



Environmental Monitoring Report

Project Number: 42265-023
January 2018

Period: January 2017 – June 2017
Part A: Main Report (Pages 1 – 69) and Appendices

IND: Assam Urban Infrastructure Investment Program - Tranche 1

Submitted by

Guwahati Development Department and Urban Development Department, Government of Assam

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Asian Development Bank

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ASSAM URBAN INFRASTRUCTURE INVESTMENT PROGRAM

for logging pls



GOVERNMENT OF ASSAM

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No. ADB/AUIIP/IEE/178/2016/153

Date: 18.09.2017

GM/AS

From,

The Project Director,
Assam Urban Infrastructure Investment Program
Ganeshguri, Guwahati-05

To,

The Country Director,
India Resident Mission
Asian Development Bank



Sub: Submission of the draft Semi Annual Environment Monitoring Report for the period 1st January 2017 to 30th June 2017.

Sir,

As per the subject cited above, the **draft Semi Annual Environment Monitoring Report for the period 1st January 2017 to 30th June 2017**, of Assam Urban Infrastructure Investment Program, is enclosed herewith for review and comment.

This is for favour of your kind information & necessary action.

Enclo: As Stated Above

Your's Faithfully,

Project Director,

Assam Urban Infrastructure Investment Program

Ganeshguri, Guwahati-5

Memo. No: ADB/AUIIP/IEE/178/2016/153 A

Dated 18.09.2017

Copy to:

- 1) Sri Ashok Srivastava, Sr. Project Officer, India Resident Mission, ADB, Delhi for information.
- 2) Sri S. Joshi, Principal Urban Development Specialist, Urban Development and water Division, South Asia Division, ADB, for information

Project Director,

Assam Urban Infrastructure Investment Program

Project Director
Assam Urban Infrastructure Investment Program
Ganeshguri, Guwahati-5



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Semi-Annual Environmental Monitoring Report

ADB Loan Number 2806-IND

Period Covered: January to June 2017

**IND: Assam Urban Assam Urban Infrastructure
Investment Program – Project 1**

July 2017

Prepared by Guwahati Development Department and Urban Development Department,
Government of Assam for Asian Development Bank

This Semi – Annual Environmental Monitoring Report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

Table of Contents

Sl. No	Content	Page No
I	Introduction	
II	Implementing progress	
III	Environmental procedure review	
IV	Compliance status with environmental management and monitoring plan	
V	Environmental monitoring and evaluation	
VI	Consultation and disclosures conducted	
VII	Grievance redress mechanism	
VIII	Findings and recommendations	

List of Table

Table No	Content	Page No
1	Project Progress in the Reporting Period till 30 th JUNE 2017	
2	Status of Compliance with EARF/ADB Procedure is shown in the following table:	
3	Summary of Subprojects under AUIIP Project 1	
4	Status of Sub-project Awarded Under AUIIP Project 1 (As of 30 th June 2017)	
5	Compliance to Loan Agreements (Environmental Safeguards)	
6	Details of AUIIP PMU and PIUs	
7	Details of AUIIP Environmental Safeguard Team	
8	Environmental Legal Requirements Applicable to AUIIP Project 1	
9	Status of Compliance with National and State Legal Requirements	
10	Compliance to EMP of Dibrugarh Drainage Subproject Package No. AUIIP/PR-1/DIB/DR-01	
11	Compliance to EMP of Constriction of Water supply, Transmission Main Pipelines and allied work in Guwahati	
12	Ambient Air Quality Monitoring at Different Working Locations, Dibrugarh	
13	Noise Level Monitoring at Different Working Locations	
14	Ambient Air Quality Monitoring at Different Working Locations, Guwahati	

15	Ambient Noise Quality Monitoring at Different Working Locations, Guwahati	
16	Performance Fact Sheet for Required Environmental Consents/Clearances of AUIP Project 1 (Package-wise)	
17	Performance Fact Sheet for EMP Implementation of AUIP Project 1 (Package-wise)	
18	Indicative Schedule for Consultations and Disclosure	
19	Corrective Action plan(Dibrugarh)	
20	Corrective Action plan(Guwahati, Water Supply)	
21	Corrective Action plan(Guwahati, Transmission Line)	

List of Annexure for Dibrugarh

List of Annexure	Content	Page No
1	Detailed Implementation Schedule of Awarded Project 1 Sub project packages	
2	Photo illustration-Photo Album	
3	Budget – Environment, Health and Safety	
4	NOC From Different Departments	
5	Environmental Clearance letter from SEIAA	
6	Site Specific Environment Management Plan	
7	Waste / Spoil Management Plan	
8	Drainage Silt analysis report and Waste water analyses report	
9	Scanned copy of Air quality, Noise Level and Drinking Water quality testing report	
10	Traffic Management Plan	
11	Health & Safety Plan	
12	Records of Trainings conducted during Reporting Period	
13	Scanned Copy of Contractors insurance for workers	
14	Accident and first aid Record	
15	Summary of laborers per Package	

16	Public consultation sample copy – at working location	
17	Information and Notice Distribution to the nearby residences	
18	Suggested Complaint Register and Complaint Form	

List of Annexure for Guwahati (water supply)

List of Annexure	Content	Page No
I	Work Plan for Gopal Nagar Reservoir(17 ML)	
II	Photo illustration	
III	Budget – Environment, Health and Safety	
IV	NOC From Different Departments and individual	
V	Site Specific Environment Management Plan, Gopal Nagar	
VI	Pollution Under Control Certificate	
VII	Waste / Spoil Management Plan	
VIII	Scanned copy of Noise and Air quality testing report	
IX	Traffic Management Plan	
X	Health ,Safety Plan and safety equipment	
XI	Records of Trainings conducted during Reporting Period	
XII	Scanned Copy of Contractors insurance for workers	
XIII	Medical Examination report(Labourer)	
XIV	Accident Record	
XV	Labourer Licence	
XVI	Public consultation sample copy – at working location	
XVII	Information and Notice Distribution to the nearby residences	
XVIII	Suggested Complaint Register and Complaint Form	
XIX	Payment made by the contractor to APDCL for shifting the LT and HT Lines	
XX	Attendance sheet	

List of Annexure for Guwahati (Transmission Line)

List of Annexure	Content	Page No
I	Work Plan for Transmission Line	
II	Photo illustration	
III	Budget – Environment, Health and Safety	
IV	NOC From Different Departments and individual	
V	Site Specific Environment Management Plan, Transmission Line	
VI	Pollution Under Control Certificate	
VII	Waste / Spoil Management Plan	
VIII	Scanned copy of Noise and Air quality testing report	
IX	Traffic Management Plan	
X	Health ,Safety Plan and safety equipment	
XI	Records of Trainings conducted during Reporting Period	
XII	Scanned Copy of Contractors insurance for workers	
XIII	Medical Examination report(Labourer)	
XIV	Accident Record	
XV	Labourer Licence	
XVI	Public consultation sample copy – at working location	
XVII	Information and Notice Distribution to the nearby residences	
XVIII	Suggested Complaint Register and Complaint Form	
XX	Traffic Management Plan –Transmission line	
XXI	Attendance Sheets	

ABBREVIATIONS

ADB	-	Asian Development Bank
AUIIP	-	Assam Urban Infrastructure Investment Program
APCB	-	Assam Pollution Control Board
AUWSSB	-	Assam Urban Water Supply and Sanitary Board
BSR	-	Basic Schedule of Rates
BRTS	-	Bus Rapid Transit System
CDTA	-	Capacity Development Technical Assistance
CRZ	-	Coastal Regulation zone
CTE	-	Consent to Establish
CTO	-	Consent to Operate
DFO	-	Divisional Forest Officer
DMB	-	Dibrugarh Municipal Board
DSC	-	Design and Supervision Consultant
DTP	-	Dibrugarh Town Protection
EARF	-	Environmental Assessment and Review Framework
EC	-	Environmental Clearance
EIA	-	Environmental Impact Assessment
EM	-	Environment Monitoring
EMP	-	Environmental Management Plan
FHH	-	Female Headed Households
GAP	-	Gender Action Plan
GDD	-	Guwahati Development Department
GMC	-	Guwahati Municipal Corporation
GMDA	-	Guwahati Metropolitan Development Authority
GRM	-	Grievance Redress Mechanism
IEC	-	Information, Education and Communication
IEE	-	Initial Environmental Examination
ILRP	-	Income and Livelihood Restoration Program
IOCL	-	Indian Oil Corporation Ltd.
LOA	-	Letter of Acceptance
LOI	-	Letter of Intent
MFF	-	Multi Tranche Financing Facility
NABET	-	National Accreditation Board for Education and Training
NOC	-	No Objection Certificate
NTP	-	Notice to Proceed
PD	-	Project Director, AUIIP
PHED	-	Public Health Engineering Department
PIU	-	Project Implementation Unit
PMC	-	Project Management Consultants
PMU	-	Project Management Unit
PPMS	-	Project Performance Monitoring System
PSO	-	Project Support Office, Guwahati
PUC	-	Pollution Under Control
RP	-	Resettlement Plan
SM	-	Social Monitoring
SPPTS	-	Support project program and Technical Assistance
SPS	-	Safeguards Policy Statement, 2009
STP	-	Sewage Treatment Plant
SWM	-	Solid Waste Management
TL	-	Team Leader
TOR	-	Terms of Reference
DTL	-	Dy. Team Leader
UDD	-	Urban Development Department
WO	-	Work Order
WTP	-	Water Treatment Plant

I. INTRODUCTION

A. Overall Project Description

1. Asian Development Bank (ADB) has approved the Assam Urban Infrastructure Investment Program (AUIIP), a \$200 million Multi-Tranche Financing Facility (MFF), to improve water supply of South Guwahati East Zone¹ as well as drainage and solid waste management (SWM) of Dibrugarh.² AUIIP will also provide support for ongoing urban reforms and associated capacity development for improved service delivery, urban governance and financial management in Guwahati and Dibrugarh. AUIIP will be implemented in a period of 6 years³. The first tranche (**Project 1**) of the MFF became effective on 25 March 2012. The Tranche 1 contains three sub-projects which are (i) Water Supply System in South East Guwahati (ii) Storm Water drainage in Dibrugarh and (iii) Solid Waste Management in Dibrugarh Preparations for Tranche 2 projects are ongoing.

2. The executing agency is Guwahati Development Department (GDD) and the implementing agencies are Guwahati Metropolitan Development Agency (GMDA) and Dibrugarh Municipal Board (DMB). The Program Management Unit (PMU) in Guwahati and respective Programme Implementing Units (PIUs) have been established in Guwahati and Dibrugarh. The Design and Supervision Consultants (DSC) of Project 1 is already operational in assisting the PMU and PIU⁴.

3. The primary objective of the program is to formulate and implement a roadmap that helps national and state-level targets for water supply in Guwahati and storm water drainage and SWM Dibrugarh.

Outputs of the Project:

The major key outputs are as follows:

- Improvement water supply infrastructure in Guwahati improved SWM infrastructure in Dibrugarh
- Improved drainage in Dibrugarh and Guwahati

¹Guwahati has been divided into four water supply zones; one north of the Brahmaputra river and three to the south. In south Guwahati, the west zone is being financed under Jawaharlal Nehru National Renewal Mission (JNNURM), the central zone by Japan International Cooperation Agency (JICA), and the east zone has been identified for ADB assistance.

²Dibrugarh suffers from prolonged local flooding during the annual monsoon. Because of the lack of sewerage and inadequate solid waste management much of the areas in the city's drainage system becomes choked and severely polluted with un-treated wastewater.

³From 01 March 2012 to 31 December 2017

⁴Government of Assam has engaged M/s Shah Technical Consultant (P) Ltd. in association with SMEC India (P) Ltd as DSC.

- Enhanced capacity building

Outcomes:

- Improved access to Urban infrastructure
- Reduced flooding
- Environmental sustainability
- Gender main streaming

B. Purpose of the Report

4. **Environmental Categorization.** AUHIP Project 1 has been categorized as ADB Category B for environment as per ADB Safeguard Policy (SPS 2009). Initial environmental examination reports (IEEs) were prepared for each subproject.

5. This report is the semi-annual environment monitoring report (SEMR) covering period **January to June 2017**. This SEMR describes the implementation of the environmental management plan (EMP) in each subproject.

C. Environment Performance Indicators, if any

6. For effective monitoring, selected environmental parameters have been identified as indicators which may be qualitatively and quantitatively measured and compared over a period of time in order to assess/ ensure the compliance to the Environmental Management Plans (EMPs) of each subproject. The environmental performance indicators selected are physical, biological and social characteristics identified as most important in affecting the environment at critical locations all along the sub project corridors. The parameters identified as performance indicators are:

- ✓ Compliance with environmental management and monitoring plan;
- ✓ Compliance to State/ National environmental regulations; and
- ✓ Monitoring of ambient air quality, water quality and noise levels and comparison with baseline environmental quality and State/ National Standards.

II. IMPLEMENTATION PROGRESS

A. Status of Subprojects Project 1

7. The Tranche 1 contains three sub-projects which are (i) Water Supply System in South East Guwahati (ii) Storm Water drainage in Dibrugarh and (iii) Solid Waste Management in Dibrugarh **Table 1** shows the subprojects under Tranche 1 and the works packages including the status of award of contracts as of 30th June 2017.

The package involving construction of 6 storage reservoirs and allied works in Guwahati; and another package involving construction of transmission main pipelines and allied works for water supply project in Guwahati, awarded earlier had to be terminated in December 2015 due to poor performance of the contractor. The terminated contracts were repackaged into three packages and were rebid. Following which, new contractors were engaged for the Guwahati Sub-project. Shivam Transcon Pvt Ltd was engaged in August 2016 for construction of water reservoirs and Tirupati Cement Products was engaged in October 2016 for the construction of clear water transmission mains pipeline and allied works. The design, build and operation of intake works, raw water rising main, water treatment plant, clear water pumping stations and allied works in Guwahati will be covered under Tranche 2.

The contract for the construction of DTP drain box culverts and allied works chainage 0 to 9 9500 m in Dibrugarh is already awarded. Works are currently in progress.

The Solid waste management (SWM) sub-project in Dibrugarh has three packages which are (i) The construction of Compound Wall for SWM: The contract is awarded to M/S Badri Rai and Co. in June 2017; (ii) Construction of 100 MT Solid Waste Compost Plant & 60 MT Sanitary Landfill site: The contract is awarded to M/S Milan Dutta-Blackberry Overseas Pvt. Ltd and Alfa Therma (JV) in April 2017; and = (iii) Procurement of equipment/transportation for primary and secondary collection system: DPR revision by DSC is under process. The Environment clearance has been obtained for SWM landfill site for Dibrugarh.

Table 1: Project Progress during the Reporting Period till 30th June, 2017

Sl. No.	Package Ref No.	General Description Goods or Works	Contract Signing Date	Name of the Contractor	Contract Value	Contract period in months/days
1	AUIIP/PR-1/GUW/WS/01	Constriction of Water supply, Transmission Main Pipelines and allied work in Guwahati	04.10.2016	M/s. Tirupati Cement Products	78.99 Crore	730 days Or 24 months
2	AUIIP/PR-1/GUW/WS/02A	Gopal Nagar, Kenduguri & Northjyoti Nagar	06.08.2016	M/s. Shivam Transcon Pvt Ltd	37.11 Crore	900 days Or 30 months
3	AUIIP/PR-1/GUW/WS/02B	Hengrabari, Nabajyotinagar & Basistha	01.09.2016	M/s. Shivam Transcon Pvt Ltd	30.80 Crore	900 days Or 30 months
4	AUIIP/PR-1/DIB/DR/01	Construction of DTP Drain	20.02.2014	M/s. Corsan Corvium Construction S.A	169.89 Crore	1095 days Or 36 months
5	AUIIP/PR-1/DIB/SWM/01A	Construction of Compound Wall, River Protection etc.	23.06.2017	M/S Badri Rai and Co.	12.02 Crore	730 days Or 24 months
6	AUIIP/PR-1/DIB/SWM/01B	100 MT compost plant with 60 MT sanitary land fill site etc.	19.04.2017	M/S Milan Dutta-Blackberry Overseas Pvt. Ltd and Alfa Therma	31.11 crore	750 days Or 25 months
7	AUIIP/PR-1/DIB/SWM/02	Procurement of goods and equipment		Re-bidding is in Progress	11.88 Crore	365 days Or 12 months

Table 2- Status of Compliance with EARF/ADB Procedure is shown in the following table:

Name & No. of Package	Environment Category	Status of preparation of IEE	Status of Approval by ADB	Date of Approval	Further Action needed For Compliance & Responsibility
Gopal Nagar, Kenduguri & Northjyoti Nagar AUIP/PR-1/GUW/WS/02A	B	Completed and approved	Approved	April-2015	Regular monitoring and reporting of the EMP
Hengrabari, Nabajyotinagar & Basistha AUIP/PR-1/GUW/WS/02B	B	Completed and approved	Approved	April-2015	Regular monitoring and reporting of the EMP
Constriction of Water supply, Transmission Main Pipelines and allied work in Guwahati AUIP/PR-1/GUW/WS/01	B	Completed and approved	Approved	April-2015	Regular monitoring and reporting of the EMP
Construction of DTP Drain AUIP/PR-1/DIB/DR/01	B	Completed and approved	Approved	November-2015	Regular monitoring and reporting of the EMP
Construction of Compound Wall, River Protection etc. AUIP/PR-1/DIB/SWM/01A	B	Completed and approved	Approved	September-2015	Regular monitoring and reporting of the EMP
100 MT compost plant with 60 MT sanitary land fill site etc AUIP/PR-1/DIB/SWM/01B	B	Completed and approved	Approved	September-2015	Regular monitoring and reporting of the EMP
Procurement of goods and equipment AUIP/PR-1/DIB/SWM/02	B	Completed and approved	Approved	September-2015	Regular monitoring and reporting of the EMP

Table 3: Summary of Subprojects under AUIP Project 1

Town	Package No.	Components	Status- 30 th June 2017
1. Water Supply System Subproject			
Guwahati	AUIP/PR-1/GUW/WS-01	Construction of transmission water supply pipelines and allied works in Guwahati <ul style="list-style-type: none"> Laying of 19.290 km length of mild steel pipe line of nominal internal 	M/s. Tirupati Cement Products has been engaged. The agency started working from 1 st of January 2017. Till 30 th June, 2017, agency has completed 2.89 km pipe line from Nunmati to VIP road. Physical

Town	Package No.	Components	Status- 30 th June 2017
		<p>diameter ranging from 1300mm to 800mm</p> <ul style="list-style-type: none"> Laying of 4.990 km length of gravity pipe line of ductile iron (Class K-9) of 500mm – 700 mm internal diameter. Locations- Water treatment plant to Gopal Nagar, then connecting all reservoirs 	<p>progress is 14.7% and financially 24% by end of June 2017</p>
Guwahati	AUIIP/PR-1/GUW/WS-02A	<p>Construction of storage reservoirs of various capacities at three locations (Gopal Nagar, NorthJyoti Nagar and Kenduguri), approach road and allied works in South East Guwahati Water Supply Project.</p> <p><u>Details: Locations</u></p> <p>Reservoirs:</p> <ul style="list-style-type: none"> ➤ Gopal Nagar – 17 Million Litter (ML) ➤ North Jyotinagar- 3.2 ML ➤ Kenduguri- 3.6 ML <p>Approach road:</p> <ul style="list-style-type: none"> ▪ Gopal Nagar – 460 m ▪ North Jyotinagar- 530 m ▪ Kenduguri-650 m 	<p>M/S Shivam Transcon Ltd. MOU signed through vide Letter No ADB/AUIIP/LOA/157/2016/04 dated 05.05.2016. However, the work progress of M/s Shivam Transcon is satisfactory. Since last six months the agency has been completed following in Gopal sites:</p> <ol style="list-style-type: none"> 1. Stone Machinery wall, retaining wall, Boulder soiling and PCC work. Also re-enforcement binding. Physical progress 10.86% and financial 12.13%, which is very meagre compare assigned work. 2. Kenduguri and North Jyoti Nagar topographic survey and tree cutting activity has been completed. So the contractor work is partially satisfactory
Guwahati	AUIIP/PR-/GUW/WS-02B	<p>Construction of storage reservoirs of various capacities at three locations (Basistha, Hengrabari and Nabajyoti Nagar), approach road and allied works in South East Guwahati Water Supply Project.</p> <p><u>Details: Locations</u></p> <p>Reservoirs:</p> <ul style="list-style-type: none"> ➤ Hengrabari)- 13 ML ➤ Nabajyoti Nagar Main Zone Reservoir- 3.2 ML ➤ Basistha- 5 ML <p>Approach road:</p> <ul style="list-style-type: none"> ▪ Hengrabari-170 m ▪ Nabajyoti Nagar- 855 m ▪ Basistha- 150 m 	<p>M/s. Shivam Transcon Pvt Ltd started working through vide letter No ADB/AUIIP/LOA/157/2016/50 dated 30.08.2016but the progress is very slow. In last six months only Geotechnical investigation and topographical survey for Hengrabari and Nabajyoti site has been completed and Basistha land is yet to be handover to the contractor. Physical progress is 0% and financial 8%</p>
2. Strom water Drainage Subproject			
Dibrugarh	AUIIP/PR-1/DIB/DR-01	<p>Construction of Reinforced cement concrete RCC DTP drain, widening of culverts and allied works in Dibrugarh from chainage 0 to 9500 m</p>	<p>Contract Agreement was signed on 20.02.2014 and NTP was issued on 25.03.2014. EOT is required which was expired on 23.05.2017.</p> <p>Physical progress is 13.41 % and financial is 21%.</p> <p>Work in progress – very slow progress.</p>
3. Solid Waste Management Subproject			

Town	Package No.	Components	Status- 30th June 2017
Dibrugarh	AUIIP/PR-1/DIB/SWM-01A	Construction of Compound wall, River Protection Wall, Access Roads, Security Guard Room and Allied Works of Landfill site at Dibrugarh	Awarded to L1 bidder M/S Badri Rai and Co. LOA issued to M/S Badri Rai and Co on 23.06.2017
Dibrugarh	AUIIP/PR-1/DIB/SWM-01B	DBO of 100 MT processing plant and 60 MT sanitary land fill site and allied works at Dibrugarh	ADB approved the PBER on 11 th April 2017 and LOA issued to LI(M/S Milan Dutta-Blackberry Overseas Pvt. Ltd-Alfa Therm Ltd JV on 19 th April 2017. Contract agreement signed on 17.05.2017. NTP to be issued to the Contractor
Dibrugarh	AUIIP/PR-1/DIB/SWM-02	Procurement of equipment for primary, secondary collection and transportation Vehicles for Municipal Solid Waste Management at Dibrugarh	DPR revision by DSC is under process.

8. **Appendix 1 (Dibrugarh sub-project) and I (Guwahati sub-projects)** show detailed implementation Schedule of Awarded Project 1 sub project packages.

9. **Appendix 2 (Dibrugarh sub-project) and II (Dibrugarh sub-projects)** show photo illustration of project locations related to environment safeguard.

Table 4: Status of Sub-project Awarded Under AUIP Project 1 (As of 30th June 2017)

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Target Schedule of Completion (Extended Date of Completion) ⁵	% Physical Progress as of 30 th June 2017	Works Completed as of 30 th June 2017
Dibrugarh	AUIP/PR-1/DIB/DR-01	<ul style="list-style-type: none"> Widening and construction of 9.5 km (chainage 0 - 9500 m) reinforced cement concrete (RCC) drain with linings; Construction of 17 nos. box culverts; and Construction of sullage pumping station. 	25 March 2014	1095 Days or 36 months	25 March 2017	13.41 %. No significant progress in physical work due to weather and extension of contract period of contractor	<p>Very slow progress. Works have started since Dec 2015, both at Site and at Precast Yard. Local Issues such as law and order situation, frequent Ban calls and disturbances from local miscreant in open drain portion during evening and late night work affecting Works. Frequent rains & high water level in the drain affecting works at Drain Site.</p> <p>✓ DTP Drain-</p> <ul style="list-style-type: none"> 330 M PCC Completed & laid only 80 nos. precast element (chainage-8,559.70 m to 9515 m); 13 M PCC completed (chainage 5,390 m to 5,480m)

⁵ "Extended date" in case of extension of completion date for slow progressed package

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Target Schedule of Completion (Extended Date of Completion) ⁵	% Physical Progress as of 30 th June 2017	Works Completed as of 30 th June 2017
							<ul style="list-style-type: none"> ✓ Construction of precast element at Lepetkata, batching plant- Total nos. produced = 1586 i.e. 2.5 m wide = 210 nos. & 1.16 m wide = 1376nos ✓ De-siltation of DTP Drain – partially completed (chainage 0 to 6300 m) ✓ Demarcation of RoW- Concrete pillaring completed only 31 locations (o to 9515 m chainage) ✓ EOT is required which was expired on 23.05.2017
Guwahati	AUIIP/PR-1/GUW/WS-01	<p>Construction of transmission water supply pipelines and allied works in Guwahati</p> <ul style="list-style-type: none"> • Laying of 19.290 km length of mild steel pipe line of nominal internal diameter ranging from 1300mm to 800mm • Laying of 4.990 km length of gravity pipe line of ductile iron (Class K-9) of 500mm – 700 mm internal diameter. 	04.10.2016	1095 days	03.10.2018	<p>14.70 %. Following activities were undertaken:</p> <ul style="list-style-type: none"> • NOC from NHA; • NOC from Railway Authority; • NOC from Oil Authority; • NOC from PWD: Joint verification completed; 	<p>Bidding process and contractor selection has been completed. Following activities has been completed during last six months:</p> <p>2.89 km pipe line from Nunmati to VIP road has been laid. Physical progress is 14.7% and financially</p>

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Target Schedule of Completion (Extended Date of Completion) ⁵	% Physical Progress as of 30 th June 2017	Works Completed as of 30 th June 2017
		<ul style="list-style-type: none"> Locations- Water treatment plant to Gopal Nagar, then connecting all reservoirs 				<ul style="list-style-type: none"> NOC from IOCL authority: Under process; Alignment of transmission main completed; QAP of MS Pipeline approved; Permission from BSNL, APDCL: Under process; Procurement of MS piped and specials: Under Process; Third party inspection completed; Setting up of contractor's office and land requirement for store yard/pipe stacking yard is completed 	24% by end of June 2017
	AUIIP/PR-1/GUW/WS-02A	<p>Construction of storage reservoirs of various capacities at three locations (Gopal Nagar, North Jyoti Nagar and Kenduguri), approach road and allied works in South East Guwahati Water Supply Project.</p> <p><u>Details: Locations Reservoirs:</u></p>	06.08.2016	900 days	5.12.2018	10.86 %	<p>Construction of 3 Reservoirs (WS02A and 2B):</p> <p>✓ Construction of Retaining wall</p>

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Target Schedule of Completion (Extended Date of Completion) ⁵	% Physical Progress as of 30 th June 2017	Works Completed as of 30 th June 2017
		<ul style="list-style-type: none"> ➤ Gopal Nagar – 17 Million Litter (ML) ➤ North Jyotinagar- 3.2 ML ➤ Kenduguri- 3.6 ML Approach road: <ul style="list-style-type: none"> ▪ Gopal Nagar – 460 m ▪ North Jyotinagar- 530 m ▪ Kenduguri-650 m 					<ul style="list-style-type: none"> ✓ PCC and Boulder solining of foundation work completed; ✓ Allotment of the revenue land to GMDA for Northjyoti Nagar site is completed and tree cutting and topographical work has been completed;
	AUIIP/PR-/GUW/WS-02B	<p>Construction of storage reservoirs of various capacities at three locations (Basistha,Hengrabari, Nabajyoti Nagar), approach road and allied works in South East Guwahati Water Supply Project.</p> <p>Details: Locations</p> <p>Reservoirs:</p> <ul style="list-style-type: none"> ➤ Hengrabari- 13 ML ➤ Nabajyoti Nagar Main Zone Reservoir- 3.2 ML ➤ Basistha- 5 ML <p>Approach road:</p> <ul style="list-style-type: none"> ▪ Hengrabari-170 m ▪ Nabajyoti Nagar- 855 m ▪ Basistha- 150 m 	01.09.2016	730 days	01.01.2019	<p>Preliminary work such as topographical survey and soil investigation of Nabajyotinagar and Hengrabari reservoir has been completed and approach road is in progress.</p> <p>Basistha land is yet to hand over to contractor.</p>	<ul style="list-style-type: none"> ✓ Alternate location of Basistha reservoir at Art College, Guwahati is finalized in place of previous location at forest land. ✓ Allotment of land is awaited. ✓ Jonakinagar reservoir site Upper Hengrabari area land demarcation and fencing work completed. ✓ Final evaluation of Bids of DBO contract of Intake Head work & WTP of different systems 02B of water supply project

Note: 2 water supply packages at Guwahati terminated after awarding. Those package details are removed from this table. Re-bidding status of those packages shown in Table 1.

