National Mission for Clean Ganga (NMCG) Ministry of Water Resources, River Development & Ganga Rejuvenation, Govt. of India

# The development of sewage treatment plant and associated infrastructure under Hybrid Annuity based PPP mode at Varanasi in the State of Uttar Pradesh

### (LoA File Number: Rd-63014/1/2017/PPP/NMCG)

### Monthly Progress Report of Project Engineer

### January - 2021



**Executing Agency** 

**Uttar Pradesh Jal Nigam**, Varanasi - 221 005



**Funding Agency** 

National Mission for Clean Ganga MoWR, River Development & Ganga Rejuvenation, New Delhi - 110002



**Project Engineer** 

Mahindra Consulting Engineers Limited Mahindra Towers, No. 17/18, Pattullous Road, Chennai - 600 002, Tamil Nadu, India



Concessionaire

Varanasi STP Project Private Limited 6<sup>th</sup> Floor, Plot No. 19, Film City, Sector 16 A, Gautam Buddha Nagar, Noida, Uttar Pradesh - 201 301

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#### MONTHLY PROGRESS REPORT

#### 1.0. INTRODUCTION

The Gol, 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 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.

In the Ganga basin approximately 12,000 million litres per day (MLD) sewage is generated, for which presently there is a treatment capacity of only around 4,000 MLD. Approximately 3000 MLD of sewage is discharged into the mainstream of the river Ganga from the Class I & II towns located along the banks, against which treatment capacity of about 1000 MLD has been created till date.

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, the Jal Nigam, in association with the NMCG, has decided to undertake the development of an STP with a proposed capacity of 50 MLD along with other Facilities and Associated Infrastructure at Varanasi on a PPP basis, through a hybrid annuity model. 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.

The objectives that NMCG and the UP Jal Nigam wish to achieve through the Project is mentioned in **Figure 1**.

Intercept raw sewage flowing into the river Ganga and divert the raw sewage to the Varanasi STP;

Treatment of the raw sewage at the Varanasi STP;

Implement viable technologies and international best practices for development, operation and maintenance of the Varanasi STP and other facilities and

Demonstrate large scale private sector participation and mobilisation of private sector investment to further the national aim of rejuvenation of the river Ganga.

#### Figure 1: Objectives of NMCG and UP JAL NIGAM

Government of India has approved the Namami Gange program as an integrated approach for effective abatement of pollution in river Ganga. As part of this and to ensure that no untreated domestic sewage flow into the river Ganga, 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, operate and transfer the asset (STP) to the Project Executing Agency/Jal Nigam/Jal Sansthan / Urban Local body at the end of the Concession Period (say 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. It is also envisaged to explore the possibility of recycle/ reuse of the treated waste water for non-potable purpose.

NMCG & UPJN appointed M/s. Mahindra Consulting Engineers Limited, Chennai as Project Engineer for this project through tendering process. Letter of Award is issued dated 5<sup>th</sup> January 2018 and agreement signed between the parties on 16<sup>th</sup> February 2018.

#### 1.1. **Project components**

#### **1.1.1. New construction units**

- o Inlet structure
- o Grit chambers & Parshall flume
- o SBR tanks
- o Chlorine contact tank
- Overhead treated water tank
- o Air blower room
- o Belt filter press building
- o Chlorination building
- Electrical building and control room
- o Admin building, laboratory room
- Transformer yard, internal roads & drainage
- Treated water pump house
- Treated effluent disposal line
- o Bund wall
- o Staff quarters with 25KLD OHT
- Approach road

#### 1.1.2. Rehabilitation works

- Rehabilitation of Main Pumping Station (MPS)
- o Construction of Weir
- Strengthening & Pipe protection of Rising main
- Construction of Control room
- Rerouting the raising main near Samne Ghat

#### 1.2. Executing agency

• Uttar Pradesh Jal Nigam (UPJN)



#### **1.3.** Implementation agency

• Uttar Pradesh Jal Nigam (UPJN)

#### 1.4. Consulting services

#### • Project Engineer

• Mahindra Consulting Engineers Ltd, Chennai

#### 1.5. Concessionaire

o Varanasi STP Project Private Limited

#### 2.0. STATUS OF PROJECT

STATUS	:	CONSTRUCTION STAGE
Concessionaire Contract Agreement No.	:	SUBIN-DLDL80840374672746341531P
Name of the Concessionaire	:	Varanasi STP Project Pvt. Ltd.
Commencement date	:	19 <sup>th</sup> February 2018
Completion date (as per contract)	:	18 <sup>th</sup> November 2019

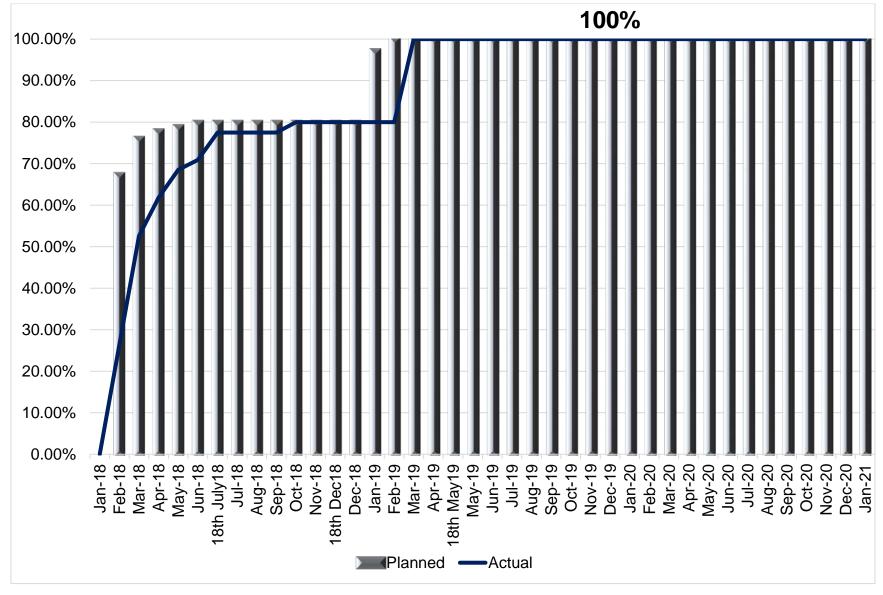


#### 2.1. Physical status

#### 2.1.1. Pre-execution activities

	As per s	chedule	Physical status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %	
Pre - Execution Activities	12-Oct-17	04-Feb-19	100%	100%		100%	
Temporary Power Connection (During	12-Oct-17	30-Apr-18	100%	100%		100%	
Construction Period)							
Permanent Power Connection	06-Jan-18	04-Feb-19	100%	100%		100%	
Submission of Resource Plan including	12-Oct-17	19-Feb-18	100%	100%		100%	
Mobilization plan							
Setting up of temporary site office	11-Nov-17	18-Feb-18	100%	100%		100%	
Removal of debris & Shrubs	11-Nov-17	19-Feb-18	100%	100%		100%	
Bore well construction	11-Nov-17	19-Feb-18	100%	100%		100%	
Other temporary execution	20-Feb-18	11-Mar-18	100%	100%		100%	
Topographical / Soil Investigation	11-Nov-17	20-Dec-17	100%	100%		100%	
Condition Precedent required to be	12-Oct-17	19-Feb-18	100%	100%		100%	
satisfied by Concessionaire							
Condition Precedent required to be	12-Oct-17	19-Feb-18	100%	100%		100%	
satisfied by Jal Nigam							
Condition Precedent required to be	12-Oct-17	19-Feb-18	100%	100%		100%	
satisfied by NMCG							
Appointment of Design Consultant	12-Oct-17	09-Jan-18	100%	100%		100%	
Submission & Approval of Subcontracts	01-Feb-18	30-Jun-18	100%	100%		100%	
from UPJN							





#### 2.1.2. Pre-execution activities - Physical progress graph



#### 2.1.3. Design detailed engineering

	As per s	chedule		Physica	al status	
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Design Detailed Engineering	11-Oct-17	30-Oct-18	100%	100%		100%
PHASE-1 Design, Drawings and	11-Oct-17	07-Feb-18	100%	100%		100%
Documentation for Basic						
Engineering Package						
Basic Engineering Package	11-Oct-17	08-Jan-18	100%	100%		100%
Approval (BEP)	09-Jan-18	07-Feb-18	100%	100%		100%
Topographical / soil investigation	11-Nov-17	20-Dec-17	100%	100%		100%
Phase-II D&E (civil, mechanical,	10-Jan-18	25-Sep-18	100%	100%		100%
electrical, inst. drawings)						
Plant layout / site layout	11-May-18	23-May-18	100%	100%		100%
Disposal pipe layout plan	02-Feb-18	20-Mar-18	100%	100%		100%
Bund Wall	10-Jan-18	18-Feb-18	100%	100%		100%
Inlet chamber with fine screens,	20-Mar-18	08-Apr-18	100%	100%		100%
grit removal and Parshall flume						
Administrative & security building	09-Apr-18	13-May-18	100%	100%		100%
Air blower & MCC room	15-Mar-18	02-Jun-18	100%	100%		100%
Staff quarters	09-Apr-18	23-May-18	100%	100%		100%
SBR basins & SBR outlet chamber	05-Mar-18	29-Mar-18	100%	100%		100%
Chlorine contact tank & treated	25-Mar-18	25-Apr-18	100%	100%		100%
water collection tank						
Treated water overhead tank	04-Apr-18	28-May-18	100%	100%		100%
Sludge treatment building / BFP	10-Sep-18	25-Sep-18	100%	100%		100%



	As per s	chadula	associated infrastructure on PPP basic at Ramana, Vara Physical status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completior in %	
Weir across Assi Nalla	05-Mar-18	14-Mar-18	100%	100%		100%	
Final outfall chamber	01-Jul-18	18-Jul-18	100%	100%		100%	
Raw water receiving chamber	01-Jul-18	18-Jul-18	100%	100%		100%	
Electrical control room	01-Jul-18	18-Jul-18	100%	100%		100%	
Structural drawings submissions	02-Feb-18	30-Sep-18	100%	100%		100%	
& approvals							
Disposal pipe layout plan	02-Feb-18	20-Mar-18	100%	100%		100%	
Inlet chamber with fine screens, grit removal and Parshall flume	20-Mar-18	08-Apr-18	100%	100%		100%	
Administrative & security building	09-Apr-18	13-May-18	100%	100%		100%	
Air blower & MCC room	15-Mar-18	02-Jun-18	100%	100%		100%	
Staff quarters	09-Apr-18	23-May-18	100%	100%		100%	
SBR basins & SBR outlet chamber	05-Mar-18	29-Mar-18	100%	100%		100%	
Chlorine contact tank & treated water collection tank	25-Mar-18	25-Apr-18	100%	100%		100%	
Treated water overhead tank	04-Apr-18	28-May-18	100%	100%		100%	
Sludge treatment building / BFP	10-Sep-18	30-Sep-18	100%	100%		100%	
Weir across Assi Nalla	05-Mar-18	14-Mar-18	100%	100%		100%	
Final outfall chamber	01-Jul-18	18-Jul-18	100%	100%		100%	
Raw water receiving chamber	06-Sep-18	15-Sep-18	100%	100%		100%	
Electrical control room	06-Sep-18	15-Sep-18	100%	100%		100%	

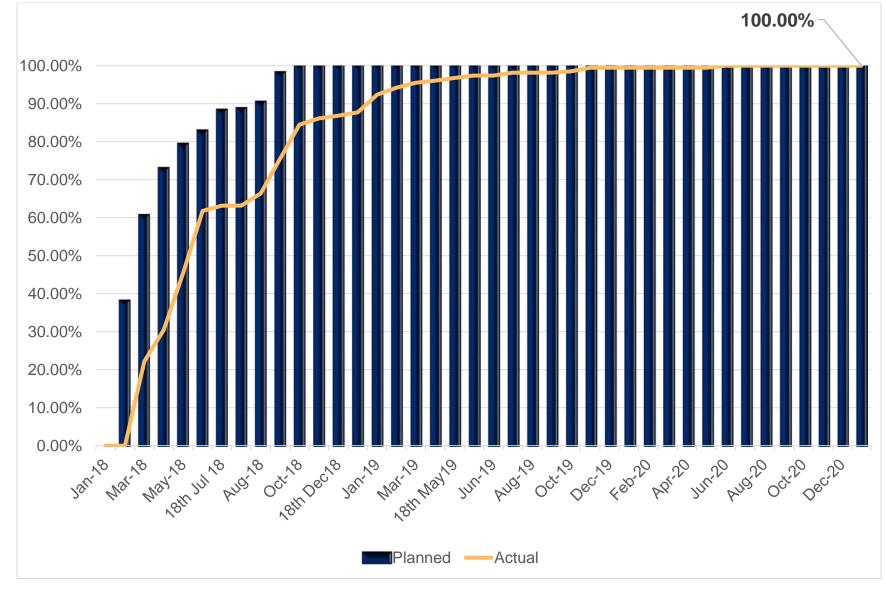


	As per s	chedule		Physical status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completior in %		
Design, drawings and documentation for mechanical GAD	13-Feb-18	15-Sep-18	100%	100%		100%		
Inlet chamber with fine screens, grit removal and Parshall flume	23-Feb-18	19-Mar-18	100%	100%		100%		
SBR basins & SBR outlet Chamber	13-Feb-18	04-Mar-18	100%	100%		100%		
Chlorine contact tank & treated water collection tank	05-Mar-18	24-Mar-18	100%	100%		100%		
Treated water overhead tank	15-Mar-18	03-Apr-18	100%	100%		100%		
Sludge treatment building / BFP	28-Jul-18	16-Aug-18	100%	100%		100%		
Air blower & MCC room	05-Sep-18	15-Sep-18	100%	100%		100%		
Weir across Assi nalla	13-Feb-18	04-Mar-18	100%	100%		100%		
Final outfall chamber	01-Jul-18	18-Jul-18	100%	100%		100%		
Overall piping drawings	30-May-18	05-Sep-18	100%	100%		100%		
Design, drawings and documentation for electrical & instrumentation works	10-Mar-18	08-Oct-18	100%	100%		100%		
Transformer	10-Mar-18	08-Apr-18	100%	100%		100%		
DG set	10-Mar-18	08-Apr-18	100%	100%		100%		
Electrical load list	10-Mar-18	08-Apr-18	100%	100%		100%		
PCC MCC panels	10-Mar-18	18-Jul-18	100%	100%		100%		



	As per s	chedule		Physica	al status	
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Cables / earthing/ lightning -	15-Sep-18	05-Oct-18	100%	100%		100%
layout plan, sizing, schedule						
Cable trays	01-May-18	18-Jul-18	100%	100%		100%
Flow meters	15-Sep-18	05-Oct-18	100%	100%		100%
Analysers	15-Sep-18	05-Oct-18	100%	100%		100%
SLD	19-Mar-18	18-Jun-18	100%	100%		100%
Design calculation	10-Mar-18	18-Jul-18	100%	100%		100%
Electrical & instrumentation control philosophy	25-Sep-18	08-Oct-18	100%	100%		100%
Plant lighting layout plan	25-Sep-18	05-Oct-18	100%	100%		100%
Gauges	25-Sep-18	05-Oct-18	100%	100%		100%
Instrumentation document	01-Jun-18	30-Oct-18	100%	100%		100%
submissions & approvals						
Instrument index / alarm list	01-Jun-18	18-Jul-18	100%	100%		100%
Instrument hook - up diagram	01-Jun-18	18-Jul-18	100%	100%		100%
PLC - I/O list, loop wiring diagram, design of SCADA	05-Oct-18	30-Oct-18	100%	100%		100%
Cause & effect diagram	01-Jun-18	18-Jul-18	100%	100%		100%





