## **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**

# December - 2020



#### **Executing Agency**

Uttar Pradesh Jal Nigam Benajhabar Road, Kanpur

Uttar Pradesh - 208002



#### **Funding Agency**

National Mission for Clean Ganga MoWR, River Development & Ganga Rejuvenation, New Delhi



#### **Project Engineer**

Shah technical Consultar Pvt. Ltd. 117/426 14-O block, Geeta Nagar Kanpur Uttar Pradesh - 208025



#### Concessionaire

Kanpur River Management Pvt. Ltd. Flat no 101, 1<sup>st</sup> Floor, 3/83, Vishnupuri, Kanpur, Uttar Pradesh -208002



## **Table of Contents**

M	ONTH	ILY PROGRESS REPORT – HAM KANPUR	5
1	INT	FRODUCTION	5
2	HYE	BRID ANNUITY MODEL (HAM)	6
3	OB.	JECTIVES	6
4	НА	M KANPUR PROJECT AT A GLANCE	7
5	PRO	OJECT WISE DETAILS OF COMPONENTS UNDER HAM KANPUR PROJECT	8
	5.1	PANKHA FACILITIES	8
	5.2	UNNAO FACILITIES	9
	5.3	SHUKLAGANJ STP FACILITIES	10
	5.4	JAJMAU (PHASE I) FACILITIES	10
	5.5	JAJMAU PHASE II STP FACILITY	11
	5.6	BINGAWAN FACILITIES	11
	5.7	SAJARI FACILITIES	11
6	PH	YSICAL PROGRESS OF WORK	12
	6.1	MILESTONE WISE ACTIVITIES AND PROGRESS: PANKHA STP FACILITIES	12
	6.2	MILESTONE WISE ACTIVITIES AND PROGRESS: UNNAO STP	39
7	PRE	ESENT STATUS AND ISSUES OF HAM PROJECT KANPUR	28
	7.1	PANKHA 30 MLD STP FACILITIES	28
	7.2	UNNAO 15 MLD STP FACILITIES	28
	7.3	SHUKLAGANJ 5 MLD STP FACILITIES	29
	7.4	JAJMAU (PHASE – 1) 130 MLD STP AND IPS REHABILITATION	29
	7.5	43 MLD JAJMAU PHASE II	30
	7.6	210 MLD BINGAWAN FACILITIES	30
	7.7	42 MLD SAJARI STP	32
8	STA	ATUS OF BEP & OTHER DETAILS	34
۵	NAE	ETINGS HELD / MINITES OF MEETING	26



#### **LIST OF TABLES**

Table 2.1 : HAM Kanpur Project at a Glance
Table 5.1 : Pankha Facilities (District-III)

Table 5.2 : Unnao Facilities
Table 5.3 : Shuklaganj Facilities
Table 5.4 : Jajmau Facilities
Table 5.5 : Bingawan Facilities
Table 5.6 : Sajari Facilities

Table 6.1 : Milestone Wise Activities And Progress: Pankha STP Facilities
Table 6.2 : Milestone Wise Activities And Progress: Unnao STP Facilities

Table 6.3 : BEPs and other details

#### **LIST OF FIGURES**

Figure 1 : Objectives of NMCG and UP JAL NIGAM



#### **ABBREVIATIONS**

ASP Activated Sludge Process
BEP Basic Engineering Package
BOD Biochemical Oxygen Demand

CETP Common Effluent Treatment Plant

COD Chemical Oxygen Demand
COD Commercial Operation Date

CPs Condition Precedent
CTE Consent To Establish
CTO Consent to Operate
DFGs Dual Fuel Generators
DPR Detailed Project Report

ESHS Environment, Social, Health And Safety

GOI Government of India
HAM Hybrid Annuity Model
I&D Interception & Diversion

IPS Intermediate Pumping Station
KPIs Key Performance Indicators

KRMPL Kanpur River Management Private Limited

LOA Letter of Award

MOM Minutes of Meeting

MPS Main Pumping Station

O&M Operation and Maintenance
PLC Programmable Logic Control
PMC Project Management Consultant

PDD Proposal Due Date

PDMC Project Development and Monitoring Consultant

PPP Public Private Partnership
QAP Quality Assurance Plan
RFP Request for Proposal
RTU Remote Terminal Unit

RTOLMS Real Time Online Monitoring System

TOR Terms of Reference

SBR Sequential Batch Reactors
STP Sewage Treatment Plant

TEPH Treated Effluent Pump House

UASB Up-Flow Anaerobic Sludge Blanket Reactor



### **MONTHLY PROGRESS REPORT – HAM KANPUR**

#### 1 INTRODUCTION

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

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

Rapidly increasing population, rising standards of living and exponential growth of industrialisation and urbanisation 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 programme 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.

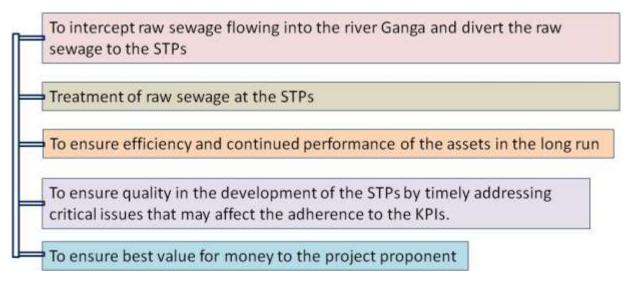


Figure 1: Objectives of NMCG and UP JAL NIGAM



#### 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

Particulars		Description
Name of Project	:	Development of new Sewage Treatment Plants and O&M for 15 years, Rehabilitation of existing Sewage Treatment Infrastructure and O&M for 15 years in Kanpur under One City One Operator concept through Hybrid Annuity based PPP mode. (HAM – Kanpur)
Client	:	National Mission for Clean Ganga (NMCG), New Delhi and UP Jal Nigam
<b>Execution Agency</b>	:	Uttar Pradesh Jal Nigam (UPJN)
Consultant	:	Shah Technical Consultants (P) Ltd. as 'Project Engineer'
Agreement &LOA	:	STC Agreement dated 12.04.2019 &
		LOA: Pr-12012/41/2018-PPP/NMCG dated 04.02.2019
Concessionaire	:	Kanpur River Management Private Limited (KRMPL) an SPV of Shapoorji Pallonji& Company Private Limited, Mumbai
Concessionaire's Agreement	:	14/GM/2018-19dated 21.12.2018
Cost of Project (CAPEX+OPEX)	:	Rs. 816.25 Cr. (CAPEX 255.50 Cr. + OPEX 560.75 Cr.)
Effective Date	:	11.10.2019
Completion date	:	24 Months from effective date
(as per contract)		(21 months construction + 3 months trial run)
O&M period	:	15 years after last Commercial Operation Date (COD)
Description of Work	:	<ul> <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.	No. of
	Date of Start- Effective Date (11.10.2019)	/size	units/length
	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	Common Collection chamber	-	1
1.9	Rising main (ICI Nala IPS to collection chamber)	800mm-ф	6.91km
1.10	Rising main (Sundar Nagar IPS to collection chamber)	800mm-ф	0.651km
1.11	Gravity main (Thermal Nala B Tapping to common collection chamber)		
1.12	Common Gravity main (collection chamber to MPS)	2000mm- ф	1.948Km
1.13	Sewage network	350mm-ф	2.771km
		400 mm-ф	1.359km
		450 mm-ф	1.272km
		500 mm-ф	1.243km
		600 mm-ф	1.778km
		700 mm-ф	1.487km
		800 mm-ф	1.012km



	1200	mm-ф 2.170km mm-ф 3.634km
		mm-ф 1.596km mm-ф 1.948km
1.14 Milestones	Date	Amount in Rs.
1 <sup>st</sup> Milestone	12-Oct-2019 to 25-Apr-2020	1248,39,750
2 <sup>nd</sup> Milestone	26-Apr-2020 to 10-Jul-2020	1248,39,750
3 <sup>rd</sup> Milestone	11-Jul-2020 to 24-Sep-2020	1248,39,750
4 <sup>th</sup> Milestone	25-Sep-2020 to 09-Dec-2020	1248,39,750
5 <sup>th</sup> Milestone	10-Dec-2020 to 13-Feb-2021	1248,39,750
6 <sup>th</sup> Milestone	14-Feb-2021 to 21-Apr-2021	1248,39,750
7 <sup>th</sup> Milestone	22-Apr-2021 to 22-Jun-2021	1248,39,750
8 <sup>th</sup> Milestone	23-Jun-2021 to 25-Aug-2021	1248,39,750

#### **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				
	Date of Start- Effec	tive Date (11.10.2019)	Capacity/	No. of units/length	
	Scope of Work- Nev	w Construction and O&M	dia. /size		
1.1	STP		15 MLD	1	
1.2	Sump cum Pump ho	ouse (MPS)	40 MLD	1	
1.3	Trunk Sewer		1200mm ф	3.2Km	
1.4	I&D works (Nala tap	oping)	40 MLD	1	
1.5	Trash screen		7m-1.7m x 0.8m	1	
1.6	Grit chamber		12m-4m x 1m	2	
1.7	Collection chamber		3.4m-6.2m x 3m	1	
1.8	Rising main (MPS t	o STP)	750mm ф	100m	
1.9	Rising main (bypass	s)	750mm ф	100m	
1.10	Effluent distribution	n chamber	-	1	
1.11	Effluent gravity ch point )	nannel (STP to discharge	1.5m x 1.0m	300m	
1.12	Effluent disposal dr	ains	-	500m	
1.13	Milestones Date			Amount in Rs.	
	1 <sup>st</sup> Milestone	12-Oct-2019 to 24-Feb-	2020	478,36,250	
	2 <sup>nd</sup> Milestone	25-Feb-2020 to 15-May	-2020	478,36,250	
	3 <sup>rd</sup> Milestone	16-May-2020to 30-Jul-2	2020	478,36,250	



4 <sup>th</sup> Milestone	30-Jul-2020to 14-Oct-2020	478,36,250
5 <sup>th</sup> Milestone	15-Oct-2020to 24-Dec-2020	478,36,250
6 <sup>th</sup> Milestone	10-Dec-2020 to 01-Mar-2021	478,36,250
7 <sup>th</sup> Milestone	02-Mar-2021 to 05-May-2021	478,36,250
8 <sup>th</sup> Milestone	06-May-2021to 10-Jul-2021	478,36,250

#### **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.	No. of
	Date of Start- Effective Date (11.10.2019)	/size	units/length
	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	-	1
1.4	I&D works (Nala tapping)	-	1
1.5	Collection chamber	-	1
1.6	Rising main (MPS to STP)	500mm φ	50m
1.7	Rising main (bypass)	500mm φ	50m
1.8	Retaining wall		1
1.9	Effluent channel (STP to discharge point )	1.5m x1m	100m
1.10	Milestones	To be submitted*	

<sup>\*</sup>CTE for new land has been received in July 2020.Geotech survey is in progress

#### **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		
Α	Phase-I	Capacity/dia.	No. of
	Date of Start- Effective Date (11.10.2019)	/size	units/length
	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	ССТ	173 MLD	1
1.4	Nawabganj IPS	-	1
1.5	Parmat IPS	-	1
1.6	Baba Ghat/Muar mill IPS	-	1



1.7	GuptarGhat IPS	-	1
1.8	Jajmau CSPS	-	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		
	Schedule Handing Over Date- 01.10.2019	dia. /size	units/length
	Scope of Work- O&M		
1.1	STP 2 on ASP technology with power Generation	43 MLD	1
1.2	Sanjaypuram IPS	-	1
1.3	Khalisa lane IPS	-	1
1.4	Jajmau MPS	-	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	No. of
	Schedule Handing Over Date- 01.04.2019	/dia. - /size	units/length
	Scope of Work- Renovation and O&M for 15 years	/3126	
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.	No.	of
	Schedule Handing Over Date- 11.10.2019	/size	units/length	
	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. Pankha, 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%. The scheduled date of project completion is 10<sup>th</sup> October 2021 i.e. 24 months from the effective date.

#### **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** 

S N	Description of Items	(From	Milestone-1 26th Nov.'19 to 5th Sep'20)		eved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		nieved against rd Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
Α	Design & Drawing & STP & Sewer Laying works												
	A. On approval of BEP	100%	249,67,950.00										
	B. On approval of design & drawings for Civil & Sewerage works	100%	249,67,950.00										
В	CONSTRUCTION												
	STP (30 MLD)												
1	SBR Basin Area												
	CIVIL WORK												
	Site Clearance	100%	2,50,000.00										
	Excavation	100%	98,38,400.00										
	PCC	100%	147,57,600.00										
	RCC Foundation/Raft	40%	98,38,400.00	60%	147,57,600.00		-						
	Wall 50% of total lift work		-	100 %	245,96,000.00		-						
	Walls (balance 50% of Total Lift work)		-		-	60%	147,57,60 0.00	24 %	59,03,040.00				
	Baffle Walls work		-		-		-			21 %	25,82,580.00		
	Walkway/Platform		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
	MECHANICAL WORK				-				-		-		
	A. DECANTERS				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		



S N	Description of Items	(From	lilestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th nn'21)		ieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
					-				-		-		
	B. DIFFUSERS				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
					-				-		-		
	C. RAS & SAS PUMPS				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
					-				-		-		
	D. PIPES & FITTINGS				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
2	Chlorine Contact Tank Area				-				-		-		
	Site Clearance	100%	1,50,000.00		-		-		-		-		
	Excavation	100%	7,37,880.00		-		-		-		-		
	PCC	100%	11,06,820.00		-		-		-		-		
	RCC Foundation/Raft		-	100 %	46,11,750.00		-		-		-		
	Wall 50% of total lift work		-	100 %	27,67,050.00		-		-		-		
	Walls (balance 50% of Total Lift work)		-		-	100%	27,67,050 .00	15 %	4,15,057.50		-		
	Baffle Walls work		-		-		-		-	25 %	9,22,350.00		
	Finishing Work		-		-		-		-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		nieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
3	Chlorination House Area				-				-		-		
	CIVIL WORK				-				-		-		
	Site Clearance	100%	1,00,000.00		-		-		-		-		
	Excavation	100%	3,68,940.00		-		-		-		-		
	PCC	100%	5,53,410.00		-		-		-		-		
	RCC Foundation/Column footing		-	100 %	27,67,050.00		-		-		-		
	Column & Beam		-	50%	4,61,175.00	50%	4,61,175. 00	50 %	4,61,175.00		-		
	Ground floor Slab		-		-	100%	9,22,350. 00		-		-		
	Column & Beam		-		-		-		-		-		
	Roof Slab		-		-		-		-		-		
	Brickwork & Plaster		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
	MECHANICAL WORK				-				-		-		
	A. CHLORINATION SYSTEM				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
					-				-		-		
	B. HOIST WORKS				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	ELECRICAL & INSTRUMENTATION WORK				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		hieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
					-				-		-		
4	Sludge Thickener Area				-				-		-		
	CIVIL WORK				-				-		-		
	Site Clearance	100%	1,00,000.00		-		-		-		-		
	Excavation	100%	7,37,880.00		-		-		-		-		
	PCC	100%	11,06,820.00		-		-		-		-		
	RCC Foundation wall/base slab		-	100 %	36,89,400.00		-		-		-		
	Wall 50% of total lift work		-	100 %	27,67,050.00		-		-		-		
	Walls (balance 50% of Total Lift work)		-		-	60%	16,60,230 .00		-		-		
	Finishing Work		1		1		-		-		-		
	MECHANICAL WORK				-				-		-		
	SLUDGE THICKENER MECHANISM				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
5	Inlet / Stilling Chamber Area				-				-		-		
	Site Clearance		-	100 %	50,000.00		-		-		-		
	Excavation		-	100 %	2,45,960.00		-		-		-		
	PCC		-	100 %	3,68,940.00		-		-		-		
	RCC Foundation/Column footing		-	100 %	12,29,800.00		-		-		-		
	Column & Beam		-		ı	100%	9,22,350.	30	2,76,705.00		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		eved against 2nd Milestone	(Fro Nov.'2	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
							00	%					
	RCC Slab		-		-		-		-		-		
	RCC Wall		-		-		-		-		-		
	Final finishing including Staircases, Railing, Shade, Painting, etc.		-		-		-		-		-		
6	Manual & Mechanical Fine Bar Screen Chamber Area				-				-		-		
	Site Clearance		-		-	100%	50,000.00	10 0 %	50,000.00		-		
	Excavation		-		-	100%	2,45,960. 00	10 0 %	2,45,960.00		-		
	PCC		-		-	100%	3,68,940. 00		-		-		
	RCC Foundation		-		-	100%	12,29,800 .00		-		-		
	Column & Beam		-		-		-		-		-		
	RCC Slab		-		-		-		-		-		
	RCC Wall		-		-		-		-		-		
	Walkway/Platform		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
7	Grit Chamber (Mechanical Cleaned) & (Manually Cleaned)				-				-		-		
	Site Clearance		-		-	100%	50,000.00	10 0 %	50,000.00		-		
	Excavation		-		-	100%	2,45,960. 00	70 %	1,72,172.00		-		
	PCC		-		-	100%	3,68,940. 00		-		-		
	RCC Foundation		-		-	100%	12,29,800 .00		-		-		