B. Compliance of Safeguard Loan Covenants

10. The loan agreement for AUIIP Project 1 was signed in 2nd March 2012 and is available on ADB website (<http://www.adb.org/sites/default/files/project-document/59986/42265-02-ind-mlo1.pdf>). **Table 5** provides a summary of compliance to the loan covenants related to environmental safeguards.

Table 5: Compliance to Loan Agreements (Environmental Safeguards)

Serial No. as per Loan Agreement	AUIIP Project 1 Specific Covenants	Status/Issues
Environment		
Schedule 5, para 14	The Borrower shall cause the State to ensure that the preparation, design, construction, implementation, operation and decommissioning of each Subproject comply with (a) all applicable laws and regulations of the Borrower relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the relevant IEE and EMP, and any corrective or preventative actions set forth in the Environment Monitoring Report.	<p>Under compliance.</p> <ul style="list-style-type: none"> - Environmental safeguard documents⁶ are prepared in accordance with the requirements of relevant national and state laws, ADB SPS 2009 and EARF. - Draft IEEs prepared during project preparation finalized after the finalization of detailed design. The final IEEs were submitted to ADB for review and approval. No contracts were awarded until ADB's approval of the final IEEs. - For Guwahati Water Supply Subproject, re-bidding has been done for 2 packages - Updated IEE has been included in the bid and contract documents to ensure measures and requirements set forth in the IEE, specifically the EMP, will be implemented. - For Dibrugarh Storm water Drainage Subproject (only 1 package and that already awarded) - IEE has been included in the bid and contract documents to ensure measures and requirements set forth in the IEE, specifically the EMP, will be implemented. - For Dibrugarh SWM Subproject DPR prepared. Environment clearance done. IEE/EMP included in Bid document. In addition accepted EIA/EMP report will be included in agreement. <p>Corrective action plan prepared. Previous SEMRs submitted to ADB for review and disclosure in its website.</p>
Human and Financial Resources to Implement Safeguards Requirements		

⁶ Draft IEEs following ADB SPS were prepared based on preliminary design for all 3 AUIIP Project 1 subprojects. An environmental impact assessment (EIA) following requirements of Government of India EIA Act and Rules, and Solid Waste Management and Handling Rules was prepared for Dibrugarh SWM Subproject in order to obtain the environmental clearance. Reports following Forest Act and Rules were prepared for subproject components to be located in forest lands and those requiring tree-cutting.

Serial No. as per Loan Agreement	AUIP Project 1 Specific Covenants	Status/Issues
Schedule 5, para 18	The Borrower shall cause the State to make available necessary budgetary and human resources to fully implement the EMPs, the RPs and any IPP,	<p>Partial compliance.</p> <ul style="list-style-type: none"> - As per implementation arrangement for environmental safeguards (see next section for detailed discussion), PMU has a dedicated Compliance and Safeguards Officer. - As per the implementation arrangement for environmental safeguards, project implementation units (PIUs) in Guwahati and Dibrugarh to have respective safeguard compliance & monitoring officers, however to date only one safeguard compliance & monitoring officer appointed in Dibrugarh - The Design and Supervision Consultant (DSC) assisting the PMU and PIUs has engaged an Environment Specialist who reports in its office in Guwahati on intermittent basis and in its office in Dibrugarh every month. - PMU and PIUs has allocated its counterpart funds to ensure implementation of subproject EMPs. The construction contractors has allocated necessary budgets to implement mitigation measures and monitoring program as required in the IEEs. <p>Tentative budget is attached as Appendix 3 and III</p>
Safeguards – Related Provisions in Bidding Documents and Works Contracts		
Schedule 5, para 19	<p>The Borrower shall cause the State to ensure that all bidding documents and contracts for Works contain provisions that require contractors to:</p> <ul style="list-style-type: none"> (a) comply with the measures and requirements relevant to the contractor set forth in the IEEs, the EMPs, the RPs and any IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report; (b) make available a budget for all such environmental and social measures; (c) provide the PMU with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in 	<p>Under compliance.</p> <ul style="list-style-type: none"> - IEEs and specific provisions related to mitigation measures and environmental monitoring are included in the bidding and contract documents. --The budgets for the Environment, Health and Safety has been appended as Appendix 3 for Dibrugarh sub project and as Appendix III for Guwahati sub projects. - Upto Mar 2017: <ul style="list-style-type: none"> (i) corrective action plan prepared; (ii) No unanticipated environmental, resettlement or indigenous people's risks or impacts; since there is little or no construction work being conducted. <p>Partial compliance.</p> <ul style="list-style-type: none"> - Record of conditions of roads, agricultural land and other infrastructure for all the three packages are not yet submitted by the contractor. <p>Not yet applicable.</p>

Serial No. as per Loan Agreement	AUIP Project 1 Specific Covenants	Status/Issues
	<p>the IEEs, the EMPs, the RPs or any IPP;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) Fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	<p>- Reinstatement of pathways, pathways, other local infrastructure, and agricultural land to at least their pre-project condition for all the three packages are not yet required as there is little or no construction work being conducted.</p>
Safeguards Monitoring and Reporting		
Schedule 5, para 20	<p>The Borrower shall cause the State to do the following:</p> <p>(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEEs, the EMPs, the RPs or any IPP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and</p> <p>(c) Report any breach of compliance with the measures and requirements set forth in the EMPs, the RPs or any IPP promptly after becoming aware of the breach.</p>	<p>Under compliance</p> <p>(i) Semi-annual Safeguards Monitoring Reports are being submitted to ADB for review and disclosure.</p> <p>- as of 31st December 2016:</p> <p>(ii) corrective action plan prepared and included in monitoring report;</p> <p>(iii) No unanticipated environmental, resettlement or indigenous people's risks or impacts; since there is little or no construction work being conducted.</p>
Labor Standards		
Schedule 5, para 23	<p>The Borrower shall cause the State to ensure that Works contracts follow all applicable labor laws of the Borrower and the State and that these further include provisions to the effect that contractors (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; (ii) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions; and (iii) maximize employment of</p>	<p>Under Compliance</p> <p>- IEEs include provisions on strict implementation of applicable labor laws in the EMPs.</p> <p>- H&S training has been made mandatory for workers prior to mobilization in worksites</p> <p>- Contractors are encouraged to employ women and local poor and disadvantaged persons</p> <p>- HIV/AIDS awareness programs conducted among the laborers during site specific training program in all sites by the contractor.</p>

Serial No. as per Loan Agreement	AUIIP Project 1 Specific Covenants	Status/Issues
	women and local poor and disadvantaged persons for construction purposes, provided that the requirements for efficiency are adequately met. Such contracts shall also include clauses for termination in case of any breach of the stated provisions by the contractors.	

C. Implementation Arrangement

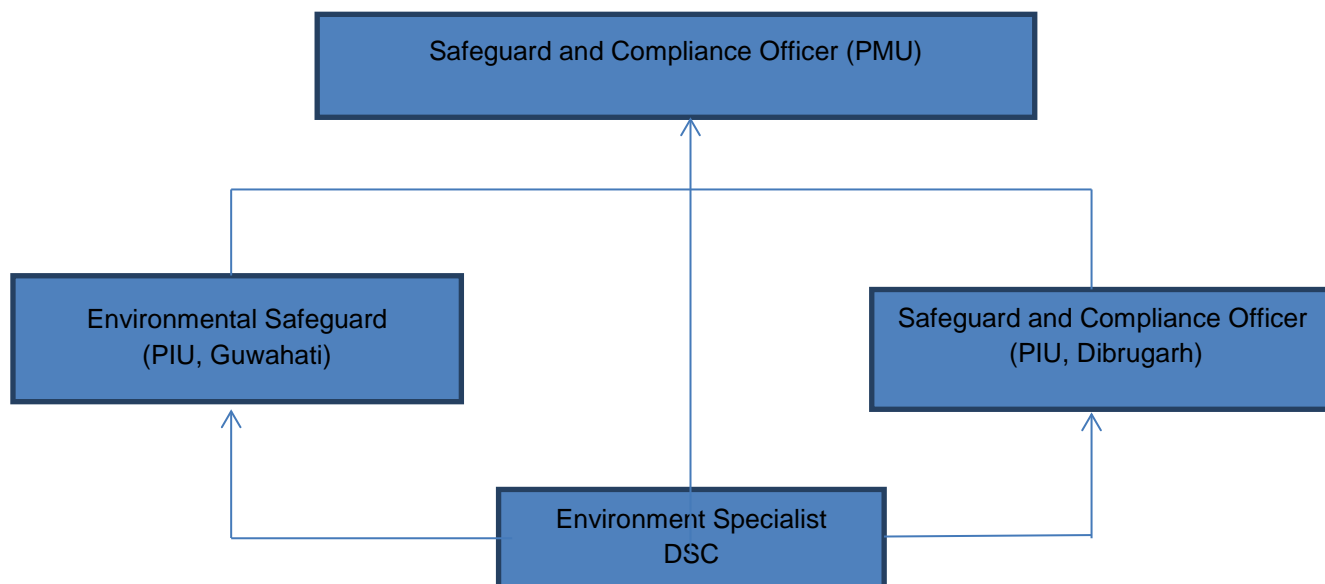
11. **Overall implementation arrangement.** The Government of Assam's GDD is the executing agency. PMU has been established to manage AUIIP through the Project Implementation Units (PIUs), one each in Guwahati and Dibrugarh. The PMU functions as the implementing agency for project administration and coordination and monitor all the project implementation activities with a focus on performance and achievement of results. PMU reports to the Empowered Committee (the Committee) of the Government of Assam headed by the Chief Secretary, who is responsible for the project results on behalf of Government of Assam. The PIUs will be responsible for the day-to-day activities of project implementation in the field and will be under the direct administrative control of the PMU. **Table 6** shows the contact details of the PMU and PIUs.

Table 6: Details of AUIIP PMU and PIUs

Designation	Name and Contact Details
PMU, Project Director	Name: Mr. Ghanashyam Dass, IAS Office Address: Tripti Towers, 3 rd Floor, Ganeshguri, Guwahati-781005 Phone: 0361-2529824 Email: pdadbassam@gmail.com PD has been transferred on 22nd may 2017. No one has been joined yet. Post is vacant
PIU Guwahati, Additional Project Manager	Name: Mr. Dimbeswar Baruah Office Address: Tripti Towers, 3 rd Floor, Ganeshguri, Guwahati-781005 Phone: 0361-2529824 Email: piu.auiip@gmail.com
PIU Dibrugarh, Additional Project Manager	Name: Bhim B Chetri Office Address: 2nd floor, Aditya complex, Opp. Nova Furniture, K.C. Gogol Path, Khaliarmy, Dibrugarh Phone: 9864076272 Email: piu.dibrugarh@gmail.com

12. **Safeguards implementation arrangement.** **Figure 1** shows the implementation arrangement for environment and resettlement safeguards. It shows PMU includes a full-time Safeguard Compliance & Monitoring Officer while the PIUs to include respective Safeguard Compliance & Monitoring Officers. As of 30th June 2016, the position in PMU and PIU (Dibrugarh) are filled up.

Figure 1: AUIP Safeguards Implementation Arrangement



13. DSC is assisting PMU and has engaged a Safeguards Specialist (Environment) Guwahati Office in every month. DSC is assisting the PIUs and PMU and has engaged an Environment Specialist who reports in its office in Guwahati on continuous basis and in its office in Dibrugarh every month. Project Management Consultant has been terminated from 1st of September 2016. **Table 7** shows the details of the environmental safeguards team.

Table 7: Details of AUIP Environmental Safeguard Team

Designation	Name and Contact Details
PMU, Safeguard and Compliance Officer	Name: Mr. Chandan Bhadury Office Address: Tripti Towers, 3 rd Floor, Ganeshguri, Guwahati-781005 Phone: 09508248715 Email: c.bhadury@gmail.com
PIU Guwahati, Environmental Safeguard	Name: Mrs Deena Baruah Office Address: Tripti Towers, 3 rd Floor, Ganeshguri, Guwahati-781005 Phone: 9711099413 Email: deenabaruah.auiip@gmail.com
PIU Dibrugarh, Safeguard and Compliance Officer	Name: Mrs Meenakshi Baruah Office Address: 2nd floor, Aditya complex, Opp. Nova Furniture, K.C. Gogol Path, Khaliarny, Dibrugarh Phone: 09435070575 Email: piu.dibrugarh@gmail.com
DSC, Environment Specialist	Name: Mr. Ranjan Kumar Mallick Office Address: Tripti Towers, 3 rd Floor, Ganeshguri, Guwahati-781005 Phone: 91-9438200113 Email: mallickdevelopment@gmail.com

III. ENVIRONMENTAL PROCEDURE REVIEW

A. Environmental Legal Requirement

14. **Table 8** provides a list of national and state laws, rules, policies and regulations applicable to AUIP Project 1.

Table 8: Environmental Legal Requirements Applicable to AUIP Project 1

Component	Applicable Legislation	Compliance	Action Required for AUIP Project 1 Subprojects
1. All components that require acquisition of forest land	Forest (Conservation) Act 1980; Wildlife (protection) Act 1972	Approval from State Principal Chief Conservator of Forest and Ministry of Environment, Forests and Climate change, Government of India	Tree felling permission
2. Water Treatment Plant (WTP) – Surface water and Sewage Treatment Plant (STP)	Water (Prevention and Control of Pollution) Act 1974	Consent to Establish (CTE) and Consent to Operate (CTO) from Assam Pollution Control Board (APCB), Government of Assam.	Based on project review and site inspection, APCB provides CTE before construction, and stipulates the disposal standards to be met during operation. After completion of construction, CTO is issued confirming compliance with the CTE conditions, if any
		Renewal of CTO during operation of WTP and STP	Based on the performance of the WTP and its compliance with the disposal standards CTO to be renewed every year.
3. All composting and landfill facilities	Municipal Solid Wastes (Management and handling) Rules 2000	Authorization of proposed site by APCB	Authorization to be issued based on land use in and around the site and groundwater condition.
4. Waste management facilities including composting, landfills and transfer stations	Environment (Protection) Act 1986: EIA Notification 2006, amended in 2009 Category B	Requires environmental clearance from State Environment Impact Assessment Authority (SEIAA)	Based on preliminary information and site visits, project will be categorized as B1 or B2. B1 projects require EIA study for approval.
5. Environmental Clearance for excavation and transportation of earth	EIA notification 2006 and its subsequent amendments issued under Environment Protection Act, 1986	Requires environmental clearance from District Environment Impact Assessment Authority (DEIAA)	Requisite Permission already obtained and to be renewed.
6. Earth cutting and transportation to WTP		Permission from the District Magistrate; Kamrup Metropolitan (Magisterial Branch)	Requisite Permission is already obtained and to be renewed.

	Assam Minor Mineral Concession Rules, 2013		
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B. Compliance with Environmental Legal Requirements

15. **Table 9** provides the status of compliance of subprojects to national and state laws, rules, policies and regulations applicable to AUIIP Project 1. Issued clearances and no objection certificates are attached as **Appendix 4 (for Dibrugarh) and IV (for Guwahati)**.

Table 9: Status of Compliance with National and State Legal Requirements

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
1. Water Supply System Subproject					
Guwahati	AUIIP/PR-1/GUW/WS-01	<ul style="list-style-type: none"> Supplying, laying, jointing, testing and commissioning of about 19.29 km length of mild steel pipe line of nominal internal diameter ranging from 1300mm to 800mm. Supplying, laying, jointing, testing and commissioning of about 4.99 km length of gravity pipe line of ductile iron (Class K-9) of 500mm – 700 mm internal diameter. Earth work excavation, laying of bedding wherever specified, backfilling the trenches, and restoring and making good all surfaces which are damaged during excavation, Fixing and connecting all pipe line fixtures such as valves, bends, tees, blank flanges, tail pieces, flow meter etc., Construction of all appurtenant structures including construction of road crossings, drainage crossings, pedestals, 	Not required	-	-NOC received from contractor for disposal of excess earth in a private land, NOC received from Railway department and accordingly agreement has been completed

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
		supports, anchor/ thrust blocks, valve chambers, etc.			
Guwahati	AUIIP/PR-1/GUW/WS-02 A and AUIIP/PR-1/GUW/WS-02 B	<ul style="list-style-type: none"> Construction, testing and commissioning of 6 numbers of ground level service reservoirs (GLSR) at: <ul style="list-style-type: none"> (i) Gopal Nagar (17 ML) (ii) North Jyotinagar (3.2 ML) (iii) Kenduguri (3.6 ML) (iv) Jonaki Nagar (13 ML) (v) NabaJyoti Nagar (3.2 ML) (vi) Basistha (5 ML) Providing and erecting all auxiliary items pipe assembly work for inlet, outlet, over flow, bypass and wash out pipes with butterfly and sluice valves and RCC chambers, drainage pipes with manhole chambers, water level indicator, lightening arrestor, ventilation arrangement, stairs to roof slab, stairs for going inside, etc. Construction of retaining walls at all reservoir sites. Construction of approach road at all reservoir sites 	<p>Forest (Conservation) Act 1980- For tree felling</p> <p>EIA notification 2006 and its subsequent amendments issued under Environment Protection Act, 1986 for obtaining Environmental Clearance for excavation and transportation of earth</p> <p>Assam Minor Mineral Concession Rules, 2013 for permission of Earth cutting and</p>	<p>Complied. Permission obtained for tree felling. Tree feeling at Gopal Nagar reservoir site is done</p> <p>Permission obtained for tree cutting in Kendugudi sites. Already 16 trees has been cut down</p> <p>For other sites NOC to be collected for tree felling. Application send</p>	<ul style="list-style-type: none"> Requirement of tree cutting at in Gopalnagar, Nabajyotinagar and Kenduguri Permission for cutting of trees at Gopal Nagar reservoir site obtained from DFO, Kamrup East Division on 13.08.2013. Tree felling done. 16 number of Teak tree at Kenduguri for construction of water reservoir under Dag No. 97 and Patta No. Nil, Mouza: Beltola. Mr B.Deka, ACF received cheque No 365361 dated 31.03.2017 received from Additional Programme Manager. Environmental clearance and earth cutting and transportation of earth for the reservoir sites except for Basistha are obtained. An amount of Rs. 2,19,273 is deposited by AUIIP to the Forest Department as valuation and operation cost of felling of trees. <p><i>Though initially (TA stage) forest land at Jonaki Nagar and Basistha were selected for construction of GLSR and process was initiated for forest clearance. Later due to delay in getting NOC, it was decided by project executing agency to find out alternate non forest land. Now at both</i></p>

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
			transportation to WTP		<i>sites (Jonaki Nagar and Basistha) Govt. land selected and transfer process for those land in favour of EA under process.</i>
Stormwater Drainage Subproject					
Dibrugarh	AUIIP/PR-1/DIB/DR-01	<ul style="list-style-type: none"> Widening and construction of 9.5 km (chainage 0 - 9500 m) reinforced cement concrete (RCC) drain with linings; Construction of 17 nos. box culverts; and Construction of sullage pumping station. 	<p>Forest (Conservation) Act 1980 – Forest clearance for construction of drains</p> <p>CTE from Pollution Control Board for setting up Precast Batching plant</p>	<p>Tree felling NOC - Tree felling estimation and approval for 147 nos. tree received from Divisional Forest officer, Dibrugarh on 6th August 2014 (revised estimation submitted by Forest dept. on 24th June 2016). Money deposited to Forest dept. by Dibrugarh Municipal Board and 90 nos. tree felling done</p> <p>Consent to establish for pre cast concrete block manufacturing unit was obtained from Pollution control board on 24th December 2015</p> <p>Consent to operate for pre cast concrete block manufacturing unit was obtained from Pollution control board on 26th February 2016, which valid upto 31st March 2017</p> <p>Consent to operate for Generator was obtained from pollution control board on 18th July 2016</p>	<ul style="list-style-type: none"> Application sent to forest dept. for getting NOC on tree felling along the drain Joint verification by forest dept., DMB and revenue dept. Completed Revised cost estimation for removal of 147 trees (5.44 lakh) sent by DFO, Dibrugarh division to project EA <p>All NOC, CTOs and CTE are attached as Appendix 4. Condition mentioned in CTO</p>

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
				NOC from Dibrugarh Municipal Board (DMB) for disposal of drainage silt at landfill site was obtained on 25 th February 2016	
Solid Waste Management Subproject					
Dibrugarh	AUIIP/PR-1/DIB/SWM-01A &01B	Construction of Compound wall, River Protection Wall, Access Roads, Security Guard Room and Allied Works of Landfill site at Dibrugarh	EIA Notification 2006, amended in 2009 – Environmental Clearance for construction of landfill and composting facility	Environment clearance obtained from State Environment Impact Assessment Authority, Assam on 21 st September 2015	Environment Clearance (EC) obtained . EC attached as Appendix 5 Compliance of EC is attached as Appendix 5
		DBO of 100 MT processing plant and 60 MT sanitary land fill site and allied works at Dibrugarh	No Objection Certificate (NOC) from Dibrugarh Airport	NOC (height clearance only) for construction of sanitary landfill project at Ghoramara, Dibrugarh was obtained from AAI on 28 June 2013 (NOC attached in Appendix 4) NOC is valid for 5 years i.e. upto 28 th June 2018 NOC attached as Appendix 4 .	<ul style="list-style-type: none"> No Objection Certificate is issued on the express understanding that the site elevation, relative location of the proposed building/structure and its distance and bearing from the ARP/ Runway ends/ Runway centre line (whichever is applicable) as tendered by the applicant are correct. If, however, at any stage it is established that the actual data is different from the tendered data and which could adversely affect aircraft operations, the structure or parts thereof in respect of which this NOC is being issued will have to be demolished at the applicant's own cost as may be directed by the Airports Authority of India. No light or a combination of lights which by reason of its intensity,

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
					<p>configuration or colour may cause confusion with the aeronautical ground lights of the airport shall be installed at the site at any time during or after the construction of the building.</p> <ul style="list-style-type: none"> • No Radio/ TV Antenna, lighting arrestors, staircase, overhead water tank and attachment or fixtures of any kind shall project above the height indicated in said NOC • Day & Nights marking with both main and standby power supply should be provided as per ICAO standard.
Dibrugarh	AUIIP/PR-1/DIB/SWM-02	Procurement of equipment for primary, secondary collection and transportation vehicles for Municipal Solid Waste Management at Dibrugarh	Not required		

IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

16. At present only three packages, (AUIIP/PR-1/DIB/DR-1, AUIIP/PR-1GUW/WS-02A and 02B and AUIIP/PR-1/GUW/WS-01 are under implementation. Progress of work is very slow in DTP drain and Guwahati water supply. But transmission line work progress is moderate. Site-specific EMP was prepared by the contractor and submitted to PMU for approval. Approval was given before starting of construction. Later with development of work EMP has been revised. The approved and revised site-specific EMP is attached as **Appendix5**.

17. As of 30th June 2017, only 13.41 %in Dibrugarh Drainage project, 10.86 % in Guwahati, water supply Project and Transmission line 14.7% of the work is completed. The overall progress of project activity is slow.

