

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

MAY- 2020



Executing Agency
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208002



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ABBREVIATIONS

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

MONTHLY PROGRESS REPORT – HAM KANPUR

1 INTRODUCTION

The Govt. of India, recognizing that long-term rejuvenation of the river Ganga will have significant social and economic benefits on the lives of the 500 million people living along its basin, has identified cleaning of the river Ganga as one of its priorities. For this purpose, in May 2015, the GoI approved the flagship Namami Gange programme for cleaning, rejuvenation, and protection of the river Ganga. In January 2016, the GoI approved a hybrid annuity model to implement STP projects under the Namami Gange 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 GoI in achieving its aim of effective abatement of pollution in the river Ganga. The Ganga 2016 Order applies to all states in the catchment of the river Ganga basin, including Uttar Pradesh. The Ganga 2016 Order revised the legal status of NMCG (which was initially constituted as a registered society under the Societies Registration Act, 1860) to an authority constituted under the Environment (Protection) Act, 1986 and designated NMCG as the nodal agency for the implementation of the Ganga 2016 Order.

Rapidly increasing population, rising standards of living and exponential growth of 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 4th February 2019 and agreement signed between the parties on 12th 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.

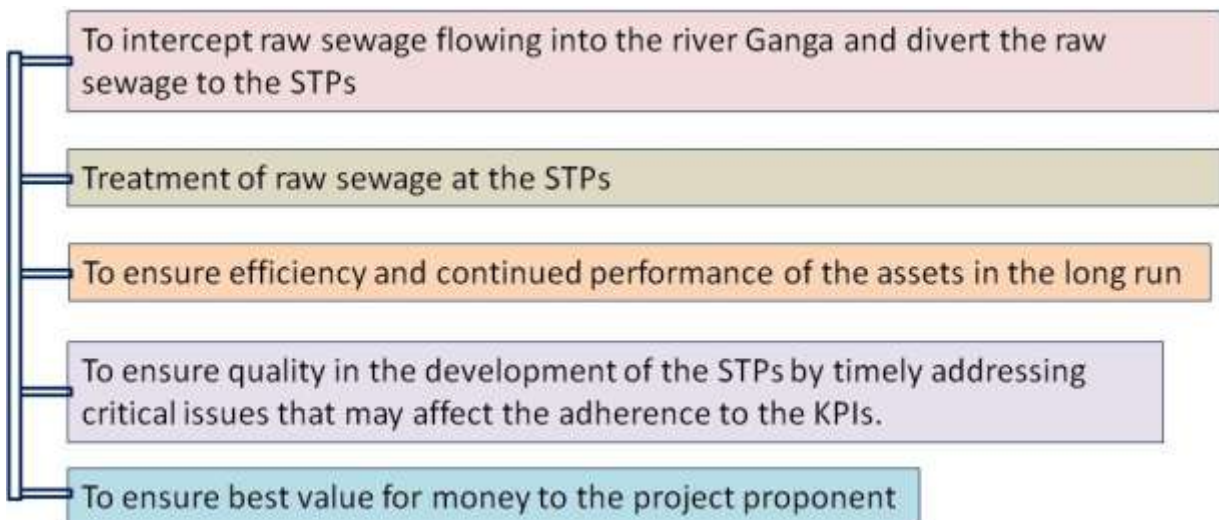


Figure 1: Objectives of NMCG and UP JAL NIGAM

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
Execution Agency	: Uttar Pradesh Jal Nigam (UPJN)
Consultant	: Shah Technical Consultants (P) Ltd. as ‘Project Engineer’
Agreement &LOA	: STC Agreement dated 12.04.2019 & LOA: Pr-12012/41/2018-PPP/NMCG dated 04.02.2019
Concessionaire	: Kanpur River Management Private Limited (KRMPL) an SPV of Shapoorji Pallonji& Company Private Limited, Mumbai
Concessionaire’s Agreement	: 14/GM/2018-19dated 21.12.2018
Cost of Project (CAPEX+OPEX)	: ₹ 816.24 Cr
Effective Date	: 11.10.2019
Completion date (as per contract)	: 24 Months from effective date (21 months construction + 3 months trial run)
O&M period	: 15 years after last Commercial Operation Date (COD)
Description of Work	: <ul style="list-style-type: none"> ➤ Construction of three new STPs (SBR) at different locations (30 MLD at Pankha, 15 MLD at Unnao and 5 MLD STP at Shuklaganj) and related infrastructure with 15 years of O&M; ➤ Rehabilitation of 130 MLD (Phase-I) STP at Jajmau with construction of 200 MLD TEPS and 173 MLD CCT at Jajmau with O&M for 15 years; ➤ O&M of 43 MLD (Phase-II) Jajmau facilities, O&M of 210 MLD Bingawan facilities and O&M of 42 MLD Sajari facilities for 15 years;

5 PROJECT WISE DETAILS OF COMPONENTS UNDER HAM KANPUR PROJECT

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

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

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

5.1 PANKHA FACILITIES

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

Table 5.1: Pankha Facilities

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

		900 mm-φ	2.170km
		1200 mm-φ	3.634km
		1600 mm-φ	1.596km
		2000 mm-φ	1.948km
1.14	Milestones	Date	Amount in Rs.
	1 st Milestone	12-Oct-2019 to 25-Apr-2020	1248,39,750
	2 nd Milestone	26-Apr-2020 to 10-Jul-2020	1248,39,750
	3 rd Milestone	11-Jul-2020 to 24-Sep-2020	1248,39,750
	4 th Milestone	25-Sep-2020 to 09-Dec-2020	1248,39,750
	5 th Milestone	10-Dec-2020 to 13-Feb-2021	1248,39,750
	6 th Milestone	14-Feb-2021 to 21-Apr-2021	1248,39,750
	7 th Milestone	22-Apr-2021 to 22-Jun-2021	1248,39,750
	8 th 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		Capacity/ dia. /size	No. of units/length
	Date of Start- Effective Date (11.10.2019)	Scope of Work- New Construction and O&M		
1.1	STP		15 MLD	1
1.2	Sump cum Pump house (MPS)		40 MLD	1
1.3	Trunk Sewer		1200mm φ	3.2Km
1.4	I&D works (Nala tapping)		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 to STP)		750mm φ	100m
1.9	Rising main (bypass)		750mm φ	100m
1.10	Effluent distribution chamber		-	1
1.11	Effluent gravity channel (STP to discharge point)		1.5m x 1.0m	300m
1.12	Effluent disposal drains		-	500m
1.13	Milestones	Date	Amount in Rs.	
	1 st Milestone	12-Oct-2019 to 24-Feb-2020	478,36,250	
	2 nd Milestone	25-Feb-2020 to 15-May-2020	478,36,250	
	3 rd Milestone	16-May-2020to 30-Jul-2020	478,36,250	

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

5.3 SHUKLAGANJ STP FACILITIES

Project wise components details of ShuklaganjSTP are given in table 5.3:

Table 5.3: Shuklaganj Facilities*

SN	STP Facilities	Capacity/dia. /size	No. of units/length
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- New Construction and O&M		
1.1	STP	5 MLD*	1
1.2	Sump cum Pump house (MPS)	20 MLD	1
1.3	Connecting sewer	-	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	Land not finalized*	

*ABOVE PROPOSALS ARE UNDER REVISION

5.4 JAJMAU FACILITIES

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

Table 5.4: Jajmau Facilities

SN	STP Facilities	Capacity/dia. /size	No. of units/length
A	Phase-I		
	Date of Start- Effective Date (11.10.2019)		
	Scope of Work- Renovation and O&M		
1.1	STP 1 on ASP technology with power Generation	130 MLD	1
1.2	Sump cum Pump house (TEPH)	200 MLD	1
1.3	CCT	173 MLD	1
1.4	Nawabganj IPS	-	1
1.5	Parmat IPS	-	1
1.6	Baba Ghat/Muar mill IPS	-	1

1.7	GuptarGhat IPS	-	1
1.8	Jajmau CSPA	-	1
B	Phase-II		
	Schedule Handing Over Date- 01.10.2019	Capacity/dia./size	No. of 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

5.5 43 MLD JAJMAU PHASE II STP FACILITY

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

SN	STP Facilities	Capacity/dia./size	No. of units/length
	Schedule Handing Over Date- 01.10.2019		
	Scope of Work- O&M		
1.1	STP 2 on ASP technology with power Generation	43 MLD	1
1.2	Sanjaypuram IPS	-	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 /dia./size	No. of units/length
	Schedule Handing Over Date- 01.04.2019		
	Scope of Work- Renovation and O&M for 15 years		
1.1	STP on UASB Technology with power generation	210 MLD	1
1.2	Installation of online monitoring system (RTOLMS)		L.S.
1.3	Bingawan MPS	200 MLD	1
1.4	Rakhimandi IPS	100 MLD	1
1.5	Halwakhanda IPS	20 MLD	1
1.6	Munshipurwa IPS	67 MLD	1
1.7	ShisamauNala (tapping)	8MLD	1