S N	Description of Items	(From	Ailestone-1 26th Nov.'19 to 5th Sep'20)	Achie	eved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		nieved against rd Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	Column & Beam		-		-		-		-		-		
	RCC Slab		-		-		-		-		-		
	RCC Wall		-		-		-		-		-		
	Walkway/Platform		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
	MECHANICAL WORK				-				-		-		
	A.MECHANICAL FINE SCREEN				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	B.MANUAL FINE SCREEN				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	C.GATES				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	D.CONVEYOR BELTS				-				=		-		
	(i) On supply of machinery/equipment at site				-				=		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	E. GRIT MECHANISM				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				=		-		
	(iii) On completion of Testing of equipment				-				-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
					-				-		-		
8	Flow Measurement Channel Area				-				-		-		
	Site Clearance		-		-	100%	50,000.00	10 0 %	50,000.00		-		
	Excavation		-		-	100%	2,45,960. 00	70 %	1,72,172.00		-		
	PCC		-		-	100%	3,68,940. 00		-		-		
	RCC Foundation		-		-	100%	12,29,800 .00		-		-		
	Column & Beam		-		-		-		-		-		
	RCC Slab		-		-		-		-		-		
	RCC Wall		-		-		-		-		-		
	Walkway/Platform		-		-		-		-		-		
	Finishing Work		-		-		-		=		-		
9	Admin Bldg Area				-				-		-		
	Site Clearance	100%	1,00,000.00		-		-		-		-		
	Excavation	100%	3,68,940.00		-		-		-		-		
	PCC	100%	5,53,410.00		-		-		-		-		
	Column footings/Foundation		-	100 %	18,44,700.00		-		-		-		
	Column & Beam		-		-	100%	18,44,700 .00	10 0 %	18,44,700.00		-		
	Ground Floor Slab		-		-		-		-		-		
	1st Floor Slab		-		-		-		-		-		
	Roof Slab		-		-		-		=		-		
	Brickwork & Plaster		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		



S N	Description of Items	(From	Ailestone-1 26th Nov.'19 to 5th Sep'20)	Achie	ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th on'21)		ieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	ELECTRICAL WORK				-		,		-		-		
	LT/HT PANEL				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	PLC/SCADA SYSTEM				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				=		-		
					-				-		-		
1 0	Air Blower Room Area				-				-		-		
	Site Clearance		-		-		-		-		-		
	Excavation		-		-		-		-		-		
	PCC		-		-		-		-		-		
	Column footings/Foundation		-		-		-		-		-		
	Column & Beam		-		-		-		-		-		
	RCC Ground Floor Slab		-		-		-		-		-		
	RCC Roof Slab		-		-		-		-		-		
	Brickwork & Plaster		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
	MECHANICAL WORK				-				-		-		
	AIR BLOWER(PUMP)				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	ELECTRICAL WORK				-				-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		eved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		hieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	AIR BLOWER(MOTOR)				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
1	Staff Quarter Area				-				-		-		
	Site Clearance		-		-		-		-	10 0 %	50,000.00		
	Excavation		-		-		-		-		-		
	PCC		-		-		-		-		-		
	RCC Foundation/column footing		-		-		-		-		-		
	Column & Beam		-		-		-		-		-		
	RCC Ground Floor Slab		-		-		-		-		-		
	RCC Roof Slab		-		-		-		-		-		
	Brickwork & Plaster		-		-		-		-		-		
	Electrical work		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
1 2	Guard Room Area				-				-		-		
	Site Clearance		-		-		-		-	10 0 %	50,000.00		
	Excavation		-		-		-		-		-		
	PCC		-		-		-		=		-		
	RCC Foundation/column footing		-		-		-		-		-		
	Column & Beam		-		-		-		-		-		
	RCC Ground Floor Slab		-		-		-		-		-		
	RCC Roof Slab		-		-		-		-		-		



S N	Description of Items	(From	lilestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro Nov.'2	estone-3 om 26th 20 to 25th nn'21)		ieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	Brickwork & Plaster		-		-		-		-		-		
	Electrical work		-		=		-		-		-		
	Finishing Work		-		-		-		-		-		
1 3	Sludge Dewatering System Area (Centrifuge Pump House, Sludge sump & Poly dosing tank)				-				-		-		
	Site Clearance		•		-	100%	1,00,000. 00	10 0 %	1,00,000.00		-		
	Excavation		-		1	100%	6,14,900. 00	10 0 %	6,14,900.00		-		
	PCC		-		-	100%	9,22,350. 00		-		-		
	RCC Foundation		-		-		-		-		-		
	1st Column & Beam		-		-		-		-		-		
	Ground Floor Slab		-		-		-		-		=		
	2nd Column & Beam		-		-		-		-		-		
	RCC Roof Slab		-		-		-		-		-		
	Brickwork & Plaster		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
	MECHANICAL WORK				-				-		-		
	CENTRIFUGE UNIT				1				-		=		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	CENTRIFUGE FEED PUMP				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		eved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th on'21)		ieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	(iii) On completion of Testing of equipment				-		-		-		-		
	POLY DOSING PUMPS				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
1 4	Supernatant Recirculation Sump Area				-				-		-		
	Site Clearance		-		-		-		-	10 0 %	50,000.00		-
	Excavation		-		-		ı		ı	10 0 %	7,37,880.00		-
	PCC		-		-		-		-	10 0 %	11,06,820.00		-
	RCC Foundation wall/base slab		-		-		-		-		-	10 0 %	27,67,050.00
	Wall 50% of total lift work		-		-		-		-		-	15 %	4,15,057.50
	Walls (balance 50% of Total Lift work)		-		-		-		-		-		
	Final finishing including Staircases, Railing, Shade, Painting etc.		-		-		-		-		-		
	MECHANICAL WORK				-				-		-		
	PUMPING SYSTEM				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		<del> </del>
					-				-		-		
1 5	Transformer Yard Area				-				-		-		



S N	Description of Items	(From	Ailestone-1 26th Nov.'19 to 5th Sep'20)		eved against 2nd Milestone	(Fro Nov.'2	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	Site Clearance		-		-		-		-		-		
	Excavation & PCC		-		-		-		-		-		
	Foundation Work		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
	ELECTRICAL WORK				-				-		-		
	TRANSFORMER				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	CABLE & CABLE TRAY				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
1 6	DG Area				-				-		-		
	Site Clearance		-		-		-		-		-		
	Excavation & PCC		-		-		-		-		-		
	Foundation Work		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
	ELECTRICAL WORK				-				-		-		
	DG SET				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	CABLE & CABLE TRAY				-				-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		



S N	Description of Items	(From	lilestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th on'21)		nieved against rd Milestone		hieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	(iii) On completion of Testing of equipment				-				-		-		
1 7	Sludge Storage Platform				-				-		-		
	Site Clearance		-		-		-		-		-		
	Excavation & PCC		-		-		-		-		-		
	Foundation Work		-		-		-		-		-		
	Finishing work		-		-		-		-		-		
1 8	EXTERNAL DEVELOPMENT				-				-		-		
A .	Roads, Storm Water Drain & Miscellaneous work		-		-		-		-		-		
B .	Compound Wall with Gate		-		-		-		-		-		
	Excavation & PCC	40%	24,59,600.00	20%	12,29,800.00	20%	12,29,800 .00	20 %	12,29,800.00		-		
	RCC Column footing	40%	24,59,600.00	20%	12,29,800.00	20%	12,29,800 .00	20 %	12,29,800.00		-	5 %	3,07,450.00
	RCC Column & Beam	40%	24,59,600.00	20%	12,29,800.00	20%	12,29,800 .00	20 %	12,29,800.00		-		
	Brickwork & Plaster		-	20%	12,29,800.00	20%	12,29,800 .00	19 %	11,68,310.00		-		
	Finishing Work		-		-		-		-		-		
1 9	MPS-2 (115MLD)				-				-		-		
	CIVIL		-		-		-		-		-		
Α	Construction of Raw Sewage Sump		-		-		-		-		-		
	Site Clearance	100%	1,50,000.00		-		-		-		-		
	Excavation	15%	5,17,760.10	85%	29,33,973.90		-		-		-		
	PCC			100 %	23,01,156.00		-		-		-		
	RCC Foundation/Raft		-	50%	28,76,445.00	50%	28,76,445 .00	50 %	28,76,445.00		-		



S N	Description of Items	(From	lilestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	Wall 50% of total lift work		-		-	100%	38,35,260 .00	50 %	19,17,630.00		-		
	Column & Beam		-		-		-		-		-		
	Walls (balance 50% of Total Lift work)		-		-		-		-		-		
	Ground Floor Slab		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
В	Construction of Inlet Chamber & Screen Channel		-		-		-		-		-		
	Site Clearance	100%	50,000.00		-		-		-		-		
	Excavation		-		-	100%	6,81,824. 00	50 %	3,40,912.00		-		
	PCC		-		-	100%	10,22,736 .00		-		-		
	RCC Foundation/Raft		-		-		-		-		-		
	Wall 50% of total lift work		-		-		-		-		-		
	Walls (balance 50% of Total Lift work)		-		-		-		-		-		
	Walkway/Platform		-		-		-		-		-		
С	Construction of Raw Sewage Pump House				-		-		-		-		
	Column & Beam		-		-		-		-		-		
	Roof Slab		-		-		-		-		-		
	Brickwork & Plaster		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
D	MECHANICAL WORK				-		-		-		-		
	Coarese Screen mechanical & manual		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	Piping & Support work		-		-		-		-		-		



S N	Description of Items	(From	Nilestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		nieved against rd Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	Gate Work		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-						-		
	Pumps		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
2	ICI Nala IPS				-				-		-		
	CIVIL		-		-		-		-		-		
Α	Construction of Raw Sewage Sump		-		-		-		-		-		
	Site Clearance	100%	1,50,000.00		-		-		-		-		
	Excavation		-	100 %	15,33,600.00		-		-		-		
	PCC		-	100 %	10,22,400.00		-		-		-		
	RCC Foundation/Raft		-	50%	12,78,000.00	50%	12,78,000 .00	50 %	12,78,000.00		-		
	Wall 50% of total lift work		-		-	100%	25,56,000 .00	10 %	2,55,600.00		-		
	Column & Beam		-		-		-		-		-		
	Walls (balance 50% of Total Lift work)		-		-		-		-		-		
	Ground Floor Slab		-		-		-		=		=		
	Finishing Work		-		-		-		-		-		
В	Construction of Inlet Chamber & Screen		-		-		-		-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		eved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	Channel						- ,						
	Site Clearance		-		-	100%	50,000.00	10 0 %	50,000.00		-		
	Excavation		-		-	100%	3,40,800. 00		-		-		
	PCC		-		-	100%	5,11,200. 00		-		-		
	RCC Foundation/Raft		ı		-		-		-		-		
	Wall 50% of total lift work		-		-		-		-		-		
	Walls (balance 50% of Total Lift work)		-		-		-		1		-		
	Walkway/Platform		-		-		-		-		-		
	Finishing work		-		-		-		-		-		
С	Construction of Raw Sewage Pump House		-		-		-		1		-		
	Column & Beam		-		-		-		-		-		
	Roof Slab		-		-		-		-		-		
	Brickwork & Plaster		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
D	Construction of Office Room		-		-		-		-		-		
	Site Clearance		-		-		-		-		-		
	Excavation & PCC		-		-		-		-		-		
	RCC Foundation/column footing		-		-		-		-		-		
	Column & Beam		-		-		-		-		-		
	RCC Ground floor Slab		-		-		-		-		-		
	RCC Roof Slab		-		-		-		-		-		
	Brick work & Plaster		-		-		-		-		-		
	Electrification, plumbing, fixtures		-		-		-		-		-		
	Finishing work		-		-		-		-		-		



S N	Description of Items	(From	lilestone-1 26th Nov.'19 to 5th Sep'20)		eved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
E	Construction of Guard Room		-		-		-		-		-		
	Site Clearance		-		-		-		-		-		
	Excavation & PCC		-		-		-		-		-		
	RCC Foundation/column footing		-		-		-		-		-		
	Column & Beam		-		-		-		-		-		
	RCC Ground floor Slab		-		-		-		-		-		
	RCC Roof Slab		-		-		-		-		-		
	Brick work & Plaster		-		-		-		-		-		
	Electrification, plumbing, fixtures		-		-		-		-		-		
	Finishing work		-		-		-		-		-		
F	Transformer Yard,DG Yard		-		-		-		-		-		
	Site Clearance		-		-		-		-		-		
	Excavation & PCC		-		-		-		-		-		
	Foundation Work		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
G	MECHANICAL WORK		-		-		-		-		-		
	Piping & Support work		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	Screen Channel		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	Pumps		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		eved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
Н	ELECTRICAL WORK				-				-		-		
	Cable Tray & Earthing Work		-		-		-		=		-		
	(i) On supply of machinery/equipment at site				-				=		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	Transformer		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				=		-		
	DG		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				=		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
I	Construction of Boundary wall & Internal Road		-		-		-		-		-		
	Site Clearance		-		-	100%	-		-		-		
	Excavation & PCC		-		-	100%	3,19,605. 00		-		-		
	RCC Column footing		-		-	100%	4,26,140. 00		-		-		
	RCC Column & Beam		-		-		-		-		-		
	Brickwork & Plaster		-		-		-		-		-		
	Finishing		-		-		-		-		-		
	Construction of Internal road		-		-		-		=		-		
2	IPS-6 (Sundar Nagar- 20 MLD)-Pankha Area				-				-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	CIVIL		-		-		-		-		-		
Α	Construction of Raw Sewage Sump		-		-		-		-		-		
	Site Clearance	100%	1,50,000.00		-		-		-		-		
	Excavation	11%	1,68,696.00	89%	13,64,904.00		-		-		-		
	PCC		-	100 %	10,22,400.00		-		-		-		
	RCC Foundation/Raft		-		-	100%	25,56,000 .00	10 0 %	25,56,000.00		-		
	Wall 50% of total lift work		-		-	100%	25,56,000 .00	17 %	4,34,520.00		-		
	Column & Beam		ı		ı		-		-		-		
	Walls (balance 50% of Total Lift work)		-		-		-		=		-		
	Ground Floor Slab		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
В	Construction of Inlet Chamber & Screen Channel		-		-		-		-		-		
	Site Clearance		-		-	100%	-		-		-		
	Excavation & PCC		-		-	100%	4,26,000. 00		-		-		
	RCC Foundation/Raft		-		-	100%	4,26,000. 00		-		-		
	Wall 50% of total lift work		-		-		-		-		-		
	Walls (balance 50% of Total Lift work)		-		-		-		-		-		
	Walkway/Platform		-		-				-		-		
	Finishing work		-		-		-		-		-		
С	Construction of Raw Sewage Pump House		-		-		-		-		-		
	Column & Beam		-		-		-		=		-		
	Roof Slab		-		-		-		-		-		
	Brickwork & Plaster		-		-		-		-		-		



S N	Description of Items	(From	lilestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th on'21)		ieved against d Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	Finishing Work		-		-		-		-		-		
D	Construction of Office Room		-		-		-		-		=		
	Site Clearance		-		-	100%	-		-		=		
	Excavation & PCC		-		-	100%	2,13,000. 00		-		-		
	RCC Foundation/column footing		-		-	100%	6,39,000. 00		-		-		
	Column & Beam		-		-	100%	2,13,000. 00		-		-		
	RCC Ground floor Slab		-		-		-		-		-		
	RCC Roof Slab		-		-		-		-		-		
	Brick work & Plaster		-		-		ı		-		=		
	Electrification, plumbing, fixtures		-		-		ı		-		-		
	Finishing work		-		-		ı		-		=		
Е	Construction of Guard Room		-		-		ı		-		=		
	Site Clearance		-		-	100%	-		-		-		
	Excavation & PCC		-		-	100%	2,13,000. 00		-		-		
	RCC Foundation/column footing		-		-	100%	6,39,000. 00		-		-		
	Column & Beam		-		-	100%	2,13,000. 00		-		-		
	RCC Ground floor Slab		-		-		-		-		-		
	RCC Roof Slab		-		-		-		-		-		
	Brick work & Plaster		-		-		-		-		-		
	Electrification, plumbing, fixtures		-		-		-		-		-		
	Finishing work		-		-		-		-		-		
F	Transformer Yard,DG Yard		-		-		-		-		-		
	Site Clearance		-		-	100%	-		=		=		



S N	Description of Items	(From	Milestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th un'21)		ieved against d Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	Excavation & PCC		-		-	100%	6,39,210. 00		-		-		
	Foundation Work		-		-		-		-		-		
	Finishing Work		-		-		-		-		-		
G	MECHANICAL WORK		-		-		-		-		-		
	Piping & Support work		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				=		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	Screen Channel		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	Pumps		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
Н	ELECTRICAL WORK				-				-		-		
	Cable Tray & Earthing Work		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	Transformer		-		-		-		-		-		
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
	DG		-		-		-		-		-		



S N	Description of Items	(From	Ailestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		hieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	(i) On supply of machinery/equipment at site				-				-		-		
	(ii) On completion of erection works				-				-		-		
	(iii) On completion of Testing of equipment				-				-		-		
ı	Construction of Boundary wall & Internal Road		-		-		-		-		-		
	Site Clearance		-		-		-		-		-		
	Excavation & PCC		-		-		-		-		-		
	RCC Column footing		-		-		-		-		-		
	RCC Column & Beam		-		-		-		-		-		
	Brickwork & Plaster		-		-		-		-		-		
	Construction of Internal road		-		-		-		-		-		
	Finishing		-		-		-		-		-		
2	I&D Works				-				-		-		
Α	ICI Nala		-		-		-		-		-		
	Construction Work		-	13%	2,89,120.00	67%	14,90,080 .00	42 %	9,34,080.00		-		
	Tapping of Nallahs		-		-		-		-		-		
	Electro-Mechanical work		-		-		-		-		-		
	Testing		-		-		-		-		-		
В	Thermal Nala -A		-		-		-		-		-		
	Construction Work		-	13%	2,89,120.00	67%	14,90,080 .00	5 %	1,11,200.00		-		
	Tapping of Nallahs		-		-		-		-		-		
	Electro-Mechanical work		-		-		-		-		-		
	Testing		-		-		-		-		-		
С	Thermal Nala -B		-		-		-		-		-		
	Construction Work		-	14%	3,11,360.00	63%	14,01,120 .00		-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		ved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th an'21)		ieved against d Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	Tapping of Nallahs		-		-		-		-		-		
	Electro-Mechanical work		-		-		-		=		-		
	Testing		-		-		-		-		-		
2	Rising Main Works				-				-		-		
Α	ICI Nala Area		-		-		-		-		-		
	Site Cleance from Client		-		-	50%	-		-		-		
	Supply of Pipes		-		-		-		-	1. 3 %	66,300.00	1. 3 %	
	Excavation,Laying & backfilling of Pipes		-		-		-		-		-		
	Testing		-		-		-		-		-		
В	Sundar Nagar IPS Area		-		-		-		-		-		
	Site Cleance from Client		-		-	50%	-		-		-		
	Supply of Pipes		-		-		-		-		-		
	Excavation,Laying & backfilling of Pipes		-		-		-		-		-		
	Testing		-		-		-		-		-		
2 4	Sewer System Area (RCC Pipes-NP3 Types)				-				-		-		
	Site Clearance		-		-	20%	-		-		-		
	Supply of pipes	16%	256,70,093.90	25%	401,13,568.00	29%	465,31,73 8.88	2 %	32,09,085.44		-		
	Excavation and Laying of pipes including bed preperation & backfilling		-	15.7 %	15,74,457.54	35%	35,09,937 .20		-		-		
	Manholes		-	12.0 %	12,03,407.04	35%	35,09,937 .20		-		-		
	Testing		-		-		-		-		-		
	Road Restoration work		-		-		-		-		-		
2 5	Design ,Supply,Testing & Commissioning of Sewer line (crossing National Highway-2 &				-				-		-		