18. PMU with assistance of DSC conducted periodic monitoring of EMP implementation thru desk review of contractor's records and site inspections. The findings are presented in **Table 10**. The overall compliance status of AUIIP/PR-1/DIB/DR-01, AUIIP/PR-1GUW/WS-02A and 02B and AUIIP/PR-1/GUW/WS-01 on EMP implementation is satisfactory. Non-compliances/need for improvement during construction of Dibrugarh drainage, Guwahati Water supply and Transmission line site is include:

- No Proper solid-waste management system at Dibrugarh
- No proper signages/information board at drainage worksite.
- Need to improve use of PPE by contractor's workers at all times.
- Need of properly use of caution tape at worksite along the drain and excavated area
- Regular air and noise quality monitoring

Table 10: Compliance to EMP of Dibrugarh Drainage Subproject Package No. AUIP/PR-1/DIB/DR-01

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
Pre Construction - Design phase									
1	Site clearance	Site preparation work completed including necessary clearance <ul style="list-style-type: none"> • Relevant NOC from line dept • Tree felling permission 	<ul style="list-style-type: none"> • Tree felling requirement – site environment plan • NOC – paper documents from line agency 	Along drainage alignment	DSC/PIU	Observation and document checking	DSC's Environment Safeguard Specialist	Continuous by PIU Quarterly by PMC, PMU	Done as per present requirement. Continuous process. Tree felling permission received and tree felling done (90 nos.)
2	Utility	Shifting of affected utilities like electric and telephone poles, water lines	<ul style="list-style-type: none"> • List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions 	Along drainage alignment	DSC/PIU	Observation and document checking	DSC's Environment Safeguard Specialist	Do	Completed partially.
3	Traffic Management	Planning for Traffic Management	Ensure traffic management plan is part of contract documents and being implemented	Different road junction along drain	DSC/PIU	Observation and document checking	DSC's Environment Safeguard Specialist	Do	Not required as per the present situation. Project activity outside locality
4	Disposal sites of dredge and solid wastes	Identify agreed sites with local officials to dispose of dredge	<ul style="list-style-type: none"> • Disposal area and aesthetic status of disposed area 	Proposed disposal site	PMU, PIU, and DSC to ensure sites are agreed with local officials and in locations which are	Site observation and checking	DSC's Environment Safeguard Specialist	Do	Under compliance – planning continued. Drainage silt deposited at proposed dumping site/

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
					away from sensitive receptors.				landfill site having NOC from DMB attached as Appendix 4. NOC from Pvt. Landowner also attached in Appendix 4
5	Construction work camps (if needed), hot mix plants, stockpile areas, storage areas, and disposal areas.	Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas <ul style="list-style-type: none"> • Prioritize areas within or nearest possible vacant space in the subproject location • Non use of residential area • Arrangement of toilet and drinking water facility • No disposal of waste in water 	List of selected location for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas.	Camp site – nearby working area	DSC/PIU	Observation and document checking	DSC's Environment Safeguard Specialist	Do	Complied Construction worker camp at pre cast plant established with all facility Photographs attached as Appendix 2
Construction									
6	Source of Materials	<ul style="list-style-type: none"> • Use of Govt. approved quarry sites for procurement of materials • Verify suitability of all material sources and obtain approval of 	<ul style="list-style-type: none"> • List of approved quarry sites and sources of materials • Bid document to include requirement for verification of suitability of 	Quarries and material source areas	Contractor	<ul style="list-style-type: none"> • Checking of records • visual inspection of sites 	DSC's Environment Safeguard Specialist and PIU	Do	Approval obtained from DSC/ PMC. Procurement has been started

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		Investment PMU/PIU	sources and permit for additional quarry sites if necessary. <ul style="list-style-type: none"> Construction Contractor documentation 						
7	Camp sites	<ul style="list-style-type: none"> Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement Train employees in the storage and handling of materials Remove all wreckage, rubbish, or temporary structures 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and sanitation facilities for employees Housekeeping – regular disposal of solid waste 	Camp site	Contractor	Visual inspection	DSC's Environment Safeguard Specialist and PIU	Do	Construction worker camp at pre cast plant has been established with all facility. Camp fully operational. Photographs attached as Appendix 2
8	Landscape and Aesthetics	<ul style="list-style-type: none"> Prepare and implement Waste Management List; Avoid stockpiling of excess excavated sludge; and Coordinate with DMB for beneficial uses of dredged silt or immediately dispose to designated areas (specifically use for development of landfill); 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/ DSC to report in writing that the necessary environmental restoration work has been done 	Drainage construction site	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	DSC's Environment Safeguard Specialist and PIU	Do	Utilization of drainage silt for filling up low laying area of proposed landfill site/ disposal site having NOC. Transportation already started Waste/ Spoil management plan is

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<ul style="list-style-type: none"> Recover used oil and lubricants and reuse or remove from the sites; Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; Remove all wreckage, rubbish; and Request PMU/PIU/DSC to report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work. 							applied as per EMP (Attached as Appendix 7) Drainage silt testing has been done. Result attached as Appendix 8 .
9	Air quality	<ul style="list-style-type: none"> Selection of materials storage area Water sprinkling at construction site for arresting dust (if any during dry period) Use tarpaulins to cover sand and other loose material- Reducing dust hazard 	<ul style="list-style-type: none"> Location of stockpiles Complaints from sensitive receptors Monitoring data Heavy equipment and machinery with air pollution control Water sprinkling arrangement Cover materials 	Along drain and stockpile areas	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	DSC's Environment Safeguard Specialist and PIU	Do	<p>Location of stockpiles selected</p> <p>Water sprinkling not done</p> <p>Air quality monitoring during base line/ pre construction</p>

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<ul style="list-style-type: none"> All vehicles and equipments mobilized to construction site and producing emission, have Pollution Control Board certification Carry out air quality monitoring 							phase was not conducted by the contractor. Regular monitoring is required under Pollution Control Certificate of vehicles and equipment obtained
10	Noise level	<ul style="list-style-type: none"> Noise producing work needs to be conducted at day time Regular maintenance of noise producing equipment Require horns not be used unless it is necessary to warn other road users Maintain maximum sound levels not exceeding 80 decibels (dbA) when measured at a distance of 10 m or more from the vehicle/s At sensitive locations enclosures provided around generator set or 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers Monitoring data 	Along drainage construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	DSC's Environment Safeguard Specialist and PIU	Do	<p>Noise producing machinery mobilized at site</p> <p>Base line/ pre construction and construction noise monitoring has not been conducted by the contractor.</p>

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		other noise producing machinery.							
11	Traffic	Implement a traffic management schedule	Ensure traffic management plan is part of contract documents and being implemented	Along drainage construction site as per requirement	Contractor	<ul style="list-style-type: none"> • Checki ng of records • Visual inspection of sites 	DSC's Environment Safeguard Specialist and PIU	Do	Not required as per present scope of work Traffic Management plan is attached as Appendix 10
12	Ecological Resources – Terrestrial	<ul style="list-style-type: none"> • Minimize removal of vegetation (if any) and disallow cutting of trees • Felling of trees done with mitigation measures i.e. planting of three trees for each tree fell. 	Tree felling requirement and afforestation after final design	Along drainage construction site	PIU, Contractor	<ul style="list-style-type: none"> • Site observation • Checki ng of records 	DSC's Environment Safeguard Specialist and PIU	Do	Tree felling permission received and tree cutting done (90 nos.)
13	Accessibility	<ul style="list-style-type: none"> • Plan transportation routes so that heavy vehicles do not use narrow local roads • Schedule transport and hauling activities during on-peak hours • Keep the site free from all unnecessary obstructions; • Drive vehicles in a considerate manner; 	<ul style="list-style-type: none"> ▪ Traffic Management Strategy ▪ Complaints from sensitive receptors ▪ Number of signages placed at subproject location. 	Along drainage construction site	Contractor	Visual inspection	DSC's Environment Safeguard Specialist and PIU	Do	<p>Transportatio n of materials started No diversion of traffic is required.</p> <p>Signagaes will be placed as per requirement and other mitigation measures will be applied as per EMP</p>

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<ul style="list-style-type: none"> Coordinate with Dibrugarh Traffic Office for temporary road diversions and with for provision of traffic aids Notify affected sensitive receptors by providing sign boards informing nature and duration of construction works and contact numbers for concerns/ complaints 							
14	Disposal sites of dredged sludge and solid wastes	<ul style="list-style-type: none"> Dispose dredge and solid waste at pre-identified agreed upon sites (e.g., existing dump sites or use for development of landfill) away from sensitive receptors. 	<ul style="list-style-type: none"> Disposal of dredge and solid wastes at pre-identified agreed site 	Along drainage construction site and disposal site	Contractor	Visual inspection	DSC's Environment Safeguard Specialist and PIU	Do	Disposal already started at landfill site and approved sites. Drainage silt testing has not been done by the contractor. R
15	Water Quality	<ul style="list-style-type: none"> Avoid stockpiling of dredged silt/ sludge especially during the monsoon season unless covered by tarpaulins or plastic sheets; 	<ul style="list-style-type: none"> Areas for stockpiles, storage of fuels and lubricants and waste materials Number of silt traps installed along drainages 	Along drainage construction site	Contractor	Site observation	DSC's Environment Safeguard Specialist and PIU	Do	Not required now. No water body nearby the project location

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<ul style="list-style-type: none"> • Prioritize re-use of excess spoils and materials in the construction works. If spoils will be disposed, consult with PMU/PIU/DSC on designated disposal areas; • Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies; • Place storage areas for fuels and lubricants away from any drainage leading to water bodies; • Dispose any wastes generated by construction activities in designated sites 	(in slope) leading to water bodies						
16	Occupational Health & safety	<ul style="list-style-type: none"> • Develop and implement site-specific Health and Safety(H&S) Plan • Use Personal Protective Equipment like helmet, gumboot, gloves, nose mask and earplugs • H&S Training for all site personnel 	<ul style="list-style-type: none"> ▪ Site-specific Health and Safety (H&S) Plan ▪ Equipped first-aid stations; ▪ Medical insurance coverage for workers ▪ Number of accidents 	Along drainage construction site	Contractor	<ul style="list-style-type: none"> • Checki ng of records • Visual inspection of sites 	DSC's Environment Safeguard Specialist and PIU	Do	<p>Site-specific Health and Safety (H&S) Plan under implementation Attached as Appendix 11. Use of PPE – partial</p> <p>H & S training arranged for</p>

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<ul style="list-style-type: none"> Documentation of work-related accidents; Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU Provide specific guidance for suitable PPE for every on-site work assignment Ensure availability of First aid box at all working sites and labour camp Provide medical insurance coverage for workers; Provide supplies of potable drinking water at working sites; Provide H&S orientation training to all new workers Mark and provide sign boards for hazardous areas such as energized electrical devices and lines, appropriate Disallow worker exposure to noise 	<ul style="list-style-type: none"> Supplies of potable drinking water; Record of H&S orientation trainings Personal protective equipments Sign boards for hazardous areas such as energized electrical devices and lines, service rooms 						<p>the laborer, Sample training detail is attached as Appendix 12. Health check up camp for the laborers is also conducted by the contractor. Details shown in Appendix 12</p> <p>Drinking water available at site, first aid box available at site.</p> <p>Insurance arranged for the laborer. Attached as Appendix 13</p> <p>Till date no major accident is reported. Appendix 14 shows first aid statistics during report period</p>

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		level greater than 85 dBA for duration of more than 8 hours per day without hearing protection.							<i>Overall compliance is satisfactory</i>
17	Community Health & safety	<ul style="list-style-type: none"> Plan routes to avoid times of peak-pedestrian activities. Liaise with PMU/PIU/DSC in identifying high-risk areas on route cards/maps. Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure. Provide road signs and flag persons to warn. Provide protective fencing around drain, and cover any open trench with metal planks during non-construction hours. Potentially cause soil contamination; 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors 	Along drainage construction site	Contractor	Visual inspection	DSC's Environment Safeguard Specialist and PIU	Do	<p>Caution tape placed at site. Placement of caution tape and board should be done for all working locations.</p> <p>Appendix 2 shows site photo</p>

	Field	Mitigation Activities and Method	Parameters monitored	Location	Responsible for Mitigation	Monitoring Method	Responsible for Monitoring	Date of Monitoring	Compliance Status/ Explanation
		<ul style="list-style-type: none"> Recover used oil and lubricants and reuse or remove from the site 							
18	Socio cultural resources	<ul style="list-style-type: none"> Strictly follow the protocol for chance finds in any excavation work Stop work immediately to allow further investigation if any finds are suspected 	Chance find protocol	Along drainage construction site	Contractor	Checking of records	DSC's Environment Safeguard Specialist and PIU	Do	Not required till date
19	Employment generation	<ul style="list-style-type: none"> The use of labour intensive construction measures will be used where appropriate Employ local (unskilled) labour if possible Training of labour to benefit individuals beyond completion of the subproject 	Employment record	Along drainage construction site	Contractor	Checking of records	DSC's Environment Safeguard Specialist and PIU	Do	At present local labors are engaged. List of laborers are attached as Appendix 15 .

Table 11:
Compliance to EMP Water Storage Reservoir and Water Transmission Pipelines and Allied Works at Guwahati Subproject Package No. AUIP/PR-1/GUW/WS-02A and 02B

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
Pre Construction - Design phase					
Utilities	Telephone lines, electric poles and wires, water lines within proposed project area	(i) Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during construction phase ;and (ii) Require construction contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services.	DSC	(i) List of affected utilities and operators; (ii) Bid document to include requirement for a contingency plan for service interruptions	Done as per present requirement. Continuous process.
Structure stability in seismic zone V	Affect during earthquake	Design and analysis as per the Peak Ground Acceleration(PGA) and the seismic acceleration response curve and other factors like Response Reduction Factor (RRF) and Importance Factor (IF) as per the Indian Standard code	DSC/ PIU	(i) Checking of design report – consideration of design measures to minimize earth quake risk	Not required now
Water Supply	Health risk due to closure of water supply during connection	(i) Plan the construction program to keep the cessation of water supplies to the minimum possible(in both area and duration); and (ii) In coordination with GMC, provide alternative potable water to affected households and businesses for the duration of the shut-down if any	DSC	(i) Schedule of closure if any; (ii) delivery of potable water to affected people by GMC	Not required as per the present situation. Project activity outside locality
Traffic Management	Impede traffic flow during construction	(i) Prepare a traffic management plan during preconstruction phase.	DSC	Ensure Traffic Management Plan is finalized before implementation.	Under compliance – planning continued. Traffic Management Plan is

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
					prepared and attached as Appendix IX
Social and Cultural Resources	Ground disturbance can uncover and damage archaeological and historical remains	<p>(i) Consult Archaeological Survey of India(ASI) or concerned department in Guwahati to obtain an expert assessment of the archaeological potential of the site;</p> <p>(ii) Consider alternatives if the site is found to be of medium or high risk;</p> <p>(iii) Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.</p>	DSC	Chance Finds Protocol	<p>Complied. Construction worker camp at pre cast plant established with due facilities.</p> <p>Photographs attached as Appendix 2</p>
Construction work camps, hot mix plants, stock pile areas, storage areas, and disposal areas.	Disruption to traffic flow and sensitive receptors along transmission pipeline laying area	<p>(i) Prioritize areas within or nearest possible vacant space in the sub project location;</p> <p>(ii) If it is deemed necessary to locate elsewhere, consider sites that will not promote instability and result in destruction of property, vegetation and drinking water supply systems;</p> <p>(iii) Do not consider residential</p>	PMU/PIU and DSC to determine locations prior to construction	List of selected sites for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas.	Not required

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
		areas; and (iv) Take extreme care in selecting sites to avoid direct disposal to water body which will inconvenience the community.			
Construction Stage					
Sources of Materials	Extraction of rocks and material may cause ground instability	(i) Use quarry sites and sources permitted by government; (ii) Verify suitability of all material sources and obtain approval of Investment PMU/PIU; (iii) If additional quarries will be required after construction has started, obtain written approval from PMU/PIU; and (iv) Submit to DSC on a monthly basis documentation of sources of materials.	Construction Contractor	Construction Contractor documentation	Proper measures has been taken by contractor under direct supervision by PIU and DSC. The various NOCs and approvals are appended as Appendix-IV for both Water Storage Reservoir and Water Transmission Pipelines
Air Quality	Emissions from construction vehicles ,equipment, and machinery used for excavation and construction resulting to dusts and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulfur oxides,	(i) Consult with PMU/PIU/DSC on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; (iii) Damp down exposed soil and any stockpiled onsite by spraying with water when necessary during dry weather; (iv) Use tarpaulins to cover sand and other loose material when transported by trucks; and	Construction Contractor	(i) Location of stockpiles; (ii) Complaints from sensitive receptors; (iii) Heavy equipment and machinery with air pollution control devices;	(i) PUU certificates of the vehicles used at the sites are provided (see Appendix VI) (ii)Waste/Spoil management Plan is prepared by the contractors and is appended as Appendix VII ;

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
	particulate matter, nitrous oxides ,and hydrocarbons	(v) Fit all heavy equipment and machinery with air pollution control devices which are operating correctly.		(iv)Ambient air for respirable particulate matter (RPM- PM10 & PM2.5) and suspended particulate matter (SPM); (v) Vehicular emissions such as sulphur dioxide (SO ₂), nitrous oxides (NO _x), carbon monoxide (CO), and hydrocarbons	(iii) Water, Noise and air quality monitoring for the Gopal nagar site and noise and air quality monitoring for the transmission mains site were carried out by the contractors and the reports for both the contractors are appended as Appendix VIII.
Traffic Management	Impede traffic flow during construction	(i) Implement a traffic management plan during pre construction phase.	Construction Contractor	DSC to ensure traffic management measures are implemented and traffic is not significantly impeded during construction period.	DSC and the contractor ensure and implement traffic management measures at the sites and makes sure that the traffic is not significantly impeded during construction period. The traffic management plan is appended as Appendix-IX
Surface water quality	Mobilization of settled silt materials, run-off from stockpiled materials, and chemical contamination from fuels and lubricants during construction	(i) Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets; (ii) Prioritize re-use of excess spoils and materials in the construction works .If spoils will be disposed, consult with PMU/PIU/DSC on	Construction Contractor	(i) Areas for stockpiles, storage of fuels and lubricants and waste materials; (ii) Number of silt traps installed along	(i)Waste/Spoil management Plan is prepared by the contractors and is appended as Appendix VII ; (ii) Water, Noise and air quality monitoring for the

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
	work scan contaminate nearby surface water quality.	designated disposal areas; (iii) Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies; (iv) Place storage areas for fuels and lubricants away from any drainage leading to water bodies; (v) Dispose any wastes generated by construction activities in designated sites; and (vi) Conduct surface quality inspection according to the Environmental Management Plan (EMP).		drainages leading to water bodies; (iii) Records of surface water quality inspection; (iv) Effectiveness of water management measures; (v) For inland water: suspended solids, oil and grease, biological oxygen demand (BOD), and coliforms.	Gopal nagar site and noise and air quality monitoring for the transmission mains site were carried out by the contractors and the reports for both the contractors are appended as Appendix VIII .
Noise Levels	Increase in noise level due to earth-moving and excavation equipment, and the transportation of equipment, materials ,and people	(i) Plan activities in consultation with PMU/PIU/DSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; (ii) Require horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach; (iii) Minimize noise from construction equipment by using vehicle silencers, fitting jack hammers with noise- reducing mufflers, and portable street barriers the sound impact to surrounding sensitive receptor, and	Construction Contractor	(i) Complaints from sensitive receptors; (ii) Use of silencers in noise -producing equipment and sound barriers; (iii) Equivalent day and night time noise levels	(i) No complaints were received from the sensitive receptors regarding to noise levels. (ii) Noise level monitoring reports for both the contractors are appended as Appendix VIII .

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
		(iv) Maintain maximum sound levels not exceeding 80 decibels (dbA) when measured at a distance of 10 m or more from the vehicle/s.			
Ecological resources – Terrestrial	Felling of the trees – affect terrestrial ecological balance	(i) Minimize removal of vegetation and disallow cutting of trees; (ii) If tree-removal will be required, obtain tree-cutting permit from Municipal Corporation, (iii) Require to plant three (3) native trees for every one (1) that is removed; and (iv) Prohibit employees from poaching wildlife, bird hunting, and cutting of trees for firewood.	Construction Contractor	(i) Complaints from sensitive receptors; (ii) checking of conservation management plan for tree species and aquatic fauna/ animal	(i) Tree felling permissions were obtained for the relevant sites and the permissions are appended as Appendix-IV .
Existing Infrastructure and Facilities	Disruption of service and damage to existing infrastructure at specified project location	(i) Obtain from PMU/PIU/DSC the list of affected utilities and operators if any; (ii) Prepare a contingency plan to include actions to be done in case of unintentional interruption of service	Construction Contractor	Existing Utilities Contingency Plan	Permissions for utility shifting to have been obtained and the payment made by the contractor for the water reservoir package to the APDCL to shift the LT lines is appended as Appendix XIX for the Guwahati water reservoir package.
Landscape and Aesthetics	The presence of heavy duty vehicles and equipment, temporary structures at construction camps, stockpiles, may result in impacts	(i) Storage areas will be properly fenced off. (ii) Prepare and implement Waste Management List; (iii) Avoid stock piling of excess excavated soils;	Construction Contractor	(i) Waste Management List; (ii) Complaints from sensitive receptors; (iii) PMU/PIU/DSC to	(i) Store areas are properly fenced; (ii) Adequate store facilities are provided at the work sites. (iii) No complaints are

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
	on aesthetics and landscape character.	<p>(iv) Coordinate with GMC for beneficial uses of excess excavated soils of about 91889 cum or immediately dispose/ use to designated areas;</p> <p>(v) Recover used oil and lubricants and reuse or remove from the sites;</p> <p>(vi) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas;</p> <p>(vii) Remove all wreckage, rubbish;</p> <p>(viii) Retain mature trees on and around the site where possible;</p> <p>(ix) Cluster construction activities on site on a specific area to avoid "sprawl";</p> <p>(x) Unwanted material and litter will be removed on frequent basis;</p> <p>and</p> <p>(xi) Request PMU/PIU/DSC to report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work.</p>		report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work.	received from sensitive receptors regarding landscape and aesthetics.
Accessibility	Traffic problems and conflicts near project locations and haul road	<p>(i) Plan transport action routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites;</p> <p>(ii) Schedule transport and hauling activities during non- peak hours;</p>	Construction Contractor	<p>(i) Traffic Management Strategy;</p> <p>(ii) Complaints from sensitive receptors;</p> <p>(iii) Number of signage's placed at subproject</p>	DSC and the contractor ensure and implement traffic management measures at the sites and makes sure that the traffic is not significantly impeded during construction period.

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
		(iii) Locate entry and exit points in areas where there is low potential for traffic congestion; (iv) Keep the site free from all unnecessary obstructions; (v) Drive vehicles in a considerate manner; (vi) Coordinate with Guwahati Traffic Office for temporary road diversion and with for provision of traffic aids if transportation activities cannot be avoided during peak hours; (vii) Notify affected sensitive receptors by providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints. (viii) Provide planks across trenches in front of businesses ,and ensure works are completed quickly to avoid disruption, and (ix) Avoid full street closure		location	The traffic management plan is appended as Appendix-IX
Socio-Economic–Income.	Impede the access of residents and customers to nearby shops	(i) Leave spaces for access between mounds of soil; (ii) Provide walk ways and metal sheets where required for people; (iii) Increase workforce in front of critical areas such as institutions, place of worship, business establishment, hospitals, and	Construction Contractor	(i) Complaints from sensitive receptors; (ii) Number of walkways, signages, and metal sheets placed at subproject location.	(i) No complaints are received from sensitive receptors regarding socio-economic income. (ii) Walkways are provided for the people; (iii) Signage boards are provided at all sites.

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
		<p>schools;</p> <p>(iv) Consult businesses and institutions regarding operating hours and factoring this in work schedules; and</p> <p>(v) Provide signboards for pedestrians to inform nature and duration of construction work and contact numbers for concerns/complaints.</p>			
Employment Generation	<ul style="list-style-type: none"> The subproject will provide employment opportunities for local people during construction. Expectations regarding new employment will be high especially among the unemployed individuals in the area. Labourers gathering at the site for work can be a safety and security issue, and must be avoided. The training of unskilled or 	<p>(i) The use of labor intensive construction measures will be used where appropriate;</p> <p>(ii) Employ local (unskilled) labor if possible;</p> <p>(iii) Training of labor to benefit individuals beyond completion of the subproject; and</p> <p>(iv) Recruitment of labors will take place offsite.</p>	Construction Contractor	<p>(i) Employment records;</p> <p>(ii) records of sources of materials</p>	<p>As per the ADB guideline 50% employment opportunity has been given to local people by the contractor in both the sites.</p> <p>Attendance sheets appended as Appendix XX (Guwahati reservoir package) and XXI (Transmission Mains).</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
	previously unemployed persons will add to the skills base of the area.				
Occupational Health and Safety	Occupational hazards which can arise during work	<p>(i) Develop and implement site-specific Health and Safety(H&S) Plan which will include measures such as:(a) excluding public from the site; (b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gumboot, safety belt, gloves, nose musk and earplugs;(c) H&S Training for all site personnel;(d)documented procedures to be followed for all site activities ;and(e) documentation of work-related accidents;</p> <p>(ii) Ensure that qualified first- aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site;</p> <p>(iii) Provide medical insurance coverage for workers;</p> <p>(iv) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(v) Provide supplies of potable drinking water at working sites;</p> <p>(vi)Provide clean eating areas</p>	Construction Contractor	<p>(i) Site-specific Health and Safety(H&S) Plan has been prepared and the control measures are implemented;</p> <p>(ii) Equipped first-aid stations are provided at the operational sites;</p> <p>(iii) Medical insurance coverage for workers have been provided;</p> <p>(iv) Number of accidents are recoded and investigated;</p> <p>(v) Potable drinking water is supplied to the workers;</p> <p>(vi) Clean eating areas where workers are not exposed to hazardous or noxious substances are provided;</p> <p>(vii) Record of H&S orientation trainings are maintained'</p> <p>(viii) personal protective equipment are provided</p>	<p>(i) Site specific health and safety plans have been prepared by the contractors. Appended as Appendix X;</p> <p>(ii) First Aid boxes are provided on the work sites;</p> <p>(iii) Medical insurance coverage is provided for the workers. Appended as Appendix XI;</p> <p>(iv) Accident reports are maintained on sites. Appended as Appendix XV;</p> <p>(v) Potable drinking water is provided to workers at the work sites;</p> <p>(vi) Separate eating areas are provided to the workers at the work sites;</p> <p>(vii) Periodical H&S trainings are provided to workers. Records of trainings conducted during reporting period are appended as Appendix XI.</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
		<p>where workers are not exposed to hazardous or noxious substances; and</p> <p>(vii) Provide H&S orientation training to all new workers to ensure that they are apprised of the basic site rules of work at the site, personal protective protection, and preventing injuring to fellow workers;</p> <p>(viii) Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted;</p> <p>(ix) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(x) Ensure moving equipment is outfitted with audible back- up alarms;</p> <p>(xi) Mark and provide sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to,</p>		<p>and ensured that the workers wear them regularly;</p> <p>(x) Signboards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal.</p>	<p>(viii) Periodic Medical Examinations are conducted for the workers. Same is appended as Appendix XIII.</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
		and easily understood by workers, visitors, and the general public as appropriate; and (xii) Disallow worker exposure to noise level greater than 85 dBA for adoration of more than 8hours per day without hearing protection. The use of hearing protection shall be enforced actively.			
Core Labor Standard (CLS)- safety and compliance	Impact on health of contractor's labor	Monitoring compliance with national labor laws and regulations, provided that these national laws are consistent with CLS. PMU will ensure that bidding and contract documents include specific provisions requiring contractors to comply with all: (i) applicable labor laws and core labor standards on: (a) prohibition of child labor as defined in national legislation for construction and maintenance activities; (b) equal pay for equal work of equal value regardless of gender, ethnicity or caste; and (c) elimination of forced labor; and (ii) the requirement to disseminate information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the project sites.	Construction Contractor	All records, documents related to health & safety of labors are maintained.	(i) Periodic Medical Examinations are conducted for the workers. Same is appended as Appendix XIII . (ii) Accident reports are maintained on sites. Appended as Appendix XV ;
Community Health and Safety.	Traffic accidents and vehicle collision with pedestrians during material and waste transportation	(i) Plan routes to avoid times of peak-pedestrian activities. (ii) Liaise with PMU/PIU/DSC in identifying high-risk areas on route cards/maps.	Construction Contractor	(i) Traffic Management Strategy; (ii) Complaints from sensitive receptors	DSC and the contractor ensure and implement traffic management measures at the sites and makes sure that the traffic

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
		<p>(iii) Maintain regularly the vehicles and use of manufacturer- approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.</p> <p>(iv) Provide road signs and flag persons to warn.</p> <p>(v) Provide protective fencing around open trenches, and cover any open trench with metal planks during non- construction hours. Potentially cause soil contamination;</p> <p>(vi) Recover used oil and lubricants and reuse or remove from the site;</p> <p>(vii) Manage solid waste according to the following preference hierarchy :reuse, recycling and disposal to designated areas;</p> <p>(viii) Remove all wreckage, rubbish, or temporary structures(such as buildings, shelters, and latrines) which are no longer required ;and</p> <p>(ix) Request PMU/PIU/DSC to report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of work.</p>			<p>is not significantly impeded during construction period. Pedestrians are considered during the preparation of the Traffic Management Plan.</p> <p>The traffic management plan is appended as Appendix-IX</p> <p>No complaints have been received from pedestrians.</p>
Office, Work Camps & storage	Temporary air, land and noise pollution from operation of camp & machine, water pollution from	<p>(i) Consult with PIU/ DSC before locating project offices, sheds, and construction plants;</p> <p>(ii) Minimize removal of vegetation and disallow cutting of trees;</p>	Construction Contractor	<p>(i) Complaints from sensitive receptors;</p> <p>(ii) Water and sanitation facilities for employees; and</p>	<p>(i) Site offices are constructed for the Gopal Nagar site and transmission mains.</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
	storage and use of fuels, oils, solvents, and lubricants	(iii) Provide water and sanitation facilities for employees/labors; (iv) Prohibit employees from poaching wildlife and cutting of trees for firewood; (v) Train employees in the storage and handling of materials which can potentially cause soil contamination; (vi) Recover used oil and lubricants and reuse or remove from the site; (vii) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; (viii) Remove all wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required; and (ix) Request DSC/ PIU to report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of work.		(iii)PIU/ DSC report in writing that the camp has been vacated and restored to pre-project conditions.	(ii) Adequate storage areas are provided at the work sites.
Social and Cultural Resources	Risk of archaeological chance finds	(i) Strictly follow the protocol for chance finds in any excavation work; (ii) Request PMU/PIU/DSC or any authorized person with archaeological field training to observe excavation; (iii) Stop work immediately to allow further investigation if any finds are suspected; and	Construction Contractor	Records of chance finds	Not Applicable

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Compliance Status/ Explanation
		(iv) Inform PMU/PIU/DSC if a find is suspected and take any action they require ensuring its removal or protection in situ.			

DSC =Design Supervision Management Consultant, H&S =health and safety, RPM=respirable particulate matter, PMU=Project Management Unit; PIU = Project Implementation Unit; SPM= suspended particulate matter, GMC =Guwahati Municipal Council

V. ENVIRONMENTAL MONITORING AND EVALUATION

19. In addition to desk reviews and site inspections, monitoring of selected environmental parameters have been conducted during the reporting period. The frequencies of the environmental monitoring activities are commensurate to the type and significance of the impacts. For **Project 1** subprojects, the parameters to be monitored are ambient air quality, noise levels and drainage silt.

