ajay Rahul					
12.04.2021	Submission of design drawing for SBR at 5 MLD Shuklaganj.	03.04.21 K-1130	12.04.2021 S-790	9	20	-	-	C.M.Dimri J.P.Tripathi A.K. Seth Preetam Linga Rao Priyesh Kapil Mahendra	1+1+1+ 1+1+1+ 1+1	-	-	-	Requested UPJN to direct KRMPL to comply on the said observations.
13.04.2021	Recommendation for approval of GA & datasheet along with QAP for Dosing Pump for 15 MLD STP Unnao.	K-954	13.04.2021 S-791	-	20	-	-	J.P. Tripathi O.P. Asati Satendra Priyesh Pankaj Vikas Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1+ 1	-	-	-	Vetted & recommended for approval.
13.04.2021	Approval of E&M drawing / datasheet for 15 MLD Unnao.	K-988	13.04.2021 S-792	-	20	-	-	C.M. Dimri J.P. Tripathi Preetam A.K. Seth Priyesh Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Vetted and recommended for approval.
14.04.2021	RCC Design of MPS for 15 MLD Unnao and MPS	-	14.04.2021 S-793	-	20	-	-	C.M. Dimri J.P. Tripathi O.P. Asati	1+1+1+ 1+1+1+ 1+1	-	-	-	Submitting the documents after signing and

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Compound wall, Sludge thickener and guard room of 05MLD Shuklaganj.							A.K. Seth Linga Rao Priyesh Kapil Preetam					stamping.
15.04.2021	KPIs Adherence Report of Sajari for the month of March 2021.	08.04.21 K-1139	15.04.2021 S-794	7	20	-	-	J.P. Tripathi O.P. Asati Sunil Pankaj Vikas Ajay Rahul	1+1+1+ 1+1+1+ 1	-	-	-	Review of KPI Adherence report.
15.04.2021	Comment on Revised Schedule Maintenance plan for 1 Year post Bingawan.	K-936	15.04.2021 S-795	-	20	-	-	J.P. Tripathi O.P. Asati Prasoon Linga Rao Pankaj Vikas Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1+ 1	-	-	-	Request to direct KRMPPL to complete breakdown maintenance work and then schedule maintenance plan can be accepted.
16.04.2021	KPIs Adherence report of 210 MLD STP Bingawan for the month of March 2021.	08.04.21 K-1140	16.04.2021 S-796	08	20	-	-	J.P.Tripathi O.P.Asati Linga Rao Pankaj Vikas Ajay Kapil Rahul Mahendra	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Submission of KPI Adherence report for March 2021
16.04.2021	Submission of updated Sewage network(R-7) for	06.04.21 K-1134	16.04.2021 S-800	10	20	-	-	C.M. Dimri J.P. Tripathi A.K. Seth	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Requested to direct concessionaire to submit the

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	30 MLD STP Pankha.							Sunil Preetam Satendra Vikas Kapil Mahendra					compliances of above said points at the earliest.
17.04.2021	Submission of Methodology of Engineering filling at 5 MLD STP Shuklaganj.	14.04.21 K-1151	17.04.2021 S-797	03	20	-	-	C.M. Dimri J.P.Tripathi Preetam Priyesh Kapil Mahendra	1+1+1+1+1+1	-	-	-	The submission is vetted and recommended for approval and necessary action please.
17.04.2021	Recommendation for approval of GA & datasheet along with QAP for Submersible Pumps (Lot-2) for 15 MLD STP Unnao.	12.04.21 J-678/M-47/34	17.04.2021 S-798	05	20	-	-	C.M. Dimri A.K. Seth Preetam Priyesh Vikas Rahul Mahendra	1+1+1+1+1+1	-	-	-	Recommended for approval.
18.04.2021	<b>Sunday</b>												
19.04.2021	Recommendation for approval of QAP of submersible pumps for 30 MLD STP Pankha.	16.04.21 K-1168	-	-	20	-	-	C.M. Dimri A.K. Seth Preetam Satendra Pankaj Vikas Ajay Kapil Rahul	1+1+1+1+1+1+1	-	-	-	Under review
20.04.2021	Recommendation for approval of QAP of submersible pumps for 30 MLD	16.04.21 K-1168	20.04.2021 S-801	4	20			C.M.Dimri J.P.Tripathi Sunil Prasoon Preetam	1+1+1+1+1+1+1				Recommendation for approval.



Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	STP Pankha.							Satendra Pankaj Vikas Ajay Rahul Kapil					
20.04.2021	Submission of updated size of inlet receiving chamber at IPS Sunder Nagar to Avoid congestion of existing structure foundation.	09.04.21 K-1141	20.04.2021 S-802	11	20	-	-	C.M.Dimri O.P.Asati A.K. Seth Preetam Satendra Priyesh Pankaj Vikas	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Recommended for approval.
21.04.2021	Recommendation for approval of GA Datasheet & QAP of Submersible pumps for IPS at ICI Nalla & Sunder Nagar for 30 MLD STP Pankha.	16.04.21 K-1169	-	-	20	-	-	C.M.Dimri J.P.Tripathi Prasoon Satendra Pankaj Vikas Ajay Rahul Kapil	1+1+1+ 1+1+1+ 1+1+1+ 1	-	-	-	Under review
22.04.2021	Submission of GA data sheet & QAP DG Set for 30 MLD STP Pankha.	K-1125	-	-	20	-	-	Dr. Giridhar C.M.Dimri O.P.Asati Sunil Prasoon Preetam Satendra Pankaj Vikas Ajay Rahul	1+1+1+ 1+1+1+ 1+1+1+ 1+1+1+ 1	-	-	-	Under review

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Kapil					
23.04.2021	Submission of GA Datasheet & QAP of DG Set for 15 MLD STP Unnao.	12.04.21 J-674/M-47/30	-	-	20	-	-	Dr. Giridhar C.M.Dimri Prasoon Satendra Priyesh Pankaj Vikas Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1+ 1+1	-	-	-	Under review
24.04.2021	Submission of power and control cable schedule and sizing calculation for Pankha STP.	28.04.21 K-1180	-	-	20	-	-	Dr. Giridhar C.M.Dimri A.K. Seth Preetam Satendra Pankaj Vikas Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1+ 1+1	-	-	-	Under review
25.04.2021	<b>Sunday</b>												
26.04.2021	Submission of internal illumination drawing for guard room and staff Quarter for 15 MLD Unnao Facilities.	12.04.21 J-682/M-47/38	-	-	20	-	-	Dr. Giridhar C.M. Dimri Sunil Satendra Priyesh Vikas Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1+ 1	-	-	-	Under review
27.04.2021	Recommendation	16.04.21	27.04.2021	11	20	-	-	Dr. Giridhar	1+1+1+	-	-	-	Recommended for

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	for approval of GA Datasheet & QAP of Submersible pumps for IPS at ICI Nalla & Sunder Nagar for 30 MLD STP Pankha.	K-1169	S-803					C.M.Dimri Preetam Satendra Pankaj Vikas Kapil Mahendra	1+1+1+ 1+1				approval.
28.04.2021	Submission of GA data sheet & QAP DG set for 30 MLD STP Pankha.	K-1125	28.04.2021 S-804	-	20	-	-	Dr. Giridhar C.M. Dimri Preetam Satendra Priyesh Pankaj Ajay Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Recommended for approval.
28.04.2021	Submission of GA Datasheet & QAP of DG Set for 15 MLD STP Unnao.	12.04.21 J-674/M-47/30	28.04.2021 S-805	16	20	-	-	Dr. Giridhar C.M.Dimri Preetam Satendra Priyesh Pankaj Vikas Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1+ 1+1	-	-	-	Recommended for approval.
29.04.2021	Submission of power and control cable schedule and sizing calculation for Pankha STP.	28.04.21 K-1180	29.04.2021 S-806	01	20	-	-	Dr. Giridhar C.M. Dimri Satendra Pankaj Ajay Rahul Kapil	1+1+1+ 1+1+1+ 1+1	-	-	-	Recommended for approval.

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Mahendra					
29.04.2021	Submission of power and control cable schedule and sizing calculation for Jajmau STP.	28.04.21 K-1110	29.04.2021 S-807	01	20	-	-	Dr. Giridhar C.M. Dimri J.P. Tripathi Satendra Priyesh Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Recommended for approval.
29.04.2021	Submission of power and control cable schedule and sizing calculation for Unnao STP.	28.04.21 K-1136	29.04.2021 S-808	01	20	-	-	Dr. Giridhar C.M. Dimri Satendra Priyesh Pankaj Ajay Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1+1	-	-	-	Recommended for approval.
29.04.2021	Submission for cost implication due to change of FOS for design drawing of bedding for sewerage network for 30 MLD STP Pankha Facilities as per clause no. 20 of CA.	15.04.21 K-1005	29.04.2021 S-809	14	20	-	-	Dr. Giridhar C.M. Dimri Preetam Satendra Pankaj Vikas Mahendra	1+1+1+ 1+1+1+ 1	-	-	-	Requested to direct concessionaire to submit the revised cost implication sheet after considering the said points and after approval of updated sewerage network.
29.04.2021	Submission of internal illumination drawing for guard	12.04.21 J-682/M- 47/38	29.04.2021 S-810	17	20	-	-	Dr. Giridhar C.M. Dimri Satendra Priyesh	1+1+1+ 1+1+1+ 1+1	-	-	-	Recommended for approval.