#### 2.1.4. Design detailed engineering - Physical progress graph



#### 2.1.5. Equipment procurement, logistics and receipt of equipment at site

	As per s	schedule		Physical st	atus	
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completi on in %
Equipment Procurement, Logistics			100%	99.37%	0.38%	99.75%
and receipt of equipment at Site						
Fine Screen / Coarse Screen / Belt	24-May-18	18-Dec-18	100%	100%		100%
Conveyors						
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	24-May-18	18-Jul-18	100%	100%		100%
Manufacturing of Equipment	17-Sep-18	10-Dec-18	100%	100%		100%
Inspection / Logistics	08-Dec-18	10-Dec-18	100%	100%		100%
Receipt of equipment at site	11-Dec-18	18-Dec-18	100%	100%		100%
Grit Removal Mechanism	24-May-18	10-Mar-19	100%	100%		100%
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	24-May-18	18-Jul-18	100%	100%		100%
Manufacturing of Equipment	01-Sep-18	10-Feb-19	100%	100%		100%
Inspection / Logistics	12-Feb-19	27-Feb-19	100%	100%		100%
Receipt of equipment at site	28-Feb-19	10-Mar-19	100%	100%		100%
SBR System (Decanters)	19-May-18	16-May-19	100%	100%		100%
Submission and Approval of Drawings / Documents and data	19-May-18	18-Jul-18	100%	100%		100%



				velopment of 50 MLD infrastructure on PP		
	As per s	schedule		Physical st	atus	
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total complet on in %
sheets including release of purchase order						
Manufacturing of Equipment	01-Sep-18	31-Mar-19	100%	100%		100%
Inspection / Logistics	01-Apr-19	16-Apr-19	100%	100%		100%
Receipt of equipment at site	17-Apr-19	16-May-19	100%	100%		100%
Submersible (SAS / RAS/ Filtrate /	31-May-18	18-Dec-18	100%	100%		100%
BFP feed)						
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	31-May-18	18-Jul-18	100%	100%		100%
Manufacturing of Equipment	03-Sep-18	13-Dec-18	100%	100%		100%
Inspection / Logistics	01-Dec-18	10-Dec-18	100%	100%		100%
Receipt of equipment at site	14-Dec-18	18-Dec-18	100%	100%		100%
Horizontal centrifugal pumps	31-May-18	18-Dec-18	100%	100%		100%
(Treated water pumps)						
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	31-May-18	25-Jul-18	100%	100%		100%
Manufacturing of Equipment	10-Sep-18	15-Dec-18	100%	100%		100%
Inspection / Logistics	01-Dec-18	10-Dec-18	100%	100%		100%
Receipt of equipment at site	16-Dec-18	18-Dec-18	100%	100%		100%
Air Blowers	01-May-18	18-May-19	100%	100%		100%



			associated	velopment of 50 MLD infrastructure on PP	P basic at Ramai	na, Varanas
	As per s	schedule		Physical st	atus	
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total complet on in %
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	01-May-18	18-Jul-18	100%	100%		100%
Manufacturing of Equipment	01-Sep-18	30-Mar-19	100%	100%		100%
Inspection / Logistics	31-Mar-19	29-Apr-19	100%	100%		100%
Receipt of equipment at site	30-Apr-19	18-May-19	100%	100%		100%
Chlorination System	05-Sep-18	18-May-19	100%	100%		100%
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	05-Sep-18	29-Sep-18	100%	100%		100%
Manufacturing of Equipment	01-Oct-18	30-Mar-19	100%	100%		100%
Inspection / Logistics	01-Apr-19	11-May-19	100%	100%		100%
Receipt of equipment at site	12-May-19	18-May-19	100%	100%		100%
Sluice Gates	05-Mar-18	18-Dec-18	100%	100%		100%
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	05-Mar-18	18-Jul-18	100%	100%		100%
Manufacturing of Equipment	25-Sep-18	12-Dec-18	100%	100%		100%
Inspection / Logistics	01-Dec-18	10-Dec-18	100%	100%		100%
Receipt of equipment at site	13-Dec-18	18-Dec-18	100%	100%		100%
MS/CS/SS/GI/CI/DI Piping	01-Jan-19	12-Aug-19	100%	98.50%	0.50%	99.00%



					P basic at Rama	ia, ruiuia
	As per s	schedule		Physical st	atus	
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completi on in %
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	01-Jan-19	15-Feb-19	100%	100%		100%
Manufacturing of Equipment	01-Mar-19	30-Jul-19	100%	100%		100%
Inspection / Logistics	31-Jul-19	10-Aug-19	100%	97%	1%	98%
Receipt of equipment at site	11-Aug-19	12-Aug-19	100%	97%	1%	98%
Valves	01-Jan-19	12-Aug-19	100%	100%		100%
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	01-Jan-19	17-Jan-19	100%	100%		100%
Manufacturing of Equipment	01-Mar-19	30-Jul-19	100%	100%		100%
Inspection / Logistics	31-Jul-19	10-Aug-19	100%	100%		100%
Receipt of equipment at site	11-Aug-19	12-Aug-19	100%	100%		100%
Motorized Gates at Inlet of SBR	01-May-18	18-May-19	100%	100%		100%
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	01-May-18	30-Aug-18	100%	100%		100%
Manufacturing of Equipment	11-Jan-19	05-Apr-19	100%	100%		100%
Inspection / Logistics	07-Apr-19	07-May-19	100%	100%		100%
Receipt of equipment at site	08-May-19	18-May-19	100%	100%		100%



	As ner o	schedule		Physical status			
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total complet on in %	
Diffusers	12-May-18	23-Apr-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	12-May-18	14-Jul-18	100%	100%		100%	
Manufacturing of Equipment	01-Sep-18	15-Feb-19	100%	100%		100%	
Inspection / Logistics	16-Feb-19	02-Apr-19	100%	100%		100%	
Receipt of equipment at site	03-Apr-19	23-Apr-19	100%	100%		100%	
Volute press	15-Oct-18	13-Jul-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	15-Oct-18	29-Nov-18	100%	100%		100%	
Manufacturing of Equipment	29-Dec-18	30-Jun-19	100%	100%		100%	
Inspection / Logistics	30-May-19	28-Jun-19	100%	100%		100%	
Receipt of equipment at site	01-Jul-19	13-Jul-19	100%	100%		100%	
PE Dosing Tanks	15-Oct-18	13-Jul-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	15-Oct-18	29-Nov-18	100%	100%		100%	
Manufacturing of Equipment	29-Dec-18	30-Jun-19	100%	100%		100%	
Inspection / Logistics	30-May-19	28-Jun-19	100%	100%		100%	



				velopment of 50 MLD infrastructure on PP			
	As per s	schedule	Physical status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total complet on in %	
Receipt of equipment at site	01-Jul-19	13-Jul-19	100%	100%		100%	
Agitators	01-May-18	23-Jul-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	01-May-18	18-Jul-18	100%	100%		100%	
Manufacturing of Equipment	01-Sep-18	08-Jun-19	100%	100%		100%	
Inspection / Logistics	09-Jun-19	08-Jul-19	100%	100%		100%	
Receipt of equipment at site	09-Jul-19	23-Jul-19	100%	100%		100%	
Transformers	02-Jul-18	21-Jul-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	02-Jul-18	18-Jul-18	100%	100%		100%	
Manufacturing of Equipment	19-Dec-18	15-Jun-19	100%	100%		100%	
Inspection / Logistics	25-Jun-19	30-Jun-19	100%	100%		100%	
Receipt of equipment at site	01-Jul-19	21-Jul-19	100%	100%		100%	
HT cables	29-Sep-18	26-Jul-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	29-Sep-18	09-Nov-18	100%	100%		100%	
Manufacturing of Equipment	01-Mar-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	05-Jul-19	15-Jul-19	100%	100%		100%	



				velopment of 50 MLD infrastructure on PP			
	As per	schedule	Physical status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total complet on in %	
Receipt of equipment at site	16-Jul-19	26-Jul-19	100%	100%		100%	
MCC panel	23-Jun-18	16-Aug-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	23-Jun-18	27-Jul-18	100%	100%		100%	
Manufacturing of Equipment	01-Jan-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	100%		100%	
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	100%		100%	
HT Panel	07-Sep-18	16-Aug-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	07-Sep-18	09-Nov-18	100%	100%		100%	
Manufacturing of Equipment	01-Jan-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	100%		100%	
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	100%		100%	
PLC Panel	07-Sep-18	16-Aug-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	07-Sep-18	09-Nov-18	100%	100%		100%	
Manufacturing of Equipment	01-Jan-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	100%		100%	



	As per schedule		Physical status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total complet on in %	
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	100%		100%	
SCADA System	07-Sep-18	16-Aug-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	07-Sep-18	09-Nov-18	100%	100%		100%	
Manufacturing of Equipment	01-Jan-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	100%		100%	
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	100%		100%	
MLDB, LDB & SLDBS	07-Sep-18	16-Aug-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	07-Sep-18	09-Nov-18	100%	100%		100%	
Manufacturing of Equipment	01-Jan-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	100%		100%	
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	100%		100%	
Push Button Stations / Plant	07-Sep-18	16-Aug-19	100%	100%		100%	
lighting / Buildings lighting							
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	07-Sep-18	09-Nov-18	100%	100%		100%	



	As per schedule		Physical status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total complet on in %	
Manufacturing of Equipment	01-Jan-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	100%		100%	
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	100%		100%	
Power, Control & lighting Cables	07-Sep-18	16-Aug-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	07-Sep-18	09-Nov-18	100%	100%		100%	
Manufacturing of Equipment	01-Jan-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	100%		100%	
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	100%		100%	
Cable trays/Lighting JB	07-Sep-18	16-Aug-19	100%	75%		75%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	07-Sep-18	09-Nov-18	100%	100%		100%	
Manufacturing of Equipment	01-Jan-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	25%		25%	
Receipt of equipment at site	01-Aug-19	16-Aug-19		50%		50%	
DG Set	07-Sep-18	16-Aug-19	100%	71%	17%	88%	

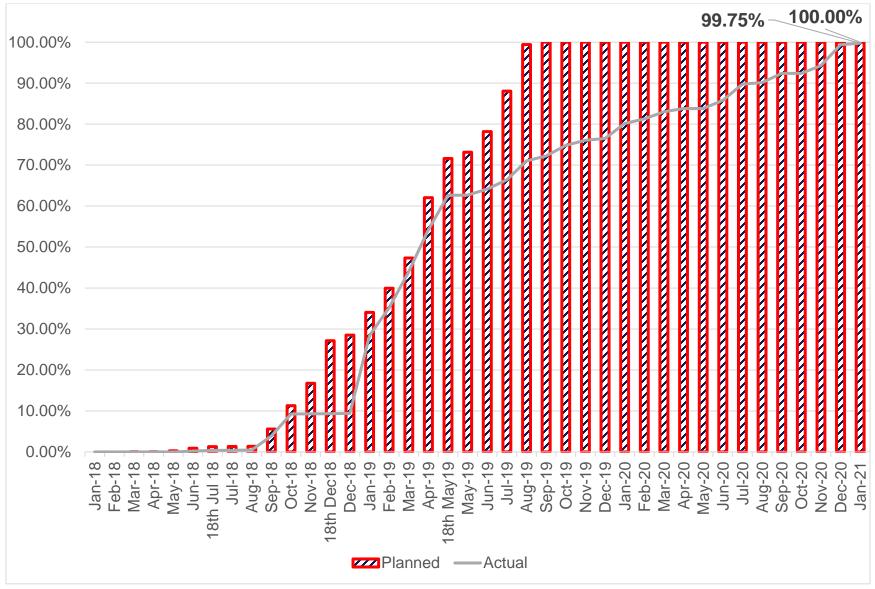


					P basic at Ramai		
	As per schedule		Physical status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total complet on in %	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	07-Sep-18	09-Nov-18	100%	100%		100%	
Manufacturing of Equipment	01-Jan-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	60%	15%	75%	
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	25%	50%	75%	
Plant Earthing	07-Sep-18	16-Aug-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	07-Sep-18	09-Nov-18	100%	100%		100%	
Manufacturing of Equipment	01-Jan-19	20-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	100%		100%	
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	100%		100%	
Instruments (Flow meter / Analyser)	20-Nov-18	16-Aug-19	100%	100%		100%	
Submission and Approval of Drawings / Documents and data sheets including release of purchase order	20-Nov-18	15-Dec-18	100%	100%		100%	
Manufacturing of Equipment	18-Mar-19	30-Jun-19	100%	100%		100%	
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	100%		100%	
Receipt of equipment at site	01-Aug-19	16-Aug-19		100%		100%	



				velopment of 50 MLD infrastructure on PP		
	As per schedule		Physical status			
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total complet on in %
Instruments (Temperature,	20-Nov-18	05-Sep-19	100%	100%		100%
Pressure & Level transmitter /						
Level, Temperature and Pressure						
switches)						
Submission and Approval of	20-Nov-18	15-Dec-18	100%	100%		100%
Drawings / Documents and data						
sheets including release of						
purchase order						
Manufacturing of Equipment	18-Mar-19	30-Jul-19	100%	100%		100%
Inspection / Logistics	01-Aug-19	30-Aug-19	100%	100%		100%
Receipt of equipment at site	31-Aug-19	05-Sep-19	100%	100%		100%





#### 2.1.6. Equipment procurement, logistics and receipt of equipment at site - Physical progress graph



#### 2.1.7.New construction units

	As per s	schedule		Physica	al status	
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Civil Executions	19-Feb-18	16-Nov-19	99.93%	91.70%	0.15%	91.85%
Bund Wall / Earthen Embankment	19-Feb-18	30-Aug-19	100%	86.60%		86.60%
Excavation	19-Feb-18	8-May-18	100%	100%		100%
Filling & Compaction of Bund Wall up to 1.0 Mtr Height	10-Apr-18	8-Jul-18	100%	100%		100%
Filling & Compaction of Bund Wall from 1.0 to 2.0 Mtr Height	9-Jul-18	25-Oct-18	100%	100%		100%
Filling & Compaction of Bund Wall from 2.0 to 3.0 Mtr Height	1-Oct-18	29-Nov-18	100%	100%		100%
Filling & Compaction of Bund Wall from 3.0 to 4.5 Mtr Height	7-Nov-18	18-Dec-18	100%	94%		94%
Stone Pitching work, Side Drain Work & Fencing work	20-May-19	30-Aug-19	100%	4%		4%
Construction of Inlet Structure, Fine	3-Jun-18	30-Jun-19	100%	100%		100%
Screen, Grit Chamber, Parshall Fume,						
Distribution Chamber for SBR						
Excavation	3-Jun-18	12-Jun-18	100%	100%		100%
PCC & RCC of Footing	13-Jun-18	18-Jul-18	100%	100%		100%
Inlet Chamber Slab with Column, Wall	20-Sep-18	15-Dec-18	100%	100%		100%
Grit Chamber Slab with Column	1-Dec-18	28-Feb-19	100%	100%		100%
Parshall flume slab with Column	1-Mar-19	30-Mar-19	100%	100%		100%



					PPP basic at Ra	mana, varana	
	As per s	schedule	Physical status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %	
Hydrotesting including finishing works	1-Jun-19	30-Jun-19	100%	100%		100%	
SBR Basins & SBR outlet Chamber	9-Apr-18	15-Jul-19	100%	100%		100%	
Excavation	9-Apr-18	7-Jun-18	100%	100%		100%	
PCC & Raft RCC at 72.00 level	10-Apr-18	29-Jul-18	100%	100%		100%	
Wall 1st Lift	5-Jun-18	30-Aug-18	100%	100%		100%	
Wall 2nd Lift	7-Jun-18	5-Sep-18	100%	100%		100%	
Wall 3rd Lift	24-Sep-18	15-Jan-19	100%	100%		100%	
Wall Final Lift	7-Feb-19	6-Apr-19	100%	100%		100%	
Walkways and Channels	6-Apr-19	11-May-19	100%	100%		100%	
Hydrotesting	20-May-19	15-Jul-19	100%	100%		100%	
Construction of CCT including Chlorination room & Treated water pump House	26-Apr-18	24-Aug-19	100%	100%		100%	
Excavation	26-Apr-18	4-Jul-18	100%	100%		100%	
PCC & Raft RCC	15-May-18	25-Jul-18	100%	100%		100%	
50% RCC of Structure	20-Jun-18	10-Oct-18	100%	100%		100%	
50% RCC of Structure	20-Jan-19	18-May-19	100%	100%		100%	
Completion of Brick work and Plaster	6-Apr-19	30-Jul-19	100%	100%		100%	
Hydrotest including finishing works	9-Aug-19	24-Aug-19	100%	100%		100%	
Final Outfall Chamber	19-May-19	3-Aug-19	100%	71.20%	3.44%	74.64%	
Excavation, Dressing, Filling G & PCC	19-May-19	23-May-19	100%	100%		100%	
Foundation and Raft	29-May-19	17-Jun-19	100%	100%		100%	
Wall & Super Structure	18-Jun-19	18-Jul-19	100%	69%		69%	