20. At present only three packages, (AUIIP/PR-01/DIB/DR/01, AUIIP/PR-1/GUW/WS-01 and AUIIP/PR-01/GUW/WS/02A and 02 B is under implementation. During report period both base line and during construction air quality monitoring has been conducted for DTP Drain package. Results show (**Table 12, 13 and 14**) that concentration of SO₂, NO₂ increased during working period. Similarly, concentrations of PM_{2.5} and PM₁₀ during construction are much above the base line level. There is a requirement of stringent application of mitigation measures for control of dust and gaseous emission. In all the cases, concentrations of all parameters are with the prescribed standard. Concentration of lead is always below the detection limit.

Table 12: Ambient Air Quality Monitoring at Different Working Locations, Dibrugarh

Package	Sampling Locations	Implementation Stage	Date of Monitoring	Monitoring parameters				
				SO ₂ µg/m ³	NO ₂ µg/m ³	PM _{2.5} µg/m ³	PM ₁₀ µg/m ³	Lead (Pb) µg/m ³
AUIIP/PR-01/DIB/DR/01	Drain construction site, chainage 0.0 km	Base line	03.11.2015	ND	ND	8.94	21.57	ND
	Drain construction site, chainage 4.5 km	Base line	03.11.2015	ND	ND	4.86	15.29	ND
	Drain construction site, chainage 5.5 km	Base line	03.11.2015	ND	ND	10.72	27.64	ND
	Drain construction site, chainage 7.5 km	Base line	03.11.2015	ND	ND	4.31	14.57	ND
	Drain construction site, chainage 9.5 km	Base line	03.11.2015	ND	ND	11.57	28.19	ND
	Pre-Cast Casting Site Lepetkata Dibrugarh	Base line	03.11.2015	ND	ND	12.64	27.41	ND
		Average		ND	ND	8.84	22.44	ND
	Drainage construction site, Paltan Bazar 0 chainage	Construction stage*	21.11.2016	ND	ND	12.62	28.49	ND
	Drainage construction site, Paltan Bazar 0 chainage	Construction stage*	21.11.2016	ND	ND	31.7	69.3	ND
	Drainage construction site, Platen Bazar 0 chainage	Construction stage*	21.11.2016	ND	ND	12.62	28.49	ND

Package	Sampling Locations	Implementation Stage	Date of Monitoring	Monitoring parameters				
				SO ₂ µg/m ³	NO ₂ µg/m ³	PM _{2.5} µg/m ³	PM ₁₀ µg/m ³	Lead (Pb) µg/m ³
		Average		ND	ND	29.78	69.08	ND
	Standard as per CPCB			80.0	80.0	60.0	100.0	1.0

Note: CPCB - Central Pollution Control Board, ND- Not detected

21. Base line and during construction monitoring as conducted at different sites for the package **AUIIP/PR-01/DIB/DR/01** indicates that base line noise level is within the CPCB standard but construction phase noise are mostly above the standard for residential and commercial areas. Mitigation measures need to be applied for control of noise level within the standard.

22. The next environmental monitoring activities are scheduled in Oct/Nov 2017 to measure air quality, noise level and drainage silt. The cost of the environmental monitoring is charged to the funds of contractor (Ref. Monitoring budget disclosed in **Appendix 3**).

23. Parameters of drainage silt are within the normal range.

24. **Appendix 9** shows scanned copy of air quality, noise level and **Appendix 8** shows drainage silt and waste water testing results.

Table 13: Noise Level Monitoring at Different Working Locations

Packages	Sampling Locations	Implementation Stage	Date of Monitoring	Day time Max.	Day time Min.	Day Time Leq dB(A)	Night time Max.	Night time Min.	Night Time Leq dB(A)
AUIIP/PR-01/DIB/DR/01	Drain construction site, chainage 0.0 km	Base line	04.11.2015	70	58	50	50	40	45
	Drain construction site, chainage 4.5 km	Base line	04.11.2015	50	40	38	40	36	30
	Drain construction site, chainage 5.5 km	Base line	04.11.2015	55	38	45	43	30	28
	Drain construction site, chainage 7.5 km	Base line	04.11.2015	40	30	32	34	28	25
	Drain construction site, chainage 9.5 km	Base line	04.11.2015	50	32	40	40	28	30
	Pre-Cast Casting Site	Base line	04.11.2015	60	42	51	35	30	24

Packages	Sampling Locations	Implementation Stage	Date of Monitoring	Day time Max.	Day time Min.	Day Time Leq dB(A)	Night time Max.	Night time Min.	Night Time Leq dB(A)
	Lepetkata Dibrugarh								
		Average		70	30	43	50	28	30
	KKSP Casting yard and Diesel Generator site, Lepetikata,	Construction stage*	26.11.2016	42	33	39	43	31	35
	KKSP Casting yard and Diesel Generator site, Lepetikata (near by residence)	Construction stage*	26.11.2016	44	35	41	51	33	39
	Drain construction site 0, chainage (paltan bazaar)	Construction stage*	26.11.2016	50	38	30	70	54	64
		Average		45	35	35	50	40	50
	CPCB Standards-Silence					50			40
	CPCB Standards-Residential					55			45
	CPCB Standards-Commercial					65			55
	CPCB Standards-Industrial					75			70

CPCB - Central Pollution Control Board)

25. A performance monitoring fact sheet has been prepared to facilitate tracking and quick reference on environmental monitoring of Project 1 subproject packages (**Tables 16 and 17**).

Note- From January to June 2017, Contractor did not conduct any air, water and noise testing at the construction site due to internal management problem. Proper instruction has been given to contractor to do the test within 15th September 2017.

26. Base line and during construction monitoring as conducted at different sites for the package AU/PR-01/GUW/WS-02A/02B indicates that base line noise level is within the

CPCB standard but construction phase noise are mostly above the standard for residential and commercial areas. Mitigation measures need to be applied for control of noise level within the standard. The next environmental monitoring activities are scheduled on Oct/Nov 2017 to measure air quality, noise level and drainage silt. The cost of the environmental monitoring is charged to the funds of contractor (Ref. Monitoring budget disclosed in Appendix 3). Parameters of drainage silt are within the normal range. There is no significant difference between base line and construction period

27. Appendix 9 shows scanned copy of air quality, noise level and Appendix 8 shows drainage silt and waste water testing results.

Table 14: Ambient Air and Noise Quality Monitoring at Different Working Locations, Guwahati, Water Supply.

Package	Sampling Locations	Implementation Stage	Date of Monitoring	Monitoring parameters				
				SO ₂ µg/m ³	NO ₂ µg/m ³	PM _{2.5} µg/m ³	PM ₁₀ µg/m ³	Lead (Pb) µg/m ³
AUIIP/PR-1/GUW/WS-02A and 02B	Gopal Nagar	Base line	04.11.2016 & 05.11.2016	6	14	41	70	<0.01
	North Joyti Nagar	Base line	28.12.2016 & 29.12.2016	7	14	36	70	<0.01
	Kenduguri,	Base line	29.12.2016 & 30.12.2016	9	17	39	79	<0.01
	Nabajyoti Nagar	Base line	29.12.2016 & 30.12.2016	9	17	34	69	<0.01
	Hengrabari	Base line	28.12.2016 & 29.12.2016	8	15	38	74	<0.01
	Standard as per CPCB			80.0	80.0	60.0	100.0	1.0

Package	Sampling Locations	Implementation Stage	Date of Monitoring	Monitoring parameters				
				SO ₂ µg/m ³	NO ₂ µg/m ³	PM _{2.5} µg/m ³	PM ₁₀ µg/m ³	Lead (Pb) µg/m ³
AUIIP/PR-1/GUW/WS-02A and 02B	Gopal Nagar	Construction period	22.05.2017 & 19.05.2017	12	20	39	71	<0.01
	North Joyti Nagar	Construction period	05.05.2017 & 19.05.2017	8	18	33	79	<0.01
	Kenduguri,	Construction period	22.05.2017 & 19.05.2017	9	17	39	79	<0.01
	Nabajyoti Nagar	Construction period	22.05.2017 & 19.05.2017	9	17	34	69	<0.01
	Hengrabari	Construction period	22.05.2017 & 19.05.2017	7	16	39	77	<0.01
	Standard as per CPCB			80.0	80.0	60.0	100.0	1.0

Table 15: Ambient Noise Quality Monitoring at Different Working Locations, Guwahati, Water Supply

Packages	Sampling Locations	Implementation Stage	Date of Monitoring	Day time Max.	Day time Min.	Day Time Leq dB(A)	Night time Max.	Night time Min.	Night Time Leq dB(A)
AUIIP/PR-1/GUW/WS-2A and 02B	Gopal Nagar	Base line	04.11..2016	66.2	55.6	65	44.6	40.3	55
	North Joyti Nagar	Base line	28.12.2016	48.3	35.35	65	36.8	30.34	55
	Kenduguri,	Base line	29.12.2016	46.5	35.6	65	33.5	30.12	55
	Nabajyoti Nagar	Base line	29.12.2016	48.3	30.5	65	36.8	32.5	55
	Hengrabari	Base line	28.12.2016	47.4	40.5	65	34.8	30..5	55

Packages	Sampling Locations	Implementation Stage	Date of Monitoring	Day time Max.	Day time Min.	Day Time Leq dB(A)	Night time Max.	Night time Min.	Night Time Leq dB(A)
AUIIP/PR-1/GUW/WS-2A and 02B	Gopal Nagar	Construction period	05.05.2017& 22.05.2017	65.2	54.6	65	44.6	40.3	55
	North Joyti Nagar	Construction period	05.05.2017& 22.05.2017	47.8	33.9	65	36.8	30.34	55
	Kenduguri,	Construction period	05.05.2017& 22.05.2017	45.5	34.6	65	33.5	30.12	55
	Nabajyoti Nagar	Construction period	05.05.2017& 22.05.2017	47.3	31.5	65	36.8	32.5	55
	Hengrabari	Construction period	05.05.2017& 22.05.2017	46.4	38.5	65	34.8	30..5	55

28. Base line and during construction monitoring as conducted at different sites for the package AUIP/PR-01/GUW/WS-01 indicates that base line noise level is within the CPCB standard but construction phase noise are mostly above the standard for residential and commercial areas. Mitigation measures need to be applied for control of noise level within the standard. The next environmental monitoring activities are scheduled on October/November 2017 to measure air quality, noise level and drainage silt. The cost of the environmental monitoring is charged to the funds of contractor (Ref. Monitoring budget disclosed in Appendix 3).Parameters of drainage silt are within the normal range.

Appendix 8 shows scanned copy of air quality, noise level testing results.

Table 16 Ambient Noise Quality Monitoring at Different Working Locations, Guwahati, Transmission line

Packages	Sampling Locations	Implementation Stage	Date of Monitoring	Day time Max.	Day time Min.	Day Time Leq dB(A)	Night time Max.	Night time Min.	Night Time Leq dB(A)
AUIP/PR-1/GUW/WS-01	Work site, in front of Hindustan College, VIP road Guwahati (Assam)	Base line	30.01.2017	53	41	65	44.6	40.3	55
	Work site, Near Noonmati Sector-1, near Refinery Guwahati GPS location : N26°10.838"E091°48.605"	Base line	01.03.2017	68	57	65	36.8	30.34	55

Table 17: Ambient Air Quality Monitoring at Different Working Locations, Guwahati, Transmission Line

Package	Sampling Locations	Implementation Stage	Date of Monitoring	Monitoring parameters				
				SO ₂ µg/m ³	NO ₂ µg/m ³	PM _{2.5} µg/m ³	PM ₁₀ µg/m ³	Lead (Pb) µg/m ³
AUIIP/PR-1/GUW/WS-01	Work site, Near Noonmati Sector-1, near Refinery Guwahati GPS location : N26°10.838"E 091°48.605"	Base line	27.02.2017	14	40	90	49	
	Work site, in front of Hindustan College, VIP road Guwahati GPS location : N26°09.800"E 091°49.445"	Base line	30.01.2017	12	32	88	48	
	Standard as per CPCB			80.0	80.0	60.0	100.0	1.0

Table 18: Performance Fact Sheet for Required Environmental Consents/Clearances of AUIP Project 1 (Package-wise)

	Package Number	Name of Contractor	EMP Part of contract Document(Yes / No)	Environmental Consents / Clearances Required					
				Tree Cutting	Crusher	Batching Plant	Hot Mix Plant	Diesel Generator Set	Pollution Under Control (PUC) Certificates for Contractor's Vehicles
1	AUIP/PR-1/GUW/WS/01	Procured and awarded to M/s. IVRCL Ltd. on 29/05/2014 and subsequently terminated on 07.12.2015 for non-performance. After rebidding of the package, M/s Tirupati Cements have been selected as L1 bidder. Contract agreement signed. LOA issued on 30.08.2016.Preliminary work in progress	Yes	-	-	-	-	-	-
2-3	AUIP/PR-1/GUW/WS/02A & 02B	M/S Shivam Transcon Pvt Ltd	Yes	-	-	-	-	-	-

4	AUIIP/PR-1/DIB/DR-01	M/s CORSAN CORVIAM CONSTRUCCION S.A.	Yes	Tree felling permission received and tree felling done mostly	Instruction given for collection from suppliers Crusher plant - Not yet required	Constructed CTE received from Pollution control board. Also CTO received from pollution control board	NR as per present work	CTO received from pollution control board	Collected mostly
5	AUIIP/PR-1/DIB/SWM-01A	Contract awarded but Work not started							
6	AUIIP/PR-1/DIB/SWM-01B	Contract awarded but Work not started							
7	AUIIP/PR-1/DIB/SWM-02	Contract is yet to be awarded .							

Table 19: Performance Fact Sheet for EMP Implementation of AUIIP Project 1 (Package-wise)

Table for Performance Part Sheet for EMP Implementation of New Project (Package wise)																		
	Package Number	Name of Contractor	EMP Part of contract Document(Yes / No)	Contract or Social/ Environment Person ⁷	Overall Status of EMP Implementation	Field to be Monitored as per EMP												
						Source of Materials	Camp Sites	Landscape and Aesthetics	Air Quality	Noise Level	Traffic	Ecological Resources –	Accessibility	Water Quality	Occupational Health & Safety	Community Health & Safety	Socio cultural resources	Employment Generation
						In compliance (2) / Partial Compliance (1) / Not in compliance (0) / Not applicable (n/a)												
1	AUIIP/PR-1/GUW/WS/01	Procured and awarded to M/s. IVRCL Ltd. on 29/05/2014 and subsequently terminated on 07.12.2015 for non-performance. After rebidding of the package, M/s Tirupati Cements have been selected as L1 bidder. Contract agreement signed. LOA issued on 30.08.2016.Preliminary work in progress	Yes															
2-3	AUIIP/PR-1/GUW/WS/02A & 02B	M/S Shivam Transcon Pvt Ltd	Yes															
4	AUIIP/PR-1/DIB/DR-01	M/s Corsan Corviam Construction S.A.	Yes	Yes	Complied	2	2	2	2	2	n/a	2	2	n/a	1	1	n/a	2
5	AUIIP/PR-1/DIB/SWM-01A	Work not awarded																
6	AUIIP/PR-1/DIB/SWM-01B	Work not awarded																
7	AUIIP/PR-1/DIB/SWM-02	Work not awarded																

{Note calculation of numerical value for determining performance status- Calculation is based on addition of numerical value like below-

Package - AUIIP/PR-1/DIB/DR/01= Total score- 2+2+2+2+2+2+2+1+1+2= 18. Number of working field=18, **Then- 18/10=1.8- More than 1.5, fully complied**

Package AUIIP/PR-1/GUW/WS/02A AND 02B= Total score- 2+2+2+2+2+2+2+1+1+2= 18. Number of working field=18, **Then- 18/10=1.8- More than 1.5, fully complied**

⁷Nomination of Environmental & Social Safeguard Officer by Contractor(Nominated / Yet to be Nominated)

VI. CONSULTATIONS AND DISCLOSURES CONDUCTED

29. As per approved IEE, consultations and disclosure will be a continuous process throughout Project 1 implementation involving public consultations and focus group discussions. Regular tool box training for labourer has been conducted for the Transmission line at Guwahati package and Guwahati Water supply. **But there is no training programme conducted at Dibrugarh site. Appendix 12** shows some sample tool box training record for labourer. Also health camp and HIV/ AIDS awareness camp have been organized by the contractor for the labourers. Documents are also attached in **Appendix 12**.

30. The indicative schedule for consultations and disclosure is presented in **Table 18. Appendix 16** provides the sample public consultation detail. Before starting of the work at a specific locations information is provided by the construction staff to the locals about the duration and type of work. The sample documentation is attached as **Appendix 17**.

Table 20: Indicative Schedule for Consultations and Disclosure

Type of Consultation/Disclosure	Target Date	Location	Target Participants	Responsible Person and Source of Funds
Community Consultation, FGD, Perception survey.	2 consultations bi-monthly	Dibrugarh	Community, Ward Members, Councillors Related departments. CBOs	Safeguard Specialist Environment & Social (PMC&DSC) Safeguard Compliance Officer (PMU), Construction Manager ,DSC
Community Consultation, FGD, Perception survey.	2 consultations bi-monthly	Guwahati, water supply site	Community, Ward Members, Councillors Related departments. CBOs	Safeguard Specialist Environment & Social (PMC&DSC) Safeguard Compliance Officer (PMU), Construction Manager ,DSC
Community Consultation, FGD, Perception survey.	2 consultations bi-monthly	Guwahati, Transmission site	Community, Ward Members, Councillors Related departments. CBOs	Safeguard Specialist Environment & Social (PMC&DSC) Safeguard Compliance Officer (PMU), Construction Manager ,DSC

VII. GRIEVANCE REDRESS MECHANISM

31. As per approved IEE, a project-specific grievance redress mechanism (GRM) to be established to receive, evaluate and facilitate the resolution of affected people's concerns, complaints and grievances about the social and environmental performance at the level of the Project. The GRM will aim to provide a time-bound and transparent mechanism to voice and resolve social and environmental concerns linked to the project. The project-specific GRM is not intended to bypass the government's own redress process; rather it is intended to address affected people's concerns and complaints promptly, making it readily accessible to all segments of the affected people and is scaled to the risks and impacts of the project.

32. The PMU and PIUs will make the public aware of the GRM through public awareness campaigns. Grievances can be filed in writing using the Complaint Register and Complaint Form (**Appendix 18 and Xviii**) or by phone with any member of the PMU or PIU. The contact phone number of the respective PIUs and the PMU will serve as a hotline for complaints and will be publicized through the media and placed on notice boards outside their offices and at construction sites.

33. GRM and GRC for Guwahati and Dibrugarh have been established.

VIII. FINDINGS AND RECOMMENDATIONS

34. Based on environmental monitoring conducted during July to December 2016. AUIIP Project 1(Dibrugarh) is in compliance of environmental safeguards. The main partial-compliances include:

- Proper signages/information board at drainage worksite.
- Need to improve use of PPE by contractor's workers at all times.
- Need of properly barricade at worksite along the drain and excavated area
- Regular air and noise quality monitoring

35. Based on environmental monitoring conducted during July to December 2016. AUIIP Project 1(Guwahati) is in compliance of environmental safeguards. The main partial-compliances include:

- Proper signages/information board at drainage worksite.
- Need to improve use of PPE by contractor's workers at all times.
- Need of properly barricade at worksite along the drain and excavated area
- Regular air and noise quality monitoring
- Need to put GRC mechanism at the site
- Improve sanitation facility for labourer

Table 21: Corrective Action Plan (Dibrugarh, DTP drain)

	Non-compliance	Action Required	Responsible	Target Date	Indicator of Compliance
1.	Insufficient signages/information board at drainage worksite.	Sign board needs to be arrange at all working locations	Contractor	15 th September 2017	Site observation
2	Need to improve use of PPE by contractor's workers at all times.	Use of PPE should be at all times as per site condition and work type.	Contractor	15 th September 2017 and continued	Availability and use of PPE
3.	Need of properly barricade and use of caution tape at all worksite along the drain and excavated area	Complete barricading and complete use of caution tape at all working sites	Contractor	15 th September 2017	Site observation
4	Regular air and noise quality monitoring	Monitoring should be done as per EMP	Contractor	15 th September 2017	Observation and document checking
5	Solid-waste management at the work site	Monitoring should be done as per EMP	Contractor	15 th September 2017	

Table 22: Corrective Action Plan (Guwahati, Water supply)

	Non-compliance	Action Required	Responsible	Target Date	Indicator of Compliance
1.	Insufficient signages/information board at drainage worksite.	Sign board needs to be arrange at all working locations	Contractor	15 th September 2017	Site observation
2	Need to improve use of PPE by contractor's workers at all times.	Use of PPE should be at all times as per site condition and work type.	Contractor	15 th September 2017 and continued	Availability and use of PPE
3.	Need of properly barricade and use of caution tape at all worksite along the drain and excavated area	Complete barricading and complete use of caution tape at all working sites	Contractor	15 th September 2017	Site observation

	Non-compliance	Action Required	Responsible	Target Date	Indicator of Compliance
4	Regular air and noise quality monitoring	Monitoring should be done as per EMP	Contractor	To be continued as per EMP	Observation and document checking
5	Need to put GRC mechanism at the site	Display of Grievance board at the site	Contractor	15 th September 2017	Site observation
6	Improve sanitation facility for labourer	Stay arrangement and drinking water facility need to improve	Contractor	15 th September 2017	Site observation

Table 23: Corrective Action Plan (Guwahati, Transmission Line)

	Non-compliance	Action Required	Responsible	Target Date	Indicator of Compliance
1	Need to improve use of PPE by contractor's workers at all times.	Use of PPE should be at all times as per site condition and work type.	Contractor	15 th September 2017 and continued	Availability and use of PPE
2	Regular air and noise quality monitoring	Monitoring should be done as per EMP	Contractor	To be continued as per EMP	Observation and document checking
3	Need to put GRC mechanism at the site	Display of Grievance board at the site	Contractor	15 th September 2017	Site observation
4	Improve sanitation facility for labourer	Stay arrangement and drinking water facility need to improve	Contractor	15 th September 2017	Site observation

The programme will help the state to achieve the Millennium development Goals on environment Goals on Environmental sustainability and increase access to safe drinking water and basic sanitation. Through improved sewerage systems, the risk of severe flooding and drainage pollution in the project area will considerably reduce. This coupled with the state's strategic position will encourage greater business opportunities and enhance greater regional cooperation.

APPENDIX-GUWAHATI

M/S Tirupati Cement Products, Guwahati

[illegible]

Appendix- II

Photo Album

PHOTOLOG OF TRANSMISSION MAIN SITE

Description with location and date	Photo No. 1
30 th Jan, 2017 VIP Road Inauguration of pipe laying work	
Description with location and date	Photo No. 2
30 th Jan, 2017 VIP Road Inauguration of pipe laying work	
Description with location and date	Photo No. 3
2 nd Feb, 2017 VIP Road Pipe laying work in progress	

PHOTOLOG OF TRANSMISSION MAIN SITE

Description with location and date	Photo No. 4
<p>5th Feb, 2017</p> <p>VIP Road</p> <p>Road cleaning work</p>	
Description with location and date	Photo No. 5
<p>8th Feb, 2017</p> <p>VIP Road</p> <p>Water sprinkling to avoid dust</p>	
Description with location and date	Photo No. 6
<p>13th Feb, 2017</p> <p>VIP Road</p> <p>Lowering of 1200 mm dia pipe in the trench</p>	



PHOTOLOG OF TRANSMISSION MAIN SITE

Description with location and date	Photo No. 7
<p>30th Jan, 2017</p> <p>VIP Road</p> <p>Environmental data Collection</p>	
Description with location and date	Photo No. 8
<p>15th Feb, 2017</p> <p>VIP Road</p> <p>Welding Work in progress</p>	
Description with location and date	Photo No. 9
<p>18th Feb, 2017</p> <p>VIP Road</p> <p>External Coating work in progress</p>	




PHOTOLOG OF TRANSMISSION MAIN SITE

Description with location and date	Photo No. 10
<p>19th Feb, 2017</p> <p>VIP Road</p> <p>Sand bedding Under the pipe</p>	
Description with location and date	Photo No. 11
<p>6th Feb, 2017</p> <p>VIP Road</p> <p>Grinding of pipe edge before welding</p>	
Description with location and date	Photo No. 12
<p>11th Feb, 2017</p> <p>VIP Road</p> <p>Pipe lowering in pit</p>	

PHOTOLOG OF TRANSMISSION MAIN SITE

Description with location & date	Photo No. 13
<p>20th Feb, 2017</p> <p>VIP Road</p> <p>Sealing off ends of pipe line</p>	
Description with location & date	Photo No. 14
<p>1st Feb, 2017</p> <p>VIP Road</p> <p>Site inspection by PIU</p>	
Description with location & date	Photo No. 15
<p>12th Feb, 2017</p> <p>VIP Road</p> <p>Temporary restoration after pipe laying</p>	

PHOTOLOG OF TRANSMISSION MAIN SITE

Description with location & date	Photo No. 16
<p>20th Mar, 2017</p> <p>Noonmati</p> <p>Sealing off ends of pipe line</p>	
Description with location & date	Photo No. 17
<p>25th Mar, 2017</p> <p>Noonmati</p> <p>Excess earth disposal</p>	
Description with location & date	Photo No. 18
<p>30th Mar, 2017</p> <p>VIP Road</p> <p>Thrust Block Work</p>	

PHOTOLOG OF TRANSMISSION MAIN SITE

Description with location & date	Photo No. 19
<p>2nd Mar, 2017</p> <p>Noonmati</p> <p>Pipe installation Work</p>	
Description with location & date	Photo No. 20
<p>16th Mar, 2017</p> <p>Noonmati</p> <p>Pipe installation at turning</p>	
Description with location & date	Photo No. 21
<p>16th Mar, 2017</p> <p>VIP Road</p> <p>Slab Work</p>	

PHOTOLOG OF TRANSMISSION MAIN SITE

Description with location & date	Photo No. 22
<p>24th Apr, 2017</p> <p>Noonmati</p> <p>Excavation work for pipe near petrol pump</p>	
Description with location & date	Photo No. 23
<p>26th Apr, 2017</p> <p>Noonmati</p> <p>Sand bedding</p>	
Description with location & date	Photo No. 24
<p>28th Apr, 2017</p> <p>Noonmati</p> <p>Welding works</p>	

PHOTOLOG OF TRANSMISSION MAIN SITE

Description with location & date	Photo No. 25
<p>5th May, 2017</p> <p>Noonmati</p> <p>Dry penetration Test</p>	
Description with location & date	Photo No. 26
<p>5th May, 2017</p> <p>Noonmati</p> <p>Dry penetration Test</p> <p>Application of developer</p>	
Description with location & date	Photo No. 27
<p>10th May, 2017</p> <p>Noonmati</p> <p>Sealing off ends</p>	

BUDGET – ENVIRONMENT, HEALTH & SAFETY

TIRUPATI CEMENT PRODUCTS

SAFETY BUDGET

Period : 01-01-2017 to 31-12-17

Assam urban infrasture investment Program

Contract Package : Construction of Water Supply Transmission Main Pipelines and Allied Works in Guwahati

S.No.	Item	Unit	Quantity	Rate in INR	Cost Estimate
1	safety helmet white	Nos	10	185	1850
2	safety helmet yellow	Nos	100	185	18500
3	safety helmet green	Nos	2	185	370
4	helmet ring	Nos	200	35	7000
5	safety shoes for staff	Pair	10	1200	12000
6	safety shoes for labour	Pair	60	550	33000
7	gun boot	Pair	30	350	10500
8	safety goggle White glass	Nos	30	90	2700
9	Safety Goggle Black Glass	Nos	30	90	2700
10	Ear Plug Foam Based	Nos	100	15	1500
11	Noise Mask	Nos	100	12	1200
12	Hand Gloves Rubber	Pair	100	30	3000
13	Hand Gloves Cotton	Pair	100	23	2300
14	Hand Gloves Leather	Pair	200	60	12000
15	Full Body Harness	Nos	10	2100	21000
16	Reflecting Jacket Green	Nos	100	80	8000
17	Reflecting Jacket Orange	Nos	100	80	8000
18	Helmet Sticker	Nos	150	2	300
19	Safety Display Banners	Nos	5	550	2750
20	Safety Sign Board	Nos	100	3500	350000
21	Fire Extinguisher-DCP	Nos	4	8500	34000
22	Refilling Charge	Nos	4	2500	10000
23	Rope For Materials Shifting	Rg	50	250	12500
24	Barricading Tape	Roll	50	300	15000
25	25MM PP Rope For Lifting	Kg	80	220	6600
26	Salary For Safety Officer	INR	28000	12	336000
27	Motivation & Awards	Nos	4	10000	40000
28	First aid Inam	Nos	4	5000	20000
29	Safety Tool & Tackles Inspection (TW)	Nos	2	4000	8000
30	Pollution Test	Nos	4	8000	32000
31	Other Emergency Situations	Nos	1	150000	150000
TOTAL					1164370

Prepared By
UB Yadav (HSE Officer)Approved By
Chairman Assam (PHE)

NOC FROM DIFFERENT DEPARTMENTS AND INDIVIDUAL

Certificate for Land Possession

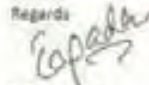
NO OBJECTION CERTIFICATE

To whomsoever it may concern

This is hereby stated that M/S Tirupati Cement Products have rented my open land located at VIP Road, in front of Hindustan College, to be used as stock yard.