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessionaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	room and staff Quarter for 15 MLD Unnao Facilities.							Pankaj Vikas Kapil Mahendra					
30.04.2021	Regarding approval of lighting calculation earthing calculation earthing layout and ERT report for 15 MLD STP at Unnao.	10.04.21 K-1183	30.04.2021 S-812	20	20	-	-	Dr. Giridhar C.M. Dimri Preetam Satendra Priyesh Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1+1	-	-	-	Recommended for approval.
30.04.2021	Regarding approval of lighting calculation earthing calculation earthing layout and ERT report for 30 MLD STP Pankha.	21.04.21 K-1184	30.04.2021 S-813	09	20	-	-	Dr. Giridhar C.M. Dimri Preetam Satendra Rahul Kapil Mahendra	1+1+1+ 1+1+1+ 1	-	-	-	Recommended for approval.



**Note:** Man-days and respective inputs of experts for the month of April 2021 are:

SN	Name	Designation	Total Man-days	Input
1.	Dr. Giridhar Prabhukumar	Team Leader	09	Timesheet attached
2.	Mr. Chandra Mauleshwar Dimri	Senior Civil Engineer	30	Timesheet attached
3.	Mr. Jai Prakash Tripathi	O&M Engineer	30	Timesheet attached
4.	Mr. O.P Asati	O&M Engineer	24	-
4.	Mr. Anil Kumar Seth	Senior Electrical Engineer	24	Timesheet attached
5.	Mr. Sunil Basutkar	Senior Mechanical Engineer	06	Timesheet attached
6.	Mr. Prasoon Bhardwaj	Instrumentation Engineer	07	Timesheet attached
7.	Mr. Linga Krishna Rao	Safety expert	16	Timesheet attached
8.	Mr. Satish Kamaraju	Process expert	02	Timesheet attached
9.	Mr. Preetam Walunjkar	Structural expert	28	Timesheet attached

## Annexure 2: Timesheets of Experts

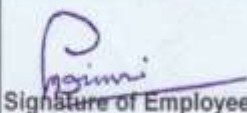

Dr. Giridhar Prabhukumar (Team Leader)

Mr.

<b>Project Engineer</b>		
<b>NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode</b>		
<b>Daily Report</b>		
<b>Name :</b>	Dr. Giridhar Prabhukumar	<b>Month/Year:</b>
<b>Position:</b>	Team Leader cum Wastewater Expert	Apr-21
<b>Date</b>	<b>Description</b>	<b>Location</b>
1		
2		
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21		
22	Reported to STC Kanpur office and took over the responsibilities of TL; Completed all necessary paperwork and joining formalities.	Kanpur
23	Meeting with Mr. B.K. Garg, GM, UPJN; Review of Concessionaire Agreement	Kanpur
24	Meeting with Mr. Amit Barambe, KRMP; Review of pending issues	Kanpur
25	<b>SUNDAY</b>	
26	Reviewed Concessionaire Agreement; Review of pending issues	Kanpur
27	Site Inspection - Sajari STP	Kanpur
28	Site Inspection - Bingawan STP	Kanpur
29	Meeting with Mr. Amit Barambe, KRMP	Kanpur
30	Meeting with Mr. B.K. Garg, GM, UPJN; Review of STC comments on Submittals from KRMP	Kanpur
I hereby certify that the time report above is a true and complete statement of my working time		
 Signature of Employee		 Signature of Team Leader



C.M. Dimri (Senior Civil Engineer)

Project Engineer		
<b>NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode</b>		
<b>Daily Report</b>		
Name :	Er. Chandra Mauleshwar Dimri	Month/Year:
Position:	Senior Engineer Civil cum T.L./c	Apr-21
Date	Description	Location
1	office work / submission of Shuklaganj boundarywall design vetted	Kanpur
2	<b>HOLI DAY GOOD FRIDAY</b>	Kanpur
3	<b>GANGA mela holiday / Discussion with GM about issues in</b>	Kanpur
4	<b>SUN DAY / Talk with Mr Walunekar about Covid and WH</b>	Kanpur
5	Discussion with GM about status of STPs and O&Mby KRMPL	Kanpur
6	Quarry with KRMPL about QA /QC tests regarding EDT visit	Kanpur
7	office work/ Inspection of Pankha facilities with GM UPJN	Kanpur
8	Discussion with KRMPL about Sajari STP diductions	Kanpur
9	office work/ Discussion / meeting with Mr DP Mathuria EDT at	Kanpur
10	Discussion with GM about control phillosophy of Jajmau I	Kanpur
11	<b>SUN DAY</b>	Kanpur
12	Review of PPT NMCG Meet with GM	Kanpur
13	Attended video conference called by DG NMCG Newdelhi	Kanpur
14	<b>AMBEDKAR JAYANTI HOLIDAY / Signed BEP ShuklaganjRCC</b>	Kanpur
15	Office work / submission / vetting of various Mech Drawings	Kanpur
16	Discussion with safety expt. KRMPL & signed ESHS Shukl.	Kanpur
17	MPR March sent / Shuklaganj engineering refill comments sent	Kanpur
18	<b>SUN DAY</b>	Kanpur
19	Str Exprt comments on IPS Sunder ngr sent / Office work	Kanpur
20	Discussion with PM E&M about Jajmau I maintenance & P House	Kanpur
21	Pankha DG set datas about sudhir power L discussed	Kanpur
22	Discussion with UPJN about Pankha insp./ TL Joined.	Kanpur
23	Meeting with GM UPJN Kanpur and TL about HAM & Covid situa.	Kanpur
24	Discussion with Str Expt about Shuklaganj staff qtr & Engg fill	Kanpur
25	SUNDAY / Sad day fellow Er.OP Asati O&M Engr expired.	Kanpur
26	Tribute to Honorable Late OP Asati	Kanpur
27	Discussion with PM 4 UPJN Lko about approval of Unnao QAPs	Kanpur
28	Discussion with PM KRMPL Kanpur about Pankha BEPs pendency	Kanpur
29	Discussion with PM 1 UPJN about Jajmau I maintenance	Kanpur
30	Appraised GM about Covid situation and work position	Kanpur
I hereby certify that the time report above is a true and complete statement of my working time		
 Signature of Employee		 Signature of Team Leader

Mr. J. P. Tripathi (O&amp;M Engineer)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	JAI PRAKASH TRIPATHI		Month/Year:
Position:	O & M ENGINEER		Apr-21
Date	Description	Location	
1	Prepared Time Sheet and Invoice for the month of March 2021	Kanpur	
2	Good Friday		
3	Holi Mela		
4	Sunday		
5	Prepared Present Status of O & M of existing facilities Sajari and Bingawan and sent CE UPJN as desired by him.	Kanpur	
6	Sent KPIs adherence report of Sajari for the month of Feb 2021	Kanpur	
7	Received letter of KRMPPL dated 21/01/2021 regarding O & M bill for the period Aug- Oct 2020	Kanpur	
8	Prepared reply to KRMPPL letter dated 21/01/2021	Kanpur	
9	Prepared PPT for Sajari & Bingawan for proposed NMCG review meeting on 13/04/2021	Kanpur	
10	Second Saturday		
11	Sunday		
12	Corrected and finalized PPT for Sajari & Bingawan for proposed NMCG review meeting on 13/04/2021	Kanpur	
13	Attended NMCG review meeting	Kanpur	
14	Ambedkar Jayanti	Kanpur	
15	Sent KPIs adherence report of Sajari for the month of March 2021	Kanpur	
16	Sent comments on revised schedule maintenance plan for year 1 for Bingawan submitted by KRMPPL and sent KPIs adherence report of Bingawan for the month of	Kanpur	
17	Corrected and finalized MPR for the Month of March 2021	Kanpur	
18	Sunday (Started work from Home as our colony became corona containment zone due to 12 corona+ cases)		
19	Received Executive Summary of Bingawan plant dated 23/04/2019 of Dr. Kazmi IITR and discussed with Mr. C. M. Dimri TL	Kanpur	
20	Discussed with PM III GPCU UPJN regarding Executive Summary of Bingawan plant dated 23/04/2019 of Dr. Kazmi IITR	Kanpur	
21	Discussed with Mr. Abhijit STC Mumbai regarding my fees	Kanpur	
22	Discussed with TL and Office Manager regarding Covid conditions office staff	Kanpur	
23	Discussed with Dr. Prabhu Kumar new TL regarding O & M of Sajari & Bingawan	Kanpur	
24	Provided Present Status of O & M of Sajari and Bingawan plants to TL	Kanpur	
25	Sunday		
26	Office Closed in memory of Mr. O. P. Asati O & M Engineer 2 who expired on 25/04/2021	Kanpur	
27	Discussed with TL regarding inspection of Sajari Plant	Kanpur	
28	Discussed with TL regarding inspection of Bingawan Plant	Kanpur	
29	Discussed with TL regarding renovation of 130 MLD Jajmau Plant	Kanpur	
30	Discussed with TL regarding performance of 210 MLD Bingawan Plant	Kanpur	