5.7 SAJARI FACILITIES

Project wise component detail of Sajariis given in table 5.6

Table 5.6: Sajari Facilities

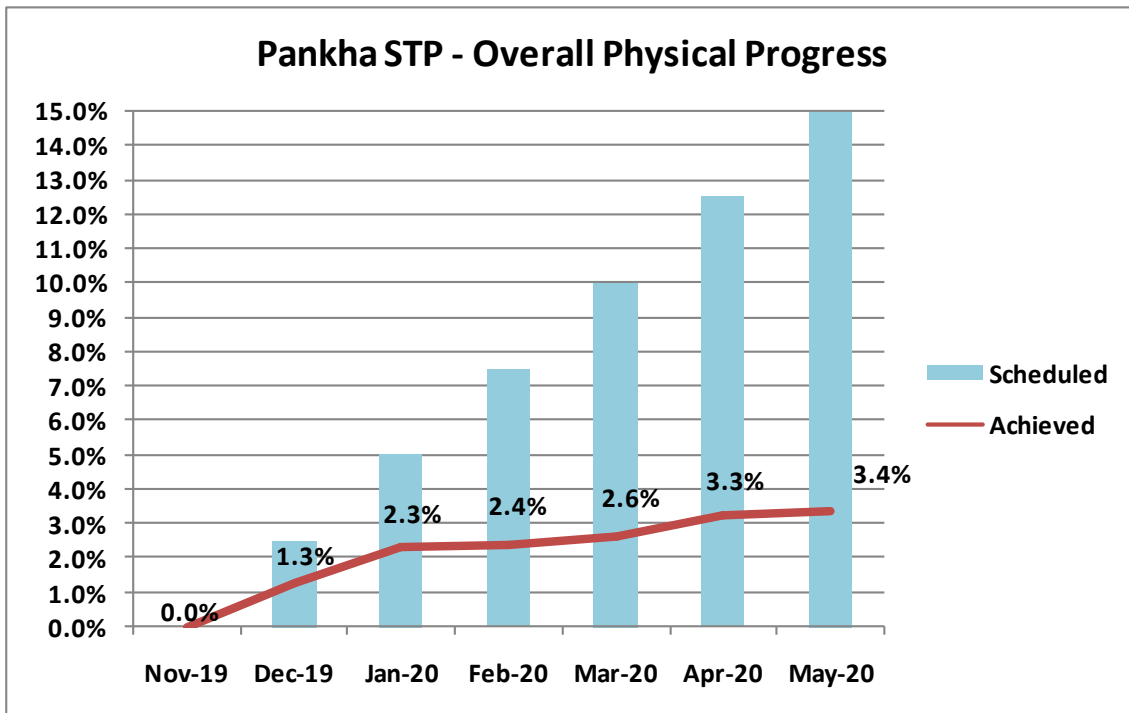
SN	STP Facilities	Capacity/dia. /size	No. of units/length
	Schedule Handing Over Date- 11.10.2019		
	Scope of Work- O&M for 15 years		
1.1	STP on ASP technology	42 MLD	1
1.2	MPS	42 MLD	1
1.3	Chakeri IPS	14 MLD	1
1.4	Sanigawan IPS	14 MLD	1

6 PHYSICAL PROGRESS OF WORK

As per the provision of Concessionaire Agreement, effective date of the project was to be declared before 19th April 2019. Effective date for work execution under HAM Kanpur project was declared on 11th October 2019. Hence, work related to construction / execution of new STP facilities and related infrastructure 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 has been divided in eight milestones each having progress of 12.5%. Therefore month wise schedule of progress is divided equally in the tenure of the milestones. For example; first milestones tenure is 5 months i.e. from 26th November 2019 to 25th April 2020 and per month progress works out to 2.5% per month (12.5% ÷ 5 months). In the same way overall progress has been derived by assigning equal weight to each activity as shown in the following graphs.

Progress of Unnao STP



6.1 MILESTONE WISE ACTIVITIES AND PROGRESS: PANKHA STP FACILITIES

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

Table 6.1: Pankha STP Facilities

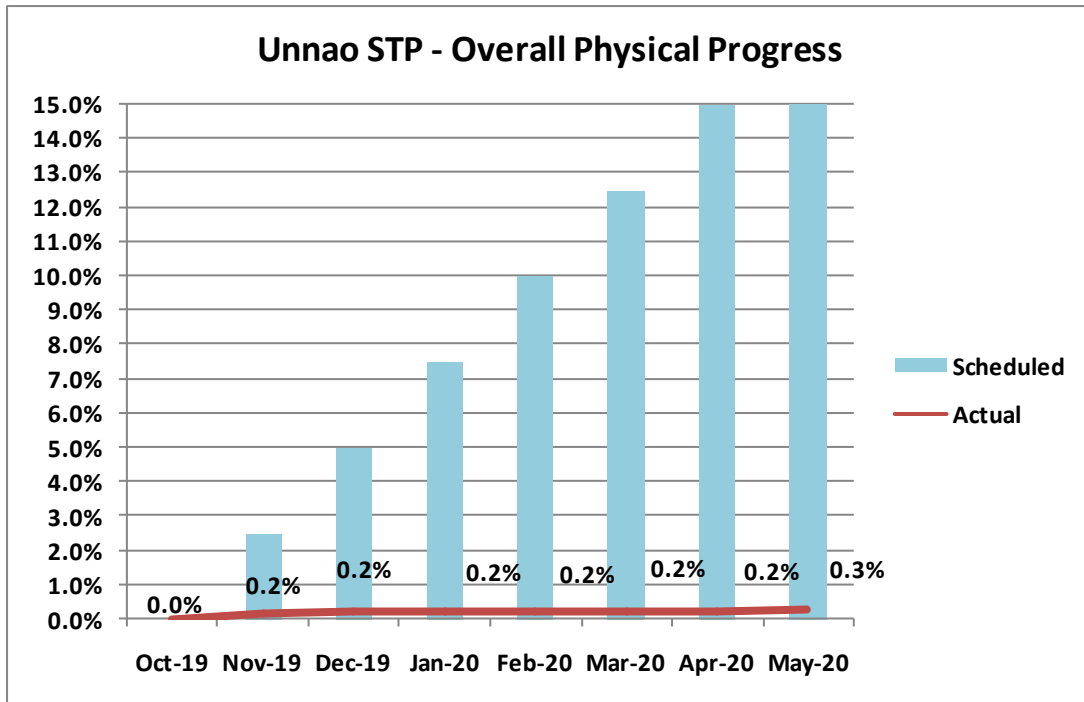
SN	Activity Name	Duration	Start	Finish	2nd Milestone targets (due on 10.07.2020)	Proportionate Targets (as on 31.05.2020)	Achieved	Backlog	Remarks
A	STP (30 MLD)								
1	SBR Basin Area								
	Excavation & PCC (516 m3)	69	27-Nov-19	04-Feb-20	100%	100%	95% excavation 35% PCC	65% PCC & 5% of excavation	181 m3 of PCC was done and electric pole is still not removed
	RCC Foundation/Raft	107	05-Feb-20	22-May-20	100%	100%	0%	100%	Delayed at KRMPL
	Wall 50% of total lift work	200	23-Mar-20	09-Oct-20	54.50%	35%	0%	35%	Delayed at KRMPL
	Walls (balance 50% of total lift work)	291	27-Jan-20	13-Nov-20	56.70%	43%	0%	43%	Delayed at KRMPL
2	SBR Splitter Box Area								
	Excavation & PCC	34	18-Feb-20	23-Mar-20	100%	100%	0%	100%	Work stop due to lockdown
	RCC Foundation/Raft	69	24-Mar-20	01-Jun-20	100%	99%	0%	99%	Work stop due to lockdown
	Wall 50% of total lift work	221	02-Jan-20	10Aug-20	85.97%	68%	0%	68%	Delayed at KRMPL
3	Chlorine Contact Tank Area								
	Excavation & PCC	69	10-Mar-20	18-May-20	100%	100%	0%	100%	Delayed at KRMPL
	RCC Foundation/Raft	69	19-May-20	27-Jul-20	75.36%	17%	0%	17%	Delayed at KRMPL
4	Chlorination House Area								
	Excavation & PCC	52	04-Apr-20	26-May-20	100%	100%	0%	100%	Delayed at KRMPL
	RCC Foundation/Column footing	69	27-May-20	04-Aug-20	63.77%	6%	0%	6%	Delayed at KRMPL
5	Sludge Thickener Area								
	Excavation & PCC	51	20-Apr-20	10-Jun-20	100%	80%	0%	80%	Delayed at KRMPL
	RCC Foundation wall/base slab	69	11-Jun-20	19-Aug-20	42.03%	-	-	-	-
19	EXTERNAL DEVELOPMENT								
	Compound Wall with Gate								