I am here by allowing them to dispose excess available earth in my land.

Regards



A.S. Tagader
(Land Lord)





Govt. of Assam

Office of the Executive Engineer, PWD(R), Guwahati City Division No-II, Guwahati-21

No: Commn-173/2016-17/423

Dtd: 04/02/2017

To,

R C Asthana (Team Leader), DSC, AUIP,
Shah Technical Consultants Private Limited,
3rd Floor, Tripti Tower, Ganeshguri

Sub: Permission for Laying of Transmission Water Supply Pipe Line (Contract Package No -
AUIP/PR-1/Guw/WS/01)

Ref: No.STC/AUIP/DSC/1691/, D dated: 08/09/2016 from R.C. Asthana (Team Leader), DSC,
AUIP,

Sir,

As per joint verification and its subsequent minutes of meeting held in the conference Hall of Guwahati Development Department in connection with road restoration, R.O.W & Pipe Line Crossing for JNNURM, JICA and ADB Water Supply Projects on 21.01.2017 permission / NOC is hereby accorded subject to the following terms & conditions. This permission is admissible only for those roads falling under the jurisdiction of the office of the Executive Engineer, PWRD Guwahati City Division No-II.

Terms and condition :

1. The water pipe laying works should be started and carried out in consultation with the Assistant Executive Engineer, City Sub Division No-III (Mobile No. 9864046189) Guwahati-21& City Sub Division No-IV (Mobile No-9435146260) and the agency (Shah Technical Consultants Private Limited) must ensure safety of PWD assets and must enforce the condition of this permission from commencement to completion of pipe laying work.
2. The water pipe laying agency will have to carry out the restoration works of all the roads damaged due to laying of the water pipe laying work as per PWD standards and specification to bring the road surfaces to the pre excavated condition without any delay immediately after their completion of water pipe laying process and must abide by the all terms and condition (Resolution No.1, 2 & 3) incorporated in the minutes of the meeting held among Commissioner & Secretary GDD, Commissioner & Spl. Secretary, PWRD, Commissioner & Spl. Secretary, NH & Buiding, CEO, GMDA & Officers of other Authorities etc.
3. Authorized Officer of agency (Shah Technical Consultants Private Limited) must formally acknowledge the receipt of this permission letter and they will have to abide by all conditions entered in this permission letter.
4. Any suggestion regarding cutting of PWD Road and hard crust and any modification in connection with the proposed water pipe laying work will have to be strictly followed.
5. Necessary sign and cautionary board will have to be displayed from your end during execution of water pipe laying work. For this purpose fluorescent signage shall have to be displayed with proper barricades, ribbons etc. for easy visibility during night with view to avoiding any untoward accident.
6. There shall not be any disturbance in movement of vehicular traffic as well as pedestrians during the water pipe laying process.
7. Construction materials must not be dumped within the Right of Way of PWD land.

8. The agency (Shah Technical Consultants Private Limited) shall have to shift the laid pipes during future widening/development of the roads at their own cost as and when requested by PWRD, within a time frame given by PWRD.
9. The agency (Shah Technical Consultants Private Limited) must ensure safety and security of existing all other underground installations/utilities/facilities including OIL Pipe line in some places and shall be solely responsible for compensation / indemnification to the concerned authority for damage caused /claims or replacement sought for at the cost of and risk of the water pipe laying agency.
10. Report-regarding actual date of Commencement of Work must be submitted to the undersigned and you're the contractor M/S Tirupati Cement awarded by your end must carry out the works without at all lapse of time between excavation and restoration works to avoid any disruption of road users..
11. The laying works to be carried out with prior intimation to the nearest Police Station to get rid of traffic hazard.
12. The stipulated time of completion is 2 (Two) months from the date of issue of this letter and the permission granted shall stand terminated at the end of 2(Two) months. The term will be extended after further approval of Departmental higher authority.
14. PWRD reserves the right to cancel the permission granted for breach of any of the aforementioned conditions and the conditions entered in the minutes of meeting. also reserves the right to impose further condition(s) in the interest of safe condition of roads, safety of pedestrians and vehicular traffic.

This is for favour of your kind information and necessary action.

Yours faithfully,

(Er. Sanjiv Shyam)

Executive Engineer, PWD(R)
Guwahati City Division No-II

Guwahati-21

Memo No

Copy to :

1. The P.S. to the Commissioner & Secretary Guwahati Development Department for favour of kind appraisal to the Commissioner & Secretary.
2. P.S to the Commissioner & Spl. Secretary to the Govt. of Assam, PWRD, Dispur Guwahati-6 for favor of kind appraisal to the Commissioner & Spl. Secretary.
3. The P.S to the Commissioner & Secretary to the Govt. of Assam, GDD, Dispur Guwahati-6 for favor of kind appraisal to the Commissioner & Secretary.
4. The Chief Engineer, PWRD, Assam, Chandmari, Guwahati-3 for favour of kind information.
5. The Superintending Engineer, PWD(R), Guwahati ARIASP Circle, Guwahati-3 for favour of kind information.
6. The Project Director, AUIP for information & necessary action.
7. The Asstt. Executive Engineer, PWD(R), Guwahati City Sub Division No - III & City Sub Division No-IV Guwahati-21 for information and necessary action..

(Er. Sanjiv Shyam)

Executive Engineer, PWD(R)
Guwahati City Division No-II

Guwahati 21

অসম চৰকাৰ



GOVERNMENT OF ASSAM

OFFICE OF THE DISTRICT MAGISTRATE, KAMRUP METROPOLITAN DISTRICT::GUWAHATI
(MAGISTERIAL BRANCH)



Telephone – 0361-2540149

Fax – 0361-2544452

E-mail – kamrupmetro@nic.in

Web Site – www.kamrupmetro.nic.in

ORDER

Seen and perused the application submitted by the Project Director, Assam Urban Infrastructure Investment Program, 3rd Floor, Tripti Tower, Ganeshguri, Guwahati vide No ADB/AUIIP/TRM Mains/144/2016/326 dated 22/05/2017 requesting permission to excavation and laying of MS Pipes.

Accordingly, permission is hereby accorded to the Project Director, Assam Urban Infrastructure Investment Program, 3rd Floor, Tripti Tower, Ganeshguri, Guwahati for a period of 30 (thirty) days with effect from the date of issue of this order for excavation/digging to lay pipes from Refinery Gate to Chuasali to implement the South East Guwahati Water Supply Project on the following terms and conditions and subject to the condition that there is no violation of the provisions of the Hill Cutting Act or any other Law in force-

- 1) Only excavation and digging is allowed to lay MS Pipes.
- 2) Removal of excess earth shall not be undertaken by the organizer during rainy weather.
- 3) The C.O., Guwahati Revenue circle and D.F.O Kamrup East Division will supervise and monitor the day to day work and will ensure that the work is done properly. He will submit the exact date of starting the work, quantity of earth excavated per day to Deputy Commissioner, Kamrup Metropolitan every day. Any violation of the conditions should be immediately reported ;
- 4) Petitioner shall strictly and scrupulously ensure environmental concerns and follows the Provisions of the Assam Hills and Ecological Site (Protection Management) Act 2006.
- 5) The Project Director shall ensure that no property Govt or private is damaged during the work.
- 6) The Project Director shall ensure that no any emergency eventuality happens due to the excavation of the soil like landslides and other related disaster.

Permission will be withdrawn at any time on violation of conditions and/or receipt of any complaint from any corner .

This has the approval of the Deputy Commissioner Kamrup Metropolitan District in File No KMJ 62/2017 dated 02/06/2017.

Addl. Deputy Commissioner,
Kamrup Metropolitan District, Guwahati

Memo No. KMJ 62/2017/ 14 /1681

Dated : 15 /06/2017

Copy to-

- 1) The Commissioner of Police, Guwahati, Assam, for favour of information.
- 2) The Project Director, Assam Urban Infrastructure Investment Program, 3rd Floor, Tripti Tower, Ganeshguri, Guwahati for favour of information.
- 3) The Circle Officer Guwahati Revenue Circle.
- 4) The Divisional Forest Officer Kamrup East Division, Guwahati for information and necessary action.
- 5) The O/C Noonmati Police Station.
- 6) P.A. to D.C. for appraisal of the Deputy Commissioner Kamrup Metropolitan District, Guwahati

copy received
15/6/17



Addl. Deputy Commissioner,
Kamrup Metropolitan District, Guwahati
Addl. Deputy Commissioner
Kamrup Metropolitan District
Guwahati

Land Possession agreement with Railway

N. F. Railway

Office of the
Sr. Divisional Engineer/Co-Ord.
Maligaon, Guwahati-11

No. W/214/Way leave/G/AUIIP **11286**

Date: 11.01.2017

To
The Project Director,
Assam Urban Infrastructure Investment Programme (AUIIP)
Ganeshgun, Guwahati-5

Sub:- Way leave facility for laying and underground crossing of Rly. track by 1300mm and 500mm dia water supply pipeline at KM 16.3 to 17.98 of GHY-NGE section by AUIIP

Ref:- Your online application ID No NFR-LMG-2016-111 dtd.13.09.2016

Sir,
In terms of above, enclosed please find herewith the agreement copy executed between the Railway and AUIIP in connection with way leave facility for laying and underground crossing of Rly. track by 1300mm and 500mm dia water supply pipeline at KM 16.3 to 17.98 of GHY-NGE section by AUIIP.

It is requested to execute the work in accordance with the provisions as indicated in the agreement.

Blue print copy of the approved plan No **SK/16/2015** is also enclosed herewith for your ready reference please.

(R. S. Paul)
Divisional Engineer/Special
N. F. Railway Maligaon

Copy to:

- | | |
|-------------------|--|
| 1. Sr DEE/GHY | } for information please |
| 2 DSTE/MLG | |
| 3 ADEN/T/GHY | |
| 4 ADEN/W/GHY | |
| ✓ 5 SSE/W/NGC | } for information & necessary action in this regard please |
| ✓ 6 SSE/P Way/NGC | |
| 7 SSE/Tele/GHY | |
| 8 SSE/P/NGC | |
| 9 SSE/Sig/GHY | |

Divisional Engineer/Special
N. F. Railway, Maligaon

Received

3/02/17



AGREEMENT OF WAY LEAVE FACILITY FOR LAYING UNDERGROUND
WATER SUPPLY PIPE LINE ON RAILWAY LAND & CROSSING UNDER
RAILWAY TRACK AT KM 16.326 and 17.98, NEAR NOONMATI ROB BY
THE PROJECT DIRECTOR, ASSAM URBAN INFRASTRUCTURE
INVESTMENT PROGRAMME (AUIP), GUWAHATI-781005

An AGREEMENT made this 31st day of January 2017 (year) between
the PRESIDENT OF INDIA represented by Divisional Engineer/Spl/N F Railway,
Maligaon, (hereinafter referred to Railway) of the one part and Assam Urban
Infrastructure Investment Programme, Ganeshguri, Guwahati-781005, represented
by Project Director, Assam Urban Infrastructure Investment Programme,
Ganeshguri, Guwahati-781005 (hereinafter referred to AUIP) of the other part, for
laying water supply pipe line on railway land and crossing under railway track at
Railway Km.16.326 and 17.98 of GHY-NGE section near Noonmati road over
bridge, Guwahati under following terms and conditions:-

Permission is only hereby accorded under Way leave facility by the Divisional
Railway Manager/N F Railway/Landing to AUIP for laying water supply pipe

Contd to page-2

অসম উৰ্বৰায়িত্ৰাৰ্থ
প্ৰকল্পৰ প্ৰকল্প
প্ৰকল্পৰ প্ৰকল্প

crossings on railway land and crossing under the railway track as mentioned above. The permission accorded hereby is temporary till 31.03.2027. This agreement will expire on 31.03.2027.

Length and width of railway land involved for the crossings as per approved plan are as under:

Length = 485.35 RM

Width = 2 Metre

That no land other than that mentioned above as per SR DEN/C/MIG's plan No SK.16/2015 is covered under this agreement.

3. This permission shall be guided by the Railway's Policy guidelines in force.

4. The land in question is Railway land and will remain with the Railway. Railway Administration retains full rights to enter upon, pass through or use the Railway land at any time without any Notice to the AUHP.

5. Nobody from AUHP or agent engaged by AUHP will enter upon the railway land for laying / repair / maintenance of the underground water supply pipe line or whatsoever without the consent of railway.

6. The Railway Administration has the right to terminate / temporarily suspend this Agreement with a one month Notice to the AUHP in the event of railway's interest ~~work~~ or if track is required for set right / re-modeling / conversion etc. Any notice by Railways shall be deemed duly served to AUHP if sent by post to the above mentioned address of AUHP.

7. The AUHP may terminate this agreement with Railway on giving one month notice in writing to the Railway and such notice shall be deemed sufficiently served if sent by the registered post to the Sr. Divisional Engineer/Co-ordination/N.F. Railway, Maligaon or delivered at his office. The cost of dismantling, supervision

Contd. to page-3

for removal of the installation without interfering the safety rules, safety of railway structures will be borne by the AUHP. Such dismantling should be carried out under the supervision of railway. The repairing of railway land and structures arising out of such dismantling should be carried out at the cost of AUHP.

Permission granted through this agreement is under way leave facility and is only for the purpose of the AUHP for the purpose as specified. In the event of the way leave track crossing facility being discontinued with, the Railway will neither be liable to pay any compensation nor reimburse any amount to the AUHP nor provide any alternative arrangement for access to AUHP.

9. In the event of continuing this way leave facility accorded beyond the scope of this agreement, AUHP should apply to railway 01 year prior to the expiry of Way leave permission granted upto 31.03.2027. The railway will have the absolute discretion for granting such extension permission or otherwise. Way leave charges for such extension shall have to be paid by AUHP followed by execution of an Agreement, as per Railway's guide line in force at the time of granting such permission.

10. The underground water supply pipe line crossings shall no way interfere with or endanger any Railway communication lines/installations. Periodical inspection and maintenance of the crossing shall be carried out by AUHP for maintaining the crossing of water supply pipe line to avoid any untoward incident/ hazards to life/loss of property/damage to installations etc.

11. In the event of any defect/failure arising out of the crossings affecting the safe movement of the railway traffic/ safety of the railway property/life, the AUHP shall report the same as soon as possible without loss of time to the Station Manager on duty at the nearest railway station of the crossings, concerned railway authorities. Defect/failure of the water supply pipe lines shall have to be rectified immediately without any loss of time by AUHP at the satisfaction of railway.

Contd. to page --

12. Any installation of underground water supply pipe line put up by the AUHP, if necessary, are liable to be removed / shifted by AUHP at its own cost.
13. Prior intimation to supervisors/SSEs of concerned railway departments should be given by AUHP in writing at least 07 days in advance of commencing the work. The work will be done by the AUHP in day time under the supervision and direction of Railway Engineers of the concerned departments observing all safety rules & instructions of the concerned Railway track property installations.
14. In the event of any damage occurred to railway property by AUHP due to execution of work/excavation, AUHP is liable to pay penalty as decided by Railway for the damages / loss occurred and repair the same at the cost of AUHP to the satisfaction of Railway.
15. The work to be executed by strictly following Sr DEN/C/MLG's plan No. SK/16/2015 using trenchless technology (e.g. HDD or similar method) for the underground portion of crossings. Necessary clearance may be obtained by AUHP from concerned Road & ROB authority for laying pipe line adjacent to Flyover i.e. ROB etc. No digging/ open trenches / entry or exit pit within railway land boundary is permitted.
16. AUHP has deposited to the Railway an amount of ₹ 1,41,83,819/- in total being way leave charges for block period of 10 (ten) years i.e. upto 31.03.2027 on the land in which the applicant will execute the work including Supervision charges and Service tax.
17. In the event of it being necessary in the opinion of the railway to support or protect the Railway track and / or land or works during the execution of the crossing work, any repairs thereto or any removal thereof the work or protecting the Railway track or land and restoring the track and land to its original condition of such part of the said work as the Railway shall deem fit will be carried out by the Railway at the cost of the AUHP in all respects. The amount of such cost will be determined by the Railway in its absolute discretion and will be paid by the AUHP to the Railway on demand.

Contd. to page -5-

8. The AUHP will not sublet, transfer or assign this Agreement or any of the privileges hereby granted without the prior consent in writing from the Railway.
10. The AUHP shall be responsible to keep the track, land, structures, installations etc in good condition. If any damage is caused or likely to be caused directly/ indirectly remotely, at the time of execution of the work or during the continuance of the way (i.e. permission), the cost of repairing works of the railway assets shall be borne by the AUHP.
20. The AUHP shall pay maintenance charges if any arises during the continuance of way leave facility provided to AUHP.
21. Third party comprehensive liability insurance is to be borne by AUHP for compensating any claims arising out of damage/loss of life or property of Railwaymen - Railway users - Others due to any mishap on account of faulty working by AUHP or by anyway whatever during its laying operation continuance maintenance of the water supply pipe line crossings.
22. Railway will not be responsible for any loss or damage caused to the property of AUHP by either men employed on Railway works or others or by any accident or by fire or by any way whatever.
23. **Settlement of dispute:** All disputes and differences will be settled by Arbitration in the spirit of the provisions laid in the General Conditions of Contract, July,2013 edition of N F Railway and latest circular / amendments issued from time to time.
24. **Excavated material:** The AUHP shall not sell or otherwise dispose of or remove the sand, stone, clay, ballast, earth, rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof, but all the substances, materials, buildings and produce shall be the property of the Railway provided that the AUHP may, with the permission of the Railway Engineer, use the same for the purpose of the works either free of cost or pay the cost of the same at such rates as may be determined by the Railway Engineer.

26. **Indemnity by AUHP:** The AUHP shall indemnify and save harmless the Railway from and against all actions, suit, proceedings, losses, costs, damages, charges, claim and demands of every nature and description brought or recovered against the Railways by reason of any act or omission of the AUHP, his agents or employees, in the execution of the works or in his guarding/maintenance of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained and not the compensation which shall have been sustained.

27. **Jurisdiction of the Court:** The Court of the place at which the deed of Agreement has been executed shall alone have the jurisdiction to decide upon the disputes, differences that may arise out of this deed.

In witness whereof the parties have here to set and subscribed this _____ the day, month and year mentioned against their respective at the office of the Sr. Divisional Engineer Co-ordination N F Railway, Maligaon.

WITNESS:

1) Name _____
Address _____

Divisional Engineer Spl
N.F. Railway Maligaon
for and on behalf of
PRESIDENT OF INDIA
Office Seal


2) Name _____
Address _____


3) Name _____
Address _____


Project Director
Assam Urban Infrastructure Investment
Programme
Ganeshguni, Guwahati 781005
Office Seal

4) Name _____
Address _____

Consent to Operate for two numbers of D.G Sets

 **Pollution Control Board:: Assam**
Bamunimaidam; Guwahati-21
(An ISO 9001:2008 & BS OHSAS 18001:2007 Standard Certified Organization)
Phone: 0361-2652774 & 2550258; Fax: 0361-2550259
Website: www.pcbassam.org



No. WB/GUW/T-3496/17-18/32
To 
M/s. Tirupati Cement Products
AT Road, Vishnu Market
Bharalumukh, Guwahati
Dist: Kamrup (M) (Assam).

Dated Guwahati, the 12/7, 2017


Sub: "Consent to Operate" upto 31st March, 2018 under Air (Prevention & Control of Pollution) Act, 1981 for 2 Nos. of DG Set of capacity 63 KVA each.

Dear Sir,

With reference to your application in the name and style as mentioned above, the Board is pleased to grant the "Consent to Operate" under the Air Act, upto 31st March, 2018 under the terms and conditions as per Appendix - "A" enclosed alongwith this letter.

You are also requested to apply for "Consent to Operate" for the year 2018-2019 within November, 2017.


Yours faithfully,



Member Secretary(I/c)

Memo No. WB/GUW/T-3496/17-18/32 - A, Dated Guwahati, the 12/7, 2017

Copy to:

1. The Under Secretary, Environment & Forests Department, Govt. of Assam, Dispur, Guwahati-6 for favour of information.
2. The Deputy Commissioner, Kamrup (M) district for favour of information.
3. The General Manager, DI&CC, Kamrup (M) for information.
4. The Addl. Chief Env. Engineer, Regional Office, Guwahati, PCBA for information & necessary action.


Member Secretary(I/c)



SITE SPECIFIC ENVIRONMENT MANAGEMENT PLAN, TRANSMISSION LINE

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
Utilities	Telephone lines, electric poles and wires, water lines within proposed project area	(i) Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during construction phase; and (ii) Require construction contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services.	DSC	(i) List of affected utilities and operators; (ii) Bid document to include requirement for a contingency plan for service interruptions
Structure stability in seismic zone V	Affect during earthquake	Design and analysis as per the Peak Ground Acceleration (PGA) and the seismic acceleration response curve and other factors like Response Reduction Factor (RRF) and Importance Factor (IF) as per the Indian Standard code	DSC/ PIU	(i) Checking of design report – consideration of design measures to minimize earthquake risk
Water Supply	Health risk due to closure of water supply during connection	(i) Plan the construction program to keep the cessation of water supplies to the minimum possible (in both area and duration); and (ii) In coordination with GMC, provide alternative potable water to affected households and businesses for the duration of the shut-down if any	DSC	(i) Schedule of closure if any; (ii) delivery of potable water to affected people by GMC
Traffic Management	Impede traffic flow during construction	(i) Prepare a traffic management plan during preconstruction phase.	DSC	Ensure Traffic Management Plan is finalized before implementation. Draft Traffic Management Plan is prepared and attached as Appendix 3

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
Social and Cultural Resources	Ground disturbance can uncover and damage archaeological and historical remains	(i) Consult Archaeological Survey of India (ASI) or concerned department in Guwahati to obtain an expert assessment of the archaeological potential of the site; (ii) Consider alternatives if the site is found to be of medium or high risk; (iii) Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.	DSC	Chance Finds Protocol
Construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas.	Disruption to traffic flow and sensitive receptors along transmission pipeline laying area	(i) Prioritize areas within or nearest possible vacant space in the subproject location; (ii) If it is deemed necessary to locate elsewhere, consider sites that will not promote instability and result in destruction of property, vegetation and drinking water supply systems; (iii) Do not consider residential areas; and (iv) Take extreme care in selecting sites to avoid direct disposal to water body which will inconvenience the community.	PMU/PIU and DSC to determine locations prior to construction	List of selected sites for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas.
Sources of Materials	Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage	(i) Prioritize sites already permitted by the Mining Department; (ii) If other sites are necessary, inform construction contractor that it	PMU/PIU and DSC to prepare list of approved quarry sites and sources of	(i) List of approved quarry sites and sources of materials; (ii) Bid document to include requirement for verification of

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
	patterns, ponding and water logging, and water pollution.	is their responsibility to verify the suitability of all material sources and to obtain the approval of PMU/PIU and	materials	suitability of sources and permit for additional quarry sites if necessary.

(iii) If additional quarries will be required after construction is started, inform construction contractor to obtain a written approval from PMU/PIU.