I hereby certify that the time report above is a true and complete statement of my working time for the payroll

Signature of Employee


Signature of Team Leader




Mr. A. K. Seth (Senior Electrical Engineer)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCg-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	ANIL KUMAR SETH	Month/Year:	Apr-21
Position:	Sr Electrical Eng	Location	
Date	Description		
1			Kanpur
2			Kanpur
3			Kanpur
4			Kanpur
5	Discussed with PM UPJN regarding DG Set Submissions		Kanpur
6	Review of HT Panel room Layout.		Kanpur
7	Review of Power Cable Schedule 130 MLD Tajman.		Kanpur
8	Review of Power Cable Schedule 130 MLD Tajman.		Kanpur
9	Review of Control cable schedule for 130 MLD Tajman		Kanpur
10	Second Saturday		Kanpur
11	Sunday		Kanpur
12	letter issued for clarification of Power/Control Cable Tajman.		Kanpur
13	Attended the NMCg/UPJN meeting with TL		Kanpur
14	Ambedkar Jayanti		Kanpur
15	DG set review of Pantha 30 MLD. Manufacture Credentials		Kanpur
16	Discussed the pending approvals from UPJN Unnao		Kanpur
17	DG set review of Unnao 15 MLD.		Kanpur
18	Sunday		Kanpur
19	Review of Transformer for Unnao 15 MLD		Kanpur
20	Review of Transformer for Pantha 30 MLD		Kanpur
21	Cable Schedule Review of Pantha 30 MLD.		Kanpur
22	Cable Schedule Review of Unnao 15 MLD.		Kanpur
23	Review of earthing calculations for Pantha 30 MLD		Kanpur
24			Kanpur
25			Kanpur
26			Kanpur
27			Kanpur
28			Kanpur
29			Kanpur
30			Kanpur

I hereby certify that the time report above is a true and complete statement of my working time for the


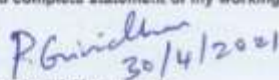
  
 Signature of Employee

  
 Signature of Team Leader

Mr. Sunil Basutkar (Mechanical Expert)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	SUNIL BASUTKAR	Month/Year:	Apr-21
Position:	Mechanical Expert	Location	
Date	Description		
1			
2			
3			
4			
5			
6			
7			
8			
9	Review of Mechanical Submittals of 130 MLD STP JAJMAU	*Pune	
10			
11			
12			
13			
14			
15	Review of Mechanical Submittals of 15 MLD STP UNNAO	*Pune	
16	Review of Mechanical Submittals of 5 MLD STP SHUKLAGANJ	*Pune	
17			
18			
19			
20	Review of Mechanical Submittals of 30 MLD STP PANKHA	*Pune	
21			
22	Review of Mechanical Submittals of 15 MLD STP UNNAO	*Pune	
23			
24			
25			
26	Review of Mechanical Submittals of 30 MLD STP PANKHA	*Pune	
27			
28			
29			
30			

I hereby certify that the time report above is a true and complete statement of my working time for the payroll


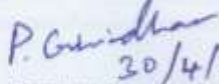
 Signature of Employee	 Signature of Team Leader
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Note - \* Home Office Input

Mr. Prasoon Bhardwaj (Instrumentation Engineer)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	Prasoon Bhardwaj	- Month/Year:	
Position:	Instrumentation Engineer	Apr-21	
Date	Description	Location	
1			
2			
3			
4			
5			
6	Review of Operation and Control philosophy for rehabilitation of 130 MLD STP at Jajmau, Kanpur.	Jaipur(W/H)	
7	Review of Piping and instrumentation drawings for rehabilitation of 130 MLD STP at Jajmau, Kanpur.	Jaipur(W/H)	
8			
9			
10			
11			
12			
13			
14			
15	Review of Drive Control Philosophy write-up and Drive Input/Output interface for 5 MLD SBR based STP at Shuklaganj, Kanpur.	Jaipur(W/H)	
16			
17			
18			
19			
20	Review of PLC IO list 5 MLD SBR based STP at Shuklaganj, Kanpur.	Jaipur(W/H)	
21	Review of PLC RTOLMS signal list for 5 MLD SBR based STP at Shuklaganj, Kanpur.	Jaipur(W/H)	
22	Review of Instrument list for 5 MLD SBR based STP at Shuklaganj, Kanpur.	Jaipur(W/H)	
23	Review of Drive Control Philosophy write-up and Drive Input/Output interface for 15 MLD SBR based STP at Unnao, Kanpur.	Jaipur(W/H)	
24			
25			
26			
27			
28			
29			
30			

I hereby certify that the time report above is a true and complete statement of my working time for the payroll period.

 Signature of Employee	 P. G. ... 30/4/2021 Signature of Team Leader
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Mr. L.K. Rao (Safety Expert)

Project Engineer	Shah Technical Consultants Pvt Limited	
NMCg-STP Projects at Kanpur under Hybrid Annuity based PPP Mode		
Daily Report		
Name :	Linga Krishna Rao	Month/Year:
Position:	Safety Expert	Apr-21
Date	Description	Location
1	Office work attended, Unnao 15 MLD Project site inspection done along with Support Engineer Mr.Preyesh Shukla, UPJN and KRMPPL Representatives.	Kanpur
2	Holiday (Good Friday)	Kanpur
4	Holiday (Ganga Mela)	Kanpur
4	SUNDAY	Kanpur
5	Office work attended, Unnao 15 5 MLD and Pankha 30 MLD Project site inspection reports prepared and sent to the concerned NMCg, UPJN and KRMPPL. ESIA Compliance reply sent to the concerned NMCg,UPJN and KRMPPL. Reminder letter sent for expedite action on our earlier inspection letters reference to the concerned NMCg,UPJN and KRMPPL.	Kanpur
6	Office work attended, Pankha 30 MLD Project site inspection along with civil support engineers Mr.Satendra kumar sharma.	Kanpur
7	Office work attended, Pankha 30 MLD Project site inspection along with TL Sir and Mr.Satendra Sharma, Civil support engineers. Pankha 30 MLD inspection report of dt. 6th April, 2021 sent to Mr.Adeem UPJN for issuing a inspection note directly from UPJN to the concerned NMCg, KRMPPL personnel.	Kanpur
8	Office work attended, Visited to Bingawan 210 MLD & IPS Rakhimandi along with Mr.Rawath-Support Engineer and witnessed the Environmental monitoring (Air monitoring, stock monitoring, Sound level monitoring, Co2 monitoring, oxygen monitoring etc.) by third party consultant of KRMPPL.	Kanpur
9	Office work attended, Letter sent to GM UPJN with a request for sending a soft copy and hard copy of ESHS Plan of Jajmau 130 MLD, Unnao 15 MLD and Shuklagunj 05 MLD. Reminder letter sent to GM UPJN,NMCg,KRMPPL to develop the site, landscaping, arboriculture and horticulture at the STP Construction sites and O&M Plants.	Kanpur
10	SECOND SATURDAY	Kanpur
11	SUNDAY	Kanpur
12	Office work attended, Review of Project ESHS (Environmental, Safety and Health System) Plan of Bingawan 130 MLD (O&M) Plant.	Kanpur
13	Office work attended, Attended for 3rd Milestone web meeting of all sites with NMCg, UPJN and KRMPPL along with TL Sir. Review of Project ESHS (Environmental, Safety and Health System ) Plan of Unnao 15 MLD Construction site.	Kanpur
14	HOLIDAY (Ambedkar Jayanthi)	Kanpur
15	Office work attended, Review of Project ESHS (Environmental, Safety and Health System ) Plan of Sajari 42 MLD (O&M) Plant.	Kanpur
16	Office work attended, Review of ESIA (Environmental and Social Impact Assessment Report) of Pankha, Unnao, Shuklagunj Constructions sites and Sajari, Bingawan and Jajmau (O&M) Plants.	Kanpur