S N	Description of Items	(From	filestone-1 26th Nov.'19 to 5th Sep'20)		eved against 2nd Milestone	(Fro	estone-3 om 26th 20 to 25th on'21)		nieved against d Milestone		nieved against th Milestone		nieved against th Milestone
		%	Amount(Rs.)	%	Amount	%	Amount( Rs.)	%	Amount	%	Amount	%	Amount
	Railway Track)												
	Statutory approvals from Railway & Road dept		-		-	50%	-		-		-		
	Supply of Carrier & Casing Pipes		-		-	50%	56,24,167 .50		-		-		
	Construction of Pit		-		-	55%	5,15,548. 69		-		-		
	Excavation & Laying of Pipes thru Jack push method		-		-	45%	25,59,915 .54		-		-		
	Testing		-		-		-		-		-		
2	Design ,Supply,Testing & Commissioning of Treated Effulent line from STP to River Pandu				-				-		-		
	Site Clearance		-		-		-		-		-		
	Construction of Effluent line from STP to River Pandu		-		-		-		-		-		
	Testing		-		-		-		-		-		
	TRIAL RUN & COMMISSIONING										-		
	Trial Run & Commissioning												
	Total Amount		1248,39,750.00		1231,89,586.4 8				291,77,063.9 4		55,65,930.00		34,89,557.50
	Net work done after milestone -1		1614,22,137.92		99%				23%		4%		3%
	Cumulative Progress till 31.12.2020			_	28.11%								



## PHOTOGRAPHS OF PANKHA STP SITE



**ICI Nalla IPS Raft casting** 



**Boundary Wall work** 





I&D work at ICI nalla



Sundar Nagar IPS wall casting



## **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 (DISTRICT UNNAO)**

Sr. No.	Description of Items	(From	one-1 Achieved 11th Oct.'19 to th Sept'20)	(From	ilestone-2 26th Sep'20 to th Nov.'20)	Milest	one-2 achieved	compe remai	ilestone works nsated against ning works of d milestone	Milesto	one-3 Achieve	d till 31.12.2020
		%	Amount	%	Amount	%	Amount	%	Amount	Target	Achieved	Amount
I	Design & Drawing & STP & Sewer Laying works											
1	On approval of BEP	100%	191,34,500.00									
2	On approval of design & drawings for Civil & Sewerage works	25%	47,83,625.00	75%	143,50,875.00	75%	143,50,875.00					
П	CONSTRUCTION											
Α	UNNAO STP (15 MLD)											
i)	SBR Basin Area											
1	Site Clearance	100%	5,00,000.00									
2	Excavation wall footing	100%	22,46,137.60									
3	PCC wall footing	100%	27,46,137.60									
4	RCC Foundation/Raft of wall		-	100%	54,92,275.20	100%	54,92,275.20					
5	Wall 50% of total upto base slab		-		-			20%	10,98,455.04	100%	60%	32,95,365.12
6	Walls (balance 50% of upto base slab)		-		-				-	100%		
7	PCC Base Slab		-		-				-			
8	RCC Foundation base slab		-		-				-			
9	Wall 50% of total lift work		-		-				-			
10	Walls (balance 50% of Total Lift work)		-		-				-			
11	Walkway/Platform		-		-				-			
12	Piping & fitting works		-		-				-			



Sr. No.	Description of Items	(From	one-1 Achieved 11th Oct.'19 to th Sept'20)	(From	ilestone-2 26th Sep'20 to th Nov.'20)	Milesto	one-2 achieved	compe remai	ilestone works nsated against ning works of I milestone	Milesto	one-3 Achieve	d till 31.12.2020
		%	Amount	%	Amount	%	Amount	%	Amount	Target	Achieved	Amount
13	Testing /Finishing works		-		-				-			
ii	Sludge Thickener Area											
1	Site Clearance	100%	1,50,000.00									
2	Excavation	100%	3,64,900.80									
3	PCC	50%	2,57,450.40	50%	2,57,450.40	50%	2,57,450.40					
4	RCC Foundation Wall/base slab		-	100%	6,86,534.40	50%	3,43,267.20					
5	Wall 50% of total lift work		-		i			100%	6,86,534.40	100%		
6	Walls (balance 50% of Total Lift work)								-			-
7	Testing /Finishing works								-			-
iii	Supernatant Sump Area											
1	Site Clearance	100%	1,00,000.00									
2	Excavation	100%	1,14,422.40									
3	PCC	100%	1,14,422.40									
4	RCC Foundation wall/base slab	100%	1,28,844.80		-							
5	Wall 50% of total lift work		-	100%	1,43,044.80	100%	1,43,044.80					
6	Walls (balance 50% of Total Lift work)		-	100%	1,71,633.60	0%			-			
7	Testing /Finishing works		-		-				-	100%		
iv	Chlorination Tank Area											
1	Site Clearance	100%	1,50,000.00									
2	Excavation	100%	4,22,112.00									
3	PCC	100%	5,72,112.00		-							
4	RCC Foundation/Raft	100%	9,15,000.00		-							
5	Wall 50% of total lift work		-	100%	8,58,168.00	100%	8,58,168.00		-			
6	Walls (balance 50% of Total Lift work)		-		-				-	100%		-
7	Baffle Walls work		-		-				-	100%		-



Sr. No.	Description of Items	(From	one-1 Achieved 11th Oct.'19 to th Sept'20)	(From	ilestone-2 26th Sep'20 to th Nov.'20)	Milesto	one-2 achieved	compe remai	lestone works nsated against ning works of I milestone	Milesto	one-3 Achieve	d till 31.12.2020
		%	Amount	%	Amount	%	Amount	%	Amount	Target	Achieved	Amount
8	Testing /Finishing works		-		-				-			-
V	Air Blower Room Area											
1	Site Clearance	100%	2,50,000.00									
2	Excavation	100%	3,43,267.20									
3	PCC	100%	3,43,267.20		-							
4	RCC Foundation/column footing		-	100%	6,86,534.40	100%	6,86,534.40			100%		
5	Column & Beam		-	100%	6,29,801.60	100%	6,29,801.60		-	100%		
6	RCC Roof Slab		-		-				-			
7	Cable Trench Work		-		-				-			
8	RCC Ground floor Grade Slab		-		-				-			
9	Brick work		-		-				-			
10	Plaster		-		-				-			
11	Testing/Finishing work		-		-				-			
vi	Staff Quarter Area (G+1)											
1	Site Clearance	100%	50,000.00									
2	Excavation	100%	71,000.00									
3	PCC	100%	71,000.00		-							
4	RCC Foundation/column footing	100%	92,000.00		-							
5	Column & Beam		-	100%	92,000.00	100%	92,000.00		-	100%		
6	RCC Ground floor Slab		-	100%	92,000.00	100%	92,000.00		-	100%		
7	RCC 1st floor Slab		-		-				-		50%	46,000.00
8	RCC Roof Slab		-		-				-			
9	Brick work		-		-				-			
10	Plaster		-		-				=			
11	Plumbing, fixtures , sanitary works, AC work		-		-				-			



Sr. No.	Description of Items	(From 2	one-1 Achieved 11th Oct.'19 to th Sept'20)	(From	ilestone-2 26th Sep'20 to th Nov.'20)	Milesto	one-2 achieved	compe remai	lestone works nsated against ning works of I milestone	Milest	one-3 Achieve	d till 31.12.2020
		%	Amount	%	Amount	%	Amount	%	Amount	Target	Achieved	Amount
12	Electrification work		-		-				-			
13	Finishing works		-		-				-			
vii	Guard Room Area											
1	Site Clearance	100%	50,000.00									
2	Excavation	100%	82,211.20									
3	PCC	100%	82,211.20		-							
4	RCC Foundation/column footing	100%	1,14,422.40		-							
5	Column & Beam	100%	1,14,422.40		-				i			
6	RCC Ground floor Slab	100%	1,14,422.40		-				i			
7	RCC Roof Slab		-	100%	1,14,422.40	100%	1,14,422.40		-			
8	Brick work		-	100%	1,14,422.40	100%	1,14,422.40		1			
9	Plaster		-	100%	1,14,422.40	0%			-	100%		
viii	Chlorination Room Area											
1	Site Clearance	100%	1,50,000.00		-							
2	Excavation	100%	4,57,689.60		-							
3	PCC	50%	2,28,844.80	50%	2,28,844.80	50%	2,28,844.80					
4	RCC Foundation/Column footing		-	100%	4,57,689.60	100%	4,57,689.60		1			
5	Column & Beam		1	100%	4,57,689.60	100%	4,57,689.60		i			
6	Ground floor Slab		-	70%	4,80,574.08	35%	1,68,200.93		-	30%		
7	Roof Slab		=		-				-	100%		-
8	Brickwork		-		-				-			-
9	Plaster		-		-				-			-
10	Testing/Finishing works		-		-				-			-
ix	Admin Bldg Area (G+1)											
1	Site Clearance		-		-			100%	-	100%	100%	-



Sr. No.	Description of Items	(From 1	ne-1 Achieved L1th Oct.'19 to h Sept'20)	(From	ilestone-2 26th Sep'20 to th Nov.'20)	Milesto	one-2 achieved	compe remai	lestone works nsated against ning works of I milestone	Milesto	one-3 Achieve	d till 31.12.2020
		%	Amount	%	Amount	%	Amount	%	Amount	Target	Achieved	Amount
2	Excavation		-		-				-	100%		-
3	PCC		-		-				-	100%		-
4	Column footings/Foundation		-		-				-			-
5	Column & Beam up to First Floor		-		ı				ı			-
6	1st Floor Slab		-		ı				ı			-
7	Column & Beam First Floor to Roof Slab		-		-				-			-
8	Roof Slab											
9	Ground Floor Slab											
10	Brickwork											
11	Plaster											
12	Electrification, plumbing, fixtures , sanitary works, AC work											
13	Finishing works											
х	Sludge Dewatering System Area (Centrifuge Pump House, Sludge sump & Poly dosing tank)											
1	Site Clearance				1			100%	1,50,000.00	100%		
2	Excavation				-				-	100%	90%	1,66,309.20
3	PCC				-				-	100%	90%	1,66,309.20
4	RCC Foundation				-				-	100%	90%	3,32,618.40
5	Column & Beam Upto First Floor				-				-	100%		-
6	First Floor Slab				-				-			-
7	Column & Beam First Floor to Roof Slab				-				-			-
8	Roof Slab				-				-			-
9	Ground floor Slab				-				-			-
10	Brickwork				-				-			-
11	Plaster				-				-			-



Sr. No.	Description of Items	(From 1	one-1 Achieved L1th Oct.'19 to ch Sept'20)	(From	ilestone-2 26th Sep'20 to h Nov.'20)	Milesto	one-2 achieved	compe remai	lestone works nsated against ning works of I milestone	Milest	one-3 Achieved	d till 31.12.2020
		%	Amount	%	Amount	%	Amount	%	Amount	Target	Achieved	Amount
12	Piping & fiittings Work				-				-			-
13	Testing/Finishing works				-				-			-
xi	Inlet Chamber Area											
1	Site Clearance		-	100%	1,50,000.00		1,50,000.00					
2	Excavation & PCC		-						ı	100%		-
3	RCC Foundation/Column footing		-						-	100%		-
4	Column & Beam		-		-				-			-
5	RCC Slab		-		-				-			-
6	RCC Wall		-		-							
7	Testing/Finishing works		-		-				-			-
xii	Manual & Mechanica Fine Bar Screen Chamber AreaArea											
1	Site Clearance			100%	1,50,000.00		1,50,000.00					
2	Excavation								-	100%		-
3	PCC								-	100%		
4	RCC Foundation											
5	Column & Beam											
6	RCC Slab											
7	RCC Wall								-			-
8	Walkway/Platform											
9	Testing/Finishing works											
xiii	Grit Chamber Area											
1	Site Clearance			100%	1,50,000.00		1,50,000.00					
2	Excavation								-	100%		-
3	PCC								-	100%		-
4	RCC Foundation											



Sr. No.	Description of Items	(From	one-1 Achieved 11th Oct.'19 to th Sept'20)	(From	ilestone-2 26th Sep'20 to :h Nov.'20)	Milesto	one-2 achieved	compe remai	ilestone works nsated against ining works of d milestone	Milesto	one-3 Achieve	d till 31.12.2020
		%	Amount	%	Amount	%	Amount	%	Amount	Target	Achieved	Amount
5	Column & Beam											
6	RCC Slab											
7	RCC Wall								-			-
8	Walkway/Platform											
9	Testing/Finishing works											
xiv	Parshall Flume Channel Area											
1	Site Clearance			100%	1,50,000.00		1,50,000.00					
2	Excavation								-	100%		-
3	PCC								-	100%		-
4	RCC Foundation											
5	Column & Beam											
6	RCC Slab											
7	RCC Wall								-			-
8	Walkway/Platform											
9	Piping & fitting Work											
10	Testing											
xviii	EXTERNAL DEVELOPMENT											
	Boundary Wall with Gate											
1	Site Clearance	100%	-									
2	Excavation	40%	1,33,900.00	30%	1,00,425.00	30%	1,00,425.00	20%	66,950.00	20%		
3	PCC	40%	2,00,850.00	25%	1,25,531.25	25%	1,25,531.25	20%	1,00,425.00	20%		
4	RCC Column footing	40%	2,00,850.00	25%	1,25,531.25	25%	1,25,531.25	20%	1,00,425.00	20%		
5	RCC Column & Beam	40%	2,00,850.00	25%	1,25,531.25	25%	1,25,531.25		-	20%	10%	50,212.50
6	Brickwork	15%	75,318.75	25%	1,25,531.25	25%	1,25,531.25	10%	50,212.50	20%		
7	Plaster		-		-				-	15%		



Sr. No.	Description of Items	(From	one-1 Achieved 11th Oct.'19 to th Sept'20)	(From	ilestone-2 26th Sep'20 to th Nov.'20)	Milest	one-2 achieved	compe rema	ilestone works insated against ining works of d milestone	Milesto	one-3 Achieve	d till 31.12.2020
		%	Amount	%	Amount	%	Amount	%	Amount	Target	Achieved	Amount
8	Retaining wall		-		-				-	50%		
9	Finishing Work											
	Earthfilling, Internal Roads ,Landscaping											
1	Earthfilling, Internal Roads ,Landscaping											
С	MPS-40 MLD											
	Civil Work											
i	Construction of Raw Sewage Sump											
1	Site Clearance	100%	5,00,000.00									
2	Excavation		-		-			30%	4,77,444.00	50%	10%	1,59,148.00
3	PCC		-		-							
4	RCC Foundation/Raft		-		-				-			-
5	Wall 50% of total lift work		-		-				-			-
6	Walls (balance 50% of Total Lift work)		-		-				-			-
7	Column & Beam		-		-				-			-
8	Ground Floor Slab											
9	Testing/Finishing work											
D	SEWER SYSTEM AREA (3.2 Km)											
1	Site Clearance	100%	=									
2	Supply of pipes	20%	110,60,057.85	35%	193,59,095.70	35%	193,59,095.70		-	37%		
3	Excavation and Laying of pipes including bed preperation & backfilling		-	20%	11,08,732.26				-	40%		
4	Manholes		-	20%	7,37,489.36				-	40%		
5	Flow/Hydroulic Testing				-				-	38%		



Sr. No.	Description of Items	(From	one-1 Achieved 11th Oct.'19 to th Sept'20)	(From	ilestone-2 26th Sep'20 to th Nov.'20)	Milesto	one-2 achieved	compe remai	ilestone works nsated against ining works of d milestone	Milesto	one-3 Achieve	ed till 31.12.2020
		%	Amount	%	Amount	%	Amount	%	Amount	Target	Achieved	Amount
6	Road restoration work		-		-				-	38%		
Ш	TRIAL RUN & COMMISSIONING											
1	Trial Run & Commissioning											
	Total Amount		478,36,250.00		478,36,250.00		450,48,332.03		28,30,445.94			42,15,962.42
	Total progress in %		1st milestone=	12.50 %	2nd milestone=	11.77	compensate work of 3rd milestone=	0.79			1.10	



## **PHOTOGRAPHS OF UNNAO STP SITE**



**Supernatant Sump work** 



Cube test Inspection by AE, UPJN





**Curing at Centrifuge Building** 



Excavation for 1200mm sewer laying work





Ongoing work of Sludge Thickener



**SBR Concrete work** 



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

#### 7.1 PANKHA 30 MLD STP FACILITIES

- ➤ Raft concreting of I/D work at ICI Nalla has been completed and wall concreting is in progress;
- Raft casting of IPS at ICI Nalla is also completed. Wall Concreting is in progress;
- > Sunder Nagar IPS raft concreting has been completed, Wall concreting in progress;
- ➤ IPS Sunder Nagar and IPS ICI Nalla area steel hard barricading to be provided. IPS Excavation area slope cutting to be done or shoring as per norms should be provided and soil heaps to be kept away from the excavated pit.
- ➤ Wall casting up to 3.0 mtr. of MPS at Pankha STP is completed and works is in progress.
- > SBR baffle wall casting is under progress.
- CCT wall concreting work is in progress.
- Sludge Thickener raft casting has been done, wall concreting is under progress.
- > 1.9 Km sewer line has been laid.
- Overall work progress is slow and need to be expedited.
- Workman insurance policies to be taken by KRMPL (only insurance in the name of M/S Shapoorji has been taken, which is not effective enough).
- The Concessionaire shall ensure availability of test reports for construction material and approved drawings along with construction material test lab facility on the site.
- ➤ The Concessionaire also needs to "Develop the site, landscaping, arboriculture, and horticulture etc. at the STP Site." (CA schedule 1, part B, point (d)).
- Access to CCTVs facility established by concessionaire, should also be given to STC.
- Overall work progress is slow. Till 31<sup>st</sup> Dec. 2020, total 28.11% progress against 37.5% (up to 3<sup>rd</sup> milestone which is due on 25.01.2020) achieved.