DSC = Design Supervision Consultant, PMU = Project Management Unit; PIU = Project Implementation Unit

Anticipated Impacts and Mitigation Measures – Construction Stage

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
Sources of Materials	Extraction of rocks and material may cause ground instability	(i) Use quarry sites and sources permitted by government; (ii) Verify suitability of all material sources and obtain approval of Investment PMU/PIU; (iii) If additional quarries will be required after construction has started, obtain written approval from PMU/PIU; and (iv) Submit to DSC on a monthly basis documentation of sources of materials.	Construction Contractor	Construction Contractor documentation
Air Quality	Emissions from construction vehicles, equipment, and machinery	(i) Consult with PMU/PIU/DSC on the designated areas for	Construction Contractor	(i) Location of stockpiles; (ii) Complaints from sensitive receptors;

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
	used for excavation and construction resulting to dusts and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulfur oxides, particulate matter, nitrous oxides, and hydrocarbons	stockpiling of clay, soils, gravel, and other construction materials; (iii) Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; (iv) Use tarpaulins to cover sand and other loose material when transported by trucks; and (v) Fit all heavy equipment and machinery with air pollution control devices which are operating correctly.		(iii) Heavy equipment and machinery with air pollution control devices; (iv) Ambient air for respirable particulate matter (RPM- PM10 & PM2.5) and suspended particulate matter (SPM); (v) Vehicular emissions such as sulphur dioxide (SO ₂), nitrous oxides (NO _x), carbon monoxide (CO), and hydrocarbons
Traffic Management	Impede traffic flow during construction	(i) Implement a traffic management plan during preconstruction phase.	Construction Contractor	DSC to ensure traffic management measures are implemented and traffic is not significantly impeded during construction period.
Surface water quality	Mobilization of settled silt materials, run-off from stockpiled materials, and chemical contamination from fuels and lubricants during construction works can contaminate nearby surface water quality.	(i) Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets; (ii) Prioritize re-use of excess spoils and materials in the construction works. If spoils will be disposed, consult with PMU/PIU/DSC on designated disposal	Construction Contractor	(i) Areas for stockpiles, storage of fuels and lubricants and waste materials; (ii) Number of silt traps installed along drainages leading to water bodies; (iii) Records of surface water quality inspection; (iv) Effectiveness of water management measures; (v) For inland water:

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>areas;</p> <p>(iii) Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies;</p> <p>(iv) Place storage areas for fuels and lubricants away from any drainage leading to water bodies;</p> <p>(v) Dispose any wastes generated by construction activities in designated sites; and</p> <p>(vi) Conduct surface quality inspection according to the Environmental Management Plan (EMP).</p>		suspended solids, oil and grease, biological oxygen demand (BOD), and coliforms.
Noise Levels	Increase in noise level due to earth-moving and excavation equipment, and the transportation of equipment, materials, and people	<p>(i) Plan activities in consultation with PMU/PIU/DSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance;</p> <p>(ii) Require horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach;</p> <p>(iii) Minimize noise from construction equipment by using vehicle silencers,</p>	Construction Contractor	<p>(i) Complaints from sensitive receptors;</p> <p>(ii) Use of silencers in noise-producing equipment and sound barriers;</p> <p>(iii) Equivalent day and night time noise levels</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		fitting jackhammers with noise-reducing mufflers, and portable street barriers the sound impact to surrounding sensitive receptor, and (iv) Maintain maximum sound levels not exceeding 80 decibels (dbA) when measured at a distance of 10 m or more from the vehicle/s.		
Ecological resources – Terrestrial	Felling of the trees – affect terrestrial ecological balance	(i) Minimize removal of vegetation and disallow cutting of trees; (ii) If tree-removal will be required, obtain tree-cutting permit from Municipal Corporation, (iii) Require to plant three (3) native trees for every one (1) that is removed; and (iv) Prohibit employees from poaching wildlife, bird hunting, and cutting of trees for firewood.	Construction Contractor	(i) Complaints from sensitive receptors; (ii) checking of conservation management plan for tree species and aquatic fauna/ animal
Existing Infrastructure and Facilities	Disruption of service and damage to existing infrastructure at specified project location	(i) Obtain from PMU/PIU/DSC the list of affected utilities and operators if any; (ii) Prepare a contingency plan to include actions to be	Construction Contractor	Existing Utilities Contingency Plan

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		(x) Unwanted material and litter will be removed on frequent basis; and (xi) Request PMU/PIU/DSC to report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work.		
Accessibility	Traffic problems and conflicts near project locations and haul road	(i) Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites; (ii) Schedule transport and hauling activities during non- peak hours; (iii) Locate entry and exit points in areas where there is low potential for traffic congestion; (iv) Keep the site free from all unnecessary obstructions; (v) Drive vehicles in a considerate manner; (vi) Coordinate with Guwahati Traffic Office for temporary road diversions and with for provision of	Construction Contractor	(i) Traffic Management Strategy; (ii) Complaints from sensitive receptors; (iii) Number of signages placed at subproject location

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>traffic aids if transportation activities cannot be avoided during peak hours;</p> <p>(vii) Notify affected sensitive receptors by providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints.</p> <p>(viii) Provide planks across trenches in front of businesses, and ensure works are completed quickly to avoid disruption, and</p> <p>(ix) Avoid full street closure</p>		
Socio-Economic – Income.	Impede the access of residents and customers to nearby shops	<p>(i) Leave spaces for access between mounds of soil;</p> <p>(ii) Provide walkways and metal sheets where required for people;</p> <p>(iii) Increase workforce in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools;</p> <p>(iv) Consult businesses and institutions regarding operating hours and factoring this in work schedules; and</p> <p>(v) Provide sign boards for</p>	Construction Contractor	<p>(i) Complaints from sensitive receptors;</p> <p>(ii) Number of walkways, signages, and metal sheets placed at subproject location.</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.		
Employment Generation	<ul style="list-style-type: none"> • The subproject will provide employment opportunities for local people during construction. • Expectations regarding new employment will be high especially among the unemployed individuals in the area. • Laborers gathering at the site for work can be a safety and security issue, and must be avoided. • The training of unskilled or previously unemployed persons will add to the skills base of the area. 	(i) The use of labor intensive construction measures will be used where appropriate; (ii) Employ local (unskilled) labor if possible; (iii) Training of labor to benefit individuals beyond completion of the subproject; and (iv) Recruitment of labors will take place offsite.	Construction Contractor	(i) Employment records; (ii) records of sources of materials
Occupational Health and Safety	Occupational hazards which can arise during work	(i) Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as: (a) excluding public from the site; (b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gumboot, safety belt, gloves, nose musk and	Construction Contractor	(i) Site-specific Health and Safety (H&S) Plan; (ii) Equipped first-aid stations; (iii) Medical insurance coverage for workers; (iv) Number of accidents; (v) Supplies of potable drinking water;

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>ear plugs; (c) H&S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents;</p> <p>(ii) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site;</p> <p>(iii) Provide medical insurance coverage for workers;</p> <p>(iv) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(v) Provide supplies of potable drinking water at working sites;</p> <p>(vi) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(vii) Provide H&S orientation training to all new workers to ensure that they are apprised of the basic site rules of work at the site, personal protective protection, and preventing injuring to fellow workers;</p>		<p>(vi) Clean eating areas where workers are not exposed to hazardous or noxious substances;</p> <p>(vii) record of H&S orientation trainings</p> <p>(viii) personal protective equipments;</p> <p>(ix) % of moving equipment outfitted with audible back-up alarms;</p> <p>(xi) sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal.</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>(viii) Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted;</p> <p>(ix) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(x) Ensure moving equipment is outfitted with audible back- up alarms;</p> <p>(xi) Mark and provide sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate; and</p> <p>(xii) Disallow worker exposure to noise level</p>		

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.		
Core Labour Standard (CLS)- safety and compliance	Impact on health of contractor's labour	Monitoring compliance with national labor laws and regulations, provided that these national laws are consistent with CLS. PMU will ensure that bidding and contract documents include specific provisions requiring contractors to comply with all: (i) applicable labor laws and core labor standards on: (a) prohibition of child labor as defined in national legislation for construction and maintenance activities; (b) equal pay for equal work of equal value regardless of gender, ethnicity or caste; and (c) elimination of forced labor; and (ii) the requirement to disseminate information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the project sites.	Construction Contractor	All records, documents related to health & safety of labours
Community Health and Safety.	Traffic accidents and vehicle collision with pedestrians during	(i) Plan routes to avoid times of peak-pedestrian activities. (ii) Liaise with	Construction Contractor	(i) Traffic Management Strategy;

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
	material and waste transportation	<p>PMU/PIU/DSC in identifying high-risk areas on route cards/maps.</p> <p>(iii) Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.</p> <p>(iv) Provide road signs and flag persons to warn.</p> <p>(v) Provide protective fencing around open trenches, and cover any open trench with metal planks during non-construction hours. potentially cause soil contamination;</p> <p>(vi) Recover used oil and lubricants and reuse or remove from the site; (vii) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas;</p> <p>(viii) Remove all wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no</p>		(ii) Complaints from sensitive receptors

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		longer required; and (ix) Request PMU/PIU/DSC to report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of work.		
Office, Work Camps & Temporary storage	Temporary air, land and noise pollution from operation of camp & machine, water pollution from storage and use of fuels, oils, solvents, and lubricants	(i) Consult with PIU/ DSC before locating project offices, sheds, and construction plants; (ii) Minimize removal of vegetation and disallow cutting of trees; (iii) Provide water and sanitation facilities for employees/labours; (iv) Prohibit employees from poaching wildlife and cutting of trees for firewood; (v) Train employees in the storage and handling of materials which can potentially cause soil contamination; (vi) Recover used oil and lubricants and reuse or remove from the site; (vii) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; (viii) Remove all wreckage, rubbish, or temporary	Construction Contractor	(i) Complaints from sensitive receptors; (ii) Water and sanitation facilities for employees; and (iii) PIU/ DSC report in writing that the camp has been vacated and restored to pre-project conditions

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		structures (such as buildings, shelters, and latrines) which are no longer required; and (ix) Request DSC/ PIU to report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of work.		
Social and Cultural Resources	Risk of archaeological chance finds	(i) Strictly follow the protocol for chance finds in any excavation work; (ii) Request PMU/PIU/DSC or any authorized person with archaeological field training to observe excavation; (iii) Stop work immediately to allow further investigation if any finds are suspected; and (iv) Inform PMU/PIU/DSC if a find is suspected, and take any action they require ensuring its removal or protection in situ.	Construction Contractor	Records of chance finds

DSC = Design Supervision Management Consultant, H&S = health and safety, RPM = respirable particulate matter, PMU = Project Management Unit;

PIU = Project Implementation Unit; SPM = suspended particulate matter, GMC = Guwahati Municipal Council

Appendix- VI

POLLUTION UNDERCONTROL CERTIFICATE

so as to comply with provisions of Rule 115 of the Central Motor Vehicle Rules, 1989.

- (g) In the event of the Driver or any person in-charge of the vehicle referred to in sub-rule (3)(a) fails to produce the vehicle within the specified period for re-test of the vehicle or the vehicles, on re-test show the level of smoke or other pollutants being more than permissible under sub-rule (2) or Rule 115, the owner of the vehicle shall be liable for the penalty prescribed under subsection (2) of Section 190 of the Act. In the event, such vehicle shall be deemed to have contravened the provision of sub-rule (2) of Rule 115 of the Central Motor Vehicle Rules 1989 and the checking Officer shall report the matter to the Registering Authority.
- (h) The Registering Authority shall on receipt of the report referred to in sub-rule (g) for reasons to be recorded in writing, suspend the certificate of registration of the vehicle until such time the certificate is produced before the Registering Authority to the effect that the vehicle complies with the provision of sub-rule (2) of Rule 115 of the Central Motor Vehicle Rule 1989.
- (4) Pollution under Control Certificate.-
 - (a) After expiry of a period of one year from the date on which the Motor vehicle was first registered, every such vehicle shall have to obtain a 'Pollution Under Control' Certificate showing that the smoke emission level from that vehicle is within the limit prescribed under Rule 115 of the Central Motor Vehicles Rules 1989. A 'Pollution Under Control' Certificate shall remain valid for a period of six months from the date of its issue.
 - (b) A 'Pollution Under Control' issued only by a State Government Department or an Authorised Testing Station licenced by the State Government to test smoke emission level in the Form prescribed by Notification/Government Orders in this behalf, shall be accepted for the purpose of these rules.
 - (c) Notwithstanding the provisions contained in Clause (a) the Competent Authority, if it thinks fit may direct a vehicle to be

List of Vehicles engaged by Tirupati Cement Products with details of registration no.

Sr. No.	Vehicle No.	Type of Vehicle	Date of Registration	Date till which PUC is not required
1	AS01DF4701	Excavator	23-02-2017	21-02-2018
2	AS01DF4702	Hydra	23-02-2017	21-02-2018
3	AS01DF4703	Hydra	23-02-2017	21-02-2018
4	AS01DF4701	Excavator	23-02-2017	21-02-2018
5	AS01DF8937	Hydra	06-03-2017	05-03-2018
6	AS01DF8938	Hydra	06-03-2017	05-03-2018

Tirupati Cement
Products

TAX INVOICE

For Removal of Exisable Goods From A Factory or Warehouse on Payment of duty
[Under Rule 11 of C.E. (No. 2) Rules 2002]

ESCORTS LIMITED

Construction Equipment

Plot No. 219, Sector-58, Ballabgarh-121004

Distt. Faridabad, Haryana (INDIA)

Tel. : +91 129 2306300, Fax : +91 129 2306400



Pre-Authenticated by
For Escorts Limited
Construction Equipment
Date 17-JAN-2017
Authorized Signatory

C.E. Registration No. AAACE0074BEMD10
ECC No. AAACE0074BEMD10
Division IV
Excise Range XV
Excise Commissionerate Faridabad-I
TIN VAT 06751202682 Dt. 12/12/1996
CST 06751202682 Dt. 12/12/1996

Name of Exisable Commodity
Cranes 8426 12 00
Loaders 8429 31 00
Vibratory Rollers 8429 40 20
Backhoe Loaders 8429 59 00
Parts of above 8431 00 00

Billing Address :

TIRUPATI CEMENT PRODUCTS
PNC OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARALUMUKH,
GUWAHATI ASSAM 781003

Shipping Address :

TIRUPATI CEMENT PRODUCTS
PNC OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARALUMUKH,
GUWAHATI ASSAM 781003

Oracle Order No: 43250
Oracle Order Dt: 17-JAN-17

Delivery ID: 4305156
Delivery Dt: 17-JAN-17

From RF2-BALLABGARH
To : GUWAHATI

Mode of Shipment:
ICIN No : LZ4895HR1944PLC039068
PAN NO : AAACE0074B
Freight:
Comm Invt
IGR No:
IGR Dates:
Ins with The New India Assurance
33000021160200000070

Cust Code: CE4955
PAN NO: AACFT2792L
LST:
CST: 18800227135
Delivery Terms:
Pricing Terms :

Description	Qty/Rate	CURR	Total Value
CRANE VE HYDRA 12 3P 3B WIT MAKE:ESCORTS	1 1010000	INR	10,10,000
Engine No. :AE4212C3AE-2361777 Chassis No :ECC01193V40038720			
CONVERSION RATE:	1.00	Total Value(Rs.)	11,40,502

Total Value: Rupees Eleven Lakh Forty
Thousand Five Hundred Two And
Zero Paise Only

Excise @12.5% 1,42,562

Goods Cleared under B-1 Bond (Security) No./Under Taking
No. J-1995, Faridabad, Haryana
No./Notification No. 108/95 dt. 28/8/1995

Date/Time Preparation : 17-JAN-2017 11:01:09 PM
Date/Time Removal of Goods:

Notwithstanding to the place where Cause of action may have arisen, Courts at Faridabad shall have exclusive
jurisdiction on all the disputes that may arise between the parties.
Certified that the particulars given above are true and correct and the amount indicated represents the price
actually charged and that there is no flow of additional consideration directly or indirectly from the buyer
HEAD OFFICE : Plot No. 219, Sector 58, Ballabgarh-121004, Faridabad, Haryana
REGD. OFFICE : 154, Mathura Road, Faridabad - 121003 (Haryana)

For Escorts Limited
Construction Equipment
Authorized Signatory

TAX-INVOICE

ORIGINAL FOR BUYER

For Removal of Exisable Goods From A Factory or Warehouse on Payment of duty
(Under Rule 11 of C.E. (No. 2) Rules 2002)

ESCORTS LIMITED Construction Equipment

Plot No. 219, Sector-58, Ballabgarh-121004
Distt. Faridabad, Haryana (INDIA)
Tel.: +91 129 2306300, Fax: +91 129 2306400



No. 08/160929
Date 19-DEC-16
Pre-Authorized by For Escorts Limited Construction Equipment
(Authorized Signatory)

C.E. Registration No. AAACE00748EM010
ECC No. AAACE00748EM010
Division IV
Excise Range XVI
Excise Commissionerate Faridabad-I
TIN VAT : 06751202682 DL 12/12/1966
GST : 06751202682 DL 12/12/1966

Name of Exisable Commodity:
Cranes 8420 12 00
Loaders 8429 51 00
Vibratory Rollers 8429 40 20
Backhoe Loaders 8429 59 00
Parts of above 8431 00 00

Selling Address:
TIRUPATI CEMENT PRODUCTS

Shipping Address:
TIRUPATI CEMENT PRODUCTS

BHL OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARLUKURH, GUWAHATI
ASSAM 781009

BHL OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARLUKURH, GUWAHATI
ASSAM 781009

Spare: Y

Customer Code : CE0062
ECC :
CE Reg
Range:
Dist:
Coll:
PAN NO: AACFT2702L
GST: 18830237193
S TIN: 18830237193
Inv No : 172023

From FBD To : GUWAHATI
Mode of Shipment:
ICIN No: L74899HR1944PLC03908B
PAN NO : AAACE00748
Freight
BR No: OWN
IGR Date:
Ins With: The New India Assurance
93000021160200000070

Description	Qty No.	Rate Per Unit Rs.	Assessable Value (Rs.)
DIGMA II HD MAKE : ESCORTS	1	16,55,773	16,55,773
Eng No 9H.2205/1620240 M/C No ECE07610A00038715			
Serial no of entry for duty paid / payable in FLA		Taxable Amount : Excise @ 12.5% : TCE @ 1% : CST @ 2% :	16,55,773 2,06,972 19,000 37,255
Convato Dated 19-DEC-16		Total Amount: Freight: Ins/Disc/Surch.:	19,19,000 - -
Rupees Two Lakh Six Thousand Nine Hundred Duty: Seventy Two And Zero Paise		GRAND TOTAL :	19,19,000
Date/Time Preparation : Date/Time Removal of Goods:		19-DEC-16 06:12:03 PM	
Total Amount :		Rupees Nineteen Lakh Nineteen Thousand And Zero Paise Only	

Inspection of the place where casual collection may have taken place at Faridabad shall have exclusive jurisdiction on all the disputes that may arise between the parties.
Certified that the particulars given above are true and correct and the amount assessed represents the final amount actually charged and that there is no flow of additional consideration directly or indirectly from the buyer.
JALAN 1002302 - Dist No. 945, Section 58, Ballabgarh, Faridabad, Haryana

For Escorts Limited
Construction Equipment

TAX-INVOICE

ORIGINAL FOR BUYER

For Removal of Excisable Goods From A Factory or Warehouse on Payment of duty
(Under Rule 11 of C.E. (No. 2) Rules 2002)

ESCORTS LIMITED

Construction Equipment

Plot No. 219, Sector-58, Ballabgarh-121004

Distt. Faridabad, Haryana (INDIA)

Tel.: +91 129 2306300, Fax: +91 129 2306400



No. 05/160920

Date 19-DEC-16

Pre-Authenticated by
For Escorts Limited
Construction Equipment

Authorized Signatory

C.E. Registration No. AAACE0074BEM010
ECC No. AAACE0074BEM010
Division IV
Excise Range XVI
Excise Commissioner Faridabad-I
TIN VAT 05751202682 Dt. 12/12/1998
GST 05751202682 Dt. 12/12/1998

Name of Excisable Commodity:
Cranes 8428 12 00
Loaders 8429 51 00
Vibratory Rollers 8429 40 20
Backhoe Loaders 8429 59 00
Parts of above 8431 00 00

Billing Address:

Order Ref:

Shipping Address:

TIRUPATI CEMENT PRODUCTS

TIRUPATI CEMENT PRODUCTS

BHL OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARLUMUKH, GUWAHATI
ASSAM 781009

BHL OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARLUMUKH, GUWAHATI
ASSAM 781009

Spare: 7

Customer Code : 050362
ECC :
CE Reg
Range:
Div:
Coll:
PAN NO: AACFT2702L
GST: 18830237193
S TIN: 18830237193
Inv No : 172024

From FRO To : GUWAHATI
Mode of Shipment:
ICIN No: L74B99HR1944PLC029088
PAN NO : AAACE0074B
Freight
IGR No: OWN
IGR Date:
Insured With: The New India Assurance
93000021160200000070

Description	Qty (No.)	Rate Per Unit Rs.	Assessable Value (Rs.)
DIGNAX II HD MAKE : ESCORTS	1	16,55,773	16,55,773
Eng No 4H.3205/1620337 M/C No ECE07610L00051919			
Serial no. of entry for duty paid / payable in PLA		Taxable Amount Excise @ 12.5% TCS @ 1% GST @ 2%	16,55,773 2,06,972 19,000 37,255
Genvat: Dated 19-DEC-16		Total Amount Freight: Ins/Disc/Burch.	19,19,000 -- --
Rupees Two Lakh Six Thousand Nine Hundred Duty: Seventy Two And Zero Paise		GRAND TOTAL :	19,19,000
Date/Time Preparation : Date/Time Removal of Goods:		19-DEC-16 04:12:02 PM	
Total Amount :		Rupees Nineteen Lakh Nineteen Thousand And Zero Paise Only	

Inspection of the place where removal of duty may have been made, should be made by the Excise Officer
on all the dates that may arise between the parties.
Certified that the particulars given above are true and correct and the amount indicated represents the duty
payable thereon and that there is no loss of additional excise duty or drawback from the supply.

For Escorts Limited
Construction Equipment

TAX-INVOICE

For Removal of Excisable Goods From A Factory or Warehouse on Payment of duty
(Under Rule 11 of C.E. (No. 2) Rules 2002)

ESCORTS LIMITED

Construction Equipment

Plot No. 219, Sector-58, Ballabgarh-121004
Distt. Faridabad, Haryana (INDIA)
Tel.: +91 129 2306300, Fax: +91 129 2306400



No. DE/150991
Date 19-DEC-16
Pre-Authorized by
For Escorts Limited
Construction Equipment
(Authorized Signatory)

C.E. Registration No. AAAGE0074BEM010
ECC No. AAAGE0074BEM010
Division IV
Excise Range XVI
Excise Commissionerate Faridabad-I
TIN VAT 06751202862 Dt. 12/12/1966
CST 06751202862 Dt. 12/12/1966

Name of Excisable Commodity:
Cranes 8428 12 00
Lopers 8429 51 00
Vibratory Rollers 8429 40 20
Backhoe Loaders 8429 58 00
Parts of above 8431 00 00

Billing Address:
Order Ref:

Shipping Address:

TIRUPATI CEMENT PRODUCTS

TIRUPATI CEMENT PRODUCTS

PNC OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARLUMUKH, GUWAHATI
ASSAM 781009

PNC OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARLUMUKH, GUWAHATI
ASSAM 781009

Customer Code : CE05E2 From FBD To : GUWAHATI
ECC : Mode of Shipment:
CE Reg. CIN No: L74899HR1944FLC039088
Range: PAN NO : AAAGE0074B
Div: Freight
Coll: GR No:
PAN NO: AACFT2702L GR Date:
CST: 18830237193 InsWith: The New India Assurance
S TIN: 18830237193 93000021160200000079
Inv No : 172025

Description	Dty No.	Rate Per Unit Rs.	Assessable Value (Rs.)
CRANE VE HYDRA 12 3P 50 MAKE : ESCORTS	1	9,90,639	9,90,639
Eng No: AE4286A3AE-3339073 M/C No: ECE01193PG0035619			
Serial No of entry for duty paid / payable in PLA		Taxable Amount Excise @ 12.5% TCS @ 1% CST @ 2%	9,90,639 1,23,830 11,368 22,289
Cenvat: Dated 19-DEC-16		Total Amount Freight: Ins/Disc/Surch.:	11,48,126 1,05,201 12,53,327
Date/Time Preparation : Date/Time Removal of Goods:		19-DEC-16 04:12:50 PM	
Total Amount :		Rupees Twelve Lakh Fifty Three Thousand Three Hundred Twenty Seven And Zero Paise Only	

Intestive of the place where cause of action may have arisen, courts at Faridabad shall have exclusive jurisdiction on all the disputes that may arise between the parties.
Certified that the particulars given above are true and correct and the amount indicated represents the price actually charged and that there is no flow of additional consideration directly or indirectly from this buyer.
HEAD OFFICE : Plot No. 219, Sector 58, Ballabgarh-121004, Faridabad, Haryana

For Escorts Limited
Construction Equipment

TAX-INVOICE

For Removal of Excisable Goods from A Factory or Warehouse on Payment of duty
(Under Rule 11 of C.E. (No. 2) Rules 2002)

ESCORTS LIMITED

Construction Equipment

Plot No. 219, Sector-58, Ballabgarh-121004
Distt. Faridabad, Haryana (INDIA)
Tel.: +91 129 2306300, Fax: +91 129 2306400



Pre-Authenticated by
IFS/160932 For Escorts Limited
Construction Equipment
No. 19-DEC-15
Date (Authorized Signatory)

C.E. Registration No. AAACE0074BEM010
ECC No. AAACE0074BEM010
Division IV
Excise Range XVI
Excise Commissionerate Faridabad-I
TIN VAT 06751202682 DL 12/12/1998
Date 06751202682 DL 12/12/1998

Name of Excisable Commodity:
Cranes 8426 12 00
Loaders 8429 51 00
Vibratory Rollers 8429 40 20
Backhoe Loaders 8429 59 00
Parts of above 8431 00 00

Billing Address: Refs

Shipping Address:

TIRUPATI CEMENT PRODUCTS
PNC OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARLUMUKH, GUWAHATI
ASSAM 781009

TIRUPATI CEMENT PRODUCTS
PNC OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARLUMUKH, GUWAHATI
ASSAM 781009

Customer Code : CE0362 From FOB To : GUWAHATI
ECC :
CE Reg :
Range :
Div :
Coll :
PAN NO: AACFT2702L
GST: 18030227193
S TIN: 18030227193
Inv No : 172026
Mode of Shipment:
CIN No: L74899HR1944PLCG9088
PAN NO : AAACE0074B
Freight
GP No:
GP Date:
Ins With: The New India Assurance
93000021160200000070

Description	Qty No.	Rate Per Unit Rs.	Assessable Value (Rs.)
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CRANE VE HYDRA 12 3P 38 MAKE : ESCORTS	1	9,90,639	9,90,639
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Eng No AE4286A3AE-3357410
M/C No ECE01193JG0035618

Serial no of entry for duty paid / payable in PLA	Taxable Amount	9,90,639
	Excise @ 12.5%	1,23,830
	TCS @ 1%	11,368
Cenvat: Dated 19-DEC-15	CST @ 2%	22,289

Rupees One Lakh Twenty	Total Amount	11,48,126
Total Three Thousand Eight	Freight	1,05,201
Duty: Hundred Thirty And Zero P	Ins/Disc/Burch.	
	GRAND TOTAL :	12,53,327

Date/Time Preparation : 19-DEC-15 04:12:57 PM
Date/Time Removal of Goods:

Total Rupees Twelve Lakh Fifty Three Thousand Three
Amount : Hundred Twenty Seven And Zero Paise Only

Notwithstanding to the place where cause of action may have arisen, courts at Faridabad shall have exclusive jurisdiction on all the disputes that may arise between the parties.

Certified that the particulars given above are true and correct and the amount indicated represents the price actually charged and that there is no flow of additional consideration directly or indirectly from the buyer.

HEAD OFFICE : Plot No. 219, Sector 58, Ballabgarh-121004, Faridabad, Haryana
REGD. OFFICE : 15/5, Mathura Road, Faridabad - 121003 (Haryana)

For Escorts Limited
Construction Equipment

(Authorized Signatory)

(For Removal of Excessible Goods From A Factory or Warehouse on Payment of Duty
Under Rule 11 of C.E. (No. 2) Rules 2002)

ESCORTS LIMITED

Construction Equipment

Plot No. 219, Sector-58, Ballabgarh-121004
Distt. Faridabad, Haryana (INDIA)
Tel.: +91 129 2306300, Fax: +91 129 2306400

EXPORT
ESCORTS
OF DUTY

No. DEH/160175
Date 17-JAN-2017
Pre-Authenticated By
For Escorts Limited
Construction Equipment
(Authorized Signatory)

C.E. Registration No.	AAACE00748EM010	Name of Excessible Commodity	
ECC No.	AAACE00748EM010	Cranes	5425 12 00
Division	IV	Loaders	5425 31 00
Excess Range	XVI	Vibratory Rollers	5425 40 20
Excess Commission Rate	Fundated-I	Backhoe Loaders	5425 59 00
TIN/VAT	06751202952 Dt. 12/12/1996	Parts of above	5431 00 00
CST	06751202952 Dt. 12/12/1996		

Billing Address:

Shipping Address:

TIRUPATI CEMENT PRODUCTS
PNC OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARALUMUNH,
GUWAHATI ASSAM 781009

TIRUPATI CEMENT PRODUCTS
PNC OFFICE NO. 5, VISHNU
MARKET, NEAR RAILWAY GATE
NO.5, BHARALUMUNH,
GUWAHATI ASSAM 781009

Oracle Order No: 43051
Oracle Order Dt: 17-JAN-17

Delivery ID: 4305157
Delivery Dt: 17-JAN-17

From WF2-BALLABGARH
To: GUWAHATI

Mode of Shipment:
ICIN No: L75875HR19446L0009000
PAN NO: AAACE00748

Cust Code: CE4959

Freight:
Comm Inv:

From No: AACFT2702L

For No:

LST:

For Date:

CST:

Ins with: The New India Assurance
Policy No: 93000021160300000070

Delivery Target:

Pricing Terms:

Description	Qty	Rate	CURR	Total Value
CRANE VE HYDRA 12 38 48 WIT MAKE:ESCORTS	1	1010000	INR	10,10,000
Engine No: 16E421200AE-3361775		CST/VAT		20,200
Chassis No: 16E9119DLH-038820		TCS@1%		10,302
		Freight		1,00,000
CONVERSION RATE:	1.00	Total Value(Rs.)		11,40,502

Total Value: Rupees Eleven Lakh Forty
Thousand Five Hundred Two And
Zero Paise Only

Excess 012.00

1,26,250

Goods Cleared under B-1 Bond/Security's No./Under Taking
No. Dated

18/1/95 04-28/12/1995
For Escorts Limited
Construction Equipment
(Authorized Signatory)

HEALTH, SAFETY AND ENVIRONMENTAL OPERATION CONTROL PROCEDURES

Spoil Management Plan

Name of Project: Construction of transmission main pipelines and allied works in south east Guwahati water supply project

1. **Purpose:** To make a procedure to reduce & manage the spoil generated and reuse related to construction works.
2. **Scope :** The procedure is applicable to M/s Tirupati Cement Products
3. **Responsibility:** Project In-charge is responsible for its implementation.
4. **General Hierarchy of control:**
 - *PREVENT*
 - *REDUCE*
 - *REUSE*
 - *RECYCLE*
 - *RECOVER ENERGY*
 - *RESPONSIBLE DISPOSAL*
5. **Legal Requirements:**
 - The BOCW Act, 1996
 - Environmental Protection Act, 1986

Tirupati Cement
Products

- The Water [Prevention & Control of Pollution] act, 1974
- The Water [Prevention & Control of Pollution] CASs act, 1977 as amended in 2003
- The Air [Prevention & Control of Pollution] act, 1981
- The hazardous waste (Management & Handling) Rules, 1989
- Biomedical waste (Management & Handling) Rules, 1998
- Municipal Solid waste (Management & Handling) Rules, 2000
- Noise Pollution Regulation & Control Rules, 2000
- Battery (Management & Handling) Rules, 2001

6. Requirements

- **Procedure:**
 - i.* Spoil volume calculations: estimate the volume of spoils produced from each of the construction sites.
 - ii.* Characterization of spoil : Based on the type of spoil, characterization is done (sand stone, mud mix, reusable materials).
 - iii.* Adopt spoil reduce/reuse opportunities
 - iv.* An overview of the assessment methodology to be used is mentioned below
 1. Consideration of likely spoil characteristic
 2. Identification of possible reuse sites
 3. Screening of possible reuse opportunities
 4. Identification of possible safe disposal sites for spoil: Those spoils which can't be reused shall be properly disposed in designated areas. Such disposal areas shall be identified in project location. Such disposal areas shall be safe from

environmental aspects and there should not be any legal or resettlement issue. The local administration must be consulted and permission be obtained from them, if required.