  
Signature of Employee

  
Signature of Team Leader





Mr. P Walunjkar (Structure Engineer)

Project Engineer		Shah Technical Consultants Pvt Limited	
NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode			
Daily Report			
Name :	Prestam Walunjkar		Month/Year:
Position:	Senior Structural Engineer		Apr-21
Date	Description	Location	
1	Review the Rev. RCC Dwg of Utrao MPS & put Comments e mail on Well Sinking method	Kanpur	
2	Good Friday Holiday	Kanpur	
3	Review the Disposal route layout Drawing for Utrao STP & mail the comments to STC Kanpur	Kanpur	
4	Sunday	Kanpur	
5	Review the Soil Test Report & Staad Pro Model file for Shuklaganj STP SBR RCC Dwg	Kanpur	
6	Review the PCC bedding IS Code 783 & review its use in Parikha Pipeline Layout	Kanpur	
7	Review the Engineering FR Documents & mail comments to Kanpur STC	Kanpur	
8	Review the calculation sheet for Shuklaganj STP SBR RCC Dwg	Kanpur	
9	Review the calculation sheet for Shuklaganj STP SBR RCC Dwg & mail the comments	Kanpur	
10	Second Saturday Holiday	Kanpur	
11	Sunday	Kanpur	
12	Review Comments by IIT on Structural Design and Drawings of 15MLD STP MPS Utrao	Kanpur	
13	Padma choti chand Holiday	Kanpur	
14	Dr Ambedkar Jayanti Holiday	Kanpur	
15	Review SBC Report & Staad file of Revised MPS Gullaganj STP	Kanpur	
16	Review Structural Design & Drawing of treated effluent channel for 30 MLD STP at Parikha	Kanpur	
17	Review & discuss with Support Engg Compliance Report of Soil Refilling for Shuklaganj STP submitted by KRMPL	Kanpur	
18	Sunday	Kanpur	
19	Review structural Dwg inlet receiving chamber at IPS sundar nagar -30 MLD STP Parikha	Kanpur	
20	Review the Engineering FR Documents & mail comments to Kanpur STC	Kanpur	
21	Ramnavmi Holiday	Kanpur	
22	Review Soil test (SBC) report for Shuklaganj STP Staff quarter	Kanpur	
23	Review of Shuklaganj Guard Room File	Kanpur	
24	Review the calculation sheet for Shuklaganj STP SBR RCC Dwg	Kanpur	
25	Sunday	Kanpur	
26	Review Revised Parikha KI Nalla RCC Dwg & reply comments on it	Kanpur	
27	Review of Shuklaganj Sludge thickener Room	Kanpur	
28	Review Staad Pro model file & Check Calculations & put comments on Shuklaganj Staff Quarter	Kanpur	
29	Review the Engineering FR Documents once again to know its feasibility on ground	Kanpur	
30	Discuss the well string method in Utrao STP MPS Unit with KRMPL Structural Engg	Kanpur	

I hereby certify that the time report above is a true and complete statement of my working time for the payroll period.

*P. Walunjkar P.M.*

Signature of Employee

*P. Giridhar  
30/4/2021*

Signature of Team Leader

### Annexure 3: Monthly Performance Report of Sajari for April 2021



42 MLD SEWAGE TREATMENT PLANT, SAJARI, KANPUR																		
MONTHLY FLOW & LAB REPORT																		
Apr-2021																		
Date	INLET FLOW in MLD	Plant Run in HRS	RAW SEWAGE					FINAL EFFLUENT					P.C (<500)	Aeration DO	POWER SHUTDOWN HRS	REMARK		
			Temp	TDS	PH (7-8)	COO (450)	BOD (250)	TSS (600)	Temp	TDS	PH (7-8)	COO (<100)					BOD (<30)	TSS (<50)
			°C	ppm		ppm	ppm	ppm	°C	ppm		ppm					ppm	ppm
01 Apr 2021	18.32	24.00	25	1298	7.3	448	160	295	25	896	7.9	92	22	34		1.5	5.95	2 STREAM IS UNDER OPERATION
02 Apr 2021	18.56	24.00	25	1322	7.4	512	178	310	25	912	7.9	104	24	36.0		1.2	0.00	2 STREAM IS UNDER OPERATION
03 Apr 2021	17.99	24.00	25	1240	7.5	432	150	291	25	880	7.9	92	21	34		1.4	0.00	2 STREAM IS UNDER OPERATION
04 Apr 2021	18.73	24.00	25	1290	7.4	528	175	305	25	915	7.9	104	23	37.0	230	1.2	0.00	2 STREAM IS UNDER OPERATION
05 Apr 2021	18.89	24.00	25	1412	7.3	608	182	321	25	952	7.9	110	24	35		1.4	0.00	2 STREAM IS UNDER OPERATION
06 Apr 2021	18.32	24.00	25	1360	7.5	440	156	297	25	960	7.9	96	22	31		1.3	0.00	2 STREAM IS UNDER OPERATION
07 Apr 2021	17.90	24.00	25	1305	7.5	384	150	266	25	810	7.9	88	21	35		1.6	0.00	2 STREAM IS UNDER OPERATION
08 Apr 2021	18.35	24.00	25	1416	7.3	512	178	322	25	998	7.9	104	26	37	280	1.3	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
09 Apr 2021	18.40	24.00	25	1390	7.3	624	182	327	25	1089	7.9	112	24	34		1.2	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
10 Apr 2021	17.90	24.00	25	1340	7.5	528	175	315	25	1108	7.9	104	23	36		1.4	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
11 Apr 2021	17.66	24.00	25	1268	7.5	416	155	297	25	1052	7.9	96	21	33		1.5	0.47	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
12 Apr 2021	18.35	24.00	26	1350	7.5	512	162	320	26	1160	7.9	110	23	37	240	1.2	0.83	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
13 Apr 2021	18.32	24.00	26	1294	7.5	608	178	332	26	1167	7.9	112	25	39		1.2	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
14 Apr 2021	18.65	24.00	26	1350	7.6	528	175	319	26	1138	7.9	104	23	36		1.4	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
15 Apr 2021	18.15	24.00	26	1298	7.5	448	168	297	26	1095	7.9	96	22	34		1.5	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
16 Apr 2021	18.48	24.00	26	1266	7.5	396	155	283	26	994	7.9	88	23	32	210	1.6	0.00	2 STREAM IS UNDER OPERATION
17 Apr 2021	17.66	24.00	26	1290	7.5	448	152	297	26	987	7.9	96	21	34		1.5	4.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
18 Apr 2021	18.73	24.00	26	1272	7.6	428	158	284	26	930	7.9	92	22	31		1.6	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
19 Apr 2021	17.99	24.00	26	1260	7.5	384	142	289	26	916	7.9	88	21	33		1.4	0.92	2 STREAM IS UNDER OPERATION
20 Apr 2021	18.89	24.00	26	1294	7.6	448	155	305	26	945	7.9	96	23	35	230	1.7	0.00	2 STREAM IS UNDER OPERATION
21 Apr 2021	17.16	24.00	26	1310	7.5	540	185	322	26	1081	7.9	104	25	37		1.5	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
22 Apr 2021	18.40	24.00	26	1297	7.5	480	160	316	26	1008	7.9	102	22	34		1.6	6.00	2 STREAM IS UNDER OPERATION
23 Apr 2021	18.65	24.00	27	1305	7.4	512	170	323	27	1115	7.9	110	24	36		1.2	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
24 Apr 2021	17.99	24.00	27	1298	7.6	448	156	294	27	1090	7.9	92	23	33	290	1.1	0.00	2 STREAM IS UNDER OPERATION
25 Apr 2021	18.40	24.00	27	1240	7.6	432	148	303	27	1090	7.9	96	21	36		1.7	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
26 Apr 2021	18.73	24.00	27	1232	7.5	440	152	312	27	1015	7.9	90	22	34		1.4	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
27 Apr 2021	18.15	24.00	27	1246	7.5	448	165	305	27	1023	7.9	96	24	36		1.2	0.00	2 STREAM IS UNDER OPERATION Found Dye color in Raw Sewage
28 Apr 2021	18.23	24.00	27	1225	7.5	396	165	283	27	994	7.9	88	21	33	210	1.6	0.00	2 STREAM IS UNDER OPERATION
29 Apr 2021	19.06	24.00	27	1260	7.5	416	162	307	27	1012	7.9	92	23	36		1.5	0.00	2 STREAM IS UNDER OPERATION
30 Apr 2021	19.06	24.00	27	1320	7.5	512	182	323	27	1128	7.9	104	25	34	240	1.3	0.00	2 STREAM IS UNDER OPERATION
<b>TOTAL</b>	<b>549.69</b>																	
<b>AVG</b>	<b>18.32</b>	<b>24.00</b>	<b>25.90</b>	<b>1307.60</b>	<b>7.53</b>	<b>475.33</b>	<b>163.70</b>	<b>305.27</b>	<b>25.90</b>	<b>1012.00</b>	<b>7.90</b>	<b>98.60</b>	<b>22.80</b>	<b>34.73</b>	<b>241.25</b>	<b>1.4</b>	<b>18.17</b>	<b>Rev</b>

Note : There is ingress of Industrial Waste water [coloured] at STP from Samgawan area, which was experienced on dates of 8,9,10,11,13,14,17,18,21,23,24,25,26,27 MAR. 2021.