#### 7.2 UNNAO 15 MLD STP FACILITIES

- ➤ Works related to I&D have not been yet started due to acquisition of land for proposed I&D structure is pending at ADM level. The matter of land acquisition is under process with ADM, Unnao.
- > Sewer pipeline laying has also not been started.
- ➤ MPS excavation approx 60% completed.
- Staff quarter ground floor slab and first floor column completed.
- ➤ Compound wall 112 nos of PCC Footing, RCC Footing and RCC Column works have been completed. RCC column 81 nos (up to plinth beam to top), Plinth beam 275 mtr and Brick work 224 mt have been completed.
- ➤ In SBR foundation completed. Wall 50% up to base slab 70% completed.
- For Guard room, Floor slab casting and Plaster work on 2 outer side walls completed.
- ➤ CCT 100% Foundation and 50% wall up to base slab completed.
- Staff quarter RCC 1st floor Slab 70% completed.
- ➤ Supernatant sump 4 Wall 100% completed, walkway work is in progress.



- ➤ Sludge thickener Outer wall raft PCC and RCC, 2nd lift Wall 2.3 mtr height RCC and Sludge sump RCC completed. Sludge thickener base slab PCC and Sludge thickener RCC have been done.
- Centrifuge building Foundation PCC and RCC completed. Column & Beam Upto First Floor 100% completed.
- ➤ Inlet chamber area Excavation & PCC 100% completed.
- Grit chamber area- excavation 100%completed.
- ➤ Entrance gates (1 main gate + 1 alternate), Internal roads, staff quarter and labour huts with all basic facilities need to be established by the Concessionaire on urgent basis.
- Number of CCTVs units need to be increased from at present 2 nos. to minimum 4 nos. access to these CCTVs should also be provided to STC.
- Concessionaire needs to "Develop the site, landscaping, arboriculture, and horticulture etc. at the STP Site." (CA schedule 1, part B, point (d))
- ➤ The Concessionaire should submit a plan in accordance to the above clause and provide the necessary arrangement for greenery and plantation in the STP area.
- ➤ Overall work progress is slow. Till 31<sup>st</sup> December 2020 total 26.1% progress against 37.5% (up to 3<sup>rd</sup> milestone which is due on 25.01.2020) achieved.

#### 7.3 SHUKLAGANJ 5 MLD STP FACILITIES

- > CTE from the UPPCB has been received on 10.07.2020 (Ref No. 97724/UPPCB/Unnao (UPPCBRO)/CTE/UNNAO/2020 Dated 07/07/2020).
- ➤ However, the site clearance cannot be done as there is dispute / problem of local inhabitants as two houses are in the area of STP land. The locals created agitation and do not let the work begin. After intervention of DM, Unnao, the excavation works related to the boundary wall of proposed STP was started in the presence of police administration. But the work was again stopped as the two house owners have compliant to DM, Unnao that their land is legal. The matter is under investigation with DM, Unnao.
- ➤ RCC design and drawing of boundary wall, sludge thickener and guard room submitted by KRMPL and RCC design of guard room found ok and for other comments sent and compliance awaited from KRMPL.

#### 7.4 JAJMAU (PHASE - 1) 130 MLD STP AND IPS REHABILITATION

- CTO received on 10.06.2020.
- ➤ Handing over is planned by UPJN by 19.07.2020 as agreed by concessionaire but could not materialised due to labour issue.
- In meeting with **APD, SMCG, Lucknow** held on 28.12.2020, it was instructed to Project Manager, Jal Nigam to resolve the labour issue with the help of District Administration.
- Proposal for Advance Sludge Handling System: Concessionaire has submitted the proposal of Advance Sludge Handling system for 130 MLD Jajmau, in compliance observation of IITR regarding STP performance vide KRMPL letter no.783 dated 05.12.2020.



➤ GA, Datasheet, Wiring Diagram and QAP for 11 KVA VCB Panel for 130 MLD STP:

Concessionaire has been submitted the GA, Datasheet, Wiring Diagram and QAP for 11

KVA VCB Panel for 130 MLD STP vide their letter no. 798 dated 12.12.2020. PE has submitted their comments/observation vide STC letter no. 636 dated 17.12.2020.PE has reviewed the submittals after resubmission by concessionaire and found in order and recommended for approval vide STC letter no.647 dated 26.12.2020.

#### 7.5 43 MLD JAJMAU PHASE II

- > CTO received on 10.08.2020.
- ➤ Handover of 43 MLD STP Jajmau Ph-II: A joint Inspection held on 02.12.2020 at Jajmau 43 MLD STP Ph-II and Joint inspection of concerning IPSs and CSPS was also in progress during the month of December 2020. Inspection report regarding the same is yet to be submitted by the concessionaire.
- In meeting with **APD, SMCG, Lucknow** held on 28.12.2020, it was instructed to concessionaire to prepare the inspection report ASAP so that the handover of the STP can be done before 15.01.2021.

#### 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 first quarter that is from 10.08.2020 to Oct. 2020 has been submitted by KRMPL and it is under process for payment.

Renovation (installation of RTLOMS and rectification of pumps) completion certificate has been issued by UPJN as 10.08.2020 vide UPJN 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 synchronised with RTLOMS. It is not calibrated and need to be provided calibration report. Another 2<sup>nd</sup> no. electro -magnetic flow meters has not been installed yet.

Electromagnetic flow meter has also to be installed at the outlet channel and to be synchronised with RTOLMS.

Following points need to be addressed:

## i. Compliance of Inspection Reports

PE inspected 210 MLD Bingawan STP on 26.11.2020 & IPS on 08.12.2020 and issued inspection reports on 5<sup>th</sup> December 2020 and 9<sup>th</sup> December 2020 respectively. Compliance reports on Inspection note at Bingawan facilities on 05.12.2020 and 09.12.2020 has not been submitted by the Concessionaire and the Compliance report of inspection done on 12.11.2020 (previous month) and inspection report issued on 21.11.2020 has also not been submitted by KRMPL. Since 28<sup>th</sup> January 2020 rectification of defects indicated in different inspection reports has not



been done by the KRMPL and they are extending dates continuously every month. Copy of Inspection reports of Bingawan site is enclosed.

#### ii. O&M Manual

Revised O&M manual of Bingawan approved by UPJN vide UPJN letter no. 2088/w-37/71 on 24.08.2020.

#### iii. Insurance Policies

Renewed Insurance policies had been submitted by KRMPL vide letter no. 786 dated 08.12.2020 but those are not as per article 11.2 of CA except All Risk Industrial Insurance policy. KRMPL is required to submit all 5 insurance policies as per article 11.2.

#### iv. Performance of Plant

#### a. Cleaning and reactivation of UASB Reactors:

All the KPIs are not being met during the month of December 2020. Out of 16 no's reactors, UASB reactor no. 1, 4 & 8 has been filled for reactivation after cleaning. Reactor no. 2 & 3 has been taken up for cleaning from 04.08.2020 & 20.08.2020 but not completed by the end of Dec. 2020. The Concessionaire has not submitted the action plan for cleaning and reactivation of UASB reactors but taking randomly for cleaning and reactivation. Performance report of Bingawan for the month of December 2020 enclosed.

**b. BFP:** Out of 3, only 2 no. Bed filter press are in working condition but concessionaire is using only 1 BFP because of only 01 no. of trolley is available at site. The Concessionaire has promised that one more BFP will be made operational by 15.10.2020 again extending the date from 15.10.2020 to 31.12.2020.

It was always required to run 2 nos. filter press at a time. So, 2 nos. tractors and 3 nos. trolleys always needed at site for disposal of the dewatered sludge.

All 3 nos. of poly dosing pumps installed, 2 nos. are in not working condition due to diaphragm portion is fully damaged.

#### v. 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 18.12.2020 for testing. Only testing report from Spectra research Lab ventures (P) Ltd. of the Joint sample taken on 10.11.2020 has been submitted by concessionaire vide their letter no. 796 dated 12.12.2020 (Report enclosed). Testing report from Spectra research Lab ventures (P) Ltd. of the Joint sample taken on 29.09.2020, 16.10.2020 and 18.12.2020 has not been submitted by concessionaire.

#### vi. Gas Holder

Out of 2 no's only 1 no. Gas Holder is in working condition. Concessionaire has promised to repair the gas holder no. 2 by 10.11.2020 but not rectified till the end of month of December 2020.

#### vii. Schedule Maintenance Works for the year 2020-21

Schedule maintenance works as per approved O&M manual were to be started from 01/08/2020, but not started yet.



#### viii. KPIs Adherence Report

KPIs Adherence report for the month of November 2020 has been submitted by STC vide their letter no.635A dated 17.12.2020. Online Monitoring Analyser report up to December month has not been submitted by concessionaire.

#### ix. Power Charges Reimbursement

KRMPL has raised the reimbursement of the Power charges of Bingawan facility for the month of August- October 2020 (I<sup>st</sup> Quarter) vide their letter no.791 dated 09.12.2020.

#### 7.7 42 MLD SAJARI STP

As per CA, Schedule Handing over date for Sajari is effective date (11.10.2019) but plant was handed over to the KRMPL on 29.05.2019. O&M expenditure from 29.05.2019 until effective date 11.10.2019 has been paid to KRMPL separately which is not covered under CA. 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 on 07.12.2019.

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 aerators got functional on 04.02.2020 in the presence of O&M engineer PE. 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. Therefore there is no need for any improvement as suggested by KRMPL.

Commercial Operation Date was declared as 20.06.2020 vide UPJN letter no. 1545/w-20/127 dated 17.06.2020 and Revised Commercial Operation Date i.e. 11.10.2019 of Sajari facility was declared by UPJN vide their letter no. 2574/w-20/267 dated 26.09.2020.

Following Points needs to be addressed:

## i. Compliance of Inspection Reports

PE inspected 42 MLD STP Sajari on 30.12.2020 and issued inspection note on 05.01.2021. Compliance report of Inspection held at 42 MLD STP on 25.11.2020 and inspection report issued on 27.11.2020 has not been submitted by the concessionaire. 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. Copy of Inspection reports of Sajari site is enclosed.

#### ii. O&M Manual

O&M Manual already approved by UP Jal Nigam.

#### iii. Insurance Policies

Renewed Insurance policies had been submitted by KRMPL vide letter no. 786 dated 08.12.2020 but those are not as per article 11.2 of CA except All Risk Industrial



Insurance policy. KRMPL is required to submit all 5 insurance policies as per article 11.2.

#### iv. Performance of Plant:

All KPIs are within prescribed limit for the month of December 2020 except the dates when the parameters of raw sewage are beyond prescribed limit for which concessionaire is not responsible. Performance Report of December 2020 enclosed.

#### a) Mechanical Screens (Coarse & Fine Screens)

Auto System of Both Mechanical Screens still not repaired.

#### b) Gas Generators

All 3 no's of Gas Generators installed are not operational since handover date and also there was no Gas unit operator from KRMPL. KRMPL had promised previously to get all the 3 gas generators operational by 30.06.2020 vide KRMPL letter no. 453 dated 11.06.2020 and then extended the date to 30.09.2020 but no action has been taken by concessionaire till the end of Dec. 2020.

#### v. 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 atleast 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 20.12.2020 for testing. Only testing report from Spectra research Lab ventures (P) Ltd. of the Joint sample taken on 09.11.2020 has been submitted by concessionaire vide their letter no. 804 dated 15.12.2020 (Report enclosed). 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 and 20.12.2020 has not been submitted by the concessionaire.

#### vi. Power backup and Online Monitoring System

DG set for power backup has been made operational by UPJN on 14.07.2020. Online monitoring system (RTOLMS) has been installed and synchronised but to be calibrated. Outlet Analyser Panel with censor installed at site and synchronised with RTOLMS. Inlet flow meter is under maintenance and outlet flow meter installed at site and to be synchronised with RTOLMS and to be calibrated.

## vii. Work plan For Sludge Disposal

Work plan for sludge disposal on UPJN identified land has been submitted by the concessionaire but not following the work plan as submitted. Concessionaire has not submitted the monthly sludge disposal record yet.

#### viii. Submission of Schedule Maintenance Programme

Concessionaire has not done the scheduled maintenance works for the current year as per approved O&M manual and submission of schedule maintenance programmes for the next year are still pending from the concessionaire side.

## ix. Power Charges Reimbursement

KRMPL has raised the reimbursement of the Power charges of Sajari facility for the month of July-Sept. 2020 vide their letter no.752 dated 06.11.2020 but concessionaire has not paid the power charges for the month of July-Sept. 2020 to the power



department (KESCO) and the power connection has been disconnected by the power department.

#### x. KPIs Adherence Report

Revised KPIs adherence report has been submitted by PE for the month of Oct. & Nov. 2020 vide STC letter no.647 dated 31.12.2020.

#### **GENERAL ISSUES**

- 1) Power Back- up to be provided at all locations as per Article 8.7 (b) which is not being accepted by KRMPL.
- 2) As per Article 8.8 (a): At each STP/Pumping Station (new or existing) of all locations, the Concessionaire shall install and maintain an online monitoring system, in accordance with the Technical Specifications and Applicable Laws (including specifically, the EPA) to monitor the volume, specifications and characteristics of the incoming Sewage and the Treated Effluent, as applicable.
- 3) As per Article 11.2: During the O&M Period of the Facilities, the Concessionaire shall obtain and maintain insurance policies including but not limited to the following:
  - (i) loss, damage or destruction of the Facilities, at replacement value;
  - (ii) comprehensive third party liability insurance including injury to or death of personnel of the Jal Nigam or NMCG or others caused by the Project;
  - (iii) the Concessionaire's general liability arising out of the Project;
  - (iv) liability to third parties for goods or property damage;
  - (v) workmen's compensation insurance; and
  - (vi) any other insurance that may be necessary to protect the Facilities, the Concessionaire and its employees, including for all Force Majeure Events that are insurable at commercially reasonable premiums and not otherwise covered in items (i) to (v) above.

#### 8 STATUS OF BEP & OTHER DETAILS

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

Table 6.2: BEPs and other details

SN	Particulars	Status	
		Approved	Pending
1.	BEPs (Process, Mechanical & Electrical)	GA, Data Sheet and QAP of centrifuge, submersible pump and mechanical grid collection system, Unnaoreviewed & recommended for approval on 25.02.20 GA, Data Sheet and QAP of centrifuge, submersible pump and mechanical grid collection system, Pankhareviewed & recommended for approval on 28.02.20; BEP process for 130 MLD Jajamu recommended for approval vide STC letter no. 570 dated 24.10.2020 and same has been approved by UPJN vide letter 2930/w-30/39 dated 27.10.2020	Revised GA & RCC design and drawing for CCT and TEPH for 130 MLD STP Jajmau is pending as there was a level mismatch in between existing HFD and RCC or GA.



		Electrical load list & SLD recommended it for approval vide their letter no.567 dated 22.10.2020	
2.	BEP Structure Design & Drawings	SBR Rev Structural design drawing, Unnao- recommended for approval on 30.06.20  Guard Room design, Unnao- recommended for	Acquisition of land for I&D works Unnao is under progress;
	Design &	recommended for approval on 30.06.20	works Unnao is under
		BEP (R5) for Shuklaganj STP recommended for approval on 24.10.20  Civil GAD for 5 MLD Shuklaganj STP recommended for approval on 27.11.20	



3.	Construction Plan	Revised construction plan Pankha-recommended for approval on 18.06.20 & 29.07.20 without extending completion date.  Revised construction plan Unnao-recommended for approval by STC letter vide on 441 dated 31.07.2020 without extending completion date	
4.	Sewer Network/Line Design	Design and drawings of sewer work Pankha- recommended for approval On 10.02.20  Design and drawings of sewer work Unnao- recommended for approval On 20.02.20	
5.	ESHS Plan	ESHS approval-Already vetted by STC. Approved by UPJN on 26.09.19	
6.	O&M	Bingawan RTOLMS - Reviewed & found in order. Recommended for approval on 03.12.19/ 19.12.19 with some conditions  Level transmitter & flow metre - vetted & approved on 27.12.19  Bingawan O&M manual - approved  Sajari O&M manual - Approved  43 MLD Jajmau STP is ready to be handed over to the Concessionaire.	Only All Risk Industrial Insurance Policy has been submitted and remaining policies are not submitted after so many reminders. Comprehensive General Liability Policies submitted by concessionaire is not acceptable.  43 MLD Jajmau STP - UPJN has written to the Concessionaire to deploy adequate staff for operation of the plant immediately

## 9 MEETINGS HELD / MINUTES OF MEETING

i. A meeting was held by APD, SMCG Lucknow on dated 28.12.2020 to discuss progress of HAM Project Kanpur. MOM attached in annexure 5.