SN	Activity Name	Duration	Start	Finish	2nd Milestone targets (due on 10.07.2020)	Proportionate Targets (as on 31.05.2020)	Achieved	Backlog	Remarks
	Excavation (1010)& PCC	539	26-Nov-19	18-May-21	42.12%	35%	35%	0%	Excavation 450 m completed and 140 nos. PCC Completed
	RCC Column footing (337No.)	541	15-Jan-20	09-Jul-21	32.72%	25%	25%	0%	87 no. footings completed
	RCC Column and Beam	538	01-Feb-20	23-Jul-21	29.74%	22%	22%	0%	69 nos. columns completed.
	Brick work and plaster	130	02-Apr-20	10-Aug20	76.15%	45%	0%	45%	Delayed at KRML
B	MPS-2 (11MLD)								
20	CIVIL								
20A	Construction of Raw Sewage Sump								
	Excavation & PCC	69	16-Jan-20	25-Mar-20	100%	100%	10% excavation done.	100%PCC & 90% of excavation	Delayed at KRML
	RCC Foundation/Raft	69	26-Mar-20	03-Jun-20	100%	96%	0%	96%	Delayed at KRML
	Wall 50% of total lift work	69	04-Jun-20	12-Aug-20	52.17%	-	-	-	-
	Column and beam	142	04-Jun-20	24-Oct-20	25.35%	-	-	-	-
20B	Construction of Raw Inlet chamber and screen channel								
	Excavation & PCC	417	05-Jun-20	27-Jul-21	8.39%	-	-	-	-
C	ICI Nala IPS								
22	CIVIL								
22A	Construction of Raw Sewage Sump								
	Excavation & PCC	68	03-Feb-20	11-Apr-20	100%	100%	0%	100%	Delayed at KRML
	RCC Foundation/Raft	68	13-Apr-20	20-Jun-20	100%	71%	0%	71%	Delayed at KRML
	Wall 50% of total lift work	68	22-Jun-20	29-Aug-20	26.47%	-	-	-	-
	Column and beam	142	22-Jun-20	11-Nov-20	12.68%	-	-	-	-
D	IPS-6 (Sundar Nagar- 20MLD)								
25	CIVIL								
25A	Construction of Raw Sewage Sump								
	Excavation & PCC	69	04-Feb-20	13-Apr-20	100%	100%	0%	100%	Delayed at KRML
	RCC Foundation/Raft	69	14-Apr-20	22-Jun-20	100%	68%	0%	68%	Delayed at KRML
	Wall 50% of total lift work	69	23-Jun-20	31-Aug-20	24.64%	-	-	-	-

SN	Activity Name	Duration	Start	Finish	2nd Milestone targets (due on 10.07.2020)	Proportionate Targets (as on 31.05.2020)	Achieved	Backlog	Remarks
	Column and beam	142	23-Jun-20	12-Nov-20	11.97%	-	-	-	-
G	Sewer System Area (RCC Pipes- NP3 Types)								
	Site Clearance	332	03-Feb-20	31-Dec-20	47.59%	36%	0%	36%	Delayed at KRMPL
	Excavation and lying of RCC pipes including bed preparation & backfilling	538	04-Feb-20	26-Jul-21	29.18%	22%	0%	22%	Delayed at KRMPL
	Manholes	118	07-Apr-20	03-Aug-20	79.66%	46%	0%	46%	Delayed at KRMPL
H	Design, Supply, Testing & Commissioning of Sewer line (crossing national highway-2 & railway track)								
	Statutory approvals from Railway & Road Dept.	104	03-Mar-20	15-Jun-20	100%	86%	0%	86%	Delayed at KRMPL
	Construction of Pit	34	16-Jun-20	20-Jul-20	70.59%	-	-	-	-

6.2 MILESTONE WISE ACTIVITIES AND PROGRESS: UNNAO STP

Progress of 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)

SN	Description	Duration	Start	Finish	3rd Milestone Targets (due on 30.07.2020)	Proportionate Targets (as on 31.05.2020)	Achieved	Backlog	Remarks*
1	STP								
A	Inlet chamber Area								
	Excavation	70	26-Oct-19	04-Jan-20	100%	100%	0%	100%	Delayed at KRMPL
	PCC	121	06-Jan-20	06-May-20	100%	100%	0%	100%	Delayed at KRMPL
	Foundation / RCC work	121	07-May-20	05-Sep-20	69.42%	20%	0%	20%	Delayed at KRMPL
B	Fine Screen Area								
	Excavation	69	02-Nov-19	10-Jan-20	100%	100%	0%	100%	Delayed at KRMPL
	PCC, raft with misc work	122	11-Jan-20	12-May-20	100%	100%	0%	100%	Delayed at KRMPL
	final Finishing including painting shades	121	13-May-20	11-Sep-20	64.46%	15%	0%	15%	Delayed at KRMPL
C	Grit Chamber Area								
	Civil work	104	12-Nov-19	24-Feb-20	100%	100%	0%	100%	Delayed at KRMPL
	Supply and installation-grit scrapper mechanism	86	25-Feb-20	21-May-20	100%	100%	0%	100%	Delayed at KRMPL
	Finishing Work	87	22-May-20	17-Aug-20	79.31%	10%	0%5	10%	Delayed at KRMPL
D	Parshall Flume Channel Area								
	PCC & Raft Work	104	29-Nov-19	12-Mar-20	100%	100%	0%	100%	Delayed at KRMPL
	Finishing Work	86	09-Jun-20	03-Sep-20	59.30%	-	-	-	-
E	SBR Basin Area								
	PCC & Raft Work	104	17-Dec-19	30-Mar-20	100%	100%	0%	100%	Delayed at KRMPL
	Walls (50 % of Total Lift)	104	31-Mar-20	13-Jul-20	100%	59%	0%	59%	Delayed at KRMPL

SN	Description	Duration	Start	Finish	3rd Milestone Targets (due on 30.07.2020)	Proportionate Targets (as on 31.05.2020)	Achieved	Backlog	Remarks*
	work								
	Baffle walls work	108	19-Jun-20	05-Oct-20	37.96%	-	-	-	-
	Walls (balance 50 % of Total Lift) Work	83	14-Jul-20	05-Oct-20	19.28%	-	-	-	-
F	Chlorination Tank Area								
	PCC & Raft Work	86	26-Dec-19	21-Mar-20	100%	100%	0%	100%	Delayed at KRMPL
	Foundation (columns and wall work)	121	23-Mar-20	22-Jul-20	100%	57%	0%	57%	Delayed at KRMPL
G	Sludge Thickener Area								
	PCC & Raft Work	86	26-Dec-19	21-Mar-20	100%	100%	0%	100%	Delayed at KRMPL
	Sludge Raft Work	121	23-Mar-20	22-Jul-20	100%	57%	0%	57%	Delayed at KRMPL
H	Supernatant Sump Area								
	PCC & Raft Work	69	04-Jan-20	13-Mar-20	100%	100%	0%	100%	Delayed at KRMPL
	Sump Raft Work	157	14-Mar-20	18-Aug-20	87.90%	50%	0%	50%	Delayed at KRMPL
I	Sludge Sump Area								
	Civil work	121	14-Jan-20	14-May-20	100%	100%	0%	100%	Delayed at KRMPL
	finishing Works	104	15-May-20	27-Aug-20	73.08%	15%	0%	15%	Delayed at KRMPL
J	Centrifuge House & Feed Pump House Area								
	Excavation	39	27-Jan-20	06-Mar-20	100%	100%	0%	100%	Delayed at KRMPL
	Column footing	87	07-Mar-20	02-Jun-20	100%	98%	0%	98%	Delayed at KRMPL
	RCC Walls	89	03-Jun-20	31-Aug-20	64.04%	-	-	-	-
K	Air Blower Room Area								

SN	Description	Duration	Start	Finish	3rd Milestone Targets (due on 30.07.2020)	Proportionate Targets (as on 31.05.2020)	Achieved	Backlog	Remarks*
	Excavation	35	08-Feb-20	14-Mar-20	100%	100%	0%	100%	Delayed at KRMPL
	Column footing	88	16-Mar-20	12-Jun-20	100%	86%	0%	86%	Delayed at KRMPL
	Plinth, Grid slab & Cable Trench work	108	13-Jun-20	29-Sep-20	43.52%	-	-	-	-
L	Chlorination Room Area								
	Excavation	87	21-Feb-20	18-May-20	100%	100%	0%	100%	Delayed at KRMPL
	Columns footing work & RCC Wall	121	19-May-20	17-Sep-20	59.50%	10%	0%	10%	Delayed at KRMPL
M	Admin Bldg Area (G+1)								
	Excavation	68	02-Mar-20	09-May-20	100%	100%	0%	100%	Delayed at KRMPL
	Columns footing	121	11-May-20	09-Sep-20	66.12%	17%	0%	17%	Delayed at KRMPL
N	Staff Quarter Area (G+1)								
	Excavation, columns footing	52	14-Mar-20	05-May-20	100%	100%	0%	100%	Delayed at KRMPL
	Plinth Beam,Brick Walls work	69	06-May-20	14-Jul-20	100%	36%	0%	36%	Delayed at KRMPL
	First slab works	69	15-Jul-20	22-Sep-20	21.74%	-	-	-	-
O	Guard Room Area								
	Excavation, columns footing	52	14-Mar-20	05-May-20	100%	100%	0%	100%	Delayed at KRMPL
	Plinth Beam,Brick Walls work	51	06-May-20	26-Jun-20	100%	49%	0%	49%	Delayed at KRMPL
	slab works	52	27-Jun-20	18-Aug-20	63.46%	-	-	-	-