**Annexure 4: Site Inspection Report, Inspection done on 27.04.2021 (Sajari)**



STC Nagar

STC				SITE INSPECTION REPORT		SIAR ID - 42942	Date: 27/04/2021	INSPECTED BY:
S.No.	Equipment	Assessment of Current Condition	Assessment of Current Condition Photo	Corrective Action Suggested by STC	Corrective Action Completed by ESMPL	Original Date of Issue	Proposed Date to Resolve by ESMPL	Current Status of Compliance
1	Collection Chantry							
1	Mesh Screen no.1	Operational		Adjustment of Mesh screen is in working condition. Mechanical component bucket is in damaged. Needs rectification immediately.		Site no: 42942 / 01/04/2021	01/05/2021	PENDING
2	Mesh Screen no.2	Operational		Adjustment of Mesh screen is not in working condition.		Site no: 42942 / 01/04/2021	01/05/2021	PENDING
3	Mesh Pumping Station							
4	Raw Sludge Pump no.01	Operational						
5	Raw Sludge Pump no.02	Operational						
6	Raw Sludge Pump no.03	Operational						
7	Raw Sludge Pump no.04	Operational						
8	Raw Sludge Pump no.05	Not Operational		Repair to be issued immediately.		21/04/2021		PENDING





STC Report


STC		STC INSPECTION REPORT			SARV 17-42-M2	Date: 22/04/2021	INSPECTED BY: JY	
S.No.	Equipment	Assessment of Current Condition	Assessment of Current Condition Photo	Corrective Action Suggested by STC	Corrective Action Completed by O&MPL	Original Date of Issue	Proposed Date to Resolve by O&MPL	Current Status of Compliance
1	Hot Chamber							
1	Pressure Switch (No. 02)	Not Operated		Installation of size 8 pressure gauge needs to be done		03.03.21		PENDING
2	Pressure Switch (No. 02)	Operated		Pressure gauge need to be replaced		03.03.21		PENDING
3	Manual cover (No. 01)	Operated		Cleaning of the Manual cover required		28.03.2021		PENDING
4	<ul style="list-style-type: none"> <li>1) Hot Chamber - C</li> <li>2) Digestion pump with Motor</li> <li>3) Scraper</li> <li>4) Chamber Mechanism</li> </ul>	Operated						
5	<ul style="list-style-type: none"> <li>1) Hot Chamber - C</li> <li>2) Digestion pump</li> <li>3) Scraper</li> <li>4) Chamber Mechanism</li> </ul>	Operated						
6	Primary Clarifier							
6	Primary Sedimentation tank (No. 02)	Operated but not with full capacity		Workover needs to be triggered by O&MPL for maximum sludge removal from both primary clarifiers.		27.04.2021		PENDING

STC				SFC INSPECTION REPORT		DATE OF - 01/04/2021	INSPECTED BY -	
S. No.	Equipment	Assessment of Current Condition	Assessment of Corrective Condition	Corrective Action Suggested by STC	Corrective Action Completed by O&M?	Original Date of Issue	Proposed Date to Revert to O&M	Current Status of Compliance
1	Primary Sedimentation tank no.02	Operational		Minor inspection required by O&M for routine check (removal from both parties clarified)		21/04/2021		PENDING
1	Aeration system							
2	Aeration no.1	Operational In presence of the aeration system performing in 20-22 hrs only		Inspection on regular basis and lubrication required for shaft axles It is suggested to increase the submerged area of the aeration tank to increase the oxygen transfer rate.				
3	Aeration no.2							
4	Aeration no.3							
5	Aeration no.4							
6	Aeration no.5							
7	Aeration no.6							
8	Aeration no.7							
9	Aeration no.8							
10	Aeration no.9							
11	Aeration no.10							
12	Aeration no.11							
13	Aeration no.12							
14	Secondary clarifier							
15	Secondary Sedimentation tank no.02	Not Operative		Rectification required immediately		21/04/2021		PENDING
16	Secondary Sedimentation tank no.03	Operational						
17	Primary Sludge pump							
18	Primary Sludge pump no.02	Operational		Inspection on regular basis and lubrication required for belt/pulley				
19	Primary Sludge pump no.03	Operational		Inspection on regular basis and lubrication required for belt/pulley				
20	Return Sludge pump							
21	Return Sludge pump no.02	Not Operative		Rectification required immediately	RP no.02 has been put in maintenance	04.04.2021		
22	Return Sludge pump no.03	Not Operative		Rectification required immediately		04.04.2021	05.04.2021	PENDING
23	Return Sludge pump no.04	Not Operative						
24	Return Sludge pump no.05	Operational						
25	Sludge Thickener & Mechanism							
26	Sludge Thickener no.01	Not Operative		Sludge Thickener is fully fixed with sludge and effluent is not properly treated Sludge withdrawal has not been done properly		01/04/2021		PENDING

STC Report

STC				SITE INSPECTION REPORT		MARKED BY-4342	DATE: 27/04/2021	INSPECTED BY-
S. No.	Observation	Assessment of Current Condition	Assessment of Current Condition Photo	Corrective Action Suggested by STC	Corrective Action Completed by (Name)	Original Date of Issue	Proposed Date to Resolve by (Name)	Current Status of Compliance
8	Slope Channel no. 02	Not Compliant		Slope thickness is less than with design and inflow is not properly treated. Slope which was has not been done properly.		19.03.2021		Pending
9	Thickness slope channel no. 02	Not Compliant		Rehabilitation required immediately		18.03.2021		Pending
10	Thickness slope channel no. 02	Not Compliant		Rehabilitation required immediately		18.03.2021		Pending
11	Slope Slope							
12	Slope Section no. 02	Not Compliant		Rehabilitation required immediately		11.05.2021	12.08.2021	Pending
13	Slope Section no. 02	Compliant						
14	Flow Generation extent using the structural							
15	Gate House no. 02	Compliant						
16	Gate House no. 02	Compliant						
17	Gate House no. 1	Compliant with gate is available for 1.						
18	Gate House no. 1	Compliant with gate is available for 1.						
19	Gate House no. 1	Compliant		Rehabilitation required immediately		11.05.2021		Pending
20	Gate problem	Compliant		Major Rehabilitation required				
21	Gate problem	Compliant		Major Rehabilitation required				
22	Slope Slope Bed							
23	Slope Slope Bed 1	Not with slope		Deposit of the slope material on regular basis				
24	Slope Slope Bed 2	Not with slope		Deposit of the slope material on regular basis				
25	Slope Slope Bed 3	Not with slope		Deposit of the slope material on regular basis				
26	Slope Slope Bed 4	Not with slope		Deposit of the slope material on regular basis				
27	Slope Slope Bed 5	Not with slope		Deposit of the slope material on regular basis				
28	Slope Slope Bed 6	Not with slope		Deposit of the slope material on regular basis				
29	Slope Slope Bed 7	Not with slope		Deposit of the slope material on regular basis				
30	Slope Slope Bed 8	Not with slope		Deposit of the slope material on regular basis				
31	Slope Slope Bed 9	Not with slope		Deposit of the slope material on regular basis				
32	Slope Slope Bed 10	Not with slope		Deposit of the slope material on regular basis				
33	Slope Slope Bed 11	Not with slope		Deposit of the slope material on regular basis				
34	Slope Slope Bed 12	Not with slope		Deposit of the slope material on regular basis				
35	Slope Slope Bed 13	Not with slope		Deposit of the slope material on regular basis				
36	Slope Slope Bed 14	Not with slope		Deposit of the slope material on regular basis				
37	Slope Slope Bed 15	Not with slope		Deposit of the slope material on regular basis				
38	Slope Slope Bed 16	Not with slope		Deposit of the slope material on regular basis				
39	Slope Slope Bed 17	Not with slope		Deposit of the slope material on regular basis				
40	Slope Slope Bed 18	Not with slope		Deposit of the slope material on regular basis				
41	Structure 1	Compliant						
42	Structure with sedimentation	Compliant						
43	Structure with sedimentation 2	Compliant						
44	W/Work	Calibration has been done by STC as per order of Ministry of WRA, Govt of India		Demographic flow meter need to be calibrated		27.03.2021		Pending
45	Check Working Status							
46	Health Check up 1	SD- 08 DC- 06 TO- 05						
47	Health Check up 2	SD- 01 DC- 03 TO- 04						