	As per schedule Physical status							
Item of work	As per s Proposed Date	Completed Date	Scheduled completion in %	Physica Previous month completion in %	Completion during this month in %	Total completion in %		
Hydrotesting & finishing works	19-Jul-19	3-Aug-19	100%		38%	38%		
Overhead Treated Water Tank	1-Jun-18	1-Aug-19	100%	79.27%		79.27%		
Excavation	1-Jun-18	5-Jun-18	100%	100%		100%		
PCC & Raft RCC	11-Jun-18	18-Jul-18	100%	100%		100%		
50% RCC of Structure	9-Oct-18	18-Dec-18	100%	100%		100%		
50% RCC of Structure	25-Feb-19	6-May-19	100%	48%		48%		
Finishing Works	19-Jun-19	1-Aug-19 13-Jul-19	100%	80%		80%		
Construction of BFP Building, Filtrate Pump, Pump house - 2, PE dosing tank	15-Oct-18	15-041-15	100%	96.86%	1.14%	98%		
Excavation	15-Oct-18	30-Oct-18	100%	100%		100%		
PCC & Raft RCC	1-Nov-18	18-Dec-18	100%	100%		100%		
50% RCC of Structure	18-Jan-19	18-Mar-19	100%	100%		100%		
50% RCC of Structure	19-Mar-19	17-May-19	100%	99%	1%	100%		
Completion of Brick work and Plaster	19-Apr-19	18-May-19	100%	95%	4%	99%		
Finishing Works	20-May-19	13-Jul-19	100%	75%	5%	80%		
Administrative Building including lab	3-Feb-18	11-Jul-19	100%	99.29%	0.23%	99.52%		
and workshop								
Excavation	8-Jun-18	17-Jun-18	100%	100%		100%		
PCC & Raft RCC	18-Jun-18	18-Jul-18	100%	100%		100%		
50% RCC of Structure	16-Oct-18	18-Dec-18	100%	100%		100%		
50% RCC of Structure	3-Feb-19	7-Apr-19	100%	100%		100%		
Completion of Brick work and Plaster	8-Apr-19	17-May-19	100%	100%		100%		



		k k k		Dhusis		mana, Varana
Item of work	As per s Proposed Date	schedule Completed Date	Scheduled completion in %	Physica Previous month completion in %	al status Completion during this month in %	Total completior in %
Finishing Works	28-May-19	11-Jul-19	100%	85%	5%	90%
Staff Quarters	8-Jun-18	16-Nov-19	93.7%	56.13%	1.27%	57.70%
Excavation	8-Jun-18	17-Jun-18	100%	100%		100%
PCC & Raft RCC	11-Jun-18	18-Jul-18	100%	100%		100%
50% RCC of Structure	20-May-19	9-Jul-19	100%	92%	1.79%	93.79%
50% RCC of Structure	9-Jul-19	28-Aug-19	100%			
Completion of Brick work and Plaster	28-Aug-19	27-Sep-19	100%	30%		30%
Finishing Works	27-Sep-19	16-Nov-19	6%	20%	20%	40%
Roads, Drainage & Fire Fighting system	3-Jun-19	31-Aug-19	100%	0.5%		0.5%
Roads work & Fire fighting	3-Jun-19	1-Aug-19	100%			
Drainage Works	18-Jun-19	22-Aug-19	100%	3%		3%
Landscaping & Finishing	18-Jun-19	31-Aug-19	100%			
Construction of Blower room, HT,	3-Jun-18	29-Aug-19	100%	95.31%	0.94%	96.25%
MCC, Transformer Yard, DG set Area						
Excavation	3-Jun-18	2-Jul-18	100%	100%		100%
PCC & RCC of Footing	3-Jul-18	18-Jul-18	100%	100%		100%
RCC up to Plinth	15-Sep-18	11-Oct-18	100%	100%		100%
RCC up to Lintel Beams	15-Oct-18	15-Nov-18	100%	100%		100%
RCC Roof Slab	16-Nov-18	18-Dec-18	100%	100%		100%
Brick Work	1-Jan-19	21-Mar-19	100%	100%		100%
Plastering	22-Mar-19	15-May-19	100%	100%		100%
Painting & Finishing	15-Jun-19	29-Aug-19	100%	50%	10%	60%



Development of 50 MLD sewage treatment associated infrastructure on PPP basic at Ramana									
	As per s	As per schedule Physica			al status				
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %			
Mechanical Installation	1-Aug-19	30-Aug-19	100%						
Erection of Mechanical Equipment	1-Aug-19	30-Aug-19	100%	88.50%	1.50%	90.00%			
Electrical & Instrumentation Installation	1-Aug-19	31-Aug-19	100%	50.00%	10.00%	60.00%			
Pre – Commissioning	1-Sep-19	30-Sep-19	100%						
Trail Run – COD	1-Oct-19	21-Oct-19	100%						
Commissioning	21-Oct-19	18-Nov-19	100%						

#### 2.1.8. New construction units - progress in terms of Physical Quantity

	Estima	ate		Physical status				
Item of work	Quantity	Unit	Previous month completion	Completion during this month	Total completion	Total completion in %		
Civil Executions								
Bund Wall / Earthen Embankment								
Excavation	14182	Cum	14182		14182	100%		
Filling & Compaction of Bund Wall up to	24061	Cum	24061		24061	100%		
1.0 Mtr Height								
Filling & Compaction of Bund Wall from	22140	Cum	22140		22140	100%		
1.0 to 2.0 Mtr Height								
Filling & Compaction of Bund Wall from	19056	Cum	18644		18644	100%		
2.0 to 3.0 Mtr Height								



	associated infrastructure on PPP basic at Ramana, Varan							
Item of work	Estimate		Physical status					
	Quantity	Unit	Previous month completion	Completion during this month	Total completion	Total completion in %		
Filling & Compaction of Bund Wall from 3.0 to 4.5 Mtr Height	16154	Cum	15185		15185	94%		
Stone Pitching work, Side Drain Work & Fencing work	6720	Sqm	426		426	4%		
Construction of Inlet Structure, Fine Screen, Grit Chamber, Parshall Fume, Distribution Chamber for SBR								
Excavation	600	Cum	600		600	100%		
PCC	72	Cum	72		72	100%		
RCC for footing	173	Cum	173		173	100%		
Inlet Chamber Slab with Column, Wall	132	Cum	132		132	100%		
Grit Chamber Slab with Column	175	Cum	175		175	100%		
Parshall flume slab with Column	90	Cum	90		90	100%		
SBR Basins & SBR outlet Chamber								
Excavation	2210	Cum	2210		2210	100%		
PCC	1424	Cum	1412		1424	100%		
Raft RCC	4169	Cum	4169		4169	100%		
Wall 1st Lift	560	Cum	560		560	100%		
Wall 2nd Lift	390	Cum	390		390	100%		
Wall 3rd Lift	291	Cum	291		291	100%		
Wall Final Lift	414	Cum	414		414	100%		
Walkways and Channels	334	Cum	334		334	100%		



	Development of 50 MLD sewage treatment plant a associated infrastructure on PPP basic at Ramana, Varan							
Item of work	Estima	ate		Physica	al status			
	Quantity	Unit	Previous month completion	Completion during this month	Total completion	Total completion in %		
House								
Excavation	1023	Cum	1023		1023	100%		
PCC	140	Cum	140		140	100%		
Raft RCC	266	Cum	266		266	100%		
50% RCC of Structure	146.50	Cum	146.50		146.50	100%		
50% RCC of Structure	146.50	Cum	146.50		146.50	100%		
Brick work	71	Cum	71		71	100%		
Plastering works	1341	Sqm	1341		1341	100%		
Overhead Treated Water Tank								
Excavation	549	Cum	549		549	100%		
PCC	18	Cum	18		18	100%		
Raft RCC	61	Cum	61		61	100%		
50% RCC of Structure	90	Cum	90		90	100%		
50% RCC of Structure	53	Cum	21.3		21.3	40%		
Construction of BFP Building, Filtrate								
Pump, Pump house - 2, PE dosing tank								
Excavation	720	Cum	720		720	100%		
PCC	39	Cum	39		39	100%		
Raft RCC	167	Cum	167		167	100%		
50% RCC of Structure	194	Cum	194		194	100%		
50% RCC of Structure	194	Cum	191.8	2.20	194	100%		
Brick work	35	Cum	35		35	100%		
	290	Sqm	260	23	283	98%		



Item of work	Estim	ate		Physical status				
	Quantity	Unit	Previous month completion	Completion during this month	Total completion	Total completior in %		
workshop								
Excavation	656	Cum	656		656	100%		
PCC	27	Cum	27		27	100%		
Raft RCC	101	Cum	101		101	100%		
50% RCC of Structure	107	Cum	107		107	100%		
50% RCC of Structure	92	Cum	92		92	100%		
Brick work	172	Cum	172		172	100%		
Plastering work	2230	Sqm	2230		2230	100%		
Staff Quarters								
Excavation	1502	Cum	1502		1502	100%		
PCC	70	Cum	70		70	100%		
Raft RCC	260	Cum	260		260	100%		
50% RCC of Structure	215	Cum	197.57	3.00	200.57	94%		
50% RCC of Structure	215	Cum						
Brick work	551	Cum	160.10		160.10	29%		
Plastering work	3900	Sqm	1228		1228	31%		
Finishing Works								
Construction of Blower room, HT, MCC,								
Transformer Yard, DG set Area								
Excavation	587	Cum	587		587	100%		
PCC	39	Cum	39		39	100%		
RCC of Footing	160	Cum	160		160	100%		
RCC up to Plinth	35	Cum	35		35	100%		
RCC up to Lintel Beams	35	Cum	35		35	100%		



	Development of 50 MLD sewage treatment plant associated infrastructure on PPP basic at Ramana, Vara									
Item of work	Estim Quantity	ate Unit	Previous month completion	Physica Completion during this month	I status Total completion	Total completion in %				
RCC Roof Slab	136	Cum	136		136	100%				
Brick Work	165	Cum	165		165	100%				
Plastering	2000	Sqm	2000		2000	100%				

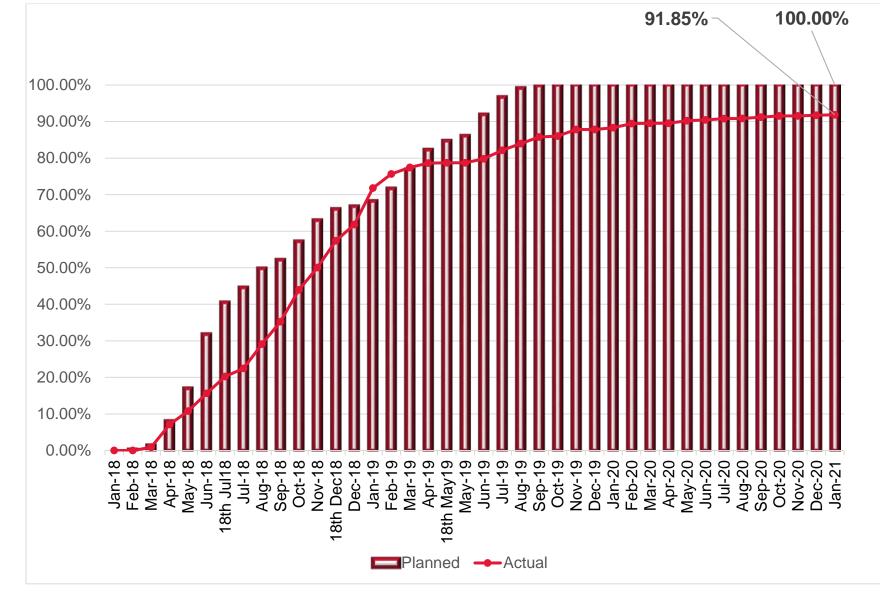
#### 2.1.9. Equipment Erection - progress in terms of Physical Quantity

	Estima	ate		Physical status			
Item of work	Quantity	Unit	Previous month completion	Completion during this month	Total completion	Total completion in %	
Erection of Equipment							
Mechanical Equipment							
Fine Screen/Coarse Screen/Belt	6	Nos	3	1	4	75%	
Conveyors							
Grit Removal Mechanism	2	Nos	2		2	100%	
SBR System (Decanters)	4	Nos	4		4	100%	
Submersible (SAS/RAS/Filtrate/ BFP feed)	12	Nos	12		12	100%	
Horizontal centrifugal pumps (Treated	3	Nos	3		3	100%	
water pumps)							
Air Blowers	6	Nos	6		6	100%	
Chlorination System	10	LS	10		10	100%	
Sluice Gates	21	Nos	12		12	57%	
MS/CS/SS/GI/CI/DI Piping	2444	Rmt	1639	227	1866	76%	
Valves	153	Nos	75		75	49%	
Motorized Gates at Inlet Of SBR	4	Nos	4		4	100%	



	associated infrastructure on PPP basic at Ramana, Varan Estimate Physical status							
Item of work	Quantity	Unit	Previous month completion	Completion during this month	Total completion	Total completion in %		
Diffusers	2,240	Nos			-	0%		
Volute press	2	Nos	2		2	100%		
Air Compressors	2	Nos	2		2	100%		
PE Dosing Tanks	2	Nos	2		2	100%		
Agitators	2	Nos	2		2	100%		
Electrical Equipment								
Transformers	4	Nos	4		4	100%		
HT cables	433	Rmt	433		433	100%		
MCC panel	19	Nos	19		19	100%		
PLC Panel	4	Nos	3	1	4	100%		
SCADA System	10	LS	-		-	0%		
MLDB, LDB,& SLDBS	12	Nos	3	3	6	50%		
Push Button Stations/Plant lighting / Buildings lighting		LS	30 %	33%	63 %	63%		
Power, Control & lighting Cables	27000	Rmt	23965		23965	89%		
Cable trays	2020	Rmt	1980		1980	98%		
DG Set	3	Nos	-	2	2	63%		
Plant Earthing	2755	Rmt	2755		2755	100%		
Instruments (Flow meter / Analyzer)	19	Nos	-		-	0%		
Instruments (Temperature, Pressure & Level transmitter / Level, Temperature and Pressure switches)	95	Nos	-		-	0%		





#### 2.1.10. New construction units - Physical progress graph

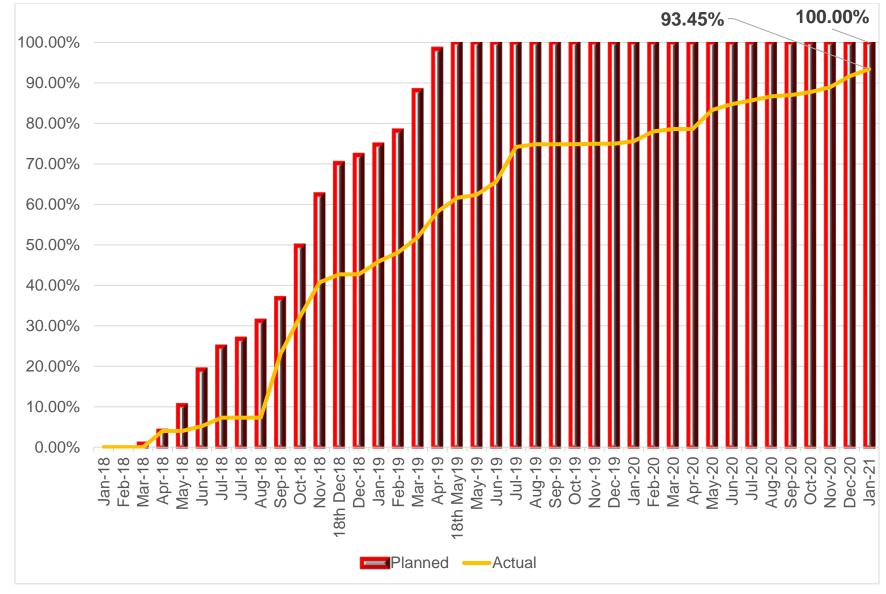


2.1.11. Associated works

	As per sc	hedule	Physical status			
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Associated	20-Mar-18	18-May-19	100%	91.67%	1.78%	93.45%
MPS Pumping Station	15-May-18	30-Apr-19	100%	57.50%	4.20%	61.70%
Rehabilitation of MPS	15-May-18	30-Apr-19	100%	52%		52%
Construction of Weir across Assi Nalla & Control room	13-Oct-18	30-Jan-19	100%	55%	12%	67%
Desilting of the MPS	15-May-18	28-Aug-18	100%	100%		100%
Repair of Equipment	1-Jan-19	30-Mar-19	100%	40%		40%
Raising of height of Nalla tapping structure upto HFL	1-Apr-19	30-Apr-19	100%	60%	15%	75%
Rising Main	15-Jun-18	25-Mar-19	100%	90.05%	5.98%	96.03%
Desilting & CCTV inspection	15-Jun-18	18-Jul-18	100%	100%		100%
Strengthening and Pipe protection of Rising main Extension of existing Rising main to the Inlet point at the STP site	10-Oct-18	30-Jan-19	100%	80%	11%	91%
Shifting & laying of Pipe near Samne Ghat bridge	13-Jul-18	15-Jan-19	100%	100%		100%
Hydrotesting of the PSC	15-Feb-19	25-Mar-19	100%	87%	10.50%	97.50%
Treated Effluent disposal line	20-Mar-18	18-May-19	100.00%	95.66%	0.88%	96.54%
Procurement - supply of pipes including inspection,	20-Mar-18	26-Dec-18	100%	97%		97%

associated infrastructure on PPP basic at Ramana, Varanas							
	As per sc	hedule		Physica	al status		
Item of work	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %	
transportation and delivery at site							
Pipe laying - 20% including excavation and backfilling	9-May-18	18-Jul-18	100%	100%		100%	
Pipe laying - 20% including excavation and backfilling	25-Sep-18	5-Nov-18	100%	100%		100%	
Pipe laying - 20% including excavation and backfilling	6-Nov-18	18-Dec-18	100%	100%		100%	
Pipe laying - 20% including excavation and backfilling	20-Feb-19	29-Mar-19	100%	100%		100%	
Pipe laying - 20% including excavation and backfilling	30-Mar-19	6-May-19	100%	78%	7%	85%	
Hydrotesting & finishing works	14-Jun-18	18-May-19	100%	5%		5%	