SN	Description	Duration	Start	Finish	3rd Milestone Targets (due on 30.07.2020)	Proportionate Targets (as on 31.05.2020)	Achieved	Backlog	Remarks*
P	Transformer Yard Area								
	Excavation & foundation	121	24-Mar-20	23-Jul-20	100%	56%	0%	56%	Delayed at KRMPL
Q	DG Shed Area								
	Excavation & foundation	133	02-Apr-20	13-Aug-20	89.47%	44%	0%	44%	Delayed at KRMPL
R	External Development								
	Boundary Wall	434	12-Oct-19	19-Dec-20	67.28%	53%	22.00%	31%	total 39 footing and 67 PCC of columns are done, Work was stopped by UPJN on 20.05.20 due to faulty practices and improper arrangement of material storage at the site by the Concessionaire.
2	I & D WORK								
	Construction of I& D Work / Tapping of Drain	87	21-Feb-20	18-May-20	100%	100%	0%	100%	Delayed at KRMPL
	Construction of Grit Chamber	86	19-May-20	13-Aug-20	83.72%	14%	0%	14%	Delayed at KRMPL
3	MPS-40 MLD								
S	CIVIL								
	Construction of Inlet Chamber	139	12-Dec-19	29-Apr-20	100%	100%	0%	100%	Delayed at KRMPL
	Construction of Screen Channels	139	26-Mar-20	12-Aug-20	90.65%	47%	0%	47%	Delayed at KRMPL

SN	Description	Duration	Start	Finish	3rd Milestone Targets (due on 30.07.2020)	Proportionate Targets (as on 31.05.2020)	Achieved	Backlog	Remarks*
	Construction of Raw Seweage Pump House	141	07-Jul-20	25-Nov-20	16.31%	-	-	-	-
4	SEWER SYSTEM AREA (3.2 Km)								
U	LAYING OF PIPELINES								
	Cutting, Excavation, Laying of Pipes, backfilling (3.2 Km)	291	27-Dec-19	13-Oct-20	74.23%	54%	0%	54%	Delayed at KRMPL
	Manholes	290	18-Feb-20	04-Dec-20	56.21%	36%	0%	36%	Delayed at KRMPL
	Flow Testing	240	01-Jun-20	27-Jan-21	24.58%	-	-	-	-
V	RISING MAIN PIPING WORK (100 m)								
	Cutting, Excavation, Laying of Pipes, backfilling	103	06-Jan-20	18-Apr-20	100%	100%	0%	100%	Delayed at KRMPL
	Testing	15	26-May-20	10-Jun-20	100%	33%	0%	33%	Delayed at KRMPL

**The Concessionaire made unnecessary delay in performing Geo-tech investigation. In meeting with Er. M.I. Ansari SE 3rd UPJN Lucknow dated 14.06.2019 he clearly directed the Concessionaire to check / review Geo-tech testing from any Gov organisation e.g. HBTU / IITK. But they took more than 5 months in compliance for which they are on fault.*

7 PRESENT STATUS AND ISSUES OF HAM PROJECT KANPUR

7.1 PANKHA 30 MLDSTP:

- i. BEPs are approved. Only RCC drawing of 20 MLD IPS Sundar Nagar and 25 MLD IPS ICI nala is approved in soft copies and hard copies are to be submitted by KRMPL.
- ii. Work progress was very slow before Lockdown and still slow after Lockdown and over all progress is very low. As JMD visit on 12th Feb, position of site clearance is still same as Electric poles have not been shifted even KRMPL was instructed to move file by sending special messenger and get approval.
- iii. At site there is no proper hutment work done, no material testing lab established, no safety measures followed and no workman insurance policies taken by KRMPL (only insurance in the name of M/S Shapoorji has been taken, which is not effective). No approval of the subcontractor working at site has been taken from UPJN.
- iv. Availability of onsite material testing facilities like for grit, sand, steel and concrete shall be ensured by the Concessionaire.
- v. A revised Construction Plan needed to be approved for the lapse of Lockdown period in reference to notice by KRMPL for Covid19 epidemic disturbances.

7.2 UNNAO 15 MLD STP FACILITIES:

- i. Site office, staff quarter and labour huts with all basic facilities need to be established by the Concessionaire on urgent basis.
- ii. Electricity connection has not obtained yet at the site. It needs to be done urgently.
- iii. Material Storage yard (min. 3 feet above the GL) need to be constructed for proper and safe storage.
- iv. Availability of onsite material testing facilities like for grit, sand, steel and concrete shall be ensured by the Concessionaire.
- v. The Concessionaire shall ensure availability of test reports for construction material and approved drawings along with construction material test lab facility on the site.
- vi. Revised construction plan for Unnao needs to be submitted by the Concessionaire.
- vii. Mechanical GA for MPS needs to be submitted by the Concessionaire showing pump arrangement for Ultimate stage.
- viii. I&D design and drawings need to be submitted after incorporating the changes discussed

7.3 SHUKLAGANJ 5 MLD STP FACILITIES:

Due to inclusion of some villages in the Unnao town area the STP capacity is enhanced up to 20 MLD. UPPCB has not given CTE for the proposed site in the project. Therefore site has been selected 10 km away for the changes permission / approval of UPJN / NMCG is awaited.

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

- i. Control philosophy for STP part is pending and KRMPL assured it to submit by next week by their letter dated 20.05.20. Instrumentation and control part compliance is also pending in STP as well as in IPS rehabilitation.
- ii. Prof. Kazmi, IITR recommended to construct a new plant on SBR /MLE Process to satisfy the latest NGT standards. In this context correspondence is in progress. Now IITR want a specific response from UPJN on sludge handling capacity to approve the plan.
- iii. Plant could not be handed over to KRMPL due to labour problems.
- iv. KRMPL has requested for the requirement of DG sets to ensure 100% availability during power interruption under variation by their letter dated 18.04.2020. But it is the responsibility of KRMPL to install DG sets / power backup as part of the project cost as per provision of Concessionaire Agreement clause 8.7 (b) & (c).

7.5 210 MLD BINGAWAN STP

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. Following points need to be addressed:

i. Inspection of STP

PM-III GPCU, UPJN inspected Bingawan STP on 30.05.2020 and issued inspection report on 3rd June 2020. Copy of Inspection report enclosed.

ii. O&M Manual

Revised O&M manual of Bingawan incorporating the points decided in the meeting dated 16.12.2019 have not been submitted by the Concessionaire after so many reminders and discussions with CE, Kanpur Zone dated 05.02.2020

iii. Insurance Policies

Only All Risk Industrial Insurance Policy has been submitted remaining policies are not submitted after so many reminders. Comprehensive General Liability Policies submitted by concessionaire is not acceptable.

iv. Performance of Plant

a. Cleaning and reactivation of UASB Reactors

All the KPIs are not being met during the month of May 2020. UASB reactor no. 8 has been filled on 30.05.2020 for reactivation after cleaning and reactor no. 4 & 1 have been taken up for cleaning. The Concessionaire has not submitted the action plan for cleaning and reactivation of UASB reactors but take in randomly for cleaning and reactivation. Performance report of May 2020 enclosed.

b. BFP: Only one filter press is operational, remaining two are still not in working order.

v. Joint Sampling and Testing by IIT Kanpur

It was decided in the meeting of GM GPCU UPJN on 16-12-2020 (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 30.05.2020 first time and sent it to IIT Kanpur for testing.

7.6 42 MLD SAJARI FACILITIES

As per CA, Schedule Handing over date for Sajari is effective date (11.10.2019) but plant was handing 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. He submitted calculations for available aeration on dated 28.12.2019 (in discussion with GM, UPJN Kanpur) and found that sufficient aeration is available to reduce COD from 250 to 100. Therefore there is no need for any improvement as suggested by KRMPL. Following Points needs to be addressed:

i) **Compliance of Inspection Report**

Compliance reports of the Inspections done by PE STC on 04.01.2020 and 29.02.2020 have been submitted by KRMPL on 15.05.2020 after 4 & 3 months respectively. But some of the defects and deficiencies indicated in the inspection reports have still not been rectified and the concessionaire has assured to complete by 15.06.2020. PM, E&M, GPCU, UPJN inspected Sajari site on 30.05.2020 and issued inspection report to KRMPL on 30.05.2020. Safety Expert STC inspected site on 26.05.2020 and issued inspection report on 28.05.2020 for compliance. Inspection Report dated 26.05.2020 enclosed.

ii) **O&M Manual**

O&M Manual already approved by UP Jal Nigam.

iii) **Insurance Policies**

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.

iv) **Performance of Plant:**

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

a) **Installation of Safety shower**

Safety Shower installed as instructed in the Inspection Report of 29.02.2020.

b) Mechanical Screens

Auto System of Both Mechanical Screens still not repaired.

c) Gas Holders

The leakage of gas detected between Sludge Digester and Gas Holder during last inspection on 29.02.2020 has been arrested by Concessionaire.

v) Joint Sampling and Testing by IIT Kanpur

It was decided in the meeting of GM GPCU UPJN on 16-12-2020 (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 took the sample jointly on 20.05.2020 first time and sent it to IIT Kanpur for testing.