STC Name

STC				SITE INSPECTION REPORT		Slack (D) - 42 MGD	Date: 22/04/2021	INSPECTOR'S PH
S. No.	Requirement	Assessment of Current Condition	Assessment of Current Condition Photo	Corrective Action Suggested by STC	Corrective Action Completed by (SMP)	Original Date of Issue	Proposed Date to Reopen to (SMP)	Current Status of Compliance
1/	Outlet Andover outlet	Checked for weeds, ponds clearing		Overland with overflow at the outlet of CT. It is within high but TD values as reported are under normal scenario.		21.04.2021		HYDRO
Remarks								






**Annexure 5: Monthly Performance Report of Bingawan for April 2021**

210 MLD SEWAGE TREATMENT PLANT, BINGAWAN, KANPUR																
MONTHLY FLOW & LAB REPORT																
Date	INLET FLOW in MLD	Plant Run in HRS	RAW SEWAGE						FINAL EFFLUENT						POWER SHUTDOWN in HRS	REMARKS
			Temp	TDS	PH (7-8)	COD (50mg/l)	BOD (222mg/l)	TSS (410mg/l)	Temp	TDS	PH (7-8)	COD (<100mg/l)	BOD (<10mg/l)	TSS (<50mg/l)		
			°C	ppm	ppm	ppm	ppm	ppm	°C	ppm	ppm	ppm	ppm	ppm		
1-Apr-21	91.80	24.0	26	1068	7.2	736	175	440	26	1090	7.3	168	48	53	11.33	33hr Side Fault from ResCO Side
2-Apr-21	135.67	24.0	26	1090	7.2	748	185	452	26	1180	7.4	176	44	60	0.00	
3-Apr-21	744.05	24.0	27	1070	7.1	624	168	445	26	1060	7.3	192	47	46	0.00	
4-Apr-21	130.05	24.0	27	1048	7.1	580	175	435	26	1070	7.2	176	44	50	0.00	
5-Apr-21	134.07	24.0	27	1045	7.2	560	170	390	27	1080	7.2	160	43	47	0.00	
6-Apr-21	134.52	24.0	28	1020	7.2	586	185	450	27	1070	7.3	176	47	53	0.00	
7-Apr-21	128.27	24.0	28	1100	7.3	6256	205	480	27	1090	7.2	176	55	50	0.00	
8-Apr-21	130.80	24.0	28	1090	7.2	608	220	452	27	1060	7.2	168	50	53	0.00	
9-Apr-21	136.25	24.0	28	1040	7.2	594	215	405	27	1090	7.2	160	49	56	0.00	
10-Apr-21	132.43	24.0	28	1070	7.3	592	175	515	28	1080	7.3	184	47	60	0.00	
11-Apr-21	130.07	24.0	28	1030	7.1	512	165	468	28	1060	7.2	152	42	48	0.00	
12-Apr-21	131.73	24.0	28	1040	7.1	504	168	400	28	1070	7.2	144	48	53	0.00	
13-Apr-21	123.06	24.0	28	1030	7.1	592	175	440	28	1060	7.2	152	44	50	2.50	33hr Side Fault from ResCO Side
14-Apr-21	127.75	24.0	28	1090	7.3	540	170	475	28	1110	7.3	144	48	46	1.00	33hr Side Fault from ResCO Side
15-Apr-21	80.19	24.0	28	1070	7.2	592	180	425	28	1090	7.3	160	47	46	13.75	33hr Side Fault from ResCO Side
16-Apr-21	159.51	24.0	28	1070	7.1	736	190	440	28	1090	7.3	200	48	50	0.00	
17-Apr-21	147.82	24.0	28	1050	7.1	696	205	430	28	1040	7.3	184	46	48	0.00	
18-Apr-21	141.46	24.0	28	1080	7.3	640	170	425	28	1090	7.3	176	47	44	0.00	
19-Apr-21	119.54	24.0	28	1030	7.1	592	165	470	28	1040	7.3	182	45	45	0.00	
20-Apr-21	146.90	24.0	28	1020	7.3	656	200	452	28	1060	7.2	200	46	47	0.00	
21-Apr-21	111.56	24.0	28	1050	7.1	640	170	440	28	1060	7.2	224	48	56	1.00	33hr Side Fault from ResCO Side
22-Apr-21	143.72	24.0	28	1045	7.3	608	165	440	28	1030	7.3	192	43	49	2.83	33hr Side Fault from ResCO Side
23-Apr-21	80.19	24.0	28	1070	7.3	624	185	485	28	1090	7.3	200	47	52	7.42	33hr Side Fault from ResCO Side
24-Apr-21	144.91	24.0	28	1060	7.3	680	180	462	28	1070	7.3	184	48	47	0.00	
25-Apr-21	126.01	24.0	28	1070	7.3	636	175	470	28	1050	7.3	192	46	49	0.00	
26-Apr-21	106.23	24.0	28	1040	7.3	592	165	462	28	1060	7.3	184	48	44	12.17	33hr Side Fault from ResCO Side
27-Apr-21	80.09	24.0	28	1030	7.3	608	170	453	28	1050	7.3	200	47	40	11.25	33hr Side Fault from ResCO Side
28-Apr-21	123.36	24.0	28	1060	7.1	640	185	480	28	1070	7.3	216	51	53	0.00	
29-Apr-21	120.54	24.0	28	1080	7.2	732	175	495	28	1100	7.3	212	48	56	1.00	
30-Apr-21	140.98	24.0	28	1070	7.2	736	170	486	28	1080	7.2	216	51	48	0.00	
<b>TOTAL</b>	<b>3852.04</b>															
<b>AVG</b>	<b>128.40</b>	<b>24.00</b>	<b>27.8</b>	<b>1056.3</b>	<b>7.1</b>	<b>622.4</b>	<b>178.2</b>	<b>453.1</b>	<b>27.6</b>	<b>1072.0</b>	<b>7.3</b>	<b>187.2</b>	<b>46.4</b>	<b>50.9</b>	<b>46.25</b>	






**Annexure 6: Site Inspection Report, Inspection done on 28.04.2021 (Bingawan)**



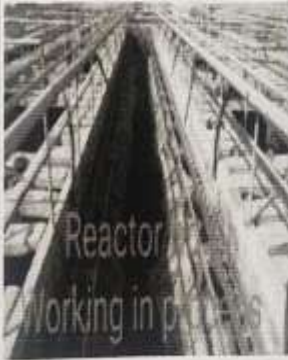
STC KANPUR

STC		SITE INSPECTION REPORT			BINGAWAN (P-20) WLS		Date: 28/04/2021	INSPECTED BY: A.E.S.P
S. No.	Equipment	Assessment of Current Condition	Assessment of Current Condition photo	Corrective Action Required	Corrective Action Completed by	Original Date of Issue	Proposed Date to Revert to EWSL	Current Status of Compliance
1	Mechanical Gate screen (No.02)	Not Operated		Repair / Replace		28-04-2021	Not submitted	Not Compliant
2	Mechanical Gate screen (No.02)	Not Operated		Repair		28-04-2021	Not submitted yet	Not Compliant
3	Pump no.1	Operated						No action Required
4	Pump no.2	Operated						No action Required
	Pump no.3	Not Operated		Repair		28-04-2021		Not Compliant
6	Pump no.4	Operated						No action Required
7	Pump no.5	Operated						No action Required
8	Pump no.6	Operated						No action Required
9	Pump no.7	Operated						No action Required

STC KANPUR



STC		SITE INSPECTION REPORT			BIGGANI DP - 214 M.O		Date: 28/04/2021	INSPECTED BY: AS EP
S. No.	Equipment	Assessment of Current Condition	Assessment of Current Condition photo	Corrective Action Required	Corrective Action Completed by OMR	Original Date of Issue	Proposed Date to Resolve by OMR	Current Status of Compliance
10	Pump no. 8	Operational						No any action Required
11	Pump no. 8	Not Operational		Repair		02-12-2021	Not submitted yet	PENDING
12	Pump no. 10	Operational						No any action Required
13	Pump no. 11	Operational						No any action Required
14	Pump no. 12	Operational						No any action Required
15	Mechanical for screen no. 11	Operational						No any action Required
16	Mechanical for screen no. 12	Not Operational		Repair		09-02-2021	Not submitted yet	PENDING
17	Mechanical for screen no. 13	Operational						No any action Required
18	Conveyer for belt for screen no. 13	Operational						No any action Required
19	Oil removal mechanism Detector no. 12 Main line, Clarifier line, Digester pump	Not Operational		Repair		01-10-2021	Not submitted yet	PENDING
20	Oil removal mechanism Detector no. 12 Main line, Clarifier line, Digester pump	Operational						No any action Required
21	Oil removal mechanism Detector no. 12 Main line, Clarifier line, Digester pump	Operational						No any action Required