#### 2.1.12. Associated works - Physical progress graph



#### 2.1.13. Overall physical progress : 94.25%

Scheduled / Planned completion as on November 2019 in %	Up to previous month (December 2020) completion in %	Completion during this month (January 2021) in %	Total completion up to January 2021 in %	
100%	93.59%	0.66%	94.25%	

#### 2.2. Financial status for construction work

 Contract amount : Rs. 153.15 crores (Rs. 102 crores for construction + Rs. 51.15 crores for O&M)

#### Financial progress in % as on 31.01.2021

F	Scheduled / Planned completion as on November 2019 in %	Up to previous month (December 2020) completion in %	Completion during this month (January 2021) in %	Total completion up to January 2021 in %
	100%	93.59%	0.66%	94.25%

#### Status of financial expenditure as on 31.01.2021

SI. No	Description	Total expenditure incurred (NMCG & VSPPL) Rupees in crore	Expenditure incurred by VSPPL in Rupees in crore	Expenditure incurred by NMCG in Rupees in crore	Expenditure incurred as per site progress Rupees in crore
1	Mobilization advance	10.20		10.20	
	(10% of Rs.102 Cr)				
2	First mile stone payment	27.62	16.57	11.05	
	(25% of Rs.110.47 Cr) as				
	per price index				
3	Deduction of mobilization	-2.55		-2.55	96.13
	advance for first				30.13
	milestone (25% of				
	mobilization of advance)				
4	Deduction of interest on	-0.46		-0.46	
	mobilization advance				
	upto first milestone (25%				



			elopment of 50 N nfrastructure on		
SI. No	Description	Total expenditure incurred (NMCG & VSPPL) Rupees in crore	Expenditure incurred by VSPPL in Rupees in crore	Expenditure incurred by NMCG in Rupees in crore	Expenditure incurred as per site progress Rupees in crore
	of mobilization of advance)				
5	Deduction of delay damage on first milestone	-0.89		-0.89	
6	Second milestone payment (25% of Rs.110.16 Cr) as per price index	27.54	16.52	11.02	
7	Deduction of mobilization advance for second milestone (25% of mobilization of advance)	-2.55		-2.55	
8	Deduction of interest on mobilization advance upto second milestone (25% of mobilization of advance)	-0.19		-0.19	
9	Deduction of delay damage on second milestone	-0.49		-0.49	
10	Released of GST Amount	1.74		1.74	
11	Third milestone payment (25% of Rs.114.65 Cr) as per price index	28.66	17.20	11.46	
12	Deduction of mobilization advance for third milestone (25% of mobilization of advance)	-2.55		-2.55	
13	Deduction of interest on mobilization advance upto Third milestone (25% of mobilization of	-0.29		-0.29	



				/LD sewage trea PPP basic at Ra	
SI. No	Description	Total expenditure incurred (NMCG & VSPPL) Rupees in crore	Expenditure incurred by VSPPL in Rupees in crore	Expenditure incurred by NMCG in Rupees in crore	Expenditure incurred as per site progress Rupees in crore
	advance)				
14	Deductionofdelaydamageonthirdmilestone	-1.57		-1.57	
15	Release of liquidation damage	0.89		0.89	
	Total	85.11	50.29	34.82	

#### The issues, the action taken, and status are provided after obtaining the 2.3. views from UPJN

#### 2.3.1. Issues identified during this month

S. No		Issues identified during this month
1.	•	The extended timeline for construction completion is ended as on 30th November 2020. However, VSPPL requested to extend further for starting the trial run activities i.e on or before end of February 2021. The problem of fund disbursement was solved temporarily and around Rs.7.5 crore released by yes bank as per the request of VSPPL. Based on the progress and the revised work plan submitted by VSSPL, it is possible to achieve the construction completion and start the trial run on or before end of February 2021 subject to availability of required manpower, material and machineries. There is no specific responsible person available from VSPPL to ascertain the procedure of trial run even after repeated reminders and request for deputation of process expert and O&M Team for conducting trial run. Methodology for conducting dry run, trial run and commissioning is pending for submission by VSPPL.

#### 2.3.2. Issues identified till last month

S. No.	Issues identified till last month	Action Taken	Status
1	Planning to expedite the pending order placement and completion of engineering activities	In progress.	Partially initiated



Development of 50 MLD sewage treatment plant an associated infrastructure on PPP basic at Ramana, Varana						
S. No.	Issues identified till last month	Action Taken	Status			
2	Steps to complete the rising main strengthening and protection along the Ganga river		Partially			
3	Monthly Environmental Monitoring Reports to the Jal Nigam providing overview of compliance with EHS Plan.	In progress.	Due, til date			
4	MACE requested VSPPL to furnish the equipment inspection call / equipment procurement dates/ delivery of inspected items for the following: • DG	In progress.	Partiall			
5	MACE informed to concentrate on the procurement of electrical and instrumentation system		Partially			
6	<ul> <li>MACE brought to the notice of Concessionaire that the progress of work is not actually in line with the approved construction plan for the following:</li> <li>Bund wall</li> <li>OHT (Treated water)</li> <li>BFP building</li> <li>Admin building</li> <li>Blower room &amp; Electrical building</li> <li>Staff quarters</li> <li>MPS (Renovation)</li> <li>Rising main</li> <li>Treated water Effluent disposal line</li> <li>Weir (Not yet started )</li> </ul>	In progress.	Partially initiated			
7	Suitable protection measures for the Bund wall from the rain to be undertaken since necessary stone pitching and drainage system are not in place	Work yet to resume	No progres			



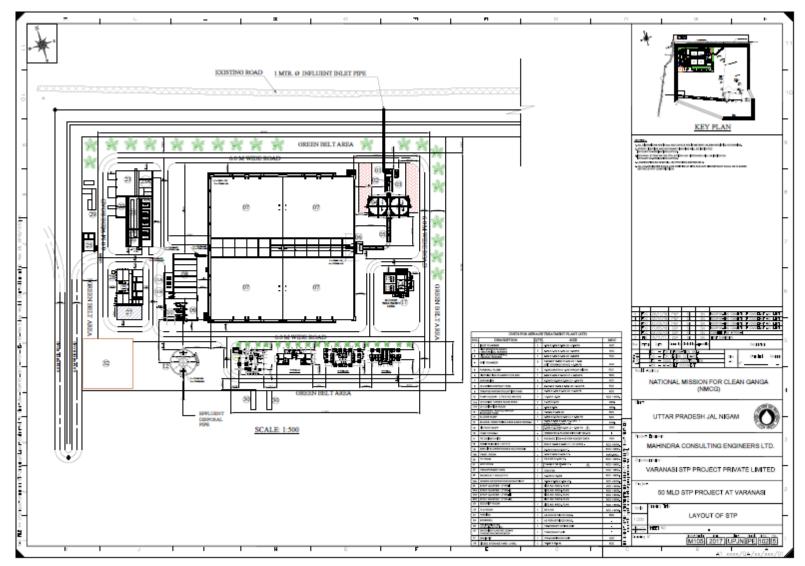


Figure 2: Development of sewage treatment plant and associated infrastructure under Hybrid Annuity based PPP mode at Varanasi



### 3.0. PROJECT ENGINEER ACTIVITIES

	Activities ca	arried out as pe	er TOR			
		Period: December 2020 to February 2021				
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for next month - February 2021		
4.1 (i)	Review, analysis and qualifying assessment of field investigations carried out and reported by the Concessionaire in respect of topographical surveys, hydraulic & hydrologic data verification, sub-surface investigation including laboratory testing and reports of geologists wherever applicable, investigation of construction material including lab testing.	Yes	Yes	Review of construction material testing		
4.1 (ii) 4.1 (iii)	Review, analysis and qualifying assessment of design memorandums, specifications and construction drawings prepared and submitted by the concessionaire. Conduct kick off meetings	Yes	Yes	Review of construction drawings		
4.1 (iv)	<ul> <li>Review of the submissions of the Concessionaire such as</li> <li>a. Work schedule</li> <li>b. Detailed survey report</li> <li>c. Basic engineering</li> <li>d. Detailed design and drawings for</li> </ul>	Yes	<ul> <li>Submission of Monthly Progress Report for the Month of December 2020</li> <li>Submission of Presentation for 7<sup>th</sup> January 2021 meeting</li> <li>Recommended to accord dispatch clearance (MDCC) for 750 kVA DG set for STP</li> </ul>	• Delay analysis		



Activities carried out as per TOR				
Clause as per TOR	Scope	P Undertaken till previous month – December 2020	eriod: December 2020 to Februa Undertaken during this month – January 2021	ry 2021 Expected for next month - February 2021
	<ul> <li>i) Civil works <ol> <li>Geo-tech reports</li> <li>Lab testing reports</li> <li>Third Party Inspection report</li> <li>Mechanical &amp; Electrical Works</li> <li>Automation &amp; Instrumentation works</li> <li>Any other allied works</li> </ol> </li> <li>e. QA/QC plans <ol> <li>Safety plan</li> </ol> </li> </ul>		in favor of M/s Electro Equipments Maharashtra- 416236.	
4.1 (v)	Review of the drawings and documents	Yes	As mentioned above	As mentioned above
4.1 (vi)	Identification of milestones & verifications		Regular review and monitoring	Regular review and monitoring
4.1 (vii)	To Assist NMCG for getting statutory permissions		NA	NA
4.1 (ix)	Review, inspection, supervision and monitoring of construction works conducting tests on completion of construction and issuing completion / provisional certificate	Yes	Day to day monitoring of construction activities by site personnel	Day to day monitoring of construction activities by site personnel
4.1 (x)	Review, inspection and monitoring of O&M	NA	NA	NA
4.1 (xi)	Determining, as required under the Concession	NA	NA	NA



Activities c		-	rried out as per TOR	
Clause as per TOR	Scope	Pe Undertaken till previous month – December 2020	riod: December 2020 to Febru Undertaken during this month – January 2021	Expected for next month - February 2021
	Agreement, the costs of any works or services and/or their reasonableness			
4.1 (xii)	Determining, as required under the Concession Agreement, the period or any extension thereof, for performing any duty or obligation	NA	NA	NA
4.1 (xiii)	Determining the events of default and guidance on consequent termination notices and payment as detailed in clauses 16.1 to 16.5 of the Concession Agreement	NA	NA	NA
4.1 (xiv)	Determine deficiencies in the commissioning & trial runs; prepare the final acceptance document for acceptance of commissioning & trial runs. Prepare & Issue Commercial Operation certificate through Uttar Pradesh Jal Nigam	NA	NA	NA
4.1 (xv)	Any other matter which is not specified in ((vi), (vii), or (viii) above and which creates an obligation or liability on the Employer / NMCG beyond the provisions of the Concession Agreement	NA	NA	NA
4.1 (xvi)	The Project Engineer shall submit regular periodic reports, as specified in the Concession Agreement to Uttar Pradesh Jal Nigam & NMCG, in respect of its duties & functions under the Concession	Monthly progress report	Monthly progress report	Preparation and review of monthly progress report

Activities ca		-	arried out as per TOR	
Clause as per TOR	Scope	Undertaken till previous month – December 2020	riod: December 2020 to Febru Undertaken during this month – January 2021	Expected for next month - February 2021
	Agreement			
4.1 (xvii)	The Project Engineer shall aid and advise the Employer on any proposal for variation under Article 20 of the Concession Agreement	NA	NA	NA
4.1 xviii)	Assisting the Parties in resolution of Disputes	NA	NA	NA
4.1 (xix)	Assisting the employer in the fulfilment of Hand back requirements as detailed in clause 19.3 of the Concession Agreement		NA	NA
4.1 (xx)	Undertaking all other duties and functions in accordance with this agreement	As mentioned above	As mentioned above	As mentioned above
4.2	The Project Engineer shall discharge its duties in an efficient manner, consistent with the highest standards of professionalism & Good Industry Practice	Yes	Yes	Yes
4.3(i)	The Project Engineer must function in a manner to assist & equip the employer to ascertain that the Concessionaire shall operate and maintain the Facilities and the Associated Infrastructure in a manner that: Is in compliance with the Technical Specifications, Applicable Laws, Applicable Permits and Good Industry Practice;	Yes	Yes	Yes

Activities		arried out as per TOR		Jany 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	riod: December 2020 to Febru Undertaken during this month – January 2021	Expected for next month - February 2021
	Results in the Facilities and the Associated Infrastructure achieving the KPIs as detailed in schedule 10 of the Concession Agreement & certify within 7 days the KPI adherence Report as per clause 8.12 of the Concession Agreement;			
4.3(ii)	Ensures that the Varanasi STP are capable of treating Sewage up to the Design Capacity on a daily basis;	Yes	Yes	Yes
4.3(iii)	Ensures efficient treatment of Sewage & handling and disposal of STP By- Products and the Treated Effluent	NA	NA	NA
4.3(iv)	STPs are safe and reliable, subject to normal wear and tear of the Facilities and the Associated Infrastructure;	NA	NA	NA
4.3(v)	Is in compliance with the technology license agreement executed by the Concessionaire for the technology, processes, know-how and systems used or incorporated into the Facilities and/or the Associated Infrastructure	Yes	NA	NA
4.3(vi)	Maintains the safety and security of personnel, material and property at the Site, in accordance with the approved EHS Plan, Applicable Laws and	Yes	Yes	Yes

	Activities ca	TOR priod: December 2020 to Febru	arv 2021	
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
	Applicable Permits.			
4.3(vii)	Ensures that all waste materials and hazardous substances are stored and/or disposed in accordance with the EHS Plan, Applicable Laws and Applicable Permits.	Yes	Yes	Yes
4.4	Overall, The Project Engineer shall assist the Uttar Pradesh Jal Nigam in supervising the construction, rehabilitation, operation & maintenance of the Facilities and the Associated Infrastructure and shall work closely with the Uttar Pradesh Jal Nigam and NMCG to monitor compliance with the KPIs.	Yes	Yes	Yes
5.1	During the Development Period, the Project Engineer shall undertake a detailed review of the basic engineering Designs, furnished by the Concessionaire along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys and Sewage Flow Analysis. The Project Engineer shall complete such review and send its comments / observations to the NMCG / Name of the Employer (i.e. State Institution) and the	Yes	Review of construction drawings submitted by concessionaire	Review of construction drawings submitte by concessionaire



	Activities ca	arried out as per Pe	TOR priod: December 2020 to Febru	ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
	Concessionaire within 10 (ten) days of receipt of such Drawings. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards			
5.2	The Project Engineer shall review and assist the (Name of the Employer) in approval of the submissions by the concessionaire relating to the " <b>design and Construction Plan</b> " so as to confirm to the scope as per <b>Schedule 1</b> of the Concession Agreement.	Yes	Yes	Yes
5.3	<ul> <li>The basic engineering drawings in the above case shall mean the designs and documents to be submitted by the Concessionaire &amp; approved by the Uttar Pradesh Jal Nigam as a Condition Precedent &amp; shall include but not limited to:</li> <li>a) Conduct kick off meeting, scrutiny of contractor's submittals</li> <li>b) Process description, process calculations and hydraulic calculations;</li> <li>c) List of design codes and standards;</li> <li>d) Master drawing schedule;</li> </ul>	Yes	Yes	Yes