- **Identification & assessment of soil aspects & impacts:**
 - i.* There is stock yard assessed and identified jointly for dumping and storing the excess earth produced from pipe laying operation.
 - ii.* During transportation of soil, it is ensured that the vehicle is covered with tarpaulin and no dust flies off.

7. Spoil : Volume, characteristic and minimization

- Volume: Not confirmed.
- Characteristic : Both ordinary and hard soil
- Minimization: Excavation being done as per drawings only.

8. Spoil: Reuse opportunities, Identification and assessment

- Approximately half of the soil is backfilled as cushion over the pipe line.
- Balance soil is removed from site

9. Spoil Transportation Methodology

- Extra soil will be shifted by truck/dumper/tractor-trolley from site to dump yard

Tirupati Cement
Products

10. Other aspects : The key aspects of potential impact are listed in table below

Aspects	Potential Impacts
Air Quality	Potential for high winds generating air borne dust from movement of vehicles
Surface & Ground water	No potential impact on ground or surface water
Noise	Associated with spoil handling, haulage & storage
Traffic	Increase in traffic due to spoil haulage
Land Use	Land used for dumping is a private low lying land and NOC from the owner has been obtained for dumping.

Tirupathi Ceramics
Products

SCANNED COPY OF NOISE AND AIR QUALITY TESTING REPORT

GREENVIRON RESEARCH LABORATORY & CONSULTANCY

Recognized by

Pollution Control Board : Assam, Meghalaya Pollution Control Board, Meghalaya

Birubari Bazar, House No.-86, P.O. - Gopinath Nagar

Guwahati-781016, Assam

Phone : 9864037015, 9954093884 (M), E-mail : jitensarma97@yahoo.com

Specialist in : Chimney emission testing, Ambient Air testing,
Noise level testing, Waste water analysis, Drinking water analysis,
Pollution Control Activities etc.**Report on Ambient Noise level Monitoring****M/S Tirupati Cement Products, Guwahati**

Name of the Project: Construction of Water Supply Transmission Main pipe lines and allied works in South East Guwahati Water Supply Project. (ADB funded)

Package Number: ADB/AJIP/PR-1/GUW/WS-01**Report Number: GRL/Report-Noise/16-17/008****DATE: 01.03.2017**

Date of Monitoring	Source/Location	Noise level dB(A) in Leq in Day time Average	Noise level dB(A) in Leq in Night time Average	Remarks
27.02.2017	Work site, Near Noonmati Sector-1, near Refinery Guwahati(Assam)	68	57	

* All data were collected during day time and Night time (Average data)

noise (Ambient standard) in dB (A)

During day time (in between 6AM & 10PM)		During night time (in between 10 PM & 6 AM)	
Industrial Zone	75	Industrial Zone	70
Commercial Zone	65	Commercial zone	55
Residential zone	55	Residential zone	45
Silence Zone	50	Silence Zone	40

N.B: Results were found within the limits.



CHIEF ENVIRONMENTAL ENGINEER
GREENVIRON RESEARCH
LABORATORY & CONSULTANCY

Chief Environment Officer
01/03/2017



GREENVIRON RESEARCH LABORATORY & CONSULTANCY

Recognized by

Pollution Control Board : Assam, Meghalaya Pollution Control Board, Meghalaya

Birubari Bazar, House No.-90, P.O. - Gopinath Nagar

Guwahati-781016, Assam

Phone : 9864037016, 9954093884 (M), E-mail : jiten.sarma97@yahoo.com

Specialist in : Chimney emission testing, Ambient Air testing,
Noise level testing, Waste water analysis, Drinking water analysis,
Pollution Control Activities etc.

Analysis Report of Ambient Air Quality Monitoring Conducted at M/S Tirupati Cement Products, Guwahati

Name of the Project: Construction of Water Supply Transmission Main pipe lines and allied
works in South East Guwahati Water Supply Project. (ADB funded)

Package Number: ADB/AUIP/PR-1/GUW/WS-01

REPORT NUMBER: GRL/Report-Amb/16-17/034

Date: 01.03.2017

Sl No	Date of Monitoring	Place/Location	SO ₂ (ug/m ³)	NO ₂ (ug/m ³)	PM ₁₀ (ug/m ³)	PM _{2.5} (ug/m ³)	Weather	Remarks
1	02.02.2017	Worksite Noozmali Sector 1, Near Refinery Guwahati GPS location: N26°10.838" E91°48.605"	24	40	50	40	Clear	During monitoring work was on operation. Result shown as 24 hours Time weighted Average

Standard for Ambient Air Quality in ug/m³

Sl No.	Pollutant	Time weighted Average	Conc. in Ambient Air Industrial, Residential, Rural and Other Area
1	Sulphur Dioxide (SO ₂)	24 hours	80
2	Nitrogen Dioxide (NO ₂)	24 hours	80
3	Particulate Matter (size < than 10 um) or PM ₁₀	24 hours	100
4	Particulate Matter (size < than 2.5 um) or PM _{2.5} ug/m ³	24 hours	60

N.B: Results were found within the permissible limit.



CHIEF ENVIRONMENTAL OFFICER
GREENVIRON RESEARCH
LABORATORY & CONSULTANCY

Chief Environmental Officer
01/03/17



GREENVIRON RESEARCH LABORATORY & CONSULTANCY

Recognized by

Pollution Control Board : Assam, Meghalaya Pollution Control Board, Meghalaya

Birubari Bazar, House No.-90, P.O. - Gopinath Nagar
Guwahati-781015, Assam

Phone : 9864037015, 9864093884 (M), E-mail : jitensarna97@yahoo.com

Specialist in : Chimney emission testing, Ambient Air testing,
Noise level testing, Waste water analysis, Drinking water analysis,
Pollution Control Activities etc.

Report on Ambient Noise level Monitoring

M/S Tirupati Cement Products, Guwahati

Name of the Project: Construction of Water Supply Transmission Main pipe lines and allied works in South East Guwahati Water Supply Project. (ADB funded)

Package Number: ADB/ALBP/PR-1/GUW/WS-01

Report Number: GRL/Report-Noise/16-17/006

DATE: 02.02.2017

Date of Monitoring	Source/Location	Noise level dB(A) in Leq in Day time Average	Noise level dB(A) in Leq in Night time Average	Remarks
30.01.2017	Work site, In front of Hindutan College, Virsa road Guwahati (Assam)	57	41	

All data were collected during day time and Night time (Average data)

Noise (Ambient Standard) in dB (A)

During day time (in between 6AM & 10PM)		During night time (in between 10 PM & 6 AM)	
Industrial Zone	75	Industrial Zone	70
Commercial Zone	65	Commercial zone	55
Residential zone	55	Residential Zone	45
Silent Zone	50	Silent Zone	40

N.B: Results were found within the limit



GREENVIRON RESEARCH
LABORATORY & CONSULTANCY
Chief Environmental Officer
02/02/17



GREENVIRON RESEARCH LABORATORY & CONSULTANCY

Recognized by

Pollution Control Board : Assam, Meghalaya Pollution Control Board, Meghalaya

Blurbari Bazar, House No.-90, P.O. - Gopinath Nagar

Guwahati-781016, Assam

Phone : 9864037016, 9954993884 (M), E-mail : jiten.sarma97@yahoo.com

Specialist in : Chimney emission testing, Ambient Air testing,
Noise level testing, Waste water analysis, Drinking water analysis,
Pollution Control Activities etc.

Analysis Report of Ambient Air Quality Monitoring Conducted at M/S Tirupati Cement Products, Guwahati

Name of the Project: Construction of Water Supply Transmission Main pipe lines and allied
works in South East Guwahati Water Supply Project. (ADB funded)

Package Number: ADB/ALP/PR-1/GJW/WS-01

REPORT NUMBER: GRI/Report-Amb/16-17/024

Date: 02.02.2017

Sl No.	Date of Monitoring	Place/Location	SO ₂ (ug/m ³)	NO ₂ (ug/m ³)	PM ₁₀ (ug/m ³)	PM _{2.5} (ug/m ³)	weather	Remarks
1.	30.01.2017	Work site adjacent of hindustan College, VP road, Guwahati GPS location: N26°09'300" E091°49'445"	12	32	88	48	Clear	During monitoring work was on operation. Result shown as 24 hours Time- weighted Average

Standard for Ambient Air Quality in ug/m³

Sl No.	Pollutant	Time weighted Average	Conc. in Ambient Air Industrial, Residential, Rural and Other Area
1.	Sulphur Dioxide (SO ₂)	24 hours	80
2.	Nitrogen Dioxide (NO ₂)	24 hours	80
3.	Particulate Matter (size < than 10 um) or PM ₁₀	24 hours	100
4.	Particulate Matter (size < than 2.5 um) or PM _{2.5} ug/m ³	24 hours	60

N.B: Results were found within the permissible limit.



CHIEF ENVIRONMENTAL OFFICER
GREENVIRON RESEARCH
LABORATORY & CONSULTANCY
Chief Environmental Officer

HEALTH, SAFETY AND ENVIRONMENTAL OPERATION CONTROL PROCEDURES

Traffic Management Plan

Name of Project: Construction of transmission main pipelines and allied works in south east Guwahati water supply project

1. **Purpose:** The proposed project "Construction of transmission main pipelines and allied works in south east Guwahati water supply project" is a part of Guwahati water supply project.
2. **Scope :** The procedure is applicable to M/s Tirupati Cement Products
3. **Responsibility:** It is the responsibility of the construction manager and all departmental heads to implement this procedure and ensure that delegated staff under their supervision carries it out.
4. **Legal Requirements:** The BOCW Act, 1996 & Central Rule 1998 & Motor Vehicle Act 1992

5. Requirements

5.1 General:

- i. All road works create inconvenience and area potential hazard to safety of all road users and those employed in carrying out the work.
- ii. All the effects should be reduced to minimum and to ensure that the works are properly guarded, lighted and signed.

- iii. A clearance early warning of any obstruction to all road users should be provided.
- iv. All areas where work is going on should be clearly demarcated by hard barricading and entry into these areas should be restricted to only authorize personnel.

5.2 Planning Stage:

- i. Particular attention should be given to
 - 1. Traffic Signs
 - 2. Cones
 - 3. Barriers
 - 4. Road hazard warning lights
 - 5. Information boards
 - 6. Site lighting
- ii. Consider necessity of traffic control systems such as temporary traffic lights or Stop/Go boards
- iii. Access should be planned to eliminate dangerous movements of site traffic (eg. Reversing of vehicles) and personnel (eg. Crossing of dual carriageways)
- iv. Provision of adequate lighting while working at night
- v. All persons working on a road shall wear highly visible jackets

5.3 On Site: The working space shall be defined and "A PLACE FOR EVERY THING AND EVERY THING IN ITS PLACE" to be followed.

5.4 Operators/Drivers:

- i.* Only experienced operators and drivers with valid licenses have been appointed.
- ii.* Copies of licenses have been collected.
- iii.* Refreshment training conducted for all operators and drivers.

5.5 Equipment:

- i.* Drivers are to make a daily visual inspection of their vehicles including steering, brakes, mirrors, lights, horn, tires and wind shield wipers.
- ii.* Safety department along with plant & machinery department shall check the vehicles on monthly basis.
- iii.* All vehicles should have reverse horn and it should be in working condition.
- iv.* Preventive maintenance schedule has to be followed strictly for all vehicles.

5.6 Roads : For safe operation following measures are taken

- i.* Safe width of road has been provided.
- ii.* Flag man deployed at every traffic point to control vehicle and pedestrians
- iii.* Speed limit of 10kmph to be implemented within site.
- iv.* Caution boards to be placed at site.
- v.* Workers are working with reflective jackets and required PPEs.
- vi.* Road for use by pedestrians has been identified.
- vii.* High noise intensity reverses horn used in vehicles.
- viii.* Dos and Don'ts displayed at site office.

5.7 Loading & Unloading:

- i. Only authorize person to engage for loading or unloading
- ii. Materials loaded within permitted safe load limit for vehicles
- iii. Ensuring sand/soil loaded vehicles are covered while transporting.
- iv. During toolbox talks intimation has been delivered to all drivers/operators that when the driver leaves the driving seat, engine of the vehicle should be switched off, gear engaged and parking brakes applied. On slopes wheel blocks shall be applied.
- v. Helpers have been provided with all vehicles.
- vi. After unloading, the banksman ensuring that the tipper is lowered before moving.
- vii. Turn buckle and side stoppers used while transporting as required.

5.8 Working Area:

- i. The working area has been restricted from un-authorized entry.
- ii. The working space has been defined.
- iii. Particular attention has been taken in working area
 1. Traffic Signs
 2. Cones
 3. Barriers
 4. Information boards
 5. Site lighting
- iv. All personnel wear highly visible jackets.



Tirupati Cement Products

HSE PLAN

PROJECT HIGHLIGHTS

- a. Name /Identity of the project: Construction of transmission mains pipelines and allied works in south east Guwahati water supply project
- b. Client : AUIIP
- c. Location : Guwahati
- d. Overall Scope of Work : Approx. 23 km water supply mains pipelines laying

PURPOSE

The purpose of this plan is to provide guidelines and requirements towards effective management of HSE activities during the execution of a Project. This HSE Manual describes the HSE program, which TCP shall implement throughout the various phases of a Project but condition apply as per the site situation, all the guideline & its implementation may varies as per site situation/condition and other situation.

ROLES, RESPONSIBILITIES & AUTHORITY:

Head of project and construction concerned Manager / Deputy Manager / Engineers / officers/ supervisor of sites shall be responsible to follow and implement the Rules and Regulation.

SITE OFFICE REQUIRMENTS:-

Office Equipment and Furniture: Office equipment and furniture shall be provided and maintained in safe working order. Sufficient seating arrangements, workstations, computer systems, software requirements, mobile and other communication channels shall be made available for a safe and healthy working environment. All these equipment and furniture shall comply with safety requirements including meeting requirements of ergonomics.

Fire Safety: Suitable Fire-fighting equipment shall be provided at selected location for any fire incidences. All personnel shall be provided training in and made familiar with evacuation procedures, escape routes, firefighting, and first-aid and safety exits.

Furnishings & Fittings: When arranging furniture and fitting in any office space, care shall be taken to ensure that no furniture shall block or restrict movements in walkways, corridors or other escape routes.

Electrical: No office electrical equipment shall be used in faulty or unsafe conditions. Leads on equipment shall not be routed in such way that they may cause a tripping hazard across walkways, corridors or open spaces. All electrical appliances must be routed through an RCCB. Regular inspections of electrical cables and distribution boards must be ensured.

SAFETY FIRST



Tirupati Cement Products

HSE PLAN

Flammable material and solvents: All flammable liquids (such as toners for photocopiers, toiletries, disinfectants, etc.) shall be handled and stored with care. Only a minimum quantity for ready use shall be stored. They should be protected from exposure to direct sunlight and away from any source of heat, potential ignition or naked flame.

First Aid Box: Sufficient quantities of First-Aid Boxes shall be provided and kept conspicuously identified at the site office. The contents of First-Aid Boxes as specified in BOCW Act (Appendix A) shall be made available. List of First-aiders during emergency situations with their contact numbers and location of work in the site area must be maintained and displayed at prominent areas of site and site office. The HSE Officer shall be immediately be notified for any injury at site.

Drinking water: Sufficient supply of potable water shall be maintained. Potability of drinking water shall be checked once in a year, specifically in case of change of source.

Toilets: Required number of toilets shall be provided in the office. Separate toilets for ladies and gents shall be provided.

Exits: Each of the premises shall be provided with exits, sufficient to permit the prompt escape of occupants in case of emergency. Exits and the access and egress from exits shall be maintained so that they are unobstructed and are accessible at all times. Exits shall be identified conspicuously. All exits shall discharge directly to an open space that gives safe access to a public way.

HSE TRAINING, AWARENESS AND COMPETENCE

For Effective and Safe Execution of all critical, non critical, hazardous jobs the basic competence in the field is absolutely necessary to execute the project in the Safe and Efficient Manner. The necessary job knowledge and competence is necessary to be supported with appropriate behaviors supporting the systems to make it a loss free process.

- Aspects / Impacts, Hazards / Risks and the related control various activities.
- Detailed knowledge on Roles, Responsibilities, Job Descriptions with requisites set forth in BOCW Rules and the Legal Requirements.
- Knowledge of Personal Protective Equipment's and basic safety and Construction practices.
- Training on Emergency preparedness and the roles for mitigation wherever required.
- Health Issues relevant to Occupations and their personal initiatives on prevention of disease and injuries.
- Safe Use of Tools and Electrical Equipment and Systems.
- Appropriate training programmes etc. shall be organized for all levels of people working at site at periodic intervals to improve the safety measures.

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HSE PLAN

- Appropriate posters, slogans etc., in commonly / locally understood languages shall be suitably displayed at work locations.
- Safety awareness programme such as poster design competition slogan writing etc., may be sponsored on special occasions.
- The respective Supervisor of the work force conduct Tool Box Talks on a regular basis to make personnel aware of the hazards of their activities and what precautions are to be taken to avoid any incident.
- Induction training imparted when a new employee join the company.

PERSONAL PROTECTIVE EQUIPMENT

TCP shall issue the required PPE to all workmen employed by the company depending on the job activities they are involved. It will be the responsibility of the respective Supervisor to ensure that the operators working under them are issued with the necessary PPE before they are deployed on site.

PROCEDURE FOR BARRICADE, SIGNAGE, TAGS & POSTERS

TCP shall ensure barricade of areas during excavation, lift, high pressure hydrostatic and pneumatic testing and other such work areas. Warning signage shall be displayed along the barricaded areas.

All hazardous areas of operations will be identified during work execution and properly barricaded. Necessary warning signs and HSE posters that are prominent and understandable to a layman will be displayed at site to warn about the Hazards at the work area. Excavations deeper than 1.5 meters shall be barricaded. When works are taken up in the live electrical distribution network, appropriate caution boards such as

"Do not operate – Men at work"

"Danger to Life"

etc., will be put up in the main boards and it will be locked for protection. Lock-Out/Tag-Out (LOTO) procedure will be followed strictly.

Any edge protection or barricade removed to gain access to the prohibited locations in the course of execution of work will be done only with a written permission from the concerned HSE Engineer. The removed protection shall be replaced no sooner the work is completed.

Suitable HSE posters and stickers will be arranged and displayed. Emergency telephone numbers will be displayed on all the notice boards. Emergency procedure will be displayed at appropriate places.

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HSE PLAN

VEHICLE MOVEMENT

Following shall be ensured:-

- Only Licensed drivers shall drive the vehicle.
- Speed limits shall be clearly displayed. Speed limits shall be observed strictly.
- Vehicles shall be parked at the designated parking place.
- No vehicle shall be parked under LT / HT power lines.
- Vehicles shall not block emergency evacuation road, escape path, access road for fire tenders / rescue vehicles etc.
- No worker shall take rest / sleep under any vehicle.

STORAGE OF FLAMMABLE LIQUID

Flammable liquid at project site may include Diesel, Lubricating oil, and Construction chemicals etc. The following measures shall be taken:

- Flammable liquid containers shall be stored on concrete floor. Dyke wall around the storage tank / drum shall be provided to prevent loss of containment.
- Electrical connection in the flammable liquid store shall not be provided.
- In the case of storage in tanks, the capacity of the tank shall be conspicuously marked on the tank.
- Smoking, fire near the storage area shall be prohibited. Caution board to the effect shall be displayed.
- Foam type fire extinguishers and sand buckets shall be provided near the storage area.
- No receptacle containing flammable liquid shall be repaired unless thoroughly cleaned and freed from the liquid.
- Decanting of flammable liquid from the drums shall be carried out using hand pumps.

CONSTRUCTION EQUIPMENT

Acceptance / Inspection of construction equipment prior to deployment at site:

Inspection of following construction equipment shall be carried out prior to their deployment at the site by the concerned Engineer / Safety Officer:

- Welding machines
- Gas Cutting set
- Jaws / Hydra
- Earth Moving Machinery
- Lifting tools and tackles
- D G Sets

Concerned Site Engineer & Safety Officer shall inspect the equipment as per the prescribed checklist. Record of checking shall be maintained.

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HSE PLAN

SCAFFOLDS AND PLATFORMS

- All scaffolding shall be of sound construction. A competent person must inspect each scaffold.
- All scaffolding and platforms shall be guarded.
- Personnel who are conversant with and competent to perform this work shall erect scaffolding and platform.
- Scaffolding and platform shall be removed according to construction requirements and when work has been completed.
- Where a scaffold / platform is erected in an area where the construction activities may pose hazards to pedestrians or vehicular traffic nearby from the falling of objects, wire nets or screening nets shall be used to envelope such scaffold / platform.

LADDERS

- All ladders used at the project site shall be of sound construction. Ladders shall be inspected prior to each use, and a quarterly inspection will be conducted by a competent person.
- Ladders with broken or missing rungs, broken or split side rails, or otherwise damaged, shall not be used and shall be removed from the project.
- All portable ladders placed on a stable base. The access areas at the top and bottom of ladders in use shall be kept clear of obstructions.
- The side rails shall extend above the landing. When this is not practical, grab rails shall be installed. All ladders in use shall be tied, blocked, or otherwise secured to prevent an accidental displacement.
- Tripod ladders (ladders with three legs) are prohibited on the project. All folding ladders shall have four supporting rails or legs.
- Only non-metallic, wooden, approved ladders shall be used during electrical operations where employees may come into contact with electrical circuits or systems.

EXCAVATION

- All excavation work shall be planned and the method of excavation and the type of support work required shall be decided, in consultation with Construction Manager, considering the following:
 - Stability of the ground
 - Excavation will not affect adjoining building, structures etc
 - Presence of underground pipes, cables etc

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HSE PLAN

- Sites of excavation shall be thoroughly inspected:
 - Daily, prior to each shift and after interruption in work of more than one day
 - After every blasting operation
 - After an unexpected fall of ground
 - After heavy rains
- Safe angle of repose shall be maintained while excavating trenches exceeding 1.5 meters. Slope shall, usually be not less than 45°. Suitable bench of 0.5 meter width shall be provided at every 1.5 meters depth of excavation in all type of soil except for hard rock. In case benching is not possible, proper shoring and strutting shall be provided to prevent cave-in or slides.
- Barricading of 1 meter height (with red and white bands) shall be provided for excavations beyond 1.5 meters depth. Two entries /exits shall be provided for such excavation.
- Excavated earth shall not be placed within 1 meter of the edge of the trench or depth of the trench, whichever is greater.
- Vehicles shall not be allowed to operate too close to the excavated area. At least 2 meters distance shall be maintained from the edge of excavation. No load, plant or equipment shall be placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endanger any person unless precautions such as the provision of shoring or piling are taken to prevent the slides.
- During rains, the soil becomes loose. Additional precautions shall be taken to prevent collapse of side wall.
- Necessary precautions shall be taken for underground utility lines such as cables, sewers, pipelines etc. Position of buried utilities shall be located by referring to plant drawings, if available. Necessary clearances from the concerned authorities shall be obtained before commencement of the excavation job.
- In case of mechanized excavation, precaution shall be taken to not to allow anybody to come within one meter of extreme reach of the mechanized excavator. The excavator shall be operated by a well trained experienced operator. While not in operation, the excavator shall be kept on firm ground with excavator shovel resting on the ground. Wheels of excavator shall be suitably jammed to prevent any accidental movement of the excavator.
- Water shall be pumped out, if any accumulates in the trench. Necessary precautions shall be taken to prevent entry of surface water in trenches.
- In case of excavation in the vicinity of any existing building / structure, approval shall be obtained on the excavation method from Construction Manager.

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HSE PLAN

REINFORCEMENT WORK

- Workers carrying out reinforcement work shall use proper personal protective equipment, such as Safety Helmet, Safety Shoe and Gloves.
- Hand shall not be placed below the rods for checking clear distance. Measuring device shall be used for the purpose.
- Loose clothes shall not be worn while checking the rods.
- To carry out welding / cutting of rods, safety procedures / precautions as mentioned in Section "Cutting & Welding" shall be followed.
- For supplying of rods at height, proper staging and / or bundling shall be provided.
- For short distance carrying of materials on shoulders, suitable pads shall be used.
- While transporting rods by trucks / trailers, the rods shall not protrude in front of or by the sides of driver's cabin. In case such protrusion can't be avoided behind the deck, then it should not extend $1/3^{rd}$ of deck length or 1.5 meters whichever is less and shall be tied with red flags / lights.

CONCRETING WORK

- Stability of shuttering work shall be checked before starting concreting work.
- Concreting area shall be barricaded, if pouring at height / depth.
- Vibrator hoses, pumping concrete accessories shall be kept in healthy condition.
- Pipelines in concrete pumping system shall not be attached to temporary structures such as scaffolds and formwork support as the forces and movement may affect their integrity.
- Safety cages / guards around rotating motors / parts of concrete mixers shall be in place.
- Concrete mixers shall be provided with hoppers.
- Concrete mixers shall be inspected for their condition at start of work.
- Concrete mixers shall be maintained well so as not to generate excessive noise.
- Grounding of electrical mixers, vibrators etc shall be done and verified.
- Personal protective equipment such as gloves, safety shoe and safety helmet shall be used while dealing with concrete, and nose mask shall be used while dealing with cement.
- Cleaning of rotating drums of concrete mixers shall be done from outside. Lockout devices shall be provided where workers need to enter.
- Adequate lighting arrangement shall be ensured for carrying out concrete work during night.
- During pouring, shuttering and its supports shall be continuously watched for defects.

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WASTE MANAGEMENT

Construction Materials:

This includes concrete lumps, cement lumps, tested concrete cubes, broken asbestos sheets, soil, rock, fiber glass, broken bricks etc. These shall be collected from the site and used as land fill or transported to designated dumping site. Paper, Plastics, Rubber and Glass: These shall be collected in the dustbins placed at various points at site / office. These shall be disposed off to the scrap dealer.

Metals:

Metal pieces and welding rod stubs etc shall be collected from site and segregated at source. These scrap shall be stored in the scrap yard and disposed off to the scrap dealer.