# **ANNEXURE**



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

Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
01.12.20	Reminder for submissio n of relevant support files for smooth & early vetting of document bedding calculatio n and manhole design and drawing for Unnao.	28.11.2020 K-777	01.12.20 20 S-612	3	20			C.M.Dimri  J.P.Tripathi  O.P.Asati Satendra Priyesh lokesh Vikas Ajay Rahul Kapil Mahendra	1+				
02.12.20 20	Complianc e for	30.11.2020	02.12.20 20	2	20			C.M.Dimri	1+1+1+1+1+1+1+1+ 1+1+1				Vetted & Recommend



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	gravity sewer line for Unnao.	K-778	S-613					J.P.Tripathi O.P.Asati Linga Satendra Priyesh lokesh Vikas Ajay Rahul Kapil Mahendra					ed for approval
03.12.20 20	Regarding drawing /datashee t for approval.	26.11.2020 UPJN- 2389/M- 47/101	03.12.20 20 S-614	6	20			C.M.Dimri  J.P.Tripathi  O.P.Asati  Linga  Sunil  Anil seth	1+1+1+1+1+1+1+1 1+1+1+1+1+1				Vetted & Recommend ed for approval



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Satendra					
								Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
03.12.20	Regarding drawing /datashee t for approval.	23.11.2020 UPJN- 2371/M- 47/99	03.12.20 20 S-615	10	20			C.M.Dimri J.P.Tripathi	1+1+1+1+1+1+1+1 1+1+1+1+1+1				Vetted & Recommend ed for approval
								O.P.Asati					
								Sunil					
								Satendra					
								Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Rahul					
								Mahendra					
03.12.20 20	Regarding drawing /datashee t for approval.	23.11.2020 UPJN- 2372/M- 47/100	03.12.20 20 S-616	10	20	-	-	C.M.Dimri J.P.Tripathi O.P.Asati Sunil Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra	1+	-	-	-	Vetted & Recommend ed for approval
04.12.20	Point 7 of MOM of review meeting held, on	25.11.2020 K-771	04.12.20 S-617	9	20			C.M.Dimri  J.P.Tripathi  O.P.Asati	1+1+1+1+1+1+1+1+ 1+1+1+1+1				



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	12.10.202							Linga					
	0 by NMCG.							Anil seth					
	WIVICG.							Satendra					
								Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
05.12.20	Inspection		05.12.20		20			C.M.Dimri	1+1+1+1+1+1+1+1+				
20	report of 210 MLD		20					107	1+1+1+1+1				
	Bingawan		S-618					J.P.Tripathi					
	facilities,							O.P.Asati					
	inspection done on							Linga					
	26.11.202							Anil seth					
	0							Satendra					
								Priyesh					
								lokesh					
								Vikas					



Date	Name of Activity#	Date of Receipt	Oate of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Ajay Kapil Rahul Mahendra					
06.12.20 20	Sunday												
07.12.20 20	Cost implicatio n due to change FOS of bedding for sewerage network for 30 MLD STP Pankha facilities.	25.11.2020 K-768	07.12.20 20 S-621	0	20	-	-	C.M.Dimri  J.P.Tripathi P. walunjkar  O.P.Asati Linga Anil seth Satendra Priyesh lokesh Vikas Ajay Kapil	1+	-	-	-	



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Rahul					
								Mahendra					
08.12.20	Inspection note of Pankha STP facilities (Pipe line work ,IPS sunder nagar and ICI nala) and 7 <sup>th</sup> Dec 2020		08.12.20 20 S-624		20			C.M.Dimri  J.P.Tripathi  O.P.Asati Linga Anil seth Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra	1+				
09.12.20	Manhole design and drawing for	08.12.2020 UPJN/2434/ M-47/109	09.12.20 20 S-628	1	20			C.M.Dimri J.P.Tripathi	1+1+1+1+1+1+1+1+ 1+1+1+1+1				



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Unnao.							O.P.Asati Anil seth Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra					
09.12.20	Manhole design and drawing for Unnao	28.11.2020 K-777	09.12.20 20 S-627		20			C.M.Dimri  J.P.Tripathi P. Walunjkar  O.P.Asati Linga Satendra Priyesh lokesh Vikas	1+1+1+1+1+1+1+1+ 1+1+1+1+1+1				



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Ajay Kapil Rahul Mahendra					
10.12.20	Insurance policy for Bingawan and Sajari.		10.12.20 20 S-629		20			C.M.Dimri  J.P.Tripathi P. Walunjkar  O.P.Asati Linga Anil seth Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra	1+				



Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
11.12.20	Rcc design & drawing for CCT inlet raft & outlet channel for 15 MLD Unnao STP.	04.11.2020 K-742	20 S-631 & Mail 27.11.20 20		20			C.M.Dimri  J.P.Tripathi P. Walunjkar  O.P.Asati Linga  Anil seth Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra	1+				Pankha STP Site Visit with UPJN and KRMPL.
12.12.20 20	Second					-	-			-	-	-	
13.12.20	Saturday Sunday									_	_	_	
20	Sulluay									-	_	_	



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
14.12.20	Rcc design & drawing for CCT inlet raft & outlet channel for 15 MLD Unnao STP.	04.11.2020 K-742	11.12.20 20 S-631 & Mail 27.11.20 20	7	20			C.M.Dimri  J.P.Tripathi  O.P.Asati Linga  Anil seth Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra	1+				Under Review
15.12.20 20	Approval of Equipmen t specificati	07.12.2020 K-785	15.12.20 20 S-634	8	20			C.M.Dimri  J.P.Tripathi  O.P.Asati	1+1+1+1+1+1+1+1+ 1+1+1+1+1				



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	on for							Linga					
	Unnao facilities.							Anil seth					
	racinties.							Satendra					
								Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
16.12.20	Approval	07.12.2020	15.12.20	8	20			C.M.Dimri	1+1+1+1+1+1+1+1+	-	-	-	Under
20	of Equipmen	K 705	20					I D Toiseashi	1+1+1+1				Review
	t	K-785	S-634					J.P.Tripathi					
	specificati							O.P.Asati					
	on for Unnao							Linga					
	facilities.							Anil seth					
								Satendra					
								Priyesh					
								lokesh					
								Vikas					



Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
17.12.20 20	Kpis adherenc e report of Bingawan for the	12.12.2020 K-796	17.12.20 20 S-635	5	20			C.M.Dimri  J.P.Tripathi  O.P.Asati	1+1+1+1+1+1+1+1+ 1+1+1+1+1	-	-	,	
	month of							Linga					
	Nov-20.							Anil seth					
								Satendra					
								Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
17.12.20 20	Submissio n of GA,	12.12.2020	17.12.20 20	5	20			C.M.Dimri	1+1+1+1+1+1+1+1+ 1+1+1+1+1	-	-	-	



Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	datasheet, wiring Diagram & QAP, for 11KA VCB panel for 130 MLD Jajmau.	K-798	S-636					J.P.Tripathi O.P.Asati Linga Anil seth Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra					
18.12.20	Submissio n of GA, datasheet, wiring Diagram & QAP, for 11KA VCB panel for 130 MLD	12.12.2020 K-798	17.12.20 20 S-636	5	20	'	'	C.M.Dimri  J.P.Tripathi  O.P.Asati  Linga  Anil seth  Satendra  Priyesh	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/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Jajmau.							lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
19.12.20	Jajmau 130 MLD STP proposal for sludge handling system.	05.12.2020 K-783	19.12.20 20 S-637	14	20			C.M.Dimri J.P.Tripathi O.P.Asati Linga Anil seth	1+1+1+1+1+1+1+ 1+1+1+1+1				
								Satendra					
								Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
20.12.20	Sunday												
21.12.20	Submissio n of RCC design and drawing of Guard room for 5 MLD Shuklagan j STP.	12.12.2020 K-803	21.12.20	9	20			C.M.Dimri J.P.Tripathi O.P.Asati Linga Anil seth Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra	1+				Under Review
22.12.20	Submissio n of RCC design and drawing	12.12.2020 K-803	22.12.20 20 S-639	10	20			C.M.Dimri  J.P.Tripathi  O.P.Asati	1+1+1+1+1+1+1+1+ 1+1+1+1+1				



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	of Guard							Linga					
	room for 5 MLD							Anil seth					
	Shuklagan							Satendra					
	j STP.							Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
23.12.20	Submissio	12.12.2020	23.12.20		20			C.M.Dimri	1+1+1+1+1+1+1+1+				
20	n of RCC design	к 003	20					I D Toiseashi	1+1+1+1				
	and	K-803	S-643					J.P.Tripathi					
	drawing							O.P.Asati					
	of sludge thickener							Linga					
	for 5MLD							Anil seth					
	Shuklagan							Satendra					
	j.							Priyesh					
								lokesh					
								Vikas					



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
24.12.20	Request for issuance of variation order as trenchless work envisaged at sewage network of 30 MLD STP,Pankh a.	18.12.2020 K-809	24.12.20 20 S-646	6	20			C.M.Dimri  J.P.Tripathi  O.P.Asati  Linga  Anil seth  Satendra  Priyesh  lokesh  Vikas  Ajay  Kapil	1+				
								Rahul Mahendra					
25.12.20 20	Request for	18.12.2020	24.12.20 20		20			C.M.Dimri	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/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	issuance of variation order as trenchless work envisaged at sewage network of 30 MLD STP,Pankh a.	K-809	S-646					J.P.Tripathi O.P.Asati Linga Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra					
26.12.20	Request	18.12.2020	24.12.20		20			C.M.Dimri	1+1+1+1+1+1+1+1+				Under
20	for issuance of variation order as trenchless work envisaged at sewage network of 30 MLD	K-809	20 S-646					J.P.Tripathi O.P.Asati Satendra Priyesh lokesh Vikas Ajay	1+1+1+1+1				review



Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	STP,Pankh							Kapil					
	a.							Rahul					
								Mahendra					
27.12.20 20	Sunday												
28.12.20	Pankaha				20			C.M.Dimri	1+1+1+1+1+1+1+1+				
20	Site Visit							J.P.Tripathi	1+1+1+1				
								O.P.Asati					
								Satendra					
								Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
29.12.20	Shuklagan							C.M.Dimri	1+1+1+1+1+1+1+1+		_		
20	j Site Visit							J.P.Tripathi	1+1+1+1				
								O.P.Asati					
								Satendra					



Date	Name of Activity#	Date of Receipt	Date of Approval  (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
								Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
30.12.20 20	Unnao Site Visit							C.M.Dimri J.P.Tripathi	1+1+1+1+1+1+1+1+ 1+1+1+1+1				We had prepared mom for
								O.P.Asati					Pankha site.
								Satendra					
								Priyesh					
								lokesh					
								Vikas					
								Ajay					
								Kapil					
								Rahul					
								Mahendra					
31.12.20 20	Revised KPIs	15.12.2020	31.12.20 20	16	20			C.M.Dimri	1+1+1+1+1+1+1+1+ 1+1+1+1+1				We had prepared



Date	Name of Activity#	Date of Receipt	Date of Approval (Vet/ Commen t)	No. of day take n	Time as per contra ct (days)	Dela y if any (No. of days ) [7=6 -5]	Reaso n for delay *	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessiona ire	Reaso n for delay	Step take n by PE to avoi d such dela ys	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Adherenc e report of Sajari for the month of Oct. & Nov.2020	K-804	S-647					J.P.Tripathi O.P.Asati Satendra Priyesh lokesh Vikas Ajay Kapil Rahul Mahendra					mom for Pankha site.



**Note:** Man-days and respective inputs of experts for the month of November 20 are:

SN	Name	Designation	Total Man- days	Input
1.	Mr. Chandra Mauleshwar Dimri	Senior Civil Engineer	31	Timesheet attached
2.	Mr. Jai Prakash Tripathi	O&M Engineer	31	Timesheet attached
3.	Mr. Anil Kumar Seth	Senior Electrical Engineer	23	Timesheet attached
4.	Mr. Sunil Basutkar	Senior Mechanical Engineer	03	Timesheet attached
5.	Mr. OP Asati	O&M Engineer	21	Timesheet attached
6.	Mr. Preetam Walunjkar	Structural Engineer	04	Timesheet attached
7.	Mr. Linga Krishna Rao	Safety expert	24	Timesheet attached



# **Annexure 2: Timesheets of Experts**

# Mr. C.M. Dimri (Senior Civil Engineer)

MCG-STP Projects at Kanpur under Hybrid Annuity based PPI Daily Report C.M.Dimri ior Engineer Civil cum T.L. Description ce work / Unnao submittals with Staadprofile instruction to upin ao sewerline vetting and discussion with EE UPJN Unnao	Month/Year: Dec-20 Location Kanpur Kanpur
C.M.Dimri ior Engineer Civil cum T.L.  Description ce work / Unnao submittals with Staadprofile instruction to upin ao sewerline vetting and discussion with EE UPJN Unnao	Dec-20 Location Kanpur
ior Engineer Civil cum T.L.  Description  ce work / Unnao submittals with Staadprofile instruction to upin ao sewerline vetting and discussion with EE UPJN Unnao	Dec-20 Location Kanpur
Description ce work / Unnao submittals with Staadprofile instruction to upin ao sewerline vetting and discussion with EE UPJN Unnao	Location Kanpur
ce work / Unnao submittals with Staadprofile instruction to upin ao sewerline vetting and discussion with EE UPJN Unnao	Kanpur
ao sewerline vetting and discussion with EE UPJN Unnao	- CARDON A SOCIAL
	Namput
W./ Jajmau STP Phase I &II, visit by ED TechNMCG Delhi	Kanpur
of Pankha facilities regarding visit of ED NMCG	Kanpur
	Kanpur
SUNDAY	Kanpur
	Kanpur
The state of the s	Kanpur
	Kanpur
raisal of KRMPLE complaince report of inspection by STC	Kanpur
SUNDAY	Kanpur
TING with APD SMCG Lucknow on HAM Progress	Kanpur
R Of July appraised	Kanpur
R Of July appraised the Work and discussion on Pankha progress the work and review of MPR	Kanpur Kanpur
	sting with PM E&M Kanpur regarding Bingwan O&M SUNDAY  ce work/ Discussion about 6 m boundary wall withEE/KRMPL cussion with KRMPL about progress of mile stones ce work/ Vetting of MH Chamber precast design cussion with KRMPL about progress of mile stonesM and O& ao CCT outlet and inlet design vetting.  SECOND SATURDAY SUNDAY  ao Sludge thickner,B Wall and guard R Design appraise ao desisigns as above appraised sting with CE Kanpur about HAM progress a sheet of Jajmau 130 MLD STP appraised Adherence report appraised hau STP sludge handling system discussed with KRMPL SUNDAY  all explanation about KRMPL Complain explained to GM UPJN raisal of daily reportof sajari & Bingwan sting with new joined CE Kanpur about HAM progress ussion with UPJN about progress and Bedding calculations raisal of KRMPLE complaince report of inspection by STC SUNDAY



## Mr. J. P. Tripathi (O&M Engineer)

	Project Engineer Shah Techanical Consultants Pvt Limited							
_	NMCG-STP Projects at Kanpur under Hybrid Annuity based PPP Mode							
	Daily Report	Manth Wasse						
Name :	JAI PRAKASH TRIPATHI	Month/Year: Dec-20						
Position: Date	O & M ENGINEER Description	Location						
Date	Prepared Time sheet and Invoice of Nov. 2020	Kanpur						
2	Discussed with PM (E & M) GPCU UPJN Kanpur regarding Gauranteed Energy consumption for O & M of Sajari and Bingawan Facilities	Kanpur						
3	Discussed wit PM III GPCU UPJN Kanpur regarding O & M Payment bill of Bingagawan submitted by KRMPL	Kanpur						
4	Wrote letter to GM GPCU UPJN regarding point 7 0f MOM of NMCG Review Meeting held on 12/11/2020	Kanpur						
5	Corrected and forwarded the inspection report of Bingawan facilities done on Sunday	Title Option						
7	Revelwed Insurance policies for Bingawan and Sajan submitted by KRMPL	Kanpur						
- 8	Discoused wit PM II & PM (E & M) GPCU UP.IN Kanpur regarding O & M Payment bill for power consumption of Salari submitted by KRMPL.	Kanpur						
9	Corrected and forwarded the inspection report of Associated Works of Bingawan facilities done on 08/12/2020	Kanpur						
10	Wrote letter to GM GPCU UPJN regarding Insurance Policies for Bingawan and Sajari	Kanpur						
11	Wrote letter to GM GPCU UPJN regarding O & M payments for Bingawan due to COVID-19 lockdown	Kanpur						
12	Second Saturday Sunday							
13	Prepared MPR of Bingawan and Sajari for the month of Oct. 2020	Kanpur						
15	Wrote letter to GM GPCU UPJN regarding completion of balance works at Bingawan	Kanpur						
16	Attended meeting with GM GPCU UPJN Kanpur	Kanpur						
17	Prepared reply to KRMPL, letter No. 770 dated 25/11/2020 Wrote letter to GM GPCU UPJN regarding KPIs Adherence Report of Bingawan for the month of	Kanpur						
18	Nov. 2020 (Letter No. 635)	Kanpur						
19	Prepared reply to KRMPL letter No. 770 dated 25/11/2020	Kanpur						
20	Sunday  Sunday							
21	Wrote letter to GM GPCU UPJN regarding KPIs Adherence Report of Bingawan for the month of Nov. 2020 (Letter No. 639)  Wrote letter to GM GPCU UPJN regarding KPIs Adherence Report of Sajari for the month of Oct.	Kanpur						
22	& Nov. 2020	Kanpur						
23	Attended meeting with: CE UPJN Kanpur regarding HAM Project Kanpur	Kanpur						
24	Revelwed inspection report of Ham Project Kanpur done by SMCG team from 14/09/2020 to 16/09/2020  Helped in preparation of present status of HAM project Kanpur for the meeting of SMCG on	Kanpur						
25	28/12/2020  Corrected and finalized present status of HAM project Kanpur for the meeting of SMCG on	Kanpur						
26	28/12/2020	Kanpur						
27	Sunday  Attended manifest and ADD SAVOC in SIACO offices ) weknow	Kanner						
	Reveiwed compliance report of inspection report of Ham Project Kanpur done by SMCG team							
29	from 14/09/2020 to 16/09/2020 submitted by KRMPL							
30	Corected and updated MPR of Nov. 2020	Kanpur						
31		Kanpur						
28 29 30 31 I hereby certify	Attended meeting called by APD SMCG in SMCG office Lucknow  Revelwed compliance report of inspection report of Ham Project Kanpur done by SMCG team from 14/09/2020 to 16/09/2020 submitted by KRMPL	Kanpur						



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

Project	Engineer	Shah Techanical Consultants Pvt Limite	d
	NMCG-	STP Projects at Kanpur under Hybrid Annuity based PPP Mode	
		Daily Report	
Name :	ANIL	KUMAR SETH	Month/Year:
Position: Date	Senier El	lectrical Eng.	Dec-19
1		Description	Location
2			
3	Electrical	points incorporated in inspection report 4	KMP
4	Electrical		KNP
5	GA A SATISFA	promise an emporated in inspection report of	KNP
6	Electrical of	15	KINT
7	Electrical p	sint incorporates in The inspection support of	KMP
8	Burgwan	8-P. T.	
	Marin A	egarding thickness of HT Pamels & I.P protecto	KNP
9	approval of	having riply of Jal Nigam unnas regarding	KNP
10	Annochur of	Sep & Ang 2010 AN MPR - program of work	KNP
11	4 to lectrica	reparring mpR septeze by providing inpute	KNP
12	-	Second Saturday	
13		SUNDAY	
14	cheaking of	make for the month of boot 2012	KNP
15	Cheeking of	chentality of Transform Capacity of 5 mil Huntles	
16	Heeper in eve	tiliped 1E-2 & 1E-3 mater protection.	KNP
17		L SED of ShublaGong 5 mld Shublagani	Wall to
18 -		preparing reepey of Jella from concessionain	KNTP
19 -	PARTOLI AND A	DEFENDENTIAL RELEASE AT 1000 Jacob Acces Acces	
20 .	Augavisting a	som at STI LEW!	KNP.
21		Status of work connected with all 3TP(S)	
22	Review of	Anneywa MPR OCT 2020.	KND
23			RIP
24 -	- Daniel di	the drawing Connected with Jajman HT Pour	TO THE PARTY OF
	10 MAIN WA	a aparation min por up the Nordan	MV4)
25 .	- Discussion	see ording benefity on bingwan o/n & HT	nnp
26	panel Hor	sayman,	
27			
28			
29			
30			
31			
hereby certif	y that the time report	t above is a true and complete statement of my Working time for the payroll p	ada d
All	W.	Ne osle	midd.