	Activities carried out as per TOR Period: December 2020 to February 2021			arv 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
	<ul> <li>e) Drainage design;</li> <li>f) STP Facilities layout;</li> <li>g) Process flow diagram;</li> <li>h) Hydraulic flow diagram;</li> <li>i) Mass balance diagram;</li> <li>j) Process and instrumentation diagram;</li> <li>k) Single line diagram;</li> <li>l) Electrical load list; and</li> <li>m) General arrangement diagrams of all units of facilities and associated infrastructure</li> </ul>			
5.4	The project engineer shall review any modified Drawings or supporting documents sent to it by the Concessionaire and furnish its comments within 10 (ten) days of receiving such drawings or documents.	Yes	Yes	Yes
5.5	The project engineer shall review the detailed design, construction methodology, quality assurance procedures and the procurement, engineering and construction time schedule sent to it by the Concessionaire and furnish its comments within 10 (ten) days of receipt thereof.	Yes	Yes	Yes



	Activities carried out as per TOR			
Clause as per TOR	Scope	Pe Undertaken till previous month – December 2020	eriod: December 2020 to Febru Undertaken during this month – January 2021	ary 2021 Expected for nex month - February 2021
5.6	Upon reference by the NMCG/Uttar Pradesh Jal Nigam, the Project Engineer shall review and; comment on the EPC Contract or any other contract for construction, operation and maintenance of the Project, and furnish its comments within 10 (ten) days from receipt of such reference from the NMCG/Uttar Pradesh Jal Nigam.	NA	NA	NA
6.1	In respect of the designs drawing & documents received by the project engineer for its review and comments during the construction period, the provisions of paragraph 4 shall also apply, mutatis mutandis	Yes	Yes	Yes
6.2	The Project Engineer shall review, and assist the Uttar Pradesh Jal Nigam in reviewing the submissions by the concessionaire, the Construction plan as defined in clause 7.3 of the Concession Agreement including Phase 1 and Phase II drawings, as well as the 'As Built' drawings on completion and EHS plans as defined in clause 7.4 of the Concession Agreement	Yes	Yes	Yes



	Activities ca	arried out as pe P	r TOR eriod: December 2020 to Februa	rv 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
6.3	The Project Engineer shall assist the Uttar Pradesh Jal Nigam submit their comments on effectiveness or otherwise of the Work plan submitted for meeting the specified payment milestones and completion of the work on or before the scheduled construction completion date	Yes	Yes	Yes
6.4	The Project Engineer shall review, in particular, the submissions by the Concessionaire as per Schedule 1 of the Concession Agreement, and assist Uttar Pradesh Jal Nigam in assessing the effectiveness them	Yes	Yes	Yes
6.5	The Project Engineer shall review the monthly progress report furnished by the Concessionaire and send its comments thereon to the NMCG / Uttar Pradesh Jal Nigam and the Concessionaire within 7 (seven) days of receipt of such report	Yes	Concessionaire not yet submitted progress report for the month of January 2021. However, the report was prepared by Project Engineer	Yes
6.6	The Project Engineer shall inspect the Construction Works and the Project as & when necessary and submit a report of such inspection (the "Inspection Report"), preferably after receipt of the monthly progress report from the	Yes	Yes	Yes

	Activities ca	arried out as per Pe	r TOR eriod: December 2020 to Febru	arv 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for next month - February 2021
	Concessionaire, but before the 20th (twentieth) day of each month in any case. The report shall contain, an overview of the status, progress, quality and safety of construction, including the work methodology adopted, the materials used and their sources, and conformity of Construction Works with the Scope of the Project and the Specifications and Standards. In a separate section of the Inspection Report, the Project Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in the construction of the Project. The Project Engineer shall send a copy of its Inspection Report to the NMCG/UPJN & the Concessionaire within 3 (three) days of the inspection			
6.7	However serious lapses, defects and/or deficiencies shall be reported to the Uttar Pradesh Jal Nigam/NMCG immediately without waiting for the monthly progress submissions as mentioned in the previous paragraph	Yes	Yes	Yes
6.8	For determining that the Construction Works conform to Specifications and Standards, the	Yes	Yes	Yes

	Activities ca	-	rried out as per TOR Period: December 2020 to February 2021		
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021	
	Project Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests on a sample basis, to be specified by the Project Engineer in accordance with approved norms/Good Industry Practice for quality assurance. The Project Engineer shall issue necessary directions to the Concessionaire for ensuring that the tests are conducted in a fair and efficient manner, and shall monitor and review the results thereof				
6.9	The timing of tests referred to in Paragraph 6.8, and the criteria for acceptance/ rejection of their results shall be determined by the Project Engineer in accordance with the norms /rules and Good Industry Practice. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Concessionaire for its own quality assurance in accordance with Good Industry Practice	Yes	Yes	Yes	
6.10	In the event that the Concessionaire carries out any remedial works for removal or rectification of	Yes	Yes	Yes	

	Activities ca	arried out as pe	r TOR eriod: December 2020 to Febru	ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
	any defects or deficiencies, the Project Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests to determine that such remedial works have brought the Construction Works into conformity with the Specifications and Standards, and the provisions of this Paragraph 5 shall apply to such tests			
6.11	In the event that the Concessionaire fails to achieve any of the Project Milestones, the Project Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Project Engineer identifies that completion of the Project is not feasible within the time specified in the Concession Agreement, it shall require the Concessionaire to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which COD shall be achieved. Upon receipt of a report from the Concessionaire, the Project Engineer shall review the same and send its comments to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire forthwith.	Yes	Yes	Yes



	Activities ca	arried out as per Pe	r TOR eriod: December 2020 to Febru	ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
6.12	If at any time during the construction period, the Project Engineer determines that the Concessionaire has not made adequate arrangements for the safety of workers and common public in the zone of construction or that any work is being carried out in a manner that threatens the safety of the workers and the common public, it shall make a recommendation to the NMCG/ Uttar Pradesh Jal Nigam forthwith, identifying the whole or part of the Construction Works that should be suspended for ensuring safety in respect thereof.	NA	NA	
6.13	In the event that the Concessionaire carries out any remedial measures to secure the safety of suspended works and common public, it may, by notice in writing, require the Project Engineer to inspect such works, and within 3 (three) days of receiving such notice, the Project Engineer shall inspect the suspended works and make a report to the NMCG/ Uttar Pradesh Jal Nigam forthwith, recommending whether or not such suspension may be revoked by the NMCG/ Uttar Pradesh Jal	NA	NA	



	Activities carried out as per TOR Period: December 2020 to February 2021			ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
	Nigam.			
6.14	If suspension of Construction Works is for reasons not attributable to the Concessionaire, the Project Engineer shall determine the extension of dates set forth in the project completion schedule, to which the Concessionaire is reasonably entitled, and shall notify the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire of the same Upon reference from the NMCG/ Uttar Pradesh Jal Nigam, the Project Engineer shall make a fair and reasonable assessment of the costs of providing information, works and services and certify the reasonableness of such costs for payment by the NMCG/ Uttar Pradesh Jal Nigam to the Concessionaire	NA	NA	
6.16	The Project Engineer shall aid and advise the Concessionaire in preparing the Operation & Maintenance Manual	NA	NA	
6.17	Upon reference from the NMCG/ Uttar Pradesh Jal Nigam the Project Engineer shall undertake the assessment of cost of civil works, as per applicable schedule of rates, for the reduction of	NA	NA	

	Activities carried out as per TOR Period: December 2020 to February 2021			ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
	Scope of work if any as per Article 20.			
6.18	The Project Engineer shall review the construction progress as per payment milestones proposed by the concessionaire and provide necessary recommendation/s to Uttar Pradesh Jal Nigam for issuance of 'Milestone Construction Certificates'	Yes	NA	
6.19	The Project Engineer shall support the employer in ensuring that the provisions specified in Clause 7, of the Concession Agreement including those for liquidated damages and Bonus, are being complied with.	Yes	NA	
6.20	On completion of construction and at behest of Employer, the Project Engineer may review the work done as per 'as built' drawings and identify defects and suggest changes as per clause 7.13(v) of the Concession Agreement	NA	NA	
6.21	Similarly, the Project Engineer may inspect the trial process and may point out the defects and cause changes or retrial of the process as per clause 7.14(d) of the Concession Agreement	NA	NA	



	Activities ca	arried out as per		om/ 2024
Clause as per TOR	Scope	Undertaken till previous month – December 2020	eriod: December 2020 to Febru Undertaken during this month – January 2021	Expected for nex month - February 2021
7.1	In respect of the Designs, Drawings, and Documents received by the Project Engineer for its review and comments during the Operation Period, the provisions of Paragraph 4 shall apply, mutatis mutandis	NA	NA	
7.2	<ul> <li>The Project Engineer shall review the O&amp;M Manual (Clause 8.2) and the Scheduled Maintenance Programme submitted by the concessionaire and provide its recommendations on the same, including suggestions for change, if any.</li> <li>The O&amp;M Manual shall cover: <ul> <li>a) O&amp;M Procedures;</li> <li>b) O&amp;M Plan;</li> <li>c) Provision of Spare Parts;</li> <li>d) Sampling and Testing Methodologies;</li> <li>e) Storage and control of Inventory;</li> <li>f) Arrangements for data security and Integrity;</li> <li>g) Procedures for recording and disposal of complaints;</li> <li>h) Operational Contingencies Plans;</li> </ul> </li> </ul>	NA	NA	



	Activities carried out as per TOR Period: December 2020 to February 2021			ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
	<ul> <li>i) Human Resources Plans;</li> <li>j) EHS Plans;</li> <li>k) Emergency procedures;</li> <li>l) Management of Assets Plans. And</li> <li>m) Annual Scheduled Maintenance programme.</li> </ul>			
7.3	The Project Engineer shall review the annual Maintenance Program furnished by the Concessionaire and send its comments thereon to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within 10 (ten) days of receipt of the Maintenance Program	NA	NA	
7.4	The Project Engineer shall review the reports generated from online monitoring systems to assess adherence to KPIs and submit the monthly KPI Adherence Report to Uttar Pradesh Jal Nigam	NA	NA	
7.5	The Project Engineer shall verify the daily reports submitted by the concessionaire regarding the volume of sewage and its quality re influent standards and monitor and record the same on regular basis	NA	NA	



	Activities ca	arried out as per	TOR priod: December 2020 to Febru	ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
7.6	The Project Engineer shall monitor, review and advise the Uttar Pradesh Jal Nigam on the reports submitted by the concessionaire as per clause 8.8(b)(iii) (A) to (G) of the Concession Agreement	NA	NA	
7.7	The Project Engineer shall regularly verify the report submitted by the concessionaire on the tests conducted at the Inlet Point, the Outlet Point or at any other point at the Varanasi STP for the Digested Sludge. Separately, the Project Engineer shall also have the right to take random samples of the incoming Sewage, the Digested Sludge and the Treated Effluent at any time during the O&M Period to test compliance with the Influent Standards & the Discharge Standards.	NA	NA	
7.8	The Project Engineer shall review the monthly status report furnished by the Concessionaire (as required under clause 812(c)) of the Concession Agreement) and send its comments thereon to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within 7 (seven) days of receipt of such report	NA	NA	



	Activities ca	arried out as per	r TOR eriod: December 2020 to Febru	ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
7.9	The Project Engineer shall inspect the Project once every month, preferably after receipt of the monthly status report from the Concessionaire, but before the 20th (twentieth) day of each month in any case and make out an O&M Inspection Report setting forth an overview of the status, quality and safety of O&M including its conformity with the Maintenance Requirements and Safety Requirements. In a separate section of the O&M Inspection Report, the Project Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in O&M of the Project. The Project Engineer shall send a copy of its O&M Inspection Report to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within 7 (seven) days of the inspection	NA	NA	
7.10	The Project Engineer may inspect the project more than once in a month, if any lapses, defects or deficiencies require such inspections.	NA	NA	
7.11	The Project Engineer shall in its O&M Inspection Report specify the tests, if any, that the Concessionaire shall carry out, or cause to be	NA	NA	

	Activities carried out as per TOR Period: December 2020 to February 2021			arv 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for next month - February 2021
	carried out, for the purpose of determining that the project is in conformity with the Maintenance Requirements. It shall monitor and review the results of such tests & the remedial measures, if any, taken by the Concessionaire in this behalf.			
7.12	The Project Engineer shall determine if any delay has occurred in completion of repair or remedial works in accordance with the Concession Agreement, and shall also determine the Damages, if any, payable by the Concessionaire to the NMCG/ Uttar Pradesh Jal Nigam for such delay.	NA	NA	
7.13	The Project Engineer shall monitor and review the curing of defects and deficiencies by the Concessionaire.	NA	NA	
7.14	In the event that the Concessionaire notifies the Project Engineer of any modifications that it proposes to make to the project, the Project Engineer shall review the same and send its comments to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within 15 (fifteen) days of receiving the proposal.	NA	NA	



Activities ca		-	ed out as per TOR	
Clause as per TOR	Scope	Pe Undertaken till previous month – December 2020	eriod: December 2020 to Febru Undertaken during this month – January 2021	ary 2021 Expected for nex month - February 2021
7.15	The Project Engineer shall undertake sewage flow sampling, as and when required by the NMCG/ Uttar Pradesh Jal Nigam, under and in accordance with the provisions of this agreement	NA	NA	
7.16	The Project Engineer shall review and report to the employer on all the reports (Daily, Monthly, Quarterly and Annual), including monthly Environmental Monitoring Reports as detailed in Schedule 11(Part G) of the Concession Agreement.	NA	NA	
7.17	The Project Engineer shall provide necessary training/capacity building to the operators/technicians of the STP, as and when required, so as to address the gap in skill sets of the manpower deployed by the Concessionaire	NA	NA	
9.1	The Project Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Concession Agreement	NA	NA	
9.2	The Project Engineer shall determine the period, or any extension thereof, that is required to be determined by it under the Concession Agreement	NA	NA	



	Activities carried out as per TOR Period: December 2020 to February 2021			ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
10.1	When called upon by either Party in the event of any Dispute, the Project Engineer shall mediate and assist the Parties in arriving at an amicable settlement	NA	NA	
10.2	In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Concession Agreement, the Project Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature	NA	NA	
11.0	As and when requested by NMCG/ Uttar Pradesh Jal Nigam, the Project Engineer shall provide its opinion and assessment on the events related to Emergency, Change in Law, Force Majure, Minor or total Casualties, Variation and unforeseen Site conditions etc.	Yes	NA	
12.1	The Project Engineer shall notify its programme of inspection to the NMCG/ Uttar Pradesh Jal Nigam and to the Concessionaire, who may, in their discretion, depute their respective representatives	Yes	Yes	Yes



	Activities carried out as per TOR Period: December 2020 to February 2021			ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
	to be present during the inspection.			
12.2	A copy of all communications, comments, instructions, Drawings or Documents sent by the Project Engineer to the Concessionaire pursuant to this TOR, and a copy of all the test results with comments of the Project Engineer thereon shall be furnished to the NMCG/ Uttar Pradesh Jal Nigam forthwith.	Yes	Yes	Yes
12.3	The Project Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.	Yes	Yes	Yes
12.4	Upon completion of its assignment hereunder, the Project Engineer shall duly classify and list all Drawings, Documents, results of tests and other relevant records, and hand them over to the NMCG/ Uttar Pradesh Jal Nigam or such other person as the NMCG/ Uttar Pradesh Jal Nigam may specify and obtain written receipt thereof. Two copies of the said documents shall also be furnished in their editable digital format or in such other medium or manner as may be acceptable to	Yes	Yes	Yes



	Activities carried out as per TOR Period: December 2020 to February 2021			ary 2021
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021
	the NMCG/Uttar Pradesh Jal Nigam			
12.5	Wherever no period has been specified for delivery of services by the Project Engineer, the Project Engineer shall act with the efficiency and urgency necessary for discharging its functions in accordance with Good Industry Practice.	Yes	Yes	Yes
12.6	Project Engineers shall be expected to fully comply with all the provisions of the "Terms of Reference", and shall be fully responsible for supervising the Design, Construction and maintenance and operation of the Facility in accordance with the provisions of the Concession Agreement and other schedules. Any failure of the Project Engineer in notifying to the Employer and the Concessionaire on non- compliance of the provisions of the Concession Agreement and other schedules by the Concessionaire, non- adherence to the provision of this ToR and non- adherence to the time schedule prescribed under this ToR shall amount to non-performance.	Yes	Yes	Yes



	Activities ca	•	ried out as per TOR Period: December 2020 to February 2021		
Clause as per TOR	Scope	Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - February 2021	
12.7	The project Engineer shall develop & maintain a project website and with the approval of NMCG/UPJN post from time to time, information (textual and Audio- Visual) on project progress on a continuous basis. On completion of services as per this RFP document, the website with all necessary technical information shall be handed over to UPJN.	Yes	Yes	Yes	
14.1	Uttar Pradesh Jal Nigam may review with the Project Engineer, any or all of the documents and advice forming part of the Consultancy, in meetings and conferences which will be held at the office of the Uttar Pradesh Jal Nigam / NMCG. Uttar Pradesh Jal Nigam / NMCG may, in its discretion, require the Project Engineer to participate in extended meetings and/ or work from the offices of Uttar Pradesh Jal Nigam /NMCG and the Project Engineer shall, on a best endeavor basis and without unreasonable delay, provide such services at the offices of the Uttar Pradesh Jal Nigam/NMCG.	Yes	Yes	Yes	



Activities carried out as per TOR				
Clause as per TOR	Scope	Period: December 2020 to February 2021		
		Undertaken till previous month – December 2020	Undertaken during this month – January 2021	Expected for nex month - Februar 2021
15.1	The Project Engineer may prepare Issue Papers highlighting issues that could become critical for the timely completion of the Project and that require attention from Uttar Pradesh Jal Nigam/NMCG. The Project Engineer shall report to UPJN for routine activities and deliverables. All major and critical issues shall be reported to NMCG and UPJN simultaneously.	Yes	Yes	Yes
15.2	The Project Engineer will make a presentation on the inception report for discussion with the Uttar Pradesh Jal Nigam / NMCG at a meeting. This will be a working document. Regular communication with Uttar Pradesh Jal Nigam / NMCG is required in addition to all key communications. This may take the form of telephone/ teleconferencing, emails, and occasional meetings.	Yes	Yes	Yes
15.3	The Deliverables will be submitted as per schedule provided in this RFP	Yes	Yes	Yes



## 4.0. MEETINGS

Project Engineer undertaken and planned services.