## STC RANPUR



STC		SITE INSPECTION REPORT			BINGAWAN STP - 210 MLD		Date: 26/04/2021	INSPECTED BY: AGL/SP
S. No.	Equipment	Assessment of Current Condition	Assessment of Current Condition photo	Corrective Action Required	Corrective Action Completed by KMPPL	Original Date of Issue	Proposed Date to Resolve by KMPPL	Current Status of Compliance
21	Control room reaction Controller M Main Area (Qualified Operators)	Operated						No any action Required
22	UASB Reactor no.1	Cleaned and filled but sludge blanket not formed		Reactivation of the UASB reactor required		25.01.2021		PENDING
24	UASB Reactor no.2	Cleaned and filled		Reactivation of the UASB reactor required		22.04.2021		PENDING
25	UASB Reactor no.3	Under Maintenance		Repair/Replacement of internals, Cleaning and reactivation		20.04.2021	End of Dec. 2021	PENDING
26	UASB Reactor no.4	Cleaned and filled but sludge blanket not formed		Reactivation of the UASB reactor required		19.01.2021	Not submitted yet	PENDING
27	UASB Reactor no.5	Under Maintenance		Repair/Replacement of internals, Cleaning and reactivation		15.03.2021	Not submitted yet	PENDING
28	UASB Reactor no.6	Under Maintenance		Repair/Replacement of internals, Cleaning and reactivation		15.03.2021	Not submitted yet	PENDING



STC KANPUR


STC		SITE INSPECTION REPORT			ENGINEER ITP - 210 MLD	Date: 28/04/2021	INSPECTED BY: AG, EP	
S. No.	Equipment	Assessment of Current Condition	Assessment of Current Condition photo	Corrective Action Required	Corrective Action Completed by EMRF	Original Date of issue	Proposed Date to Receive by EMRF	Current Status of Compliance
29	UASB Reactor - no.7	Operated but filled with sludge		Cleaning and reactivation				PENDING
30	UASB Reactor - no.8	Cleaner and filter but sludge barrel not working		Reactivation of the UASB reactor required		23.03.2021		PENDING
31	UASB Reactor - no.9	Operated but filled with sludge		Cleaning and reactivation				PENDING
32	UASB Reactor - no.10	Operated but filled with sludge		Cleaning and reactivation				PENDING
33	UASB Reactor - no.11	Operated but filled with sludge		Cleaning and reactivation				PENDING
34	UASB Reactor - no.12	Operated but filled with sludge		Cleaning and reactivation				PENDING
35	UASB Reactor - no.13	Operated but filled with sludge		Cleaning and reactivation				PENDING
36	UASB Reactor - no.14	Operated but filled with sludge		Cleaning and reactivation				PENDING
37	UASB Reactor - no.15	Operated but filled with sludge		Cleaning and reactivation				PENDING
38	UASB Reactor - no.16	Operated but filled with sludge		Cleaning and reactivation				PENDING
39	Residual water sump	Filled with Sludge		Cleaning & De-sludging		23.03.2021	Not submitted yet	PENDING
	C-Aerated zone	Filled with Sludge		Cleaning & De-sludging		23.03.2021	Not submitted yet	PENDING
	W-Quarantine zone	Filled with Sludge		Cleaning & De-sludging		23.03.2021	Not submitted yet	PENDING
40	Aerator no.01	Operated						No any action Required
41	Aerator no.02	Not operated		Repair / Replace		28/04/2021		PENDING
42	Aerator no.03	Operated						No any action Required
43	Aerator no.04	Operated						No any action Required
44	Aerator no.05	Operated						No any action Required
45	Aerator no.06	Operated						No any action Required
46	Aerator no.07	Not operated		Repair / Replace		28/04/2021		PENDING

STC KANPUR

STC		SITE INSPECTION REPORT			BNSKAWH 07-230 H.O.		Date: 28/04/2021	INSPECTED BY: AG-SP	
E.No.	Equipment	Assessment of Current Condition	Assessment of Current Condition photo	Corrective Action Required	Corrective Action Completed by	Original Date of Issue	Proposed Date to Resolve by	Current Status of Compliance	
47	Amper no.08	Operable						No any action Required	
48	Amper no.09	Operable						No any action Required	
49	Amper no.10	Operable						No any action Required	
50	Amper no.11	Operable						No any action Required	
51	Amper no.12	Operable						No any action Required	
52	Amper no.13	Operable						No any action Required	
53	Amper no.14	Operable						No any action Required	
54	Amper no.15	Operable						No any action Required	
55	Amper no.16	Operable						No any action Required	
56	Amper no.17	Operable						No any action Required	
57	Amper no.18	Not Operable		Repair / Replace		28-11-2020		PENDING	
<b>Set of three pins</b>									
58	1. Control box vibrator no.01	Operable						No any action Required	
	2. Control box vibrator no.02	Operable						No any action Required	
	3. Control box vibrator no.03	Operable						No any action Required	
	4. Hydraulic pump no.01	Operable						No any action Required	
	5. Hydraulic pump no.02	Operable						No any action Required	
	6. Hydraulic pump no.03	Operable						No any action Required	
	7. Main line no.01	Operable						No any action Required	
	8. Main line no.02	Operable						No any action Required	
	9. Main line no.03	Operable						No any action Required	
	10. Filter pump no.01	Not Operable			Repair / Replace		28-05-2020		PENDING
	11. Filter pump no.02	Not Operable			Repair / Replace		28-05-2020		PENDING
	12. SPT wash pump	Operable							No any action Required
	13. Sludge feed Pump no.01	Operable							No any action Required
	14. Sludge feed Pump no.02	Operable							No any action Required
15. Sludge feed Pump no.03	Operable							No any action Required	
16	Provection of water tank & vibrator	Operable						No any action Required	
17	Provection of sludge pump no.01	Operable						No any action Required	
18	Provection of sludge pump no.02	Operable						No any action Required	
52	Hydraulic pump no.01	Not Operable		Repair / Replace		01-08-2020		PENDING	
53	Shovel	Operable						No any action Required	
54	Shovel no.01	Operable						No any action Required	
55	Shovel no.02	Operable						No any action Required	
56	Galvobelt No.01	Not Operable		Repair		28-07-2020	28-11-2020	PENDING	



STC KANPUR

STC		SITE INSPECTION REPORT			SHAWAN (P) - TD M.P.	Date: 28/04/2021	INSPECTED BY: AG-SP	
S. No.	Equipment	Assessment of Current Condition	Assessment of Current Condition photo	Corrective Action Required	Corrective Action Completed by (BMP)	Original Date of Issue	Proposed Date to Resolve by (BMP)	Current Status of Compliance
17	Gas holder No.01	Not Operated				09-01-2018	12-11-2018	PF/NA
18	Sludge tank No.01	Operated						No any action Required
19	Sludge tank No.02	Operated						No any action Required
20	Sludge tank No.03	Operated						PF/NA
21	SPC No. 1	Not Operated		Repair		08-07-2018		No any action Required
22	SPC No. 2	Operated						No any action Required
23	SPC & sump No.01 No.02	Operated						No any action Required
24	Effluent channel	Operated						No any action Required

Remark :

**Annexure 7: Site Inspection Reports at 130 MLD STP Jajmau****Inspection Report of 130 MLD STP Jajmau**

Visit & Inspected on date 16-03-2021

Following STC, UPJN & KRMPL staffs were present

- 1 Mr. R.K Verma, Assistant Engineer, UPJN
- 2 Mr. Rajesh Kumar, Assistant Engineer (E&M)
- 3 Mr. Shahzeb Iqbal, JE, UPJN
- 4 Mr. Ajay Kanojiya, Chemist, UPJN
- 5 Mr. Ankit Singh, J.E, UPJN
- 6 Mr. Ashish Seyal, J.E, UPJN
- 7 Mr. Mahipal Singh, J.E,UPJN
- 8 Mr. O.P. Asati, O&M Senior Engineer, STC
- 9 Mr. Vikas Sharma, Support Engineer (Civil), STC
- 10 Mr. Ajay Kumar Goyal, Support Engineer (Mech.),STC
- 11 Mr. Rahul, Support Engineer (Electrical),STC
- 12 Mr. Amit Bhamray, O&M Manager, KRMPL
- 13 Mr. Vinod Gunjal, Site in-charge, KRMPL
- 14 Mr. Vijay Kumar, Project Coordinator, KRMPL

**Observations:**

Formal handing over of 130 MLD STP was made to M/S KRMPL on dated 01.03.2021 in presence of GM, UP Jal Nigam under administrative witness and intervention of administrative team under ACM-II Kanpur. Till now, no substantial and effective maintenance is observed at site except some activities in presence of very few staff of KRMPL.