#### Mr. P Walunjkar (Structure Engineer)

# WWRAJASTHAN RURAL WATER SUPPLY & FLUOROSIS MITIGATION PROJECT (NAGAUR) PMSC: STC-NKI-AECOM JV MONTHLY ACTIVITY RECORD

Name: / Preetam Walunjkar (Structural Specialist)

Month/Year: DEC 2020

Date	Package	Location	Details of Work
01-12-2020	Nagaur	Site Visit	Site Visit to Check Layout Plan of CWR with DTL & CE
02-12-2020	Nagaur	Office	RCC Estimate preparation for Deshnok CWR with DTL
03-12-2020	Nagaur	Office	Meeting with CE for Deshnok Issue Layout Plan
04-12-2020	Nagaur	Office	Meeting with SE,DTL & CE for Deshnok Issue Layout Plan
05-12-2020			Saturday Holiday
06-12-2020			Sunday Holiday
07-12-2020	Kanpur	Office	Check Boundary wall Shuklaganj STP
08-12-2020	Nagaur	Office	Check Transformer foundation drg replied as rejected
09-12-2020	Kanpur	Office	Check Manhole chambers Dia 1800 in Unnao STP & replied OK
10-12-2020	Kanpur	Office	Check Treated Effluent disposal channel Unnao Staad file & SBC Re[prt
11-12-2020	Kanpur	Office	Check Treated Effluent disposal RCC Drg channel Unnao
12-12-2020			Saturday Holiday
13-12-2020			Sunday Holiday
14-12-2020	Nagaur	Site Visit	
15-12-2020	Nagaur	Office	Preparation of Site Visit Report Borawad ESR
16-12-2020	Nagaur	Office	Check the site correction on mobile for Borawad ESR
17-12-2020	Nagaur	Office	Review the balanced work in as build drawing in Kuchaman site
18-12-2020	Nagaur	Office	Meeting with CE for Deshnok Issue Layout Plan & Hydraulic calculation
19-12-2020			Saturday Holiday
20-12-2020			Sunday Holiday
21-12-2020	Nagaur	Office	Co-ordination with L&T Structural Engg for Deshnok CWR issue
22-12-2020	Nagaur	Office	Meeting with CE for Deshnok Issue Layout Plan & Hydraulic calculation
23-12-2020	- Nagaur	Office	Co-ordination with L&T Structural Engg for Deshnok CWR issue
24-12-2020	Nagaur	Office	Meeting with CE for Deshnok CWR & Half day no power so no work
25-12-2020			Holiday Christmas
26-12-2020			Saturday Holiday
27-12-2020			Sunday Holiday
28-12-2020	Nagaur	Office	Review RCC As build Pump House RCC Drawings Kuchaman Package
29-12-2020	Nagaur	Office	Whole day no power so no work
30-12-2020	Nagaur	Office	Meeting with CE for Deshnok Issue Layout Plan & Hydraulic calculation
31-12-2020	Nagaur	Site	Site Visit Kuchaman Package CDS 06 to check rectification suggested

SIGNATURE

TL/ DTL PMSC for RRWS&FMP (Nagaur)



## Mr. O.P. Asati (O&M Engineer)

Projec	t Engineer	Shah Technical Consultants Pvt Limited								
	NMCG-ST	P Projects at Kanpur under Hybrid Annuity based PPP Mode								
		Daily Report	Month/Year							
Name :	O.P Asati	(	Dec-20							
osition	O&M Incharge									
Date		Description	Location							
1		f 68 MLD STP, Jøgjeetpur, Haridwar.	Haridwar							
2	Collection of O&M data o	68 MLD STP for the review and MPR purpose.	Haridwar							
- 3	AND THE RESERVE OF THE PARTY OF	f 14 MLD STP, Sarai, Haridwar.	Haridwar							
4		14 MLD STP for the review and MPR purpose.	Handwar							
6	Review of comparision st project.	Review of comparision sheet of bedding calculation design with FOS1.1 & 1.5 for the Pankha project								
6		SUNDAY	Kanpur							
7	Review & Approval of Bedding calculation design of Unnao project and drafted letter regarding variation of bedding design calculation of Pankha Project.									
В	Review of Sludge handling system for 130 MLD Jajmau facility.									
9	Drafted 2nd milestone certificate for Pankha & Unnac and Follow up Jajmau Sludge Handling									
10	Input some observations in Bingawan & Sajari letter regarding All risk Policy of Bingawan & Sajari and review jajmau 130 MLD STP BEP and design.									
11.	Inputs in preparing MPR for the month of Oct. 2020 of HAM Kanpur Project.									
12	SECOND SATURDAY									
13	SUNDAY									
34	Leave									
15	Leave									
16	Leave									
17	Leave									
18	Leave									
19	Leave									
20		SUNDAY	Kanpur							
21	Review of 130 MLD STP	Jajmau pending issues regarding design and drawing.	Kanpur							
22	Inputs in preparing the st	atus of Jajmau for the meeting of SMCG.	Kanpur							
23	Final review of HAM kan	our status for the meeting with SMCG at Lucknow.	Kanpur							
24	Inputs in Preparing the MPR of the Jajmau 130 & 43 MLD Facility.									
25	Inputs in Preparing the M	IPR for the month of Oct. 2020 & review of Jajmau documents.	Kanpur							
26	Inputs in drafting a letter 130 MLD Jajmau.	regarding GA, datasheet, wiring diagram and QAP of 11KV VCB Panel for	Kanpur							
27		SUNDAY	Kanpur							
28	Review of 130 MLD STP	Jajmau pending issues regarding design and drawing.	Kanpur							
29	Final Review in the MPR	for the month of Oct. 2020 of HAM Kanpur Project.	Kanpur							
30	input in the MPR for the	month of Nov. 2020 of HAM Kanpur Project & other office works.	Kanpur							
31	Inputs in the MPR for the	e month of Nov. 2020 of HAM Kanpur Project & other office works.	Kanpur							

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



#### Mr. L.K. Rao (Safety Expert)

Project Engineer	Shah Technical Consultants Pvt Limited	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	Dec-20 Location						
Date 2	Description Office work attended, Unnao 15 MLD Project inspector done along with STC & KRMPL Representatives.	Kanpur						
3	Office work attended, Unrae 15 MLD Project inspection report prepared. Attended the meeting of NMCG Executive Director Mr.DP Muturia along GM UPJN-8 their staff at Jejmau 20 MLD GETP.	Kanpur						
4	Office work attended, Attended the meeting of NMCG Executive Director Mr.DP Muturia along GM UPUN & their staff at Panks 30 Mt.D Construction site. Panks 30 Mt.D Project site inspection along with NMCG ED, UPUN GM & their Representatives. STC Representatives and KRMPL Representatives.	Kanpur						
5	Office work attended, Unnac 15 MLD construction site inspection report prepared and shown to TL Sir	Kanpur						
6	for further needful. SUNDAY	Kanpur						
7	Office work attended, STP 30 MLD Panka, IPS 20 MLD Sunder Nagar, IPS 25 MLD ICI Nala, 800 mm Dia Aghorchowck, 450 mm Dia Nahar to Bingumumi chowck. Panka 30 MLD Construction Project inspection done along with Support Engineers Mr. Satendra Sharma and Mr. Mahandra Nath Dubey.	Kanpur						
8	Office work attended, IPS Rakhimandi, IPS Munispurva, IPS Halwakanda Plants Inspection done along with three Support Engineers/Supervisors	Kanpur						
9	Office work attended, IPS Rakhimandi, IPS Munsipurva, IPS Halwakanda Plants Inspection report prepared along with Support Engineers and sent to the concerned personnel.	Kanpur						
10	Office work attended, IPS 20 MLD Sunder Nagar pit PCC work inspected along with Mr Mehendra Nath Dubey, Support Supervisor STC and advised the KRMPL to adhere the safety precautions like using life lines, safety harness, sheet filing, removal of edge top bricks & soil and proper supervision till the completion of the work safety.	Kanpur						
11	Office work attended, Panka 30 MLD Construction Project facilities -IPS 20 MLD Sunder Nagar pit. PCC work inspection report prepared and submitted to TL Sr.	Kanpur						
12	Second Saturday SUNDAY	Kanpur						
14	Office work attended, Review of Project ESHS (Environmental, Safety and Health System.) Plan of BINGAWAN 230 MLD (O&M)	Kanpur						
15	Office work attended, Panka 30 Mt.D Project site inspection along with civil support engineer.	Kanpur						
16	Office work attended, ESIA Report complience reminder prepared and sent to the concerned. Review of Project ESHS (Environmental, Safety and Health System.) Plan of SAJARI 42 MLD (OSM)	Kanpur						
-17	Office work attended, Earlier Inspection letters (5 Nos.) changes done as advised by TL and sent to the concerned through office manager	Kanpur						
18	Office work attended, Review of Project ESHS (Environmental, Safety and Health System.) Plan of JAJMAU 43 MED (O&M)	Kanpur						
19	Office work attended, Panka 30 MLD Construction Project facilities -IPS 20 MLD Sunder Nagar and	Kanpur						
20	IPS ICI Nala work inspection done along with Civil Support Engineer.  SUNDAY	Kanpur						
21	Office work attended. Panka 30 MLD Project Associate sites (IPS Sunderragar & IPS ICI Nale) inspection inport prepared and shown to TL for sending to the concerned	Kanpur						
22	Office work attended, Letter prepared and shown to Tt. Sir for sending to UPJIN "about develop the site, landscaping arboniculture, horticulture at STP's and priving earth filling, greenery, plantation and water drains net work etc., and maintain condition of landscape establishments.	Kanpur						
23	Office work attended, Review of Project ESHS (Environmental, Safety and Health System.) Plan of PANKA 30 MLD Construction project.	Kanpur						
24	Office work attended. Reminder letter sent to KRMPL on all the inspection letters which was sent by STC UII November, 2020. Review of UNNAD 15 MLD & PANKA 30 MLD Construction sites EHS Manuals.	Kanpur						
25	Office work attended, Review of Project ESHS (Environmental, Safety and Health System.) Plan of UNNAO 15 MLD Construction project. All paper work and pending works related to imspections and correspondence done and time sheet for the month of December, 2020 physical	Kanpur						
Towns to	There of Employee Signature of Toper Lands							



# **Annexure 3: Monthly Performance Report of Bingawan**

					210	MLD S		E TREA				GAWAN ORT	i,KANF	PUR				
			RAW SEWAGE FINAL OUTLET														H:DECEMBER-2020	
Date	INLET FLOW in	Plant Run in HRS	Temp	TDS	PH (7-8)	COD (523m a/l)	BOD (322	TSS (418 mg/l)	Temp	TDS	PH (7-8)	COD (<100	PH COD (<100	BOD (<30 mg/l)	TSS (<50 mg/l)	146.00	WER DOWN	REMARK
	MLD		°C	ppm	ppm	ppm	ppm	ppm	°c	ppm	ppm	ppm	ppm	ppm	HRS	MINS		
1-Dec-20	128.08	24.0	20	1012	7.3	620	162	508	20	1038	7.3	128	29	52				
2-Dec-20	110.24	24.0	20	1016	7.2	612	166	518	20	1040	7.2	120	30	50	3	30	33KV Fault from KesCO Side	
3-Dec-20	128.97	24.0	20	970	7.1	628	168	532	20	1030	7.3	112	29	48				
4-Dec-20	124.28	24.0	20	1020	7.1	604	167	524	20	1060	7.2	128	30	50				
5-Dec-20	122.22	24.0	20	1030	7.2	628	172	528	20	1050	7.3	120	29	44				
6-Dec-20	127.56	24.0	20	1027	7.2	596	170	518	20	1055	7.2	112	30	46				
7-Dec-20	122.01	24.0	20	1030	7.2	620	167	524	20	1048	7.2	136	29	50				
8-Dec-20	123.92	24.0	20	1022	7.2	632	178	528	20	1040	7.1	128	30	48				
9-Dec-20	122.38	24.0	19	1040	7.1	640	173	496	19	1060	7.2	136	29	46				
10-Dec-20	129.64	24.0	20	1033	7.2	632	176	540	20	1048	7.2	128	29	48				
11-Dec-20	130.52	24.0	20	990	7.1	648	175	524	20	1090	7.2	104	30	50				
12-Dec-20	131.20	24.0	20	930	7.1	604	178	488	20	1050	7.2	104	29	50				
13-Dec-20	126.88	24.0	20	980	7.1	620	170	520	20	1040	7.1	112	30	48		30	33KV Fault from KesCO Side	
14-Dec-20	131.08	24.0	20	988	7.1	656	177	588	20	1038	7.2	120	29	50			abilit data ilani ilabab bida	
15-Dec-20	129.83	24.0	20	998	7.1	632	178	536	20	1050	7.3	128	30	48				
16-Dec-20	124.80	24.0	20	990	7.1	620	170	526	20	1060	7.2	120	29	46				
7-Dec-20	123.59	24.0	20	1000	7.2	720	175	564	20	1050	7.2	128	28	48				
18-Dec-20	123.05	24.0	18	998	7.2	640	174	536	18	1060	7.2	136	29	50				
19-Dec-20	129.29	24.0	17	1000	7.1	648	176	528	17	1058	7.2	120	28	48				
20-Dec-20	130.00	24.0	16	1010	7.2	620	172	536	16	1060	7.3	128	29	50				
21-Dec-20	137.28	24.0	17	1000	7.1	632	175	540	17	1050	7.2	120	30	46				
22-Dec-20	135.39	24.0	18	1010	7.2	640	180	528	18	1054	7.3	1112	29	48				
23-Dec-20	130.18	24.0	17	1000	7.2	656	175	540	17	1060	7.2	120	30					
24-Dec-20	135.91	24.0	18	1010	7.2	632	188	518	18	1058	7.3	128	29	50	-			
25-Dec-20	135.39	24.0	18	1012	7.2	656	183	536	17	1068	7.2	THE REAL PROPERTY.		52				
26-Dec-20	80.54	24.0	17	1010	7.2	632	178	528	17	1060	7.2	112	30	50		Ar	22/07/5	
27-Dec-20	40.45	24.0	17	1000	7.2	656	175	532	17	-		128	28	48	11		33KV Fault from KesCO Side	
28-Dec-20	93.73	24.0	17	1010	7.3	612	177	514		1070	7.2	136	29	46	24	-	33KV Fault from KesCO Side	
29-Dec-20	131.75	24.0	17	1008	7.2	656	180	534	17	1050	7.3	128	30	48	13	25	33KV Fault from KesCO Side	
30-Dec-20	141.99	24.0	17	1010	7.2	632			16	1054	7.2	136	29	50				
1-Dec-20	131.91	24.0	17	998	7.2		188	526	16	1070	7.2	128	28	58				
TOTAL	3814.06	41.0	1/	770	1.4	664	184	498	17	1064	7.2	120	29	50				
	40 × 1.00	24.00	18.7					527.6					- 3		4			



### Annexure 4: Site Inspection Report for the Month of Dec. 2020 (Bingawan)

# Inspection report of 210 MLD STP Bingawan

# Visit & Inspected on date 26-11-2020

Following STC & KRMPL Staff were present

- Mr. Ajay Kumar Goyal, Support Engineer(Mech.)
- 2 Mr.Rahul ,Support Engineer (Elect.)
- 3 Mr. Ashwin, Mech. Engineer, KRMPL
- 4 Mr.Laxman, Electrical Engineer, KRMPL

#### Observations:-

#### 1. Collection Chamber

- Out of 2 nos. of Manual screens both are in working condition.
- Out of 2 nos. of mechanical screens installed, 1no. Mechanical screen is out of order since 14.08.2020. No any improvement has been observed in the inspection done on dated 12.11.2020.

#### **Electrical Defects:-**

#### Bar Screen Panel

- Voltmeter / Ammeter and light indication lamp of Bar Screen not working.
- · Panel Earthing damaged.
- · Panel indoor light not fixed.
- · Some items are missing from panels.

#### 2. Main Pumping Station

- All 12 nos. sewage transfer pumps found are in working condition.
  - KRMPL has promised his provide pump/coupling temperature & vibration end of November 2020.Krmpl not must ensure to provide the promised date. No any improvement has been observed in the inspection done on dated 12.11.2020.
- EOT crane 05 MT not in working condition due to remote damage.