S.	Purpose	rpose Undertaken by -		February 2021	
No.	Fulpose	Undertaken by	Description	Expected next month	
1)	Site Visit & Progress review	Mr. Bipin Singh – SMCG Mr. Ajai Singh - SMCG	03.01.2021		
2)	Site Visit & Progress review	Mr. Vivek Singh EE, UPJN	05.01.2021		
3)	Site Visit	Mr. S.K.Singh, DSTO, Varanasi Mr.Ratnesh Singh, MCCD, Varanasi	16.01.2021	Site visit & progress review	
4)	Site Visit & Progress review	Mr. P.P.Aggarwal, GM, UPJN Mr. S.K.Burman, PM, UPJN	19.01.2021	progress review	
5)	Site Visit & Progress review for Electro Mechanical works	Mr.Satish kumar, AE, UPJN Mr. Rajesh kumar, AE, UPJN Mr. G.P.Singh, JE, UPJN	30.01.2021		



### 5.0. STAFF DEPLOYMENT

The work had commenced on 15.02.2018 the same has been communicated to NMCG vide letter number P 968 :8230 dated 05.03.2018.

The Project Engineer office shifted on 20/06/2018 at the following address in Varanasi:

Mahindra Consulting Engineers Limited

"K Lion Enclave", "A "Block, Flat No: 118, 1<sup>st</sup> Floor, Opposite to Vishal Mega Mart, Nevada, Sundarpur, Varanasi – 221005, Uttar Pradesh.

The position of staff deployment since beginning of the project is given in the following table:

SI.	Staff deployed or	i site at Ramana, Varanasi	Date of de	eployment
No.	Designation	Name of staff	From	То
1	Team Leader	Jiut Bundhan Rai (Additional	07/05/2018	
		deployment)		
2	Project Manager	G. Sathiskumar	19/02/2018	21/05/2018
		(As per agreement)		
3	Civil Engineer	M. Sivapriyan (Additional	15/02/2018	27/01/2020
		deployment)		
4	Civil Engineer	T. Sathyamoorthy	20/04/2018	07/05/2018
		(As per agreement)		
5	Civil Engineer	P. Ramasubramanian	20/04/2018	27/11/2018
		(Additional deployment)		
6	Civil Engineer	Imran Khadhar Mohideen	20/04/2018	
		(Additional deployment)		
7	Structural Engineer	S. Varun Athithiya	20/04/2018	
		(Additional deployment)		
8	Senior Engineer	R. Satish	20/04/2018	29/02/2020
	(Electrical &	(As per agreement)	04/03/2019	31/05/2020
	Instrumentation)			



		Dovelopment of 50 M		tmont plant on								
	Development of 50 MLD sewage treatment p associated infrastructure on PPP basic at Ramana,											
SI.	Staff deployed or	n site at Ramana, Varanasi	Date of de	eployment								
No.	Designation	Name of staff	From	То								
9	Structural Engineer	M. Vishnukumar	24/09/2018	31/12/2019								
		(As per agreement)										
10	Electrical Engineer	K.Ganesh	11/10/2018	13/10/2018								
		(As per agreement)										
		K.Ganesh	04/01/2021									
		(As per agreement)										
11	Liaison Officer	O. B. Shivakumar (Additional	20/04/2018	08/07/2018								
		deployment)										
12	QA QC Expert	L. Selva Kumar (Additional	29/05/2018	07/04/2019								
	/Safety	deployment)	17/07/2019	20/07/2019								
13	Mechanical	A.Robin (As per agreement)	27/01/2020	29/02/2020								
	Engineer											
		A.Robin (As per agreement)	04/01/2021									
14	Electrical and	Devasis Panigrahi	10/10/2020	27/10/2020								
	Instrumentation	(Additional deployment)										
	Engineer											



## ANNEX - 1 PROJECT PROGRESS (PHYSICAL)



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## ANNEX 1 - PROJECT PROGRESS (PHYSICAL)

SI.	Component	Scheduled till 18 <sup>th</sup>	_	al Progre ercentage				
51. No.	-	November 2019	Up to Previous month	During month	Total	Remarks		
1	2	3	4	5	6	7		
1	Development of sewage treatment plant and associated infrastructure under Hybrid Annuity based PPP mode at Varanasi	100%	93.59%	0.66%	94.25%	The extended timeline for construction completion is ended as on 30th November 2020. However, VSPPL requested to extend further for starting the trial run activities i.e on or before end of February 2021. The problem of fund disbursement was solved temporarily and around Rs.7.5 crore released by yes bank as per the request of VSPPL. Based on the progress and the revised work plan submitted by VSSPL, it is possible to achieve the construction completion and start the trial run on or before end of February 2021 subject to availability of required manpower, material and machineries. There is no specific responsible person available from VSPPL to ascertain the procedure of trial run even after repeated reminders and request for deputation of process expert and O&M Team for conducting trial run. Methodology for conducting dry run, trial run and commissioning is pending for submission by VSPPL.		



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## ANNEX – 2 FINANCIAL STATEMENTS



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# \_ **ANNEX 2 – FINANCIAL STATEMENTS**

Item of work	Scheduled expenditure	Completed amount till previous	Completed amount during this	Total completed
	in Rs	month in Rs	month in Rs	amount in Rs
	Design detail	ed engineering		
Phase – I D&E (BEP)	76,50,000	76,50,000	-	76,50,000
Phase – II D&E (Civil,	51,00,000	51,00,000	-	51,00,000
Mechanical, Electrical, Inst.				
Drawings)				
Topographical / Soil	51,00,000	51,00,000	-	51,00,000
Investigation				
Structural drawings	127,50,000	127,50,000	-	127,50,000
submissions & approvals				
Mechanical & piping drawings	10,200,000	10,200,000	-	10,200,000
submissions & approvals				
Electrical drawings submissions	2,550,000	2,550,000	-	2,550,000
& approvals				
Instrumentation document	25,50,000	25,50,000	-	25,50,000
submissions & approvals				
	Asso	ociated		
MPS pumping station	11,730,000	6,744,750	492,660	7,237,410
Rising Main	16,320,000	14,696,160	975,120	15,671,280
Treated Effluent disposal line	107,100,000	102,455,063	937,125	103,392,188
Equipment proc		s and receipt of	equipment at Sit	e
Fine Screen / Coarse Screen /	107,10,000	107,10,000	-	107,10,000
Belt Conveyors				
Grit Removal Mechanism	107,10,000	107,10,000	-	107,10,000
SBR System (Decanters)	53,550,000	53,550,000	-	53,550,000
SAS / RAS pumps/booster	107,10,000	107,10,000	-	107,10,000
pumps / treated water pumps /				
drain pumps				
Horizontal centrifugal pumps	22,440,000	22,440,000	-	22,440,000
(Treated water pumps)				
Air blowers	42,840,000	42,840,000	-	42,840,000
Chlorination system	10,710,000	10,710,000	-	10,710,000
Sluice Gates	5,610,000	5,610,000	-	5,610,000
MS/CS/SS/GI/CI/DI Piping	10,710,000	10,549,350	53,550	10,602,900



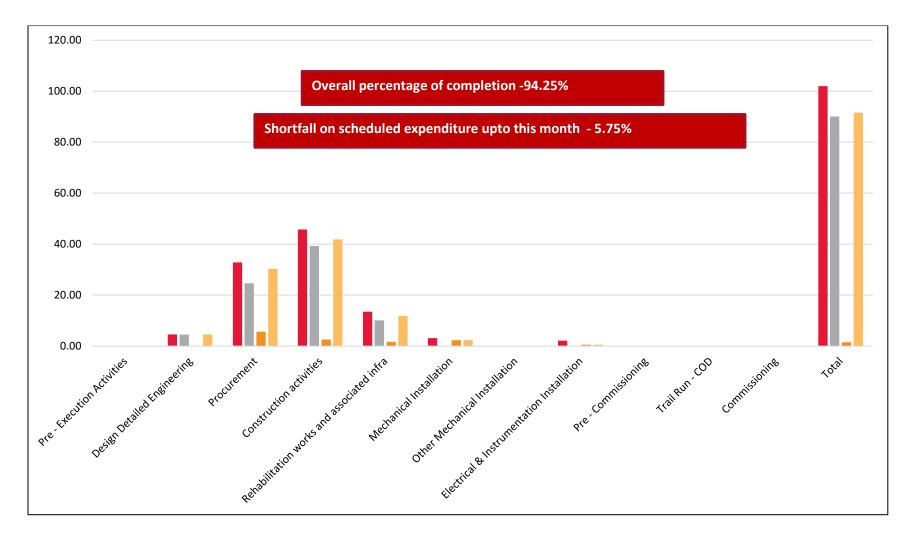
		d infrastructure on		ent plant and ana, Varanas
Item of work	Scheduled expenditure in Rs	Completed amount till previous month in Rs	Completed amount during this month in Rs	Total complete amount in
Valves	10,710,000	10,710,000	-	10,710,
Motorized Gates at Inlet Of SBR	10,710,000	10,710,000	-	10,710,
Diffusers	10,710,000	10,710,000	-	10,710,
Volute press	10,710,000	10,710,000	-	10,710,
PE Dosing Tanks	2,550,000	2,550,000	-	2,550
Agitators	8,160,000	8,160,000	-	8,160,
Transformers	5,610,000	5,610,000	-	5,610
HT cables	2,550,000	2,550,000	-	2,550
MCC panel	5,610,000	5,610,000	-	5,610
HT Panel	5,610,000	5,610,000	-	5,610,
PLC Panel	15,300,000	15,300,000	-	15,300,
SCADA System	10,200,000	10,200,000	-	10,200,
MLDB, LDB & SLDBS	5,610,000	5,610,000	-	5,610
Push Button Stations/Plant lighting / Buildings lighting	3,060,000	3,060,000	-	3,060
Power, Control & lighting Cables	5,610,000	5,610,000	-	5,610
Cable trays/Lighting JB	3,060,000	2,754,000	306,000	3,060
DG Set	5,610,000	3,997,125	911,625	4,908
Plant Earthing	3,060,000	3,060,000	-	3,060
Instruments (Flow meter / Analyzer)	7,650,000	7,650,000	-	7,650
Instruments (Temperature, Pressure & Level transmitter / Level, Temperature and Pressure switches)	7,650,000	7,650,000	-	7,650
	Civil Ex	ecutions		
Bund Wall / Earthen Embankment	85,680,000	74,213,160	-	74,213,
Construction of Inlet Structure, Fine Screen, Grit Chamber, Parshall Fume, Distribution Chamber for SBR	27,030,000	27,030,000	-	27,030,



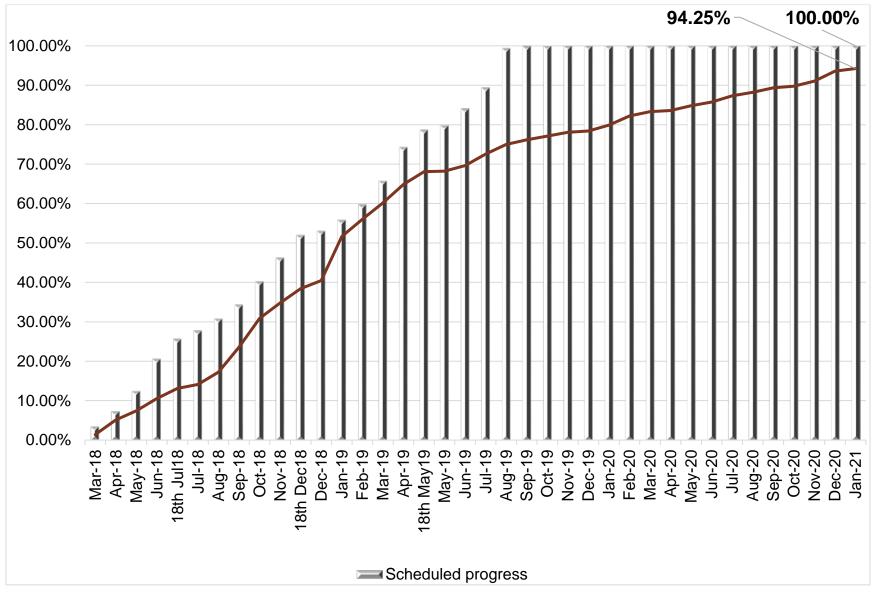
		evelopment of 50 M d infrastructure on		
Item of work	Scheduled expenditure in Rs	Completed amount till previous month in Rs	Completed amount during this month in Rs	Total completed amount in Rs
SBR Basins & SBR outlet Chamber	236,130,000	236,130,000	-	236,130,000
Construction of CCT including Chlorination room & Treated water pump House	32,130,000	32,130,000	-	32,130,000
Final Outfall chamber	2,805,000	1,996,650	-	
Overhead Treated Water Tank	2,805,000	2,223,600		2,223,600
Construction of BFP Building, Filtrate Pump, Pump house – 2, PE dosing tank	10,710,000	10,373,400	122,400	10,495,800
Administrative Building including lab and workshop	10,710,000	10,633,500	25,500	10,659,000
Staff Quarters	16,320,000	9,159,753	257,550	9,417,303
Roads, Drainage & Fire Fighting system	16,830,000	84,150	-	84,150
Construction of Blower room, HT, MCC, Transformer Yard, DG set Area	16,320,000	15,555,000	153,000	15,708,000
Mechanical Installation	31,620,000	27,983,700	474,300	28,458,000
Electrical & Instrumentation installation	21,400,000	10,924,200	1,927,800	12,852,000
Pre-Commissioning	5,100,000		-	
Total	102,00,00,000	954,593,561.26	6,733,530	961,327,091.26



### Financial status for the month of January 2021







### Progress status scheduled vs Actual – January 2021



## ANNEX – 3 QUALITY ASSURANCE / QUALITY CONTROL



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## ANNEX 3 – QUALITY ASSURANCE / QUALITY CONTROL

#### 1. Bund wall

			Till p	revious	s month	ı		-	nis mor to 31-01		
S. No.	Description	IS Code	As per IS No of test required	No. of Test conducted	No. of Acceptance	No. of Rejects	As per IS No of test	No. of Test conducted	No. of Acceptance	No. of Rejects	Remarks
1	Soil compaction test at source (Borrow pit) – MDD, OMC & Soil characteristics	2720- 1983 Part VIII	22	22	12		-	-	-	-	10 sample taken and sent to third party testing and waiting for their report.
2	Soil compaction test at site – OMC & Degree of compaction	2720- 1983 Part II	1518	1518	1362	156	-	-	-	-	Out of 1518 samples, 156 failed in the compaction test initially. The area where the samples were taken were reworked, samples were collected again, tested and were result found acceptable.