*List of observation are mentioned below:*

**1. Collection chamber and Screen chamber:**

- Repair of cracks and other renovation works to be completed as per approved rehab & retrofit report of 130 MLD STP.
- Plastering and painting works to be done at civil structure.
- All Sluice gates is rusted and needs to be lubricated.
- Manual Coarse screen should be cleaned properly.
- All temporary screens need to be clean properly.
- No any Manual tractor trolley available at site for Screen waste disposal.
- Grit Screen disposal should be separately disposed.
- No Light arrangement for night shift working found at Primary Treatment unit.
- Proper housekeeping should be maintained at site.

**2. Grit chamber and mechanism:**

- Out of 3 nos. of grit mechanism, 1 no. grit chamber is under maintenance. 2<sup>nd</sup> no. grit mechanism is in working condition but its classifier is not in working. 3<sup>rd</sup> no. grit mechanism is in working condition.
- All Grit classifiers are found in worst & rusted condition.
- No proper arrangement for cleaning of grit chamber no. 1 found at site and the maintenance work needs to be expedited.
- Railing over the Grit chamber needs repairing and painting.
- Grit assembly flip gates are totally damaged and need to be replaced.
- No proper arrangement for disposal of the grit has been found at site.
- All ON/OFF remote system is not working.
- Casing pipe over cables is found rusted and need to be replaced.
- Cable found damage and needs to be replaced.

### **3. Primary Sedimentation Tank:**

- There are total 3 nos. of Primary Settlement Tank out of which 1 no. PST is under maintenance. 2<sup>nd</sup> no. PST is found overflow.
- Maintenance work of PST no. 1 found very slow and needs to be expedited.
- It was observed that the PST 1 which is under maintenance is filled with sludge and there are no proper arrangement has been found at site to remove the sludge.
- Plaster & Painting work of civil structure to be carried out.

### **4. Aeration Tanks:**

- Out of 18 nos. of aerators installed, only 8 nos. aerators are in working condition.
- Remaining 10 nos. aerators are found in damaged condition.
- Out 3 Aeration tank, 1 no. tank is under maintenance.
- There should be Canopies over each Motor installed at site.
- Hand Railing is in damaged condition which will cause a great threat to safety of human life. Hence, should be replaced.
- At some part of Aeration Tank's walkways, Hand rail is found missing. It should be provided with immediate effect.
- Stencilling for denoting its details are required for all aerators & for all equipments.
- It has been observed that nobody checking aerators/coupling temperature & vibration on daily basis, due to non availability of Infrared Thermometer & Vibration meter.
- Suspended waste has been found floating in aeration tank which shows that the screening has not been done properly. In otherwise condition, it should be checked and cleaned on regular basis.
- Repair of cracks and other renovation works to be taken up as per approved rehab & retrofit report.
- Cable dressing has not been done properly and to be laid in cable trays.
- All gates needs to be properly lubricated.

### **5. Sludge Thickener and Blending tank:**

- Out of total 2 nos. of sludge thickener, only 1 no. thickener found in working condition.
- Painting and repair of MS Bridge to be carried out as the bridge is getting corroded.
- There is only 1 blending tank in 130 MLD STP and found in damaged condition which needs its renovation.
- Repair work (Plaster & Painting) work to be carried out at Blending Tank.

- Proper housekeeping to be carried out.

#### **6. Return Sludge Pump House (RSPH):**

- Out of 4 nos. return sludge pump installed, 2 nos. return sludge pump (pump no. 02 & 03) are not in working condition since handover date (01.03.2021).
- Light fixtures are found in damaged condition.
- Cable dressing has not been done properly and to be laid in cable trays.
- Voltmeter / Ammeter in panel room are not in working condition.
- Proper cleaning and housekeeping of the RSPH is to be done.
- Plaster & Painting work of civil structure to be carried out.

#### **7. Final Sedimentation Tank:**

- There are total 3 no's of Final Sedimentation Tank (FST), out of which FST no. 1 is in under maintenance.
- No proper arrangement for cleaning of FST no. 1 found at site and the maintenance work needs to be expedited.
- FST no. 2 & 3 are found in submerged / overflow condition.
- Plastering and Painting works to be carried out at FST Civil Structures and related equipments.
- There is no proper approach road or signage board to FSTs.

#### **8. Treated Effluent Pump House (TEPH) :**

- TEPH civil structure is in worse (Damaged) condition.
- Treated effluent sump is found totally damaged.
- Exhaust fan was found missing in the TEPH.
- Out of 11 nos. treated effluent pump installed, 05 nos. treated effluent pump are not in working condition since handover date.
- All pumps are in worst condition.
- Some pumps suction line and discharge line are open and needs to be repaired immediately.
- No any stencilling denoting its details available on pumps.
- Light fixtures are found in damaged condition.
- Cable dressing has not been done properly and to be laid in cable trays.

#### **9. Inlet and Outlet flow meter:**

- Inlet & outlet Flow meters are already installed at site but not in working condition.
- Inlet & outlet Flow meters need to be repaired and calibrated on the priority basis.
- Meter box are also need to be replaced.

#### **10. Important Points to be consider on immediate basis:**

- It is necessary to intimate the client before taking any unit under renovation / maintenance.
- There was no proper planning including backup plans for the units taken under cleaning and renovation.
- Only 12 no. of manpower has been engaged for operation and maintenance of 130 MLD STP, Jajmau. As per requirement this manpower is much less than the required. Deployed workmen too do not have proper skill to operate the plant.

- Treated effluent is being overflowed to the bypass channel and gets mixed in river Ganga against the norms and permission of UPPCB/CPCB. It should be checked & controlled immediately from flowing to the river.
- PST and FST are in overflow condition and to be controlled immediately.
- Process of cleaning and renovation of units taken under maintenance needs to be expedited.
- Log book of equipments are not maintained at site.

#### 11. Miscellaneous:

- Front side should be cleared for the construction of new CCT & TEPH.
- All the structure found in the damaged condition need to be repaired and renovate as per approved renovation and retrofit report.
- Street Light Junction boxes have loose mounting & are damaged. It should be repaired soon.
- All Rusted junction boxes & Panels are to be repair & painted.
- All Pole conduit dressing is not properly done.
- Cable should be laid in cable tray.
- All gates should be properly lubricated and painted.
- Sufficient staffs were not present at site for proper operation and maintenance of the plant.
- Proper housekeeping is to be carried at site.

**Enclosure:** Photographs are attached for your kind reference.

Screen Chamber





PST no. 01 under maintenance.



PST no. 02 Overflow condition



Inflow Flow meter



Aeration tank





Sludge Thickener



Final Sedimentation Tank (FST no. 01) under maintenance





Return Sludge Pump House (RSPH)



Treated Effluent Sump





Treated Effluent overflow to the Bypass channel to River Ganges



List of participants in the visit dated 16.03.2021

आज दिनांक 16/03/21 को जाणमुखण्ड 130 एम एलडी एसटीपी में रसरखाव, संपर्कन एवं पुनरेद्वार कर्षों की स्थिति के सम्बन्ध में उ उ जननिगम कापुर, एसटीपी एवं लेआउट एम पी एन के साथ सम्बन्धित विभाग विभागाधिकारी निम्नलिखित अधिकारी/कर्मचारी उपस्थित रहे -

क्र.सं.	नाम	पदनाम	मो.नं.	हस्ताक्षर
1.	आरके वर्मा	परि. अभियंता गंगाप्रणाली वि. जलनिगमकापुर	7905302808	AK
2.	राजेश कुमार	परि. अभियंता (सि/म.)	9140392209	RB
3.	अशोक कुमार	सहा. परि. अभि. (सिविल)	7839450641	JK
4.	अजय कौशिक	केमिस्ट	9208522507	
5.	अमित सिंह	सहा. परि. अभि. (सि/म.)	8312960529	AK
6.	अशोक कुमार	"	9452266444	AK
7.	मोहन सिंह सादव	"	9452223556	
8.	डी पी असाठी	सीनियर सिविल इंजीनियर (CEM) एसटीपी	8809856051	AK
9.	अजय कुमार गौमल	मैकेनिकल सपोर्ट इंजीनियर	9549643631	AK
10.	गणेश	इलेक्ट्रिशियन	9467953220	AK
11.	विकास जर्मा	सिविल	9697275826	JK
12.	अमित भारद्वाज	सी. एच. एम. मैनेजर लेआउट एमपीएन	9838373179	AK
13.	विनोद कुमार	साइट इंजीनियर	8939971418	AK
14.	विजय कुमार	डीप्टी सी. एच. एम. मैनेजर		
15.	अजय कौशिक	केमिस्ट गंगाप्रणाली वि. जलनिगमकापुर	9208522507	AK