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)	<p>GA, Data Sheet and QAP of centrifuge, submersible pump and mechanical grid collection system, Unnao-reviewed & recommended for approval on 25.02.2020</p> <p>GA, Data Sheet and QAP of centrifuge, submersible pump and mechanical grid collection system, Pankha-reviewed & recommended for approval on 28.02.2020</p>	<p>BEP of Jajmau STP rehabilitation, waiting for KRMPPL compliance</p> <p>BEP of Jajmau IPS rehabilitation, waiting for KRMPPL compliance</p>
2.	BEP Structure Design & Drawings	<p>Guard Room design, Unnao-recommended for approval on 01.04.20</p> <p>SBR REV-RCC design drawing, Unnao-recommended for approval on 11.04.20</p> <p>PTU Rev Structural design drawing, Unnao- recommended for approval on 11.04.20</p> <p>Staff Quarters Revised RCC design of Unnao STP-recommended for approval on 15.04.20</p> <p>Rev Structure design of Blower Room of Unnao STP-recommended for approval on 16.04.20</p> <p>ADMIN build drawing, Unnao-recommended for approval on 10.04.20</p> <p>Sludge thickener & Sludge re-circulation Sump Rev. Structural drawing, Unnao- recommended for approval on 11.04.20</p> <p>CCT Rev Structure design drawing, Unnao- recommended for approval on 10.04.20</p> <p>Blower Room Structure drawing and design of Pankha STP- recommended for approval on 30.04.20</p> <p>structure drawing of CCT & TEPH,</p>	<p>RCC drawing 20MLD, IPS Sundar Nagar, Pankha. Geo tech report is not proper.</p> <p>RCC drawing 25 MLD IPS ICI Nala, Pankha. KRMPPL is not compliance to STC comments.</p>

		<p>Jajmau- recommendations for approval on 06.03.2020</p> <p>Electrical drawing, Pankha- recommendations for approval on 17.03.2020</p> <p>Structure drawing, Unnao MPS- recommended for approval on 29.02.2020</p> <p>Revised drawing of boundary wall, Unnao- recommended for approval on 29.02.2020</p>	
3.	Construction Plan	Revised construction plan Pankha- recommended for approval on 04.01.20	
4.	Sewer Network/Line Design	<p>Design and drawings of sewer work Pankha- recommended for approval On 10.02.20</p> <p>Design and drawings of sewer work Unnao- recommended for approval On 20.02.20</p>	
5.	Topo, Geo tech & survey reports		<p>Geo tech report for Unnao STP (except BW& MPS) is rejected by STC/UPJN. KRMPL need to obtained new SBC report from HBTU</p>
6.	ESHS Plan	ESHS approval-Already vetted by STC. Approved by UPJN on 26.09.19	
7.	O&M	<p>Bingawan RTOLMS - Reviewed & found in order. Recommended for approval on 03.12.19</p> <p>RTU Bingawan - Reviewed & found in order. Recommended for approval on 19.12.19</p> <p>Level transmitter & flow metre - vetted & approved on 27.12.19</p> <p>Sajari, O&M manual – Approved</p>	

ANNEXURE

ANNEXURE 1: Progress of Work – HAM Kanpur Project

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet / Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessio naire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
01-05-20	Vender list on Kanpur HAM Project	K-mail dated 01.05.20	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek Mr LK Rao	1+1+1+ 1+1+1	-	-	-	Reviewed the vender list on Kanpur HAM Project
02-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek Mr LK Rao	1+1+1+ 1+1+1	-	-	-	Sajari 42 MLD STP, Site visit
03-05-20	Sunday												
04-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek Mr LK Rao	1+1+1+ 1+1+1	-	-	-	Bingawan 210MLD STP, Site visit

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet / Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessi onaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
05-05-20	Sajari Design calculation for COD	K-mail dated 05.05.20	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek Mr LK Rao	1+1+1+1+1+1	-	-	-	Reviewed the SajariDesign calculation for COD
06-05-20	Performance of 210 MLD Bingawan STP	28.04.20 K-402	01.05.20 S-camp/19	3	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek Mr LK Rao	1+1+1+1+1+1	-	-	-	Discussed the Performance of 210 MLD Bingawan STP with PM III
06-05-20	Payment of O & M of Sajari Facilities Prior to Sajari COD	05.05.20 J-w/28/20	06.05.20 S-camp/21	1	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek Mr LK Rao	1+1+1+1+1+1	-	-	-	Informed GM, UPJN that nothing is payable to the Concessionaire from Effective Date prior to COD.
07-05-20	Sajari Design calculation for COD	K-mail dated 05.05.20	07.05.20 S-camp/22	2	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh	1+1+1+1+1+1	-	-	-	Discussion held with Mr Madhava Kr. That that there is no need of any improvement at present, only need

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet / Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessi onaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Mr Satyendra Mr Vivek Mr LK Rao					to properly O&M of the plant as per CA,
08-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek Mr LK Rao	1+1+1+1+1+1	-	-	-	Unnao 15 MLD STPsite Visit
09-05-20	Second Saturday												
10-05-20	Sunday												
11-05-20	Rev BEP of 130 MLD STP Jajmau Renovation	K-mail dated 09.05.20	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek Mr LK Rao	1+1+1+1+1+1	-	-	-	After reviewing the rev BEP it was found that The R3 has not followed our earlier comments.
12-05-20	Sajari Design calculation for COD	NMCG-mail dated 11.05.20	12.05.20 S-camp/23	1	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1+1	-	-	-	Informed GM,UPJN that what action is taken on the NMCG mail

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet / Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessi onaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Mr LK Rao					
13-05-20	Approval of BEP R3 Jajmau Renovation	09.05.20 K-415 11.05.20 K-420	13.05.20 S-camp/24	4	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	KRMPL had to submit the “Compliance Report” of comments made till date by STC and the resolution made on each of these comments indicating where the changes are made in R3 Package.
14-05-20	Payment of O & M of Sajari Facilities Prior to Sajari COD	07.05.20 K-409,410,411	14.05.20	7	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	Draft a letter to GM, UPJN for Payment of O & M of Sajari Facilities Prior to Sajari COD
15-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	Pankha 30MLD STP Site Visit
16-05-20	Compliance of PE's Inspection Reports of Sajari	15.05.20 K-424,423	16.05.20 S-camp/25	1	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh	1+1+1+1+1	-	-	-	Inspection reports of both IPSs are also to be submitted

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet / Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessio naire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Mr Satyendra Mr Vivek					
17-05-20	Sunday												
18-05-20	Sub-contracting of construction and O&M of facilities of SPCPL	12.05.20 K-422	18.05.20 S-camp/27	6	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	the final decision is to be taken by UPJN accordingly.
19-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	Jajmau 130MLD STP Site visit
20-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	Pankha 30MLD STP Site Visit
21-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi	1+1+1+1+1	-	-	-	Unnao 15 MLD STPsite Visit

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet / Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessi onaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Mr Priyesh Mr Satyendra Mr Vivek					
22-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	Make inspection note of the Jajmau site visit
23-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	Make inspection note of the Pankha site visit
24-05-20	Sunday												
25-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	Make inspection note of the Unnao site visit
26-05-20	Jajmau STP for Renovation, Rev BEP	20.05.20 K-429	26.05.20 S-364	7	20	-	-	Mr. CM Dimri Mr JP	1+1+1+1+1	-	-	-	To avoid further delay we advise for approval for the

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet / Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessi onaire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Tripathi Mr Priyesh Mr Satyendra Mr Vivek					Jajmau renovation BEP R3 on condition that the Concessionaire shall comply with all the comments and submit a final submission complete in all Aspects for due vetting.
27-05-20	Jajmau phase i CSPS and IPS renovation Rev BEP	12.05.20 K-407	26.05.20 S-365	14	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	Comments pf our instrumentation expert sent to KRMPL for compliance
28-05-20	Bingawan BOD Performance: Reactors	26.05.20 K-432	28.05.20 S-camp/28	2	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+1+1	-	-	-	The Concessionaire has still not implemented the decision taken in the meeting of 16/12/2019 for joint sampling by UPJN & KRMPL and testing to be done by IIT Kanpur.
29-05-20	Attended Office	-	-	-	20	-	-	Mr. CM Dimri Mr JP	1+1+1+1+1	-	-	-	Make inspection note of sajari STP site visit