#### 2. New construction units

			т	ill previ	ous month				s month 31-01-21)		Remarks
SI. No.	Description	IS Code	As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	As per IS No of test required	No. of Test conducted	No. of Acceptance	No. of Rejects	
1	Coarse – aggregate 20mm down	IS 383- 2016	78	123	106	17	1	1	1	-	17 rejects (oversize) removed from site.
2	Coarse -aggregate 10mm down	IS 383 - 2016	66	83	78	5	1	1	1	-	5 rejects (undersize) removed from site.
3	Fine aggregate 4.75 mm down	IS 383 - 2016	75	94	89	5	1	1	1	-	5 rejects (undersize) removed from site.
4	Combined Grading as per approved IIT Mix design	IS 383 - 2016	Whenever required	4	4	-	Whenever required	-	-	-	As per approved mix 60% of 20mm and 40% of 10mm being used.
5	Hardened concrete Compressive strength & Mortar cube	IS 516 & IS 456	Every 50m <sup>3</sup> or part thereof	1781	1781	-	Every 50m <sup>3</sup> or part thereof	26	26	-	
6	OPC Cement 43 Grade	IS 8112- 2013	Every batch	1	1	Every batch	-	-	-	-	UltraTech MTC
7	Reinforcement TMT Bars	IS 456 - 2000, IS 1786 - 2008 & IS 800 - 2007	One sample for each size per 50 MT	51	51	-	One sample for each size per 50 MT	-	-	-	TATA Steel MTC / Third party report for all consignment.
8	Admixture	IS 9103 - 1999	Every new lot	1	1	-	Every new lot	-	-	-	FOSROC Conplast SP430G8/ MTC.



## Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi

Remark		nonth During this month (01-01-21 to 31-01-21)				ous month	ill previ	т			
	No. of Rejects	No. of Acceptance	No. of Test conducted	As per IS No of test required	No of Rejects	No of Acceptance	No of Test conducted	As per IS No of test required	IS Code	Description	SI. No.
1 sample sen BHU on 28/03/2019. Awaiting repo	-	-	-	Once in six months	-	2	3	Once in six months	IS 456 - 2000	Water	9
As per approv mix 60% of 2 and 40% of 1 being used.	-	Approved IIT BHU & accepted by client	M10 M15 M20 M25 M30	Whenever source of material changes	-	Approved IIT BHU & accepted by client	M10, M15, M20, M25, M30	Whenever source of material changes	IS 10262 -1982	Mix design	10
13 samples rejected initia They were re rechecked were acceptable.		3	3	Every alternate truck	13	589	602	Every alternate truck	IS 456, SP 23 & IS 516	Field control test: Slump /Concrete temperature/ unit weight	11
20 Nos sent t party t Results were acceptable	-	3	3	3	-	81	101	20nos to be selected from a lot of 2000- 10000.	IS 1077 & IS 5454	Bricks	12



### 3. Treated Effluent disposal line

			Till previous month					-	is month 0 31-01-2		
SI. No.	Description	IS Code	As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	Remarks
1	PSC Pipes 1200mm dia – characteristics Test (Dimension, Straightness, Thickness, Hydrostatic & Permeability)	IS 784 & IS 3597	787	787	752	35	-	-	-	-	Out of 787 pipes, 35 pipes were rejected initially. These were later rectified, tested again and found acceptable.
2	Soil Test – SBC of soil	IS 6403	4	4	4	-	-	-	-	-	
3	EPDM Gasket	IS 5389- 1979	741	741	741	-	-	-	-	-	



### 4. Raising main

			Ti	ll previous	month			-	is montl 31-01-2		
S. No.	Description	IS Code	As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	Remarks
1	MS Pipes 1000mm dia	IS	356.72	356.72	356.72	-				-	Factory
	- characteristics Test	3589:	Mtrs	Mtrs	Mtrs						inspection done
	(Dimension, Thickness,	2001	(74 nos)	(74 nos)	(74 nos)						110 mtrs along
	Hydro testing, Epoxy										with client at
	coating, Anti corrosive										GD industries
	coating & Marking)										,Delhi, Noida
2	Dye penetration test	IS	118	118	118	-	4	4	4	-	<ul> <li>Lighting</li> </ul>
	Cleaner- CL 96	23277									equipment –
	Penetrator – PT97	:2015									Laser
	Developer – DL 98										<ul> <li>Dwell time –</li> </ul>
	Mode of application –										• 2 to 5 min
	Spray										<ul> <li>Developing</li> </ul>
											time – 10 to
											15 min



## 5. Construction Running Materials / Equipment's

			Till previous month				During this month (01-01-21 to 31-01-21)				Remarks
SI. No.	Description	IS Code	As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	As per IS No of test required	No of Test conducted	No of Acceptance	No of Rejects	
1	Auto level (SBR / Pipe-	BIS 1492	Yearly once	6	3		NA				
	lines / bund wall)										
2	Cube testing Machine	IS 14858- 2000	Yearly once	4	4		NA				
3	Laboratory weighing	IS 9281 (part III)	Yearly once	4	4		NA				
	machine	-1981									
4	Ready Mix Concrete	IS 14858-2000	Whenever	6	6		NA				
	plant		required								

## ANNEX – 4 PHOTOGRAPHS



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Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi





















Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi









Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi

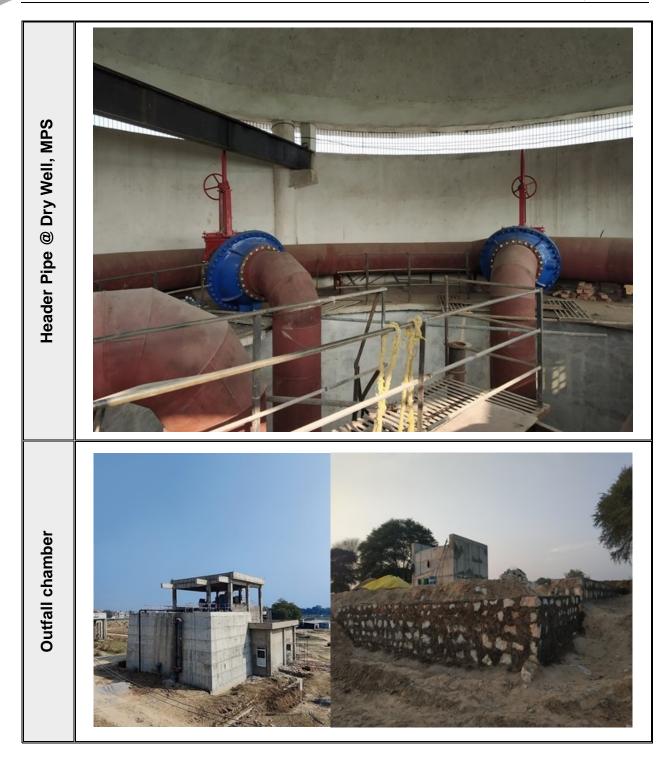




Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi

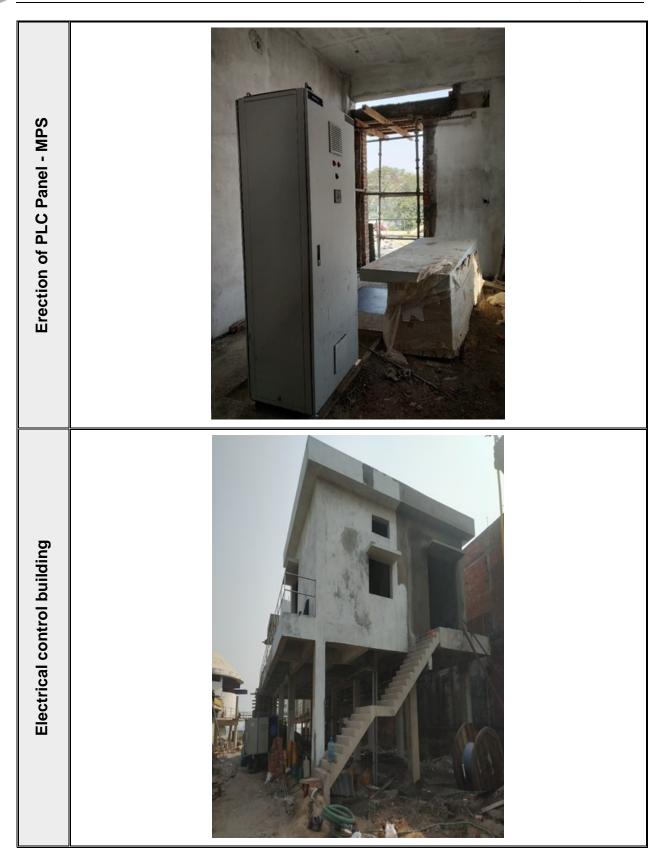






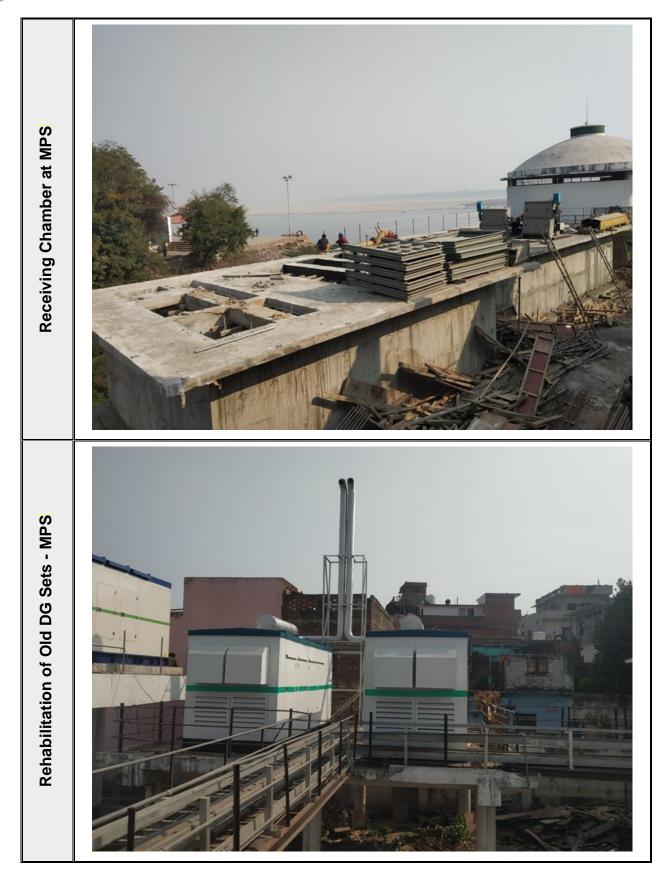


Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi











Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi

















## ANNEX – 5 OUTWARD CORRESPONDENCE LIST OF JANUARY 2021



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#### ANNEX 5 – OUTWARD CORRESPONDENCE LIST OF JANUARY 2021

SI. No.	Document No.	Date	To (Organization)	Copies To	Subject File No.	Subject
1.	MACE: P968: 11993	January 05, 2021	NMCG	GM, & PM, UPJN	NA	Submission of Monthly Progress Report for the Month of December 2020
2.	E-Mail	January 07, 2021	NMCG	GM, & PM, UPJN	NA	Submission of Presentation for 7 <sup>th</sup> January 2021 meeting
3.	MACE: P968: 12062	January 23, 2021	GM, UPJN	NMCG, PM, UPJN		Recommended to accord dispatch clearance (MDCC) for 750 kVA DG set for STP in favor of M/s Electro Equipments Maharashtra-416236



## ANNEX – 6 INWARD CORRESPONDENCE LIST OF JANUARY 2021





#### ANNEX 6 – INWARD CORRESPONDENCE LIST OF JANUARY 2021

SI.	Document No	Letter	Fron	n	Atta	chments	Subject
No.	Document No	Date	Organization	Writer	Y/N	No.	Subject
1.	EIL/VSPPL/2020-21/770	11.01.2021	VSPPL / UPJN	Pallav	Y	9	Submitting the Instrument location
				Srivastava			drawing of STP and MPS.
2.	EIL/VSPPL/2020-21/771	11.01.2021	VSPPL / UPJN	Pallav	Y	4	Request for release of DD's -
				Srivastava			Techno Project
3.	EIL/VSPPL/2020-21/772	11.01.2021	VSPPL / UPJN	Pallav	Y	4	Submission of Action Plan.
				Srivastava			
4.	E-Mail	18.01.2021	VSPPL /UPJN	Pallav	Ν		Request for inspection for DG
				Srivastava			
5.	EIL/VSPPL/2020-21/773	20.01.2021	VSPPL / UPJN	Pallav	Y	1	Request for Time extension.
				Srivastava			
6.	EIL/VSPPL/2020-21/774	20.01.2021	VSPPL / UPJN	Pallav	Y	4	Request for release of DD's -
				Srivastava			Corporated Steel Fabricators & Sky
							Shashi Construction
7.	EIL/VSPPL/2020-21/775	23.01.2021	VSPPL / UPJN	Pallav	Y	2	Request dispatch clearance for DG
				Srivastava			
8.	EIL/VSPPL/2020-21/776	25.01.2021	VSPPL / UPJN	Pallav	Y	2	Request for Time extension and
				Srivastava			submitting the resource plan



## ANNEX – 7 DELAY ANALYSIS & RECOVERY PLAN



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#### ANNEX 7 – DELAY ANALYSIS & RECOVERY PLAN

#### Delay analysis and recovery plan

The following activities are delayed as per the approved construction plan beyond 15 days from the targeted the completion date. The reason for the delay is analyzed in all aspects and the possible recovery plan also arrived to complete the pending activities within 30 days. It is to be noted that the recovery plan is provided only for the delayed activities and hence the concessionaire should plan and provide the additional manpower, Machinery and equipment in addition to the resources available at site for regular activities as per construction plan.

#### 1. Summary of delay analysis

Item of work	Scheduled start date as per approved construction plan	Scheduled completion date as per approved construction plan	Delay analysis	Recovery / Mitigation plan
Associated infrastructure works	20-Mar-18	18-May-19	Delay in receipt for existing structure as built drawings. And delay in site investigation are the main reason	UPJN not provided existing structure as built drawings
			Treated water effluent pipeline works	Work is in progress
			Hydro testing of pipes already laid is delayed unduly due to lack of planning, manpower, equipment.	Concessionaire informed that they are planning to complete the hydro testing by 2 <sup>nd</sup> week of February 2021
			Strengthening the raising main including pile foundation	Concessionaire informed that they are planning to complete the same by 2 <sup>nd</sup> week of February 2021
			Construction of Weir	VSPPL agreed to start the work on or before 3 <sup>rd</sup> week of February 2021
	Equipment Proci	urement, Logisti	cs and receipt of equip	ment at Site
MS/CS/SS/GI/CI/DI Piping	01-Jan-19	12-Aug-19	Lack of planning	VSPPL informed that they are planning to complete on or before 2 <sup>nd</sup> Week of February 2021.
DG Set	07-Sep-18	16-Aug-19	Lack of planning	VSPPL informed that they are planning to complete on or before 1 <sup>st</sup> Week of January



### Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi

		De associated	evelopment of 50 MLD set d infrastructure on PPP ba	wage treatment plant and asic at Ramana, Varanasi
Item of work	Scheduled start date as per approved construction plan	Scheduled completion date as per approved construction plan	Delay analysis	Recovery / Mitigation plan
				2021.
		Civil E	xecutions	
Bund Wall / Earthen Embankment	19-Feb-18	30-Aug-19	Lack of planning and lack of full utilization of equipment & manpower	planning to start the work on c
Final Outfall Chamber	19-May-19	03-Aug-19	Lack of planning and lack of full utilization of equipment & manpower	
Overhead treated water tank	1-Jun-18	1-Aug-19	Lack of planning and lack of full utilization of equipment & manpower	planning to complete on o
Construction of BFP Building, Filtrate Pump, Pump house – 2, PE dosing tank	15-Oct-18	13-Jul-19	Lack of planning and lack of full utilization of equipment & manpower	planning to complete on o
Administrative Building including lab and workshop	08-Jun-18	11-Jul-19	Lack of planning and lack of full utilization of equipment & manpower	planning to complete on o
Staff Quarters	08-Jun-18	16-Nov-19	Lack of planning and lack of full utilization of equipment & manpower	before 4 <sup>th</sup> week of March 202
Road & Drainage work	03-Jun-19	31-Aug-19	Lack of planning and lack of full utilization of equipment & manpower	
Construction of Blower room, HT, MCC, Transformer Yard, DG set Area	03-Jun-18	29-Aug-19	Lack of planning and lack of full utilization of equipment & manpower	planning to complete on