#### **Electrical Defects:-**

#### In Main MCC Panel MEP-2

- · ACB Ammeter not working (Outgoing).
- ACB-7 & 11 Ammeter not working (Outgoing).
- · ATS Panel no.3 not working.

#### 3. Inlet chamber

- Out of 3nos of Mechanical fine screens all are in working condition.
- Auto systems of all mechanical screens are not rectified. This matter is pending since takeover date. No any improvement has been observed in the inspection done on dated 12.11.2020.
- Screen control panel was found in rusted condition. Need to be repaired & repainted.
- 1 no. sampling pump is in working condition. Cabin/cover for sampling pump is required. No any improvement has been observed in the inspection done on dated 12.11.2020



#### Electrical defects:-

- In Inlet Control Panel indicators not working.
- Classifier Drive –MCC Panel (Main drive -1) Ammeter not working

# 4. Grit removal assembly

- Out of 4 nos. of Mechanical grit removal systems all are in working condition.
- Coupling guards & Chain covers are to be providing as per specification. And all temporary chain covers need to be replaced.
- KRMPI had promise to provide all coupling covers by 31.08.2020 .But not complied till date.
   No any improvement has been observed in the inspection done on dated 12.11.2020.

#### Electrical defects:-

 Out of 4 nos. of Mechanical grit removal systems installed, 2 nos. Mechanical grit earthing damaged.

#### 5. UASB reactor

- Out of 16 nos reactors, only Reactors 3 nos. (Reactor no. 1, 4 & 8) had been cleaned and filled for reactivation from 19 .12.2019 till date. Reactor no. 2&3 are open for cleaning from 04.08.2020 and 20.08.2020 respectively. But no labour has been engaged for cleaning of theses reactors. No any improvement has been observed in the inspection done on dated 12.11.2020.
- KRMPL has not submitted schedule Programme for cleaning & reactivation of remaining 11nos. reactors yet. KRMPL is required to take-up the work of cleaning of remaining reactors at war footing. No any improvement has been observed in the inspection done on dated 12.11.2020.

#### 6. Aeration pond.

- Out of 18no's aerators installed, 1 no. is found not in working condition. No any
  improvement has been observed in the inspection done on dated 12.11.2020.
- · Painting of panels and hand railing is required to be taken up immediately.
- Most of the cable trays are in corroded condition. Need to be replaced.
   Electrical defects:-

#### Aerator Panel Room

- · APFC meter showing alarm error.
- Capacitor bank no.9 Push button cover missing & Ammeter not working.
- Panel of Alarm Annunciators not working.
- Main Light Distribution box ammeter not working.
- Light DB not working
- Aerator area light not working 38 nos.

#### 7. Chlorination Building

 Chlorination booster pump discharge line pressure gauge, 1no. need to be replaced with calibration report. But not complied till date.



- All 20 nos, chlorine tonners available in the chlorine room should be arrange properly,
- Only 2 nos chlorine tonners found connected with the system.
- 2 nos, tonner have been found in filled condition.
- 1 week stock is required to be available all the time.
- Heavy leakage has been found in Booster pump discharge line joint this is required To be repaired immediately.
- Painting of panels and hand railing is to be done.
- Most of the cable trays are in corroded condition. Need to be replaced.
- Electrical defects:-
- Halogen light lamp damage 2 no. In Chlorination room.
- · RTU Power supply Panel earthing not done .

#### 8. Gas holder

Out of 2 nos gas holder installed, 01 no is in working condition. No. 2 still to be repaired
 .KRMPI had promised to repair gas holder no.2 by 10.11.2020 but not rectify yet. No any
 improvement has been observed in the inspection done on dated 12.11.2020.

#### Electrical defects:-

• Bio gas flair Panel damage.

#### 9. DFG

Out of 2 nos. DFG installed, 1 no. is not in working condition, under repairing by UPJN.

## 10. Thicken sludge transfer pump house

- Out of 3 nos. sludge transfer pump installed, 01no. is not in working condition.
- Sludge transfer pump discharge pipe line choked .

#### 11. Belt filter press system

- Out of 3 nos. BFP installed in BFP building, 02 nos. are in working conditions. But KRMPL is using only one BFP because 01 no. trolley is available at site. BFP- 1no. is under repair. KRMPI had promised to repair 01 no. BFP by 15.10.2020 again extended the date from 15.10.2020 to 31.12.2020. No any improvement has been observed in the inspection done on dated 12.11.2020.
- All 3 nos. poly dosing pump installed, leakage found from inbuilt diaphragm portion of all 3 dosing pumps. And need to be rectified immediately. No any improvement has been observed in the inspection done on dated 12.11.2020.
- · Electrical defects:-
- · Belt filters Press pane no.1 Voltmeter/ Ammeter not working.
- Belt filters Press pane no.2, 500VA control transformer damage.
- Belt filters Press pane no.3, Voltmeter & EM Push button damage.

#### 12. Online Monitoring System:-



 Calibration certificate with witness certificate till not submitted by KRMPL. on 12.11.2020 (12.11.2020) produced below:-

- Out of 2 no's Electro-Magnetic Flow meters in inlet, 1 no. has been installed at site and it has been synchronised with RTOLMS. It is not calibrated. Another 2<sup>nd</sup> no. Electro-Magnetic Flow meters has not been installed yet. Need to be providing calibration report.
- Online monitoring system, RTU, DNP & UPS installed at Inlet & Outlet, and it has been synchronised with RTOLMS and testing results (COD, BOD & TSS) are changing for every 15 minutes. Calibration certificates (Inlet & Outlet analyser) are not found yet.
- It is also necessary to update the proper power consumption and timing of both Power supply and Power backup (DG set) in RTOLMS.
- Electromagnetic flow meter for treated effluent has not been installed yet. Installation of Flow meter at the Treated effluent channel of the STP is necessary and should be synchronised with RTOLMS.

#### 13. Miscellaneous:-

- · Balance boundary wall work is to be completed by UPJN.
- MPS outlet valve chamber wall has been found collapsed due to earth pressure.
   Cracks have been also developing in the road leading to MPS this to be repaired urgently.
- In Main LT Panel capacitor bank 800KVAR Transformer 1, no. voltmeter not working
- · Sodium Light lamp 9 no. & some street lighting not fixed.
- Street Light Junction boxes have loose mounting & are damage, some junction box are missing.
- · All Rusted junction boxes & Panels are to be painted.
- According to the Operation & Maintenance Manual chapter xii 8.2.2 Panel, Circuit Breaker, Starter
- Daily, Monthly /Quarterly and Annual Maintenance record not maintain in register.
- Electrical check sheet annexure XI not maintain by Concessionaire.
- Transformer no.1 breather silica gel in pink colour to be replaced & Transformer no.2 Breather damage.
- HT power cable damage since last 2 months.(180 sq.mm)
- Transformer -1 incomer panel Voltmeter/Ammeter not working in MCC-1 Room

Ajay Kr. Goyal Supt. Engineer (Mech.)

Supt.Engineer (Elect.)



3, one

# Inspection Report of Associated works of 210MLD Bingawan STP

# Visit & Inspected on date 08.12.2020

Following STC & KRMPL Staff were present.

- 1. Mr. Linga Rao ,Safety Expert ,STC Kanpur
- 2. Mr. Rahul, Support Engineer(Ele.), STC Kanpur
- 3. Mr. Ajay Kumar Goyal, Support Engineer(Mech.), STC Kanpur
- 4. Mr. Lokesh Khandelwal, Support Supervisior(Civil), STC Kanpur
- 5. Mr. Vireshber Sharma, Operator, KRMPL

# IPS Rakhimandi (100 MLD):-

#### Observations:-

#### 1. Online Monitoring:

- 1 no. of Electro-Magnetic Flow meter is installed at site and has been synchronised with RTOLMS.
- It is also necessary to install RTOLMS system displaying proper power consumption and timing for both Power supply and Power backup (DG set).

#### 2. Collection Chamber

- 1 no. of manual screen is in working condition.
- 1 no. of mechanical screen is in working condition.
- Belt Conveyer system has been removed from site KRMPL pump operator could not tell when this has been removed and why?
- Electrical defect:-
- · Screen Panel found in rusted condition.
- Screen collection chamber area light not working.

#### 3. Pumping Station

- Out of 5 nos. of sewage transfer pumps installed, 02 nos sewage transfer pumps are out of order since 22.11.2020.
- We have seen no body checking pump/coupling temperature & vibration on daily basis, due to non availability of Infrared Thermometer & Vibration meter. It is required to provide these instruments as per approved O&M manual and maintain daily record.
- Lubrication not proper on all mechanical equipments and there is no any record found at IPS.
- Handrail found missing at some places.

#### Electrical defect:-

- Light DB Panel MCB 2 nos. found damaged.
- Contactor of 430 HP Starter of Pump no.2 found defective.



#### DG Set

- 1 no. of DG set is found in working condition during our site visit.
- Provide inventory record as per approved O&M manual and maintain daily record.

#### 5. Miscellaneous:-

- 1. CT /PT junction box rusted.
- 1. HT Panel Incomer Voltmeter & Ammeter is not in working condition.
- 2. All HT Panel Outgoing meters are not working.

# IPS Munsipurwa (67 MLD):-

#### Observations:-

#### 6. Online Monitoring

- 1 no. of Electro-Magnetic Flow meter is installed at site and has been synchronised with RTOLMS.
- It is also necessary to install RTOLMS system displaying proper power consumption and timing for both Power supply and Power backup (DG set).

#### 7. Collection Chamber

- 1 no. of manual screen is in working condition.
- 1 no. of mechanical screen is in working condition.
- Belt Conveyer system not found at site.
- MS structural's are in rusted condition. Painting has to be carried out.
- Inlet and outlet of the mechanical screen gates operating handle is not available and same as to be installed.
- Large size Crack found on Inlet sluice gate foundation.

#### 8. Pumping Station

- Out of 6 nos. of sewage transfer pumps are installed,02 nos. pumps are out of order since 25.08.2020.
- We have seen no body checking pump/coupling temperature & vibration on daily basis, due to non availability of Infrared Thermometer & Vibration meter. It is required to provide these instruments as per approval O&M manual and maintain daily record.
- Handrail found missing at some places.
- Lubrication not proper on all mechanical equipments. And no any record found at IPS.
- · Electrical Defect:-
- Light DB panel B phase indicator not working.
- ATS Panel Pump no.6 Y phase indicator not working.
- ATS Panel Pump no.5 R phase & off indicator not.
- 250A TP MCCB panel Incoming B phase indicator and earthing not done.
- Contractor of ATS Panel pump no.4 found defective.



- ATS Panel 150 HP pump no.3 R phase ,OFF/ON indicator not working
- 9. DG Set
  - 1 no. of DG set is found is in working condition.
  - Provide inventory record as per approved O&M manual and maintain daily record...
  - Miscellaneous:-
  - CT junction box earthing not done.
  - HT Incomer /Outgoing panel Ammeter/ Voltmeter and indicator not working.
  - Transformer no.2 breather silica gel pink found to be replaced.
  - Main panel LT Voltmeter /Ammeter R& Y phase indicator not working

# IPS Halwakhanda (20 MLD):-

#### Observations:-

#### 10. Online Monitoring

 1 no. of Electro-Magnetic Flow meter is installed at site and has been synchronised with RTOLMS.

#### 11. Collection Chamber

- · 1 no. of manual screen is working condition.
- MS structural's are in rusted condition. Painting has to be carried out.

#### 12. Pumping Station

- Out of 5 of nos, sewage transfer pumps are installed ,02 nos sewage transfer pumps are out of order since 25,10,2020.
- We have seen no body checking pump/coupling temperature & vibration on daily basis, due to non availability of Infrared Thermometer & Vibration meter. It is required to provide these instruments as per approval O&M manual and maintain daily record.
- Lubrication not proper on all mechanical equipments. And no any record found at IPS.
- · Electrical Defect:-
- All Soft starter panel earthing not done.
- Main panel MCCB damage.
- Changeover Handle damage.

#### 13. DG Set

- 1 no. of DG set is found not in working condition. And DG Battery found missing.
- Provide inventory record as per approved O&M manual and maintain daily record...
- Miscellaneous:-
- CT junction box earthing not done.
- · IPS campus area light not working.
- Rubber mat not found in DG Panel room
- HT Incomer /Outgoing panel Ammeter/ Voltmeter and indicator not working.
- Transformer no.1 breather silica gel pink found to be replaced.



DG panel earthing not done.

#### 11.Safety

- Off site & On site emergency management to be implemented in this plant, so in case of any
  emergency preparedness, action plan, emergency phone numbers, govt.official numbers,
  hospital, fire, police etc., Controlling of leakage gas procedure, arresting chlorine leak from
  cylinder, how to attend the leak point by wearing SCBA etc., training to be given periodically.
- In plant all ladders hand railing supports to be arranged for avoiding the fall of persons while climbing and getting down from ladder.
- In plant entire platforms area toe boards with 100X6 mm plate to be arranged for avoiding fall
  of persons legs in down.
- DG area cautions boards, do's and don'ts to be written on the gate. In this area ear plugs or ear muffs to be used by workers during DG operation.
- In entire plant safety cautions boards, slogans, pictorial message, and flexes to be arranged for creating safety awareness to the workers, staff and visitors of the plant.
- Safety officer must be available in all plants. During our visit safety officer is not available any of the site.
- Electrical panels area between platform and panels gaps to be closed with MS sheet or grills in safety point of view and electrical shock proof rubber mats to be ensured in front of electrical panels. In IPS plants electrical points are very unsafe condition to be rectified immediately.
- Site house-keeping is poor to be made in good condition. Unwanted material to be removed from the site.
- Motor coupling guards to be on position.
- During our inspection it was observed that no workers having safety shoes and helmets while working.
- \* At plant area safety caution boards like DANGER, DO NOT ENTER etc., to be arranged.
- \* At Rakhimandi IPS some out siders playing cards in the plant premises. In process area small children below 7 years and other neighbours (elders also) using this site as walk way or path way. Unwanted persons should not be allowed in the site premises. Stress passers to be restricted.
- \* All these three IPS Drinking water to be arranged, Rakhimandi IPS Toilets to be arranged.

\* Security guard provison to be done at all three IPS.

Mr.L Krishna Rao Safety Expert

Mr. Ajay Kumar Goyal Support

Engineer(Mech.)

Mr.Rahul

Support Engineer(Ele.)

Mr.Lokesh Khandelwal

Support

Supervisor(civil)



## **Annexure 5: Test Result of Joint Sampling Report of Treated Effluent (Bingawan)**







# **TEST REPORT**

Format No: SRL/TRF/GEN Issue No: 01, Issue Date: 01.04.17

Page 2 of 2

Report No. K201117006/K201117006-11

#### ID- K20117006-1

Date of start of testing: 17.11.2020 Date of completion of testing: 23.11.2020

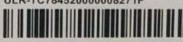
Sl. No.	Test Parameter	Observed Value	Test Method				
1.	Total Suspended Solids, mg/l	38	IS:3025(P-15)-1984 (RA-2019)				
2,	C.O.D, mg/l	162	IS:3025(P-58)-2006 (RA-2017)				
3.	B.O.D (5 days) at 20°C, mg/l	54	APHA 5210-B (23rd Edition): 2017				

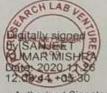
\*\*\*\*\*\*End of report\*\*\*\*\*





- End of Test Report --





Authorised Signatory

Spectro Research Lab Ventures (P) Ltd, G-3, Bajrang Bali Industrial Area, Near Panki Site-IV, Kanpur-208020(India) Phone :+91-9235503984/85 || Web: www.spectroresearchlabs.com|| Email: knp@spectro.in ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Laboratory