Date	Name of Activity#	Date of Receipt	Date of Approval (Vet / Comment)	No. of day taken	Time as per contract (days)	Delay if any (No. of days) [7=6-5]	Reason for delay*	Key Personnel deployed	Man-days of each Key Personnel	Delay by Concessio naire	Reason for delay	Step taken by PE to avoid such delays	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Tripathi Mr Priyesh Mr Satyendra Mr Vivek					
30-05-20	Vendor list of approved manufactures	20.05.20 J-w/10/48	29.05.20 S-369	10	20	-	-	Mr. CM Dimri Mr JP Tripathi Mr Priyesh Mr Satyendra Mr Vivek	1+1+1+ 1+1	-	-	-	List of approved manufacturer is forwarded to UPJN.
31-05-20	Sunday												
Total									31+31+ 31+31+ 31+12				

Annexure 2: Monthly Performance Report of Bingawan

210 MLD SEWAGE TREATMENT PLANT, BINGAWAN, KANPUR																	
MONTHLY FLOW & LAB REPORT																	
MONTH: MAY-2020																	
Date	INLET FLOW in MLD	Plant Run in HRS	RAW SEWAGE					FINAL OUTLET					POWER SHUTDOWN		REMARK		
			Temp	TDS	PH (7-8)	COD (523mg/l)	BOD (322mg/l)	TSS (418mg/l)	Temp	TDS	PH (7-8)	COD (<100mg/l)	BOD (<30mg/l)	TSS (<50mg/l)		HRS	MINS
			°c	ppm	ppm	ppm	ppm	ppm	°c	ppm	ppm	ppm	ppm	ppm			
1-May-20	150.80	24.0	28	729	7.6	504	170	370	27	734	8.0	104	36	54			
2-May-20	156.34	24.0	27	725	7.4	512	178	368	27	730	7.9	112	35	56			33kV HT feeder fault from Kesco side
3-May-20	152.40	24.0	28	729	7.6	504	170	360	27	735	8.0	104	36	54			
4-May-20	154.08	24.0	28	724	7.5	512	174	366	28	732	7.9	112	37	56			
5-May-20	158.24	24.0	27	728	7.4	488	168	362	27	733	7.8	96	36	54			
6-May-20	150.49	24.0	28	730	7.5	504	158	370	28	738	7.9	104	38	56			
7-May-20	159.64	24.0	29	727	7.6	496	165	372	29	736	8.0	112	37	54			
8-May-20	149.05	24.0	29	690	7.5	480	160	380	29	710	7.9	104	36	56			
9-May-20	152.06	24.0	30	680	7.3	464	180	376	29	700	7.8	112	37	58	17		33kV HT feeder fault from Kesco side
10-May-20	148.03	24.0	29	697	7.5	472	182	386	29	712	7.9	104	36	56	30		33kV HT feeder fault from Kesco side
11-May-20	143.00	24.0	30	690	7.4	464	180	376	30	708	8.0	96	35	58	45		33kV HT feeder fault from Kesco side
12-May-20	146.12	24.0	30	689	7.5	472	150	380	30	706	7.9	112	36	56			
13-May-20	146.80	24.0	30	690	7.5	456	165	370	30	712	7.8	112	37	54	25		33kV HT feeder fault from Kesco side
14-May-20	150.90	24.0	31	698	7.6	480	178	380	31	720	7.8	120	38	56			
15-May-20	142.48	24.0	31	700	7.5	488	170	388	31	728	7.9	120	36	54			
16-May-20	155.83	24.0	32	705	7.4	480	172	384	32	730	7.8	112	37	52			
17-May-20	146.28	24.0	31	700	7.5	488	190	380	31	720	7.8	120	36	54			
18-May-20	150.44	24.0	31	740	7.4	496	185	386	31	788	7.7	112	36	56			
19-May-20	146.28	24.0	31	780	7.4	474	180	370	31	810	7.6	120	36	54			
20-May-20	145.24	24.0	32	800	7.4	496	190	376	32	880	7.7	104	34	52			
21-May-20	145.08	24.0	32	840	7.5	488	180	382	32	885	7.5	112	35	54			
22-May-20	155.66	24.0	32	880	7.4	496	188	380	32	900	7.6	120	36	52			
23-May-20	149.42	24.0	33	870	7.5	504	195	376	33	903	7.7	112	35	52			
24-May-20	159.82	24.0	34	860	7.4	496	180	384	34	880	7.6	120	36	54			
25-May-20	151.50	24.0	33	870	7.5	488	186	378	33	890	7.7	120	36	52			
26-May-20	143.85	24.0	34	880	7.4	496	170	380	33	880	7.7	112	35	54	30		33kV HT feeder fault from Kesco side
27-May-20	149.45	24.0	34	880	7.5	504	170	384	34	856	7.8	104	38	54	25		33kV HT feeder fault from Kesco side
28-May-20	139.69	24.0	33	870	7.4	472	180	390	33	900	7.7	120	37	56			
29-May-20	130.45	24.0	33	880	7.5	496	158	386	33	905	7.6	112	36	54			
30-May-20	136.40	24.0	32	885	7.4	504	178	388	32	910	7.7	104	35	52	2	5	33kV HT feeder fault from Kesco side
31-May-20	158.24	24.0	32	896	7.5	472	160	400	32	920	7.8	112	36	56			
TOTAL	4625.05														5	27	
AVG	148.20	24.00	30.8	773.0	7.5	488.6	174.5	379.0	30.6	794.5	7.8	111.0	36.1	54.5			

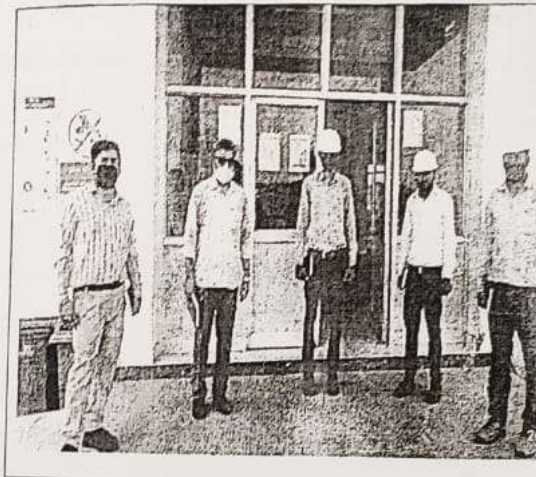
Annexure 3: Site Inspection Report for the Month of May 2020 (Bingawan)

Joint Inspection Report of 210 MLD Bingawan STP under O&M Er. M.Ahsan, Project Manager, Ganga Pollution Control Unit-III, U.P. Jal Nigam, Kanpur and Er. Mohd. Maaz, Project Manager (E&M), Ganga Pollution Control Unit, U.P. Jal Nigam, Kanpur on 30/ 05/ 2020

Visited and Inspected 210 MLD Bingawan STP site which is being operated and maintained by M/s Kanpur River Management Pvt. Ltd. (KRMPPL), Kanpur-a SPV formed by M/s Sapoorji Pallonji Pvt. Ltd. under HAM-PPP project on 30/ 05/ 2020

Following UPJN, and KRMPPL officials were present at Bingawan STP site:

1. Mr. Shriram Shastey, 210 mld Plant Encharge, KRMPPL
2. Mr. Aswini Kumar – Mech. Engr. – KRMPPL
3. Mr. Shailesh kumar – Lab chemist – KRMPPL
4. Mr. Avinash Maurya, Astd. Project Engineer, GPCU, U.P. Jal Nigam, Kanpur



Observations:

This plant along with all related pumping stations and I & D works has been handed over to M/s KRMPPL by UPJN on 08.07.2019. Following observations were made during inspection.

IPS:

Rakhimandi: Only 3 pumps out of 5 pumps installed, are in working condition. The mechanical screen find un-functional.

COD Nala Screen: One person was available for screen cleaning, told that there is no arrangement for cleaning during night, as a result there is always a possibility of over flow during night.

Main receiving chamber: Mechanical screen system for floating material is non functional since long time.



MPS:

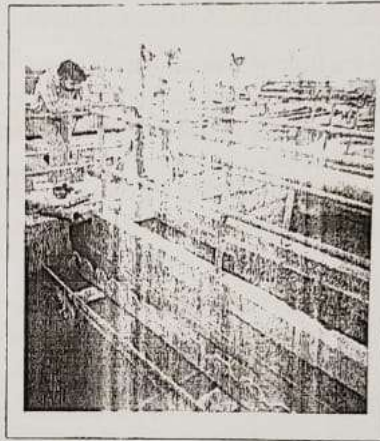
- Only 10 pumping plants out of 12 pumping plants installed at MPS are in working condition. It is informed that 2 PPs are out of order, has been sent for maintenance.
- KRMPL officials are instructed to keep all the 12 PPs in working condition for 100% availability of MPS.