#### 2. <u>Recovery plan – Additional equipment, manpower and material required to meet the target within 30 days</u>

S. No.	Description	Status	Remarks
1	Bund wall / earthen embankment	Work yet to resume	
2	Construction of Inlet Structure, Fine Screen, Grit Chamber, Parshall	Completed	
2	Fume, Distribution Chamber for SBR		
3	SBR basins & SBR outlet Chamber	Completed	
4	Chlorination building & Chlorine contact tank & Treated water collection	Completed	
4	tank treated water pumps		
5	Construction of BFP Building, Filtrate Pump, Pump house – 2, PE dosing	Finishing work is in progress	
5	tank		
6	Administrative Building	Finishing work is in progress	
7	Overhead tank for effluent disposal	Finishing work is in progress	
8	SBR air blower room, HT room, MCC room, Transformer yard & DG set	Finishing work is in progress	
0	area		
9	MPS, inlet structure, weir, control room and rising main	Work is in progress except Weir	
10	Staff quarters	Work is in progress	



2.1. Inlet structure, SBR, CCT, Administrative building, Blower room, HT, MCC, Transformer Yard & DG set area, OHT and Staff quarters

S. No.	Description	Estimate		plan up	onstruction to on 18 <sup>th</sup> Iber 2019	Actual work done up to on 31 <sup>st</sup> January 2021		Shortfall as on 31 <sup>st</sup> January 2021	
		Quantity	uantity Unit		Unit	Quantity	Unit	Quantity	Unit
1	PCC & RCC	11560	Cum	11560	Cum	11284	Cum	276	Cum

#### 2.2. Bund Wall / Earthen Embankment

S. No.	Description	Estim	ate	As per construction plan up to on 18 <sup>th</sup> November 2019		Actual work done up to on 31 <sup>st</sup> January 2021		Shortfall as on 31 <sup>st</sup> January 2021	
		Quantity	Unit	Quantity	Unit	Quantity	Unit	Quantity	Unit
1	Earth filling & Compaction of Bund Wall	81411	Cum	81411	Cum	80513	Cum	898	Cum

Note : - Suspended work is yet to resume

#### 2.3. Treated Effluent disposal line

S. No.	Description	Estimate		As per construction plan up to on 18 <sup>th</sup> November 2019		Actual work done up to on 31 <sup>st</sup> January 2021		Shortfall as on 31 <sup>st</sup> January 2021	
		Quantity	Unit	Quantity	Unit	Quantity	Unit	Quantity	Unit
1	Procurement of Pipe	3985	Mtr	3985	Mtr	3866	Mtr	119	Mtr
2	Pipe laying	3985	Mtr	3985	Mtr	3866	Mtr	119	Mtr



#### 1. Item wise Detailed analysis

Item of work	Scheduled start date as per approved construction plan	Scheduled completion date as per approved construction plan	Scheduled completion in % as on 18 <sup>th</sup> November 2019	Total completion in % as on 31 <sup>St</sup> January 2021	Delay analysis	Recovery / Mitigation plan
Associated	20-Mar-18	18-May-19	100%	93.45%		
infrastructure works						
MPS Pumping Station	15-May-18	10-Apr-19	100%	61.70%		
Rehabilitation of MPS	15-May-18	30-Apr-19	100%	52%		
Construction Of weir across assi nalla & control room	13-Oct-18	30-Jan-19	100%	67%		
Repair of Equipment	01-Jan-19	30-Mar-19	100%	40%		
Raising of height of Nalla tapping structure up to HFL	01-Apr-19	30-Apr-19	100%	75%		
Rising Main	15-Jun-18	25-Mar-19	100%	96.03%		
Strengthening and Pipe protection of Rising main Extension of existing Rising main to the Inlet point at the STP site	10-Oct-18	30-Jan-19	100%	91%		
Hydro testing	15-Feb-19	25-Mar-19	100%	97.50%		
Treated Effluent disposal line	20-Mar-18	18-May-19	100%	96.54%		
Procurement – supply of pipes including inspection,	20-Mar-18	26-Dec-18	100%	97%		



Item of work	Scheduled start date as per approved construction plan	Scheduled completion date as per approved construction plan	Scheduled completion in % as on 18 <sup>th</sup> November 2019	Total completion in % as on 31 <sup>St</sup> January 2021	Delay analysis	Recovery / Mitigation plan
transportation and						
delivery at site				0.70/		
Pipe laying – 20% including excavation and backfilling (5 <sup>th</sup> 20%)	30-Mar-19	06-May-19	100%	85%		
Hydrotesting & finishing works	14-Jun-18	18-May-19	100%	5%		
Equipment Procurement, Logistics and receipt of equipment at Site	24-May-18	05-Sep-19	100%	99.75%		
MS/CS/SS/GI/CI/DI Piping	01-Jan-19	12-Aug-19	100%	99.00%		
Inspection / Logistics	31-Jul-19	10-Aug-19	100%	98%		
Receipt of equipment at site	11-Aug-19	12-Aug-19	100%	98%		
DG Set	07-Sep-18	16-Aug-19	100%	88%		
Inspection / Logistics	01-Jul-19	31-Jul-19	100%	75%		
Receipt of equipment at site	01-Aug-19	16-Aug-19	100%	75%		
Civil Executions	6-Apr-18	16-Nov-19	100%	91.85%		
Bund Wall / Earthen Embankment	19-Feb-18	30-Aug-19	100%	86.6%	Lack of planning	
Filling & Compaction of Bund Wall from 3.0 to 4.5 Mtr Heigh	07-Nov-18	18-Dec-18	100%	94%		



						asic at Ramana, Vara
Item of work	Scheduled start date as per approved construction plan	Scheduled completion date as per approved construction plan	Scheduled completion in % as on 18 <sup>th</sup> November 2019	Total completion in % as on 31 <sup>st</sup> January 2021	Delay analysis	Recovery / Mitigation plar
Stone Pitching work, Side Drain Work & Fencing work	20-May-19	30-Aug-19	100%	4%		
Final Outfall Chamber	19-May-18	03-Aug-19	100%	74.64%	Lack of planning	
Wall & Super Structure	18-Jun-19	18-Jul-19	100%	69%		
Hydrotesting including finishing works	19-Jun-19	3-Aug-19	100%	38%		
Overhead Treated Water Tank	01-Jun-18	01-Aug-19	100%	79.27%	Lack of planning	
50% RCC of Structure ( 2 <sup>nd</sup> part )	25-Feb-19	06-May-19	100%	48%		
Finishing Works	19-Jun-19	01-Aug-19	100%	80%		
Construction of BFP Building, Filtrate Pump, Pump house – 2, PE dosing tank	15-Oct-18	13-Jul-19	100%	98.00%	Lack of planning	
Completion of Brick work and plaster	19-Apr-19	18-May-19	100%	99%		
Finishing Works	20-May-19	13-Jul-19	100%	80%		
Administrative Building including lab and workshop	08-Jun-18	11-Jul-19	100%	99.52%		
Finishing Works	28-May-19	11-Jul-19	100%	90%		
Staff Quarters	08-Jun-18	16-Nov-19	98%	57.70%		
50% RCC of	20-May-19	09-Jul-19	100%	93.79%		



Item of work	Scheduled start date as per approved construction plan	Scheduled completion date as per approved construction plan	Scheduled completion in % as on 18 <sup>th</sup> November 2019	Total completion in % as on 31 <sup>st</sup> January 2021	Delay analysis	Recovery / Mitigation pla
Structure 50% RCC of	09-Jul-19	28-Aug-19	100%			
Structure		g				
Completion of Brick work and plaster	28-Aug-19	27-Sep-19	100%	30%		
Finishing Works	27-Sep-19	16-Nov-19	68%	40%		
Roads, Drainage & Fire Fighting system Roads work & Fire	03-Jun-19 03-Jun-19	<b>31-Aug-19</b> 01-Aug-19	<b>100%</b>	0.5%		
fighting	03-3011-13	01-Aug-19	10078			
Drainage Works	18-Jun-19	22-Aug-19	100%	3%		
Landscaping & Finishing	18-Jun-19	31-Aug-19	100%			
Construction of Blower room, HT, MCC, Transformer Yard, DG set Area	03-Jun-18	29-Aug-19	100%	96.25%	Lack of planning	
Painting & Finishing	15-Jun-19	29-Aug-19	100%	60%		
Erection of Mechanical Equipment	01-Aug-19	30-Aug-19	100%	90%		
Electrical & Instrumentation Installation	01-Aug-19	31-Aug-19	100%	60%		
Commissioning	21-Oct-19	18-Nov-19	100%			



## ANNEX - 8 ESHS TARGET & ACHIEVEMENT



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#### 1. ESHS target and achievement

SI. No.	Goals	Till previous month	During the month of January 2021
1	Zero total recordable injuries	Achieved	Achieved
2	All personnel Health & Safety inducted	Inducted	Inducted
3	100% incident reporting and investigation	No incident occurred	No incident occurred
4	100% adherence of usage of appropriate PPE's at work	Ensured	Ensured
5	Executing construction work with least disturbance to the environment, adjoining road users and traffic	Achieved	Achieved

#### HSE Training and competence adherence

SI. No.	Description	Till previous month	During the month of January 2021
1	<ul> <li>HSE induction training at the first day of their joining explaining the nature of the work for all the personnel working at site on the following topics</li> <li>Hazard identification procedure - Hazards on site <ul> <li>Fails</li> <li>Slip trip</li> <li>Electricity</li> <li>Working at height</li> <li>Excavation</li> <li>Drop objects</li> <li>Machinery</li> <li>Material handling (Manual and mechanical)</li> <li>Transportation</li> <li>Site housekeeping</li> <li>Fire</li> </ul> </li> <li>Personnel protective equipment <ul> <li>What is available</li> <li>How to obtain it?</li> <li>Correct use and care</li> </ul> </li> <li>Health <ul> <li>Site welfare facilities</li> <li>Potential health hazards</li> <li>First Aid / CPR</li> </ul> </li> </ul>	Inducted	Inducted



SI. No.	Description	ure on PPP basic a Till previous month	During the month of January 202
	<ul> <li>Brief outline of the responsibilities of the contractor by law</li> <li>Details of accident prevention policy</li> <li>Building and other constructions welfare law</li> <li>Employer's duties</li> <li>Brief outline of responsibilities of employee</li> <li>Site safety rules</li> </ul>		
2	<ul> <li>Toolbox meetings</li> <li>Key issues discussed at Daily Toolbox meetings includes</li> <li>The job to be done</li> <li>Awareness of hazards, risks &amp; control measures associated with specific activity, review safe work practices</li> <li>Active involvement of crew and open discussion on any concerns and commitment to work safely</li> </ul>	Conducted	Conducted
3	Behavior modification and disciplinary action	None	None
4	Post-accident or near miss meeting	No accident occurred	No accident occurred



SI. No.	Description	Till previous month	During the month of January 2021
1	Planned General inspection	Conducted	Conducted
2	Routine inspection		
2.1	Daily inspection of plant and equipment by operator	Conducted	Conducted
2.2	Weekly inspection of scaffold by scaffolding supervisor	Conducted	Conducted
2.3	Monthly inspection of electrical hand tools by competent electrical supervisor	Conducted	Conducted
2.4	Quarterly inspection of temporary electrical systems by competent electrical supervisor	Conducted	None
2.5	Yearly inspection of lifting machinery, lifting appliances, equipment and gears by Government approved competent person	NA	NA
2.6	Half yearly inspection of pressure vessels by Govt approved competent person	NA	NA
3	Specific inspection		
3.1	Inspection performed before a heavy lifting operation	Conducted on regular basis before starting the jobs	Conducted on regular basis before starting the jobs
3.2	Inspection performed before and after the entry of person into a confined space	01 No. Conducted on 27 <sup>th</sup> May 2018 (MPS desilting)	NA
3.3	Inspection performed before and after welding and gas cutting operation	Conducted	Conducted
3.4	Inspection of formwork before concreting by formwork erector	Conducted	Conducted
4	Other inspection		
4.1	Inspections by labour department of government	Nil	Nil
4.2	Client site HSE management team	Nil	Nil
5	<ul> <li>Monthly HSE Report submission covering</li> <li>Monthly minor accident, serious incident details</li> <li>Average manpower details, man-hours work</li> <li>Lost time (no of working days)</li> <li>Number of training / toolbox talk</li> <li>Number of people trained</li> <li>HSE committee minutes of meeting</li> <li>HSE inspection, etc.</li> </ul>	None	None

# \_ **HSE Inspections and submission of reports**



	Development of 50 MLD sewage treatment plant associated infrastructure on PPP basic at Ramana, Vara			
SI. No.	Description	Till previous month	During the month of January 202	
6	<ul> <li>HSE Bulletin board indicating</li> <li>Safety promotions / awards</li> <li>Safety meeting dates and times</li> <li>Emergency phone numbers</li> <li>QHSE policies</li> <li>Safety alerts</li> </ul>	Available	Available	
7	Risk assessment prior to start of any new work – Report	Conducted by HSE manager	Conducted b HSE manage	
8	Availability of method statement for operational control of significant occupational health & safety risk levels	Available at site office	Available at si office except method statement	
9	Statement of confirming the medical examination of all employees and workmen	Conducted	Conducted	
10	Availability of first aid box with each crew (mention the number of first aid box availability)	Available	Available	
11	Statement of confirming the welfare measures for workers			
11.1	One latrine for every 20 workers up to 100 workers and thereafter one for every additional 50 workers	03 number of latrines provided	03 number o latrines provide	
11.2	In addition, one urinal accommodation provided for every 100 workers	03 number of urinals provided	03 number o urinals provide	
11.3	Separate latrine and urinals accommodation like above for ladies	01 number of urinals Provided	01 number o urinals Provide	
11.4	Drinking water facility within 200 m from the place of work for all workers	Provided at 04 locations	Provided at 0 locations	
11.5	Provision of labour accommodation	Provided for 120 labour	Provided for 12 labour	
11.6	Provision of creche (if female workers are more than 50)	NA	NA	
11.7	Measures to prevent mosquito breeding	Taken	Taken	
11.8	Permit to work system (if applicable)	Provided	Provided	
12 12.1	PPE adherence Head protection for VSPPL employees, All sub- contractors, Electricians, Safety professionals, All workmen and Visitors Safety helmet color code (every helmet having the	Provided	Provided	



### Development of 50 MLD sewage treatment plant and associated infrastructure on PPP basic at Ramana, Varanasi

Development of 50 MLD sewage treatment plan associated infrastructure on PPP basic at Ramana, Vara			
SI. No.	Description	Till previous month	During the month of January 2021
12.2	Hearing protection	Provided	Provided
12.3	Eye protection	Provided	Provided
12.4	Foot protection	Provided	Provided
12.5	Fall arresting system	Provided	Provided
12.6	Hand protection	Provided	Provided
12.7	Respiratory protection	Provided	Provided
12.8	Other PPE – 10% spares availability	Provided	Provided
13	Qualification of operator of lifting appliances and of signaler etc. Above 21 years of age and possesses a valid heavy transport driving license as per motor vehicle act and rules Competent and reliable Possesses the knowledge of inherent risks involved in the operation of lifting appliances Periodical medical examination conducted	Adhered	Adhered
14	Enough lighting especially during night work	Provided	Provided
15	Fire prevention and fighting system availability	Available	Available
16	Adherence of environment management system – Air quality, Water quality, Wastewater handling, waste handling, hazardous waste handling and energy management	Adhered as per the applicable law	Adhered as pe the applicable law



SI. No.	Description	Status	Planned
1	4 <sup>th</sup> March 2018 – National safety day	Conducted	
2	7 <sup>th</sup> April 2018 – World health day	Conducted	
3	14 <sup>th</sup> April 2018 – First safety day	Conducted	
4	5 <sup>th</sup> June 2018 – World environmental day	Conducted	
5	15 <sup>th</sup> August 2018 – Independence Day celebration and Planting of saplings	Conducted	
6	5 <sup>th</sup> March 2019- National Safety day	Conducted	
7	1 <sup>st</sup> May 2019- World Labour Day	Conducted	
8	15 <sup>th</sup> August 2019 – Independence Day celebration	Conducted	
9	6 <sup>th</sup> March 2020 – National safety day	Conducted	
10	5 <sup>th</sup> June 2020 – World environmental day	Conducted	

# \_ HSE communication and awareness campaign conducted