# **Annexure 6: Monthly Inspection Report Sajari**

								MO	NTHLY F	OW & LAE	REPO	3ARI,KANPUR RT						
_						KIN SEWAGE			_			PROCESS AND ADDRESS AND					Mont	h: Dec. 2020
Date	INLET FLOW	First fun	leny	105	16	CDD	800	195	Temp	TDS	PH	FINAL OUTLET COD	800	755	America	708	7.000	
1777	MED	i± HRS	7	19m	(3.8)	(ADE modify)	(391 mail)	1606.mol31.	17	gpm	15.81	Jofffeed)	6dfmill.	Addm:11	00	Seum	1000	REMAIN
+842		2000			-24	100						- Jun	ppn	399	gpm	195	106	NOTE THE PARTY OF
100	2176	34.00	ă	1205	25.	360	145	295	8	816	25	ш	21	22.	18			159845 (AGR 04WA)
lik	227	59	8	1390	75	312	138	35	3	313	75	104	25	33.8	10.			2 STREAM S LANGE CHEWAYS Found the color of Rain Seva
His	23%	34.08	3	13%	73	341	175	320	75	124	7,9	112	36	8:	14.			1 STREAM S LASHE CHEMITS Found Decision in Rain Serial
40e	377	2330	ā	1385	75	317	180	315	- 25	86	19	104	35	-320	181			2 STREAM S LAMBRICHERATE Found Oversion in Rain Seva
10x	22.77	25.00	3	1410	73	528	176	297	25	105	73	ш	241	34:	:34:			2 STREAM IS LINDER CHERATE Found Disc poor in Rain Seria
60x	35	24/8	25	1390	7.5	*0	133	289	25	794	7.9	104	11	10	15.			J. STREAM IS LINGER OPERATE Fished Dije color in Raw Seva
10e	3/2	24.00	ă	1318	75	46	190	281	25	10	7,9	104	n	3	10.			Listreach is labora creating found the color in Raw Seva
Hit	23	24.00	25	1290	75	402	158	295	25	805	7.9	- %	n	U	-18			2 STRAKES LINDER DIEBATE
10x	22.77	73.00	а	1250	75	360	145	271	Z	111	29	H	2	3	17			2 STREAM IS LINCOLD CHESATS
III-Dec	22	23.46	75	1410	7.5	340	120	300	3	955	29	104	Ħ	11	18			2 STREAM IS LINDER OPERATION Flows Diversion
11-0ec	23	24.00	15	1360	7.5	40	162	291	25	89	73	98	22	39	15			TOTAL SERVICE DIENT
17-0ec	337	23.50	25	1269	75.	36	190	302	25	10	29	E	1	B	18			2 STREAK IS UNDER OPERATE
130%	23.76	24.80	25	1305	75	23	154	315	25	126	73	Q	Ħ	12	16			2 STREAM IS LINCOR OPERATE
260ec	2178	22.00	25	1288	75	360	150	2%	25	N/5	7.9	10	11	26	19			2 STREAM IS LADER OVERATE
50x	2129	7150	25	3400	75	528	172	325	25	918	29	104	24		100			2 STIERR IS UNDER CHERKT
160c	22.77	23.00	25	1392	75	40	160	296	25	HI	7.9	- %	22	29	15		Н	Found Digit color in Navi Sevin 2 STREAM IS UNDER GREAATI
J'Or.	22	23.50	25	1428	75	512	180	2%	Zi	10	7,9	104	75	II.	31			15THEAM IS UNDER OPERATOR
180ec	33%	24.00	25	1246	75	24	塩	291	ž	798	7.9	*	22	3	18			Found Diversitar in Rain Series 2 STREAM IS UNDER CHERATE
19-0 ec	2127	19.50	28	1255	75	30	152	276	34	794	7.9	11	n	2	35			2 STREAM IS UNDER DIFERATI
20-0ec	23.76	24.00	24	1290	75	-01	165	294	34	810	23		21	11	17		15	2 STREAM IS LADER OPERATE
21-0ec	29.15	20.00	24	1305	7.5	24	9	290	34	905	25	4	22	28	26		m	2 STREAM & LAGE OFFRATS
77557	17755		100	1977	500	1000	1000	775		7000	100	100	N	12	-13	12	40	2 STREAM IS UNDER CIPERATO.
22-0 kc	18.81	19:00	34	1490	7.5	512	175	318	34	918	75	234	311	777		083	-	Found Dye tolor in Raw Seway 2 STREAM IS UNDER OPERATOR
23-0×	18.32	18.50	36	146	7.5	23	30	334	34	522	79	112	8	11	11	34		Found Diversion in Raw Serial 2 STREAM IS LINCON OPERATE.
140ec	1881	19.00	24	1395	73	#6	177	302	24	905	7.5	234	3	11	12	24		Found Dive color in Raw Sexial 7 CTREAM ES LIMITER OPERATT
25-0x	18.32	18.50	24	1390	7.5	512	180	329	26	902	7.5	m	25	34	11	34		Found Oper cook in Nava Sexion 1 STREAM IS LINCOR OPERATOR
350ec	18.81	19:00	24	1462	7.5	496	174	300	24	977	25	104	¥	11	11	24		Found Dise color in Raw Servic 1 STREAM IS LINCOLD OFFRATI
77-Dec	18.32	18.50	34	1490	75	528	185	332	34	952	75	111	B	35	-11	34		Roard Dye color in Nav Seria
25-0ec	18.81	19.00	24	165	7.5	512	175	310	34	918	7.9	134	23	32	12	24		2 STREAM IS UNDER DIFFRATT Found Dye color in Raw Senia
29-Dec	38.81	19.08	24	1407	75	608	182	319	24	96	7.9	110	3	34	11	H		I STREAM IS UNDER OPERATE Found Dije color to Raw Sevia
30-Dec	15.12	18.58	28	1506	75	624	186	301	24	961	7.9	112	24	12	12	2	15	2 STREAM IS LINDER DIFFRATO Found Dyn color in Raw Sens
11-0ec	25.74	2400	24	1519	75	640	180	332	24	959	7.9	104	*	13	14.			2 STREAM IS UNDER CHERKTS Found Dyn color in Raw Seve
TOTAL	60.41															191	18	
ME	21.98	22.12	24.58	1,372.42	7.50	479.68	166.77	302.48	24.58	878.42	7.90	100.97	23.19	31.13	1.5			
	771575	ostral Waste w	ELSON OF THE PARTY	BERTON CO.	1000	1000	7.11		-	-			CONTRACTOR OF					



### Annexure 7: Site Inspection Report for the Month of Dec. 2020 (Sajari)

# Inspection report of 42 MLD STP, Sajari

# Inspected on date 30-12-2020 Following were present,

- 1. Mr.Lokesh Khandelwal, Site Supervisor(civil), STC
- 2. Mr. Rahul, Support Engineer(Ele.), STC
- 3. Mr. Ram Khilawan, lab Chemist, KRMPL

#### Observation

- Compliance Reports of previous inspection done on 05/10/2020 & 25/11/2020 have not been submitted by KRMPL yet.
- It was informed that separate Plant in -charge for Sajari facilities has been appointed and expected to join shortly. But still separate plant in-charge for Sajari facilities is not available at site after more than 6 months.

#### 3. Collection chamber

- · 2 nos. of Manual screen are in working condition.
- 2 nos. of Mechanical screens are in working condition. But Auto system of both mechanical screens is not rectified. This matter is pending since beginning, to be solved by UPJN.
- Electrical Defects:-
- Mechanical screen panel no.02 indicator is not in working. And voltmeter, Ammeter missing in the panel.

#### 4. Main Pumping Station

- · All 5 sewage transfer pumps in working condition .
- 1 no. of Electro-Magnetic Flow meter is installed at site. There is no calibration certificate of flow meter. This matter is pending since taking over date.
- Electrical Defects:-
- Junction Box for 70KW motor stop/start push button not working.

#### 5. Inlet Chamber

- 2 no's of Manual screen are found in working condition.
- Out of 2 nos of Mechanical fine screens are installed ,01 no. mechanical screen in working condition and other one number out of order from 30.12.2020
- · Auto systems of both mechanical screens are not rectified.
- Screen panel earthing not done.

#### 6. Grit Separator

- 2 no's of Mechanical grit removal system are in working condition.
- · Screen control panel was found in rusted condition.

#### 7. Primary clarifier

2 no's of Primary clarifier mechanism are in working condition.

#### 8. Aeration system

- Out of 12 nos. of aerators are installed, 11 nos. are in working condition. And 01 no aerator
  is not in working condition. And submergence of aerators is to be increased as per design.
  This matter still pending since 04.01.2020.
- 9. Secondary clarifier



2 nos of Secondary clarifier mechanism are in working condition.

# 10. Chlorination system

- Out of 6 no's of tonners 3 nos has been installed, 3 nos tonners are not connecting with supply line of chlorine. And remaining 3 no's has been sent to refilling of chlorine gas.
- Out of 4 nos. pressure gauge are installed in chlorination system, 03 nos are found in working condition and 01 no. is out of order from 16.10.2020 to till date.

#### 11. Primary Sludge pump

• 2 nos of screw pump checked and found in running condition.

#### 12. Thickener Sludge pump

• 2 no's screw pump checked and found in running condition.

#### 13. Return Sludge pump

- Out 3 nos. of submersible pump installed in RSPH, 2nos are in working condition and 1 no. out of order from 03.10.2020 till date.
- 1no. pressure gauge is not working condition. Display glass of all pressure gauges to be changed with glasses for proper visibility. This matter is pending from the last inspection on 21.09.2020.
- · Electrical Defects:-
- · Panel no. 2 main door damage.
- · Panel no.01 is found defective.

#### 14. Digester

- Out of 2 nos. of Sludge digester mixers installed, 01 no is not in working condition. This
  matter is pending since June 2020.
- EFM at outlet of digester was installed, but not working due to calibration.

## 15. Gas Holder/Gas Scrubber/Gas flaring units

 All 3 nos of Gas engine installed have are not operational since handover date and also there was no gas unit operator from KRMPL.KRMPL had promised previously to get all the 3 nos gas generator operational by 30.06.2020 vide KRMPL letter no.453 dated 11.06.2020 and then extended the date to 30.09.2020 but no action has been taken by KRMPL till the end of Dec. 2020.

# 16. On-Line Monitor System (Done by UPJN)

- Inlet Analyser panel with censer installed at site. It has not been synchronised with RTOLMS. Analyser results are found at site (PH-7.39 COD-524 mg/l, BOD-152 mg/l, TSS- 284 mg/l).
- Out let Analyser panel with censer installed at site. It has been synchronised with RTOLMS. Analyser results are found at site (PH-7.78, COD-72.2 mg/l, BOD-18.2 mg/l, TSS- 25.4 mg/l).
- Inlet flow meter has not been found at site. Due to repairing & calibration work.

#### 17. DG Set for Power Backup

DG set has been procured, installed and put to use under trial run by UPJN.

#### 18. Miscellaneous



- Painting of the outer civil structural's and hand railing in walkways & ladders have to be carried out.
- Plant area housekeeping and grass cutting work are in progress.
- Referred letter in compliance to UPJN letter No.1545/W-20/127 by which it was informed
  that separate plant in charge for Sajari facilities has been appointed and is expected to join
  shortly. But still separate plant in charge for Sajari Facilities is not available at site even after
  more than 3 months.
- Monthly performance report of Sajari Facilities not being sent by KRMPL by 7<sup>th</sup> date of every month regularly.
- The dried sludge removed at sludge drying bed no. 18 in month of September and disposed
  at located site near sanigawan with in 10 KM. from STP Plant. Each trolley weight is not
  mentioned in the record. In this month drying bed no.05 is used as sludge filling.
- Transformer Breather silica gel in pink colour to be replace.
- · All locations cable tray found rusted.
- · All street light pole junction box found rusted.
- Power cut from 22.12.2020 (time 11:20 am) to 30.12.2020 (12:41 pm) for Sajari facilities.

Mr. Rahul (Ele.)

Support Engineer

Mr. Lokesh (Civil) Support Supervisor



## **Annexure 8: Test Result of Joint Sampling Report of Treated Effluent (Sajari)**







# TEST REPORT

Format No. SPUTTRE/GIS lasue No. 01, Issue Date: 01.04,77

Report No. K201117005/K201117005-11

ID- K20117005-1

Date of start of testing: 17.11.2020 Date of completion of testing: 23.11.2020

SI. No.	Test Parameter	Test Parameter Observed Value				
1.	Total Suspended Solids, mg/l	30	IS:3025(P-15)-1984 (RA-2019)			
2.	C.O.D, mg/l	91	IS:3025(P-58)-2006 (RA-2017)			
3.	B.O.D (5 days) at 20°C, mg/l		APHA 5210-B (23rd Edition): 2013			

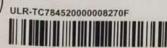
\*\*\*\*\*\*End of report\*\*\*\*\*







- End of Test Report --





Authorised Signatory

Spectro Research Lab Ventures (P) Ltd, G-3, Bajrang Bali Industrial Area, Near Panki Site-IV, Kanpur-208020(India)
Phone :+91-9235503984/85 || Web: www.spectroresearchlabs.com|| Email: knp@spectro.in
ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Laboratory



#### Annexure 9: MOM date 28.12.2020



Website-www.smcg-up.org Phone No.0522-2235542

## OFFICE OF PROJECT DIRECTOR STATE MISSION FOR CLEAN GANGA PLOT-18, SECTOR -7, GOMTI NAGAR EXTENSION. DULB BUILDING, LUCKNOW-226010

Letter no. 03 /0473 /SMCG/01

2020 Date- 01 / 01

Subject:- Minutes of Meeting of review meeting held on 28th December 2020 under the chairmanship of Additional Project Director, SMCG, for Kanpur, Unnao & Shuklaganj STP projects under Hybrid Annuity Mode.

Please find attached the Minutes of meeting review of the Kanpur, Unnao & Shuklaganj STP projects under HAM held on 28th December 2020 at SMCG office, for your persual and necessary action.

Encl: as above

Environment Specialist

To.

Managing Director, UP Jal Nigam, Lucknow.

#### Copy to:

- PS to Principal Secretary for record and observation.
- 2. Office of the Exeutive Director (Technical), NMCG, New Delhi.
- 3. Chief engineer (Kanpur Zone), UPJN, Lucknow.
- General Manager, Ganga Pollution Control Unit, Kanpur.
- 5. Shah Technical Consultants Pvt. Ltd., 117/426 (14-O block, Geeta Nagar opp. Anurag hospital Sharda Nagar Kanpur-208025)
- 6. Kanpur River Management Pvt. Ltd., Flat No. 101, First Floor, 3/83, Vishnupuri,



# Minutes of meeting for Review of progress of Kanpur, Unnao & Shuklaganj STP Projects under HAM on 28-12-2020

A review meeting for Kanpur, Unnao & Shuklaganj STP Projects under HAM on 28-12-2020 was held under the chairmanship of Additional Project Director, State Mission for Clean Ganga-UP, as the follow up for the compliances done after the inspection done on 3-4 Dec, 2020 by Mr. D.P. Mathuria, Executive Director (Technical), NMCG. The list of participants is attached as Annexure. The following decisions were made in the meeting:

- 1. The progress of construction of 30 MLD Pankha STP has achieved the 2<sup>nd</sup> milestone on time i.e. on 25.11.2020. The progress of 3<sup>rd</sup> milestone (25.01.2021) is behind schedule. Till date total 29.6% progress against 37.5% has been achieved. It was informed by the Project Manager that Kanpur Development Authority (KDA) has stopped the work due to non-availability of the required NOCs for road cutting and other works from KDA. The APD, discussed the matter with Chief Engineer, KDA on telephone who later on agreed to look for the solution. The Project Manager, UPJN was directed to meet the officials of Kanpur Development Authority to get the required NOC from KDA. By the mean time the concessionaire was directed to resume the work for other parts of the project sites so that the 3<sup>rd</sup> milestone may be achieved with in time.
  - 2. The progress of construction of 15 MLD Unnao STP has achieved the 2<sup>nd</sup> milestone on 06.12.2020 which is behind the scheduled date i.e. 25.11.2020. The progress of 3<sup>nd</sup> milestone (25.01.2021) is behind schedule. Till date total 26.1% progress against 37.5% has been achieved. Project Manager, Unnao informed that Interception & Diversion works for drains has not been started yet due to the non-acquisition of the proposed land. The proposed land is a private land which has to be procured/purchased as per the government policies. The matter has been put in the knowledge of Additional District Magistrate, Unnao. The land will be procured after the rate fixation by District Administration, Unnao. APD instructed PM, Unnao to expedite the procurement process.
    - 3. The works for 5 MLD Shuklaganj STP has still not started. It was informed that CTE from the UPPCB has been received on 10.07.2020. However, the work cannot be started as there is dispute/problem of encroachment by local inhabitants on the proposed land. Project Manager has informed that the District Administration has already looking into the matter to get the evacuation done at the earliest.





- 4. For Operation and Maintenance works for 42 MLD Sajari STP, it was informed by Project Engineer, STC that the Commercial Operation Date has been given on 11.10.2019. As informed by UPJN and PE, the concessionaire is not complying with the standard operating procedures/manuals of the O&M. The concessionaire was directed to follow the instructions given by Jal Nigam and Project Engineer. The following issues were agreed to be complied by the concessionaire at the earliest:
  - Flow meter at inlet and outlet to be installed/repaired/ calibrated within 10 days.
  - ii. All three Gas Generators to be made operational.
  - Chlorination being the crucial step for STP, the availability of sufficient numbers of chlorine cylinders should be maintained all time.
  - iv. Sludge Disposal Plan to be followed as submitted by the concessionaire.
  - v. Sharing of daily and monthly reports with SMCG/NMCG to be ensured.
  - vi. Project Engineer informed that works proposed in scheduled maintenance program in the 1<sup>st</sup> year of O&M has not been done by the concessionaire and schedule maintenance program for the next year is to be submitted to the UPJN/PE/SMCG/NMCG within 10 days.

UPJN is instructed to ensure the implementation of all the above directions by the concessionaire in defined time frame. Strict action/penalties need to be imposed by UPJN on the concessionaire in case of non-compliance.

- 5. For Operation and Maintenance works for 210 MLD Bhingawan STP, it was informed by Project Engineer, STC that the Commercial Operation Date has been given on 10.08.2020. As informed by UPJN and PE, the concessionaire is not complying with the standard operating procedures/manuals of the O&M. The concessionaire was directed to follow the instructions given by Jal Nigam and Project Engineer. The following issues were agreed to be complied by the concessionaire at the earliest:
  - i. Flow meter at inlet and outlet to be installed/repaired/ calibrated within 10 days.
  - ii. An action plan for cleaning and reactivation of all the remaining UASB reactors
  - iii. DFG sets to be repaired and made functional at the earliest,
  - All the Belt Filter Press (BFP) is to be used so as the sludge may be collected efficiently and disposed off accordingly.
  - Chlorination being the crucial step for STP, the availability of sufficient numbers of chlorine cylinders should be maintained all time.



- vi. Sludge Disposal Plan to be submitted (Quantum/collection/transportation/emptying etc. with schedule).
- vii. Sharing of daily and monthly reports with SMCG/NMCG to be ensured.
- viii. Project Engineer informed that scheduled maintenance works as per approved O&M manual was to be started from 01.08.2020 but has not started yet. APD instructed the concessionaire to strictly adhere to the schedule of maintenance and submit the compliance to the UPJN/PE/SMCG.

UPJN is instructed to ensure the implementation of all the above directions by the concessionaire in defined time frame. Strict action/penalties need to be imposed by UPJN on the concessionaire in case of non-compliance.

- 6. For Operation and Maintenance works for 43 MLD Jajmau STP, it was informed by Project Manager, Jal Nigam that a Joint inspection has been done on 02.12.2020 and one inspection is remained to be done. APD directed the Project Manager, Project Engineer and the concessionaire to complete the inspection and prepare the report so that the handover of the STP can be done before 15 Jan 2021.
- For handover of 130 MLD Jajmau facility, APD has instructed Project Manager, Jal Nigam to resolve the labour issue with the help of District Administration.
- 8. The concessionaire was instructed to get the all insurance policies as per contract agreement clause 11.2 within the 15 days. APD directed the Project Manager, Jal Nigam to impose the penalty in case of non-compliance of the said clause.
- APD instructed the concessionaire to submit the compliance with rectifications of defects/deficiencies indicated in the inspection reports Jal Nigam/STC & SMCG officials.

The meeting ended with vote of thanks to the chair.

Shelahin 2021