Inlet Chamber:

- Find the working satisfactorily.

UASB Reactors:

- There are 18 reactors in the STP. It is informed that reactor no. 8 has been done fully cleaned and performing well and at present reactor no 4 and reactor no. 1 are under the same process to clean the reactor. It is also informed by the representative of M/s. KRMPL that after cleaning the reactor No.8, it is seems the improvement in the effluent characteristics and after cleaning of other reactor, the results should be better than present.



Sludge removal belt filter press mechanism:

- Only one sludge belt filter press in working among 3-Nos. of belt filter press installed.
- As per estimation of sludge production from incoming sewage quantity, at least two belt filter press are required under operation every time. The possibility of sludge deposition, and damaging the sludge blanket in the reactors can not be denied, if sludge extraction is insufficient through the belt filter press.

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Online monitoring system (RTOLMS) :

- For online monitoring system, the erection works for the installing the system are under execution, directed to complete it with in stipulated time.



Aeration Tanks:

- 2 out of 18 Aerators found not working, informed that, these are under repair. Necessary action to repair the aerator is to be taken immediately to avoid formation of stagnation zone in that area.

Joint sampling for testing of effluent characteristics from IIT:

- No sampling / testing has yet been done, from IIT of the effluent characteristics. It is informed that, it is under process on today and the sample will send accordingly.

Performance of the Plant:

The recorded result of laboratory shown that, performance of the plant not up to the mark. Guaranteed characteristics of treated effluent (COD < 100, BOD < 30, TSS < 50) is not meeting upto the prescribed level. Latest result in register for dated 23.05.2020 observed as following BOD : 35mg/l., COD : 112 mg/l., TSS : 52 mg/l. The reason for higher BOD is that UASB reactors poor performance due to insufficient withdrawal of sludge from inflow pipes and reactors.

Instructions:

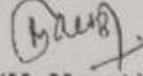
Officials of M/s KRMPPL are instructed to rectify all the shortcomings as mentioned above and take necessary action to improve the performance of the STP to meet the effluent parameters according to the norms of pollution control board, the following measures but not limited are required to immediate effect :

- 1- Cleaning and rectification of all reactors.
- 2- All the belt filter press must be operational.
- 3- All the diffusers should be operative every time.

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- 4- All mechanical screen and pumps should be always in working condition.
- 5- Joint sampling to the testing the effluent characteristics from IIT should be continued at least once in a month.



(M. Maaz)
Project Manager (E/M)



(M. Ahsan)
Project Manager

OFFICE OF THE PROJECT MANAGER, GPCU-III, U.P. JAL NIGAM, KANPUR

Letter No.

1359, M-15A, 29

Dated: 30/05/2020

Copy to following for information and necessary action:-

1. Chief Engineer (Ganga), U.P. Jal Nigam, Lucknow.
2. Secretary (Management), U.P. Jal Nigam, Lucknow.
3. General Manager, Ganga Pollution Control Unit, U.P. Jal Nigam, Kanpur, for compliance.
4. Project Manager (E/M), GPCU, U.P. Jal Nigam, Kanpur
5. Shri Atif Husain Khan, Project Engineer.
6. Mr. J.P. Tripathi, O & M Engineer, STC, Kanpur.
(E_Mail- stcnmcgkanpur@gmail.com).
7. Mr. P.C. Shukla, Project Director, M/s Sapporji Pallonji Pvt. Ltd. (E_Mail- prakash.shukla@shapporji.com).
8. Mr. Amit Bhambre, O & M Incharge, M/s KRMP.L.
(E_Mail- amit.bharambe@shapporji.com).



Project Manager

Project Manager
Ganga Pollution Control Unit
U.P. Jal Nigam, Kanpur

(E/M.)

Annexure 4: Summary of Monthly Performance Report of Sajari

42 MLD SEWAGE TREATMENT PLANT, SAJARILKANPUR																		
MONTHLY FLOW & LAB REPORT																		
Month: MAY 2020																		
Date	INLET FLOW in MLD	Plant Run in HRS	RAW SEWAGE					FINAL OUTLET					Aeration DO ppm	POWER		REMARK		
			Temp	TDS	PH	COD	BOD	TSS	Temp	TDS	PH	COD		BOD	TSS		HRS	MINS
			°C	ppm	(7-8)	(450 mg/l)	(250 mg/l)	(600 mg/l)	°C	ppm	(7-8)	(<100mg/l)		(<30mg/l)	(<50mg/l)			
1-May-20	17.49	18.0	25	1243	7.5	440	162	311	25	1234	7.9	96	23	29	1.4		50	2 STREAM IS UNDER OPERATION 33 KV Feeder Fault From KesCO Side
2-May-20	23.76	24.0	25	1096	7.5	380	145	269	25	1287	7.9	90	21	32	1.9			2 STREAM IS UNDER OPERATION
3-May-20	16.83	17.0	25	1352	7.5	464	170	283	25	1344	7.9	104	25	34	1.8			2 STREAM IS UNDER OPERATION Found Dye Color in Raw Sewage
4-May-20	16.83	17.0	25	1364	7.6	456	162	316	25	1362	7.9	112	21	31	1.6			2 STREAM IS UNDER OPERATION
5-May-20	12.62	13.0	25	1291	7.5	416	155	273	25	1287	7.9	96	23	37	1.9	2	10	2 STREAM IS UNDER OPERATION 33 KV Feeder Fault From KesCO Side
6-May-20	20.79	21.0	25	1092	7.5	364	138	246	25	1092	7.9	88	21	25	2.1			2 STREAM IS UNDER OPERATION
7-May-20	13.86	14.0	25	1283	7.5	384	145	291	25	1276	7.9	95	22	28	1.9			2 STREAM IS UNDER OPERATION
8-May-20	15.35	16.0	25	1290	7.5	396	138	276	25	1283	7.9	88	20.5	29	1.7			2 STREAM IS UNDER OPERATION
9-May-20	16.33	17.0	26	1267	7.5	396	150	289	26	1262	7.9	80	22	26	2.1			2 STREAM IS UNDER OPERATION
10-May-20	12.38	13.0	26	1239	7.5	408	158	293	26	1236	7.9	96	24	29	1.4	2	25	2 STREAM IS UNDER OPERATION 33 KV Feeder Fault From KesCO Side
11-May-20	23.76	24.0	25	1108	7.5	320	136	247	26	1105	7.9	92	21	26	1.7			2 STREAM IS UNDER OPERATION
12-May-20	18.81	19.0	26	1213	7.5	336	145	274	26	1209	7.9	88	23	24	1.4			2 STREAM IS UNDER OPERATION
13-May-20	15.84	16.0	26	1421	7.5	432	158	282	26	1417	7.9	95	25	27	1.6			2 STREAM IS UNDER OPERATION
14-May-20	14.85	15.0	26	1423	7.5	456	164	311	26	1476	7.9	104	23	29	1.5			2 STREAM IS UNDER OPERATION Found Dye Color in Raw Sewage
15-May-20	13.86	14.0	26	1490	7.5	416	150	297	26	1487	7.9	96	21	27	1.8			2 STREAM IS UNDER OPERATION
16-May-20	17.82	18.0	26	1202	7.5	430	156	309	26	1196	7.9	88	22	25	2.1			2 STREAM IS UNDER OPERATION
17-May-20	16.34	17.0	26	1257	7.5	396	172	268	26	1253	7.9	80	21	28	1.9			2 STREAM IS UNDER OPERATION
18-May-20	16.61	17.0	26	1390	7.5	468	165	316	26	1387	7.9	120	24	31	1.6	2	47	2 STREAM IS UNDER OPERATION Found Dye Color in Raw Sewage
19-May-20	19.80	20.0	26	1281	7.5	340	152	291	26	1273	7.9	96	22	27	1.4			2 STREAM IS UNDER OPERATION
20-May-20	16.83	17.0	26	1367	7.5	382	164	297	26	1252	7.9	88	21	24	1.9			2 STREAM IS UNDER OPERATION
21-May-20	15.84	16.0	26	1402	7.5	448	155	303	26	1032	7.9	92	23	26	1.3			2 STREAM IS UNDER OPERATION
22-May-20	15.84	16.0	27	1364	7.5	454	158	316	27	1086	7.9	104	25	29	1.5			2 STREAM IS UNDER OPERATION Found Dye Color in Raw Sewage
23-May-20	17.82	18.0	27	1287	7.5	440	165	297	27	1030	7.9	96	22	31	1.7			2 STREAM IS UNDER OPERATION
24-May-20	15.35	16.0	28	1372	7.5	456	148	286	26	1041	7.9	104	21	28	1.9			2 STREAM IS UNDER OPERATION Found Dye Color in Raw Sewage
25-May-20	21.78	22.0	27	1092	7.5	440	135	307	27	1020	7.9	95	23	26	1.6			2 STREAM IS UNDER OPERATION
26-May-20	14.36	16.0	27	1380	7.5	408	162	294	27	1042	7.9	88	24.5	27	1.4			2 STREAM IS UNDER OPERATION
27-May-20	14.85	15.0	27	1452	7.5	432	158	316	27	1090	7.9	92	21	31	1.6			2 STREAM IS UNDER OPERATION
28-May-20	15.84	16.0	27	1486	7.5	468	165	303	27	1102	7.9	104	23	29	1.4			2 STREAM IS UNDER OPERATION Found Dye Color in Raw Sewage
29-May-20	14.85	15.0	27	1360	7.5	428	154	313	27	940	7.9	96	21.5	33	1.6			2 STREAM IS UNDER OPERATION
30-May-20	19.55	21.0	26	1097	7.5	320	142	246	26	817	7.9	88	19	27	1.9			2 STREAM IS UNDER OPERATION
31-May-20	21.78	23.0	26	1109	7.5	336	146	256	26	841	7.9	80	21	29	1.8			2 STREAM IS UNDER OPERATION
TOTAL	528.60															8	12	
AVG	17.05	17.45	26	1293	7.5	410.3	154.0	289.5	26	1386	7.9	94.5	22.2	28.5	1.7			

Note : There is ingress of Industrial Waste water (colored) at STP from Sangam area, which was experienced on dates of 3, 4, 14, 18, 22, 24, 28 May 2020.

Annexure 5: Site Inspection Report for the Month of May 2020 (SAJARI)

Inspection note of Mr. Unga Krishna Rao Safety Expert, STC Kanpur,

Location: HAM KANPUR : Sajari STP 42 MLD Facility.




Date of site visit	26.05.2020
Site Visitors	Mr. L. Krishna Rao (Safety Expert,STC) Mr. Shoukat Ali – KRMPL –Safety Supervisor Mr. Ravinder – Lab Assistant - KRMPL
Objectives of site Visiting	Observation of site EHS compliance of the ongoing works of 42 MLD STP (O&M) of SAJARI site.




- COVID 19 precautions followed at site:** availability of thermal screening, Sanitizer and Face masks is followed. Disinfection spray fogging is being done in labour camps; personal screening and awareness programme are implemented.
- COVID 19 precautions to be followed at site:** PPE's Ear Plugs, Goggles, Hand gloves not provided to the workers, staff and visitors. These safety Precautionary measure are need to be ensured and availed at site.
- OBSERVATION ON ACTIVITIES AT DIFFERENT WORKS IN SITE**





ENVIRONMENTAL




S.NO	Photo of observations and place	Observations	Actions required
1	Air monitoring	Reports not available	3 rd party air monitoring to be done and such report copy to be submitted to Jal Nigham & Project Engineer (STC)
2	Water quality Portable drinking water	Portable drinking water report not available.	3 rd party water testing to be done and such report copy to be submitted to Jal Nigham & Project Engineer (STC)
3	Sound level average 85 dbA	Sound level meter not available.	Sound level monitoring to be done once in a month and such reports to be submitted to Jal Nigham & Project Engineer (STC)
4	Waste Water	Waste water treatment	Daily performance reports are being sent to UP Jalnigam and PE regularly.


HEALTH & SAFETY

S.No.	Photo of observations and place	Observations	Contractor action plan to given in the reply letter.
1		In plant area safety caution boards and safety slogans not displayed	Repeated from earlier inspection notes
2		Dry grass was burnt by some body for avoiding lifting of grass from lawn. In this plant fire hydrant system is required for preventing and controlling fires.	Repeated from earlier inspection notes
3		From the plant middle HT lines are passing, proper safety precautions to be taken along with arranging Safety caution boards at entrance of site both sides roads.	Repeated from earlier inspection notes

S.No.	Photo of observations and place	Observations	Contractor action plan to given in the reply letter.
4		Dry grass area required cutting safely and also in this area fire hydrant system is required.	Repeated from earlier inspection notes
6		EOT Crane, chain blocks, hoists: 3 rd party checking and test certification to be get it done by authorised 3 rd party as recognised by Director of Factories, Lucknow, U.P, (under factories act, 1948)	Repeated from earlier inspection notes
7		<u>Chlorine handling area</u> - chlorine emergency kit - Self contained breathing apparatus sets to be purchased and to be maintained in good workable condition. - Mock drills to be conducted. - Chlorine leakage to be avoided in the process.	

S.No.	Photo of observations and place	Observations	Contractor action plan to given in the reply letter.
8		Motor and v-chain guards must be kept on position.	Repeated from earlier inspection notes
9		Emergency Numbers list and names written and displayed at administration building area. More such boards to be displayed in the plant area to enable to know by all employees and contract employees.	Repeated from earlier inspection notes
10		Vehicles parking area to be developed at site entrance.	Repeated from earlier inspection notes
11		Administrative building area Safety posters displayed and plant area more safety posters to be displayed.	Repeated from earlier inspection notes

S.No.	Photo of observations and place	Observations	Contractor action plan to given in the reply letter.
12		PTU (Primary Treatment Unit) area Safety caution boards arranged at one place, it was instructed that it should be arranged in the respective hazard area very nearby only (at present it is in general area).	Repeated from earlier inspection notes
13		PTU (Primary Treatment Unit) area lubrication oil leakage to be avoided, so that slippery area can be avoided and good housekeeping can be maintained.	Repeated from earlier inspection notes
14		All the rotating parts, coupling guards and chain guards to be guarded for avoiding accidents.	Repeated from earlier inspection notes

S.No.	Photo of observations and place	Observations	Contractor action plan to given in the reply letter.
15		Chlorine emergency kit is not in working condition. SCBA (self contained breathing apparatus) not working. In case of chlorine leakage it is difficult to control in the plant. So the Concessioner is required to arrange to procure and train the all concerned staff and key personal in the plant for meeting chlorine emergency.	Repeated from earlier inspection notes

16. Please refer our earlier letter reference No. STC/PE/KNP/357/O&M Sajari & Bingawan 156 Dtd. 19/3/2020. The Concessionaire not complied the points given in the letter as per Article 11.2 of Concessionaire agreement.
17. Since before Covid-19 it was observed & instructed verbally and in writing to KRMPIL and through UPJN about the mobilization of separate site incharge in Sajari and Bingawan. At present the site in charge of both sites are looking by one person. Now it is requested to KRMPIL through UPJN to mobilize the one more new site in charge.
18. All the aerators with capacity of 40 amp are running with 26/27 amp capacity. We have reminded in our earlier inspection report of dt. 4th January, 2020. During our inspection it was observed that the aerators problem not resolved.
19. Potable drinking water to be arranged for workers, staff and visitors.
20. PPE's to be ensured to all the Contract workers and regular workers.
21. STOP mobile for all workers in safety point of view. May be allowed only for key persons.
22. Hand tools condition to be maintained in safe, if condition to be updated by periodical safety checks and replacement of spare parts.
23. Electrical safety, welding and Cutting safety to be maintained well.
24. Workers health checks to be getting it done by qualified doctor immediately and such report copies to be sent to client and consultant.

25. At office and worker area housekeeping and hygienic to be improved.
26. EHS trainings to be conducted regularly and periodically. Tool box talks and EHS induction to be given to workers regularly and periodically and such report copies to be submitted to Client and Consultant. Covid-19 awareness training to be given to workers on regular basis.
27. It was told by few workers snakes are roaming in the plant. So it is required to arrange carbolic acid in different places, also the grass has to be removed and trip periodically for avoiding snakes to some extent. Anti snake venom to be arranged in refrigerator and one first aid persons to be available during working hours.
28. In case of emergency purpose heater/siren to be arranged at the security area or administrative building area and chlorine building area. It is also required to conduct mock drills.
29. Workers PF, ESI, Labour ches payment and other Safety, Health, Environment and labour welfare facilities to be provided as per Factories Act, 1948 for all O&M Plants.
30. Periodical safety check lists checking, safety audits and safety inspections by Concessioner site in charge along with site safety officer to be done and such reports of compliance to be sent to Jal Nigam and STC.

This Concessioner is not following majority of the EHS rules, regulations and standards as given in the Contract agreement document. Please advice and instruct the Concessioner strictly to adhere all EHS related rules, regulations and standards for avoiding any unsafe acts and unsafe conditions which may lead to major hazards and accidents in the site area.

It is requested to advise KRMP to comply above mentioned points and rectify the same and report UPJN & Project Engineer within 7 days. Compliance of above said inspection report with action taken status needed to be submitted by the Concessionaire.



Linga Krishna Rao
Safety Expert

Project Engineer, NMCG HAM Project, Kanpur.
Shah Technical Consultants Pvt. Ltd. Geeta Nagar, Kanpur.

Copy of the above inspection note to PROJECT ENGINEER, Shaw Tech.Consultants Pvt.Ltd., Geetha Nagar, Kanpur.