Waste Lubricating Oil:

Waste lubricating oils and oil filters shall be stored in closed containers. They shall be disposed off to the authorized recyclers.

Food Waste:

Food waste shall be collected in food waste containers with lid. They shall be disposed off to municipal collection bins or buried in designated areas for composting.

Waste Lead Acid Battery:

They shall be disposed to the authorized dealers of battery manufacturers.

Disposal of empty Paint containers:

Residual paint in the paint containers shall be kept at the minimum, by extracting the maximum paint by use of thinner. The empty paint container, thereafter, shall be disposed off suitably, in consultation with the owner.

Electrical waste from site:

Electrical waste shall be stored at identified location and shall be disposed off to scrap dealer.

Domestic waste at site:

Domestic waste generated at the site shall be buried in deep pit specifically excavated for the purpose.

ACCIDENT / INCIDENT REPORTING, RECORDING & INVESTIGATION

- Near misses, accidents involving minor injuries, major injuries involving permanent or temporary disablement of full or part of the victim's body, first-aid cases, property damage, dangerous occurrences, ill-health, etc, are all considered incidents.
- Other than the legal requirements, if any to be fulfilled by the representatives of the Administration Department, the HSE Department and others at site shall follow the Incident Reporting Flowchart prepared and displayed at all prominent locations at site.
- All incidents / accidents shall be reported immediately in TCP Preliminary Incident Report. Incident investigation shall be undertaken at the earliest but not later than two

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HSE PLAN

hours from the time of occurrence of the incident by the TCP senior personnel and HSE Officer, for establishing the cause and recommending corrective and preventive actions.

- The workforce shall be trained and retrained in reporting near-misses and all incidents. Near-misses so reported shall be recorded and maintained in TCP standard format

HOUSEKEEPING:

Housekeeping is based on the principle, "Having a place for everything and having each thing in its designated place". Housekeeping is an important element of accident prevention. It should be the primary concern of all Supervisors and till the end of the job they shall monitor it. TCP shall ensure that a high degree of housekeeping is maintained and shall ensure the following:

- All debris is removed/disposed off from the working areas to designated location(s) as shown by the client.
- Unused/surplus cables, steel items and steel scrap being scattered at different places within the working areas are collected and stacked at location(s) earmarked for scrap yard
- All wooden scrap, empty wooden cable drums and other combustible packing materials, shall be removed from work place to identified location(s).
- Roads shall be kept clear and materials like pipes, steel, cables, etc., shall be removed from the accesses to avoid obstruction to free movement of men and machinery.
- Fabricated steel structural, pipes & piping materials shall be stacked properly for erection.
- Water logging on roads shall be rectified immediately on notice.
- All trucks/trolleys, cranes and trailers, etc., shall be parked only in the designated areas and parking shall not be allowed on roads, which may obstruct the traffic movement.
- Almost care shall be taken to ensure over all cleanliness and proper upkeep of the working areas.
- Trucks carrying materials that might have dust flowing from them shall be covered while moving within the premises or these materials shall be transported with top surface wet.
- TCP shall ensure that the atmosphere in premises and on roads is free from particulate matter like dust, sand, etc. by keeping the top surface wet for ease in breathing.
- Every unit area shall have two exits at all times to ensure proper emergency evacuation.
- Proper access and egress shall be maintained at all times at site and it shall not be blocked.
- Waste containers shall be kept near the rest shed and at various locations across the site, the personnel shall be disposing off the segregated trash in the designated trash bins only.
- Scrap generated at site shall be removed on a day-to-day basis by the designated personnel at the end of the shift every day.
- Power cables, shall be laid in such a way that it does not cause trip hazard and where it is liable to get damaged.

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HSE PLAN

TOOLBOX TALKS (TBT)

TCP shall conduct daily TBT with workers prior to start of work at each shift and shall maintain proper record of the meeting. The TBT is to be conducted by the immediate supervisor of the workers. Toolbox Talks Recording Sheet shall indicate the date and time, Subject, presenter, hazards involved and precautions to be taken. The signatures of the workers shall be taken and names legibly mentioned in the TBT attendance sheet. The above record can be kept in local language, which workers can read.

TIRUPATI CEMENT PRODUCTS

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HEALTH CHECKUP AND AIDS AWARENESS CAMP

Organized By: Tirupati Cement Products



Report

Name of Project: Construction of transmission main pipelines and allied works
in south east Guwahati water supply project

1. **Purpose:** The proposed of the camp was to educate the labour about causes & prevention methods of HIV infection & AIDS. A health checkup of all the personnel was conducted.
2. **Time & Venue:** The camp was organized on 9th April, 2017 at our store yard-site office. The duration of the camp was for 2 hours.



3. **Trainer:** The training was provided by an NGO called “Social Unity Keeper Association For All” (SUKAFA).



4. **Trainees:** All the personnel of Tirupati Cement Products including Project Manager, Engineers, Supervisors, Drivers, Operators and Laborers were present in the training session. A total of 22 trainees were present.



5. **Major Points:** The following points were discussed extensively :
- The 4 methods by which HIV is spread
 - i. Infected blood transfer
 - ii. Unprotected Sex

- iii.* From pregnant mother to child
 - iv.* Use of infected syringe
- The ways of prevention of HIV transmission
 - i.* Abstinence
 - ii.* Being faithful to one's partner
 - iii.* Use of condoms
 - iv.* No sharing of needles
- The myths about transmission of HIV were debunked
 - i.* HIV does not transmit by sharing the toilet
 - ii.* HIV does not transmit by sharing food.
 - iii.* HIV does not transmit by touch.
 - iv.* HIV does not transmit by mosquitoes.



6. Conclusion: The training was successful and all the people were educated about AIDS. In health checkup, nothing unwanted came up.

Appendix- XII

SCANNED COPY OF CONTRACTORS INSURANCE FOR WORKERS

No insurance certificate is available with contractor, written mail has been given to Contractor.

Tirupathi Cement
Products

MEDICAL EXAMINATION REPORT
(PERIODICAL/PREEMPLOYMENT MEDICAL EXAMINATION)

1. Name of the project: Construction of Water Supply Transmission Main Pipelines and Allied Works in Guwahati.

2. Name of the factory/contractor agency : M/S Tirupati Cement Products

3. Name of the employee: Raj Behar Singh

4. Age of the employee: 37

5. Identification Mark: A mole on right eye

6. Nature of job (Designation & department): for m/s

7. Date of the employment: 2007

8. Length of the services in years: 10 years

9. General Survey : Health : Good/Fair/Poor

Height: 187 cm.

Weight: 90 kg.

10. Blood Group : "A" - ve

11. Eye Vision : Normal

Use of glass : NO

12. Hearing : Normal/Absent

14. Cardiovascular System : Pulse 72/min

: B.P. 120/80 mmHg

: Heart Sound Normal

: Remarks if any NO

18. Skin Condition : Normal/Absent

: Remarks on any skin disease noticed NO

20. Hydrocele : Present/Absent

21. Present complains if any :

22. Summary of Findings : Heart disease NO

: Hypertension NO

: Diabetes NO

23. Recommendation if any for any further investigation: NO

24. Comments/ Medical advice if any:

R B Singh
Signature of the employees

D. 20/3/11
Signature of the medical officer

**Tirupati Cement
Products**

MEDICAL EXAMINATION REPORT
(PERIODICAL/PREEMPLOYMENT MEDICAL EXAMINATION)

1. Name of the project: Construction of Water Supply Transmission Main Pipelines and Allied Works in Gurewatu.
2. Name of the factory/contractor agency: M/S Tirupati Cement Products
3. Name of the employee: Rubul Deke
4. Age of the employee: 24
5. Identification Mark: cut mark on left leg
6. Nature of job (Designation & department): Site Supervisor
7. Date of the employment: Dec, 2018
8. Length of the services in years: 8 months
9. General Survey
 - : Health: Good/Fair/Poor
 - Height: 170 cm.
 - Weight: 65 kg.
10. Blood Group: B⁺ true
11. Eye Vision: N/ normal 6/6
- Use of glass: no
12. Hearing: Normal/Abnormal
14. Cardiovascular System
 - : Pulse: 76/Min
 - : B.P.: 120/80 mmHg
 - : Heart Sound: normal
 - : Remarks if any: no
18. Skin Condition
 - : Normal/Abnormal
 - : Remarks on any skin disease noticed: NO
20. Hydrocele: Present/Absent.
21. Present complains if any: -
22. Summary of findings
 - : Heart disease: NO
 - : Hypertension: NO
 - : Diabetes: NO
23. Recommendation if any for any further investigation:- NO
24. Comments/ Medical advice if any:

Rubul Deke
Signature of the employees

[Signature]
Signature of the medical officer

Tirupati Cement Products

MEDICAL EXAMINATION REPORT
(PERIODICAL/PREEMPLOYMENT MEDICAL EXAMINATION)

1. Name of the project: Construction of Water Supply Transmission Main Pipelines and Allied Works in Guwahati.
2. Name of the factory/contractor agency : M/S Tirupati Cement Products
3. Name of the employee: *Sudha chandra yadav*
4. Age of the employee: *29*
5. Identification Mark: *cut mark on right hand thumb*
6. Nature of job (Designation & department): *Supervisor*
7. Date of the employment: *2009*
8. Length of the services in years: *8 years*
9. General Survey : Health : Good/Fair/Poor
Height: *170* c.m.
Weight: *65* kg.
10. Blood Group : *B⁺*
11. Eye Vision : *normal 6/6*
Use of glass : *no*
12. Hearing : *Normal/Abnormal*
14. Cardiovascular System : Pulse *70/min*
: B.P. *120/80 mmHg*
: Heart Sound *good*
: Remarks if any *no*
18. Skin Condition : *Normal/Abnormal*
: Remarks on any skin disease noticed *no*
20. Hydrocele : *Present/Absent.*
21. Present complains if any :
22. Summary of Findings : Heart disease *no*
: Hypertension *no*
: Diabetes *no*
23. Recommendation if any for any further investigation:- *no*
24. Comments/ Medical advice if any:

[Signature]
Signature of the employees

[Signature]
Signature of the medical officer

Regd. No. *153 (4762)*
Sector *1* Phs/*code*

**Tirupati Cement
Products**

MEDICAL EXAMINATION REPORT
(PERIODICAL/PREEMPLOYMENT MEDICAL EXAMINATION)

1. Name of the project: Construction of Water Supply Transmission Main Pipelines and Allied Works in Guwahati.
2. Name of the factory/contractor agency : M/S Tirupati Cement Products
3. Name of the employee: *Mithlesh Singh*
4. Age of the employee: *26*
5. Identification Mark: *cut mark on face head*
6. Nature of job (Designation & department): *Driver*
7. Date of the employment: *2015*
8. Length of the services in years: *2 years*
9. General Survey : Health : ☒ Good/Fair/Poor
Height: *172* c.m.
Weight: *72* k.g.
10. Blood Group : *'O' line*
11. Eye Vision : *Normal 4/6*
Use of glass : *no*
12. Hearing : ☒ Normal/~~Abnormal~~
14. Cardiovascular System : Pulse *72/min*
: B.P. *120/80 mmHg*
: Heart Sound *Normal*
: Remarks if any *NO*
18. Skin Condition : ☒ Normal/~~Abnormal~~
: Remarks on any skin disease noticed *NO*
20. Hydrocele : ☒ Present/Absent.
21. Present complains if any :
22. Summary of Findings : Heart disease *NO*
: Hypertension *NO*
: Diabetes *NO*
23. Recommendation if any for any further investigation:- *NO*
24. Comments/ Medical advice if any:

Signature of the employees

Mithlesh Singh

Signature of the medical officer

[Signature]

[Stamp]
Senior Physician

**Tirupati Cement
Products**

MEDICAL EXAMINATION REPORT
(PERIODICAL/PREEMPLOYMENT MEDICAL EXAMINATION)

1. Name of the project: Construction of Water Supply Transmission Main Pipelines and Allied Works in Guwahati
2. Name of the factory/contractor agency : M/S Tirupati Cement Products
3. Name of the employee: U.B. Yadav
4. Age of the employee: 32
5. Identification Mark: cut mark on left leg thumb
6. Nature of job (Designation & department): Safety officer
7. Date of the employment: Dec, 2016
8. Length of the services in years: 8 months
9. General Survey : Health : Good/Fair/Poor
Height: 165 c.m.
Weight: 68 k.g.
10. Blood Group : "O" +ve
11. Eye Vision : normal
Use of glass : no
12. Hearing : Normal/Abnormal
14. Cardiovascular System : Pulse 72/min
: B.P. 120/80 mmHg
: Heart Sound normal
: Remarks if any no
18. Skin Condition : Normal/Abnormal
: Remarks on any skin disease noticed no
20. Hydrocele : Present/Absent.
21. Present complains if any :
22. Summary of Findings : Heart disease no
: Hypertension no
: Diabetes no
23. Recommendation if any for any further investigation:- no
24. Comments/ Medical advice if any: no

Signature of the employees

Signature of the medical officer

P. J. R. Prasad
M.B.B.S.
Regd. No. 101010101
Siddhartha

**Tirupati Cement
Products**

MEDICAL EXAMINATION REPORT
(PERIODICAL/PREEMPLOYMENT MEDICAL EXAMINATION)

1. Name of the project: Construction of Water Supply Transmission Main Pipelines and Allied Works in Gurehar.

2. Name of the factory/contractor agency: M/S Tirupati Cement Products

3. Name of the employee: Santosh Yadav

4. Age of the employee: 31

5. Identification Mark: cut mark on face

6. Nature of job (Designation & department): Supervisor

7. Date of the employment: May 2017

8. Length of the services in years: 4 months

9. General Survey : Health : Good/Fair/Poor

Height: 165 cm

Weight: 63 kg

10. Blood Group : A+ve

11. Eye Vision : 6/6 normal

Use of glass : no

12. Hearing : Normal/Abnormal

14. Cardiovascular System : Pulse 90/min

: B.P. 120/80 mmHg

: Heart Sound S1A3

: Remarks if any NO

18. Skin Condition : Normal/Abnormal

: Remarks on any skin disease noticed NO

20. Hydrocele : Present/Absent, NO

21. Present complaints if any : NO

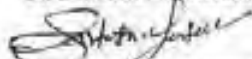
22. Summary of Findings : Heart disease NO

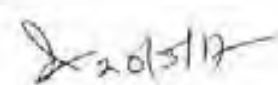
: Hypertension NO

: Diabetes NO

23. Recommendation if any for any further investigation: NO

24. Comments/ Medical advice if any:


Signature of the employee


Signature of the medical officer

Tirupati Cement
Products

MEDICAL EXAMINATION REPORT
(PERIODICAL/PREEMPLOYMENT MEDICAL EXAMINATION)

1. Name of the project: Construction of Water Supply Transmission Main Pipelines and Allied Works in Gowahati.

2. Name of the factory/contractor agency : M/S Tirupati Cement Products

3. Name of the employee: Ramchand Yadav

4. Age of the employee: 42

5. Identification Mark: Cut Mark on left hand

6. Nature of job (Designation & department): Store Keeper

7. Date of the employment: May 2017

8. Length of the services in years: 4 months

9. General Survey : Health : Good/Fair/Poor

Height: 167 cm.

Weight: 62 kg.

10. Blood Group : B+ve

11. Eye Vision : Normal 6/6

Use of glass : No

12. Hearing : Normal/Abnormal

14. Cardiovascular System : Pulse 72/Min

: B.P. 124/82 mmHg

: Heart Sound Good Normal

: Remarks if any No

18. Skin Condition : Normal/Abnormal

: Remarks on any skin disease noticed No

20. Hydrocele : Present/Absent

21. Present complains if any : No

22. Summary of Findings : Heart disease No

: Hypertension No

: Diabetes No

23. Recommendation if any for any further investigation: No

24. Comments/ Medical advice if any:

Ramchand Yadav
Signature of the employee

[Signature]
Signature of the medical officer

**Tirupati Cement
Products**

MEDICAL EXAMINATION REPORT
(PERIODICAL/PREEMPLOYMENT MEDICAL EXAMINATION)

1. Name of the project: Construction of Water Supply Transmission Main Pipelines and Allied Works in Girwalda.
2. Name of the factory/contractor agency : M/S Tirupati Cement Products
3. Name of the employee: *Mugen Talukdar*
4. Age of the employee: *23*
5. Identification Mark: *cut mark on left leg*
6. Nature of job (Designation & department): *Site Supervisor*
7. Date of the employment: *Dec, 2018*
8. Length of the services in years: *8 months*
9. General Survey : Health : *Good/Fair/Poor*
Height: *172* cm.
Weight: *62* kg.
10. Blood Group : *"B" +ve*
11. Eye Vision : *normal 6/6*
Use of glass : *no*
12. Hearing : *Normal/Abnormal*
14. Cardiovascular System : Pulse *70/Min*
: B.P. *120/80mmHg*
: Heart Sound *Normal*
: Remarks if any *no*
18. Skin Condition : *Normal/Abnormal*
: Remarks on any skin disease noticed *no*
20. Hydrocele : *Present/Absent*
21. Present complains if any : *no*
22. Summary of Findings : Heart disease *no*
: Hypertension *no*
: Diabetes *no*
23. Recommendation if any for any further investigation:- *no*
24. Comments/ Medical advice if any:

Signature of the employee:

Mugen Talukdar

Signature of the medical officer:

220/31/18

**Tirupati Cement
Products**

HEALTH CAMP PHOTO ALBUM FOR THE MONTH OF JULY TO DECEMBER 2016

AIDS AWARENESS TRAINING & HEALTH CHECK UP



Appendix- XIV
ACCIDENT REPORT

Accident & First Aid Record				
Sl. No.	Date	Name of Victim	Part of body injured	Treatment
#1	03/02/23	Dharmendra Kumar	Left Leg	Treatment
#2	04/02/23	Pat. Sharma	Right Leg	Dressing
#3	05/02/23	Pat. Sharma	Right hand middle finger	Dressing
#4	06/02/23	Pat. Sharma	Right Leg	Dressing
#5	07/02/23	Pat. Sharma	Left hand middle finger	Dressing

Accident & First Aid Record		
Treatment	Sl. No.	Remarks
Dressing	01/02/23	
Dressing	02/02/23	
Dressing	03/02/23	
Dressing	04/02/23	
Dressing	05/02/23	
Dressing	06/02/23	
Dressing	07/02/23	

24/6/23

Affidavit for engagement of less than 20 labor



भारतीय गैर न्यायिक

दस रुपये
रु.10

TEN RUPEES
Rs.10

INDIA

INDIA NON JUDICIAL

असम असम ASSAM 22AA 643215

BEFORE THE NOTARY :: KAMRUP (METRO) :: AT GUWAHATI

21 AUG 2017 AFFIDAVIT

I, CHAMAN ANSARI, aged about - 40 years, son of Md. Makbul, resident of C-60, Community Centre, Janakpuri, New Delhi - 110058, Presently residing at Dona Presidency, Sixmile, VIP Road, Guwahati - 781022, P.S. - Dispur, in the district of Kamrup (Metro), Assam do hereby solemnly affirm and declare as follows :

That I am a citizen of India by birth and a resident of the aforesaid locality.

I am the Project Manager (Authorised Signatory) of "Tirupati Cement Products", Govt. Contractor & Builder, Head Office at C-60 Community Centre, Janakpuri, New Delhi and Branch Office at Guwahati, P.N.C. Office No. 5, Vishnu Market, Bharalumukh, P.S. - Bharalumukh, Guwahati, in the district of Kamrup (Metro), Assam.

That our said firm has entered into a contract being No. AUIP/PRI/GUW/WS01 with Government of Assam.

4. That we are going to engage less than 20 workers for the said work.

Contd....

21 AUG 2017

NOTARY
KAMRUP (METRO) GUWAHATI
Regd. No. 111111

(CHAMAN ANSARI)



- 2 -

অসম অসম ASSAM

5. That this affidavit shall be used as a piece of documentary evidence in support of my statement made above and the same shall be produced before the concern authority as and when required. 22AA 643216

6. That all the statements made in this affidavit are true to the best of my knowledge and belief.

OATH

"I swear that this my declaration is true, that it conceals nothing, and that no part of it is false, so help me God."

And I sign this affidavit on this 21st day of AUGUST, 2017 at Guwahati.

Identified by me

(Signature)

Advocate, Guwahati.

(Signature)
CHAMAN ANSARI
DEPONENT

Solemnly affirmed and declared before me by the deponent who is identified by **Jonab Ali Ahmed**, Advocate, Guwahati on this 21st day of **AUGUST, 2017** at Guwahati.





(Signature)
NOTARY
Kamrup (Metro) Guwahati
Regd. No. KAM-1/1

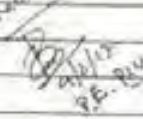
21 AUG 2017

Labour Summary (Page 2 of 2)

S.N.	Name of worker	Age	Category	Signature	Remarks
20	VISHAL KUMAR	24	Welder	VISHAL KUMAR	
21	MOKESH ALAM	30	Helper	MOKESH ALAM	04/02/17
22	JAYABDIN ALAM	35	Helper	JAYABDIN ALAM	
23	ERFAD ALAM	27	Helper	ERFAD ALAM	
24	MASUM ALAM	25	Helper	MASUM ALAM	
25	Govind ALAM	22	Helper	Govind ALAM	
26	Masum ALAM	21	Helper	MASUM ALAM	
27	Masum ALAM	20	Helper	MASUM ALAM	
28	Ravi ALAM	26	Helper	Ravi ALAM	
29	Sahab Kumar	19	Helper	Sahab Kumar	
30	Ramzan Hussain	19	Helper	Ramzan Hussain	09/02/17
31	Anish Choudhary	14	Helper	Anish Choudhary	
32	Kalash Kumar	30	Fitter	Kalash Kumar	
33	Mukul Ali	27	Helper	Mukul Ali	10/02/17
34	Jitendra Kumar	25	Welder	Jitendra Kumar	13/02/17
35	Indrajeet Kumar	23	Welder	Indrajeet Kumar	
36	Mohammed	25	Helper	Md. Lu/Ram	25/02/17
37	Mahesh	28	Helper	Mahesh Ali	26/02/17
38	Ravi Dey	24	Helper	Ravi Dey	27/02/17
39	Mohd. Dutt	41	Helper	M. DUTTA	18/03/17

Labour Summary (Page 2 of 2)

S.N.	Name of worker	Age	Category	Signature	Remark
01	Mahesh Kumar	24	Fitter	Mahesh Kumar	22/01/17
02	Ravi Kumar	20	Helper		
03	Narayan Singh	25	Welder	Narayan Singh	
04	Suresh Singh	40	Welder	Suresh Singh	
05	Rajesh Kumar	21	Helper	Rajesh Kumar	
06	Rohit Kumar	19	Helper	Rohit Kumar	
07	Vinay Kumar	25	Welder	Vinay Kumar	30/01/17
08	Krishna Singh	51	Rigger	Krishna Singh	
09	Pankaj Singh	35	Publication	Pankaj Singh	
10	Rishi Singh	23	Guarantee	Rishi Singh	
11	Kamlesh Singh	20	Welder	Kamlesh Singh	
12	Rajesh Kumar	26	Welder	Rajesh Kumar	
13	Hari Singh	21	Helper	Hari Singh	
14	R.B. Singh	28	Helper	R.B. Singh	
15	Talwar Singh	24	Helper	Talwar Singh	01/02/17
16	Ravi Singh	21	Helper	Ravi Singh	
17	Manish Kumar	22	Helper	Manish Kumar	
18	Pradeep Chauhan	22	Helper	Pradeep Chauhan	
19	Abdul Salam	21	Helper	Abdul Salam	02/02/17
20	Santosh	25	Helper		

Checked: 
P.E. Singh

Atty. Genl.
G. Singh
22/01/17

PUBLIC CONSULTATION SAMPLE COPY – AT WORKING LOCATION

Public Consultation During Construction										
Package No. : AUIP/PR-01/GUV/WS-01										
Area/Location : VIP Road										
S.No.	Date	PHE Connection Affected	Overburden Soil Removed?	Road Restoration remarks	Dust & Noise Problem	social Safety arrangements Caution tape/ barricade etc.	Problem of local movement	Any other problem faced	Name and address	Signature
1.	06-02-17	No	Yes	No	No	Yes	No	-	Abanoubin Ahmed, Pathanquary, VIP Road, Gaurhat, 9597062770	<i>Abanoubin</i>
2.	06-02-17	No	Yes	No	No	Yes	No	-	Majumdar, Pathanquary, VIP Road, GHY - 781036, 8264401	<i>M. Majumdar</i>
3.	07-02-17	No	Yes	No	No	Yes	No	-	Rahul Das, Pathanquary, VIP Road, GHY, Mobile: 7035051424	<i>Rahul</i>
4.	07-02-17	No	Yes	No	No	Yes	No	-	Irind Manu, VIP Road, Near Hindusthan College, Siliguri	<i>Irind Manu</i>
5.	07-02-17	No	Yes	No	Little	Yes	No	-	Rahul Deka, VIP Road, Near Hindusthan College, 9706402943	<i>Rahul Deka</i>
6.	07-02-17	No	Yes	No	No	Yes	Yes	-	Intendia Roy, VIP Road - 7399583114	<i>Intendia Roy</i>
7.	10-02-17	No	Yes	No	No	Yes	No	-	Bhargava Sharma, Near Hindusthan, VIP Road, 0133057779	<i>Bhargava Sharma</i>
8.	10-02-17	No	Yes	No	Yes	Yes	No	-	Rajesh Barman, VIP Road, Vivian Barman, 9864736746	<i>Rajesh Barman</i>

[illegible]

INFORMATION AND NOTICE DISTRIBUTION TO THE NEARBY RESIDENCES

INFORMATION AND NOTICE DISTRIBUTION TO THE NEAR BY RESIDENCE

1	NAME	ADDRESS WITH PHONE NUMBER	SIGNATURE	REMARKS
2	Abusaid Ahmad	Potharguri VIP Road Unwahati 757766	Abusaid Ahmad	
3	Mangra Talukder	Potharguri VIP Road Unwahati 757766	M. Talukder	
4	Rahul Das	Potharguri VIP Road Unwahati 757766	Rahul Das	
5	Jasod Mombas	Potharguri VIP Road Unwahati 757766	Jasod Mombas	
6	Rubul Bora	Potharguri VIP Road Unwahati 757766	Rubul Bora	
7	Latifur Rahman	Potharguri VIP Road Unwahati 757766	Latifur Rahman	
8	Abiraj Ghosh	Potharguri VIP Road Unwahati 757766	Abiraj Ghosh	
9	Rajib Barmen	Potharguri VIP Road Unwahati 757766	Rajib Barmen	
10	Rabi Ali	Potharguri VIP Road Unwahati 757766	Rabi Ali	
11	S. Rahman	Potharguri VIP Road Unwahati 757766	S. Rahman	
12	Amir Talukder	Potharguri VIP Road Unwahati 757766	Amir Talukder	
13	Dimple Patra	Noronmadi Unwahati 8150678910	Dimple Patra	
14	Ali Talukder	Noronmadi Unwahati 7864967875	Ali Talukder	
15	Latifa Barmen	Potharguri VIP Road Unwahati 757766	Latifa Barmen	

PREPARED BY

REVIEWED BY

APPROVED BY

HSE OFFICER

PLANNING OFFICER

PROJECT MANAGER

SUGGESTION AND COMPLAINT FORM

SUGGESTED COMPLAINT REGISTER AND COMPLAINT FORM

The **Assam Urban Infrastructure Investment Program (AUIIP)** welcomes complaints, suggestions, queries and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing ***(CONFIDENTIAL)*** above your name. Thank you.

Date		Place of registration			
Contact Information/Personal Details					
Name		Gender	Male Female	Age	
Home Address					
Village / Town					
District					
Phone no.					
E-mail					
Complaint/Suggestion/Comment/Question Please provide the details (who, what, where and how) of your grievance below: If included as attachment/note/letter, please tick here:					
How do you want us to reach you for feedback or update on your comment/grievance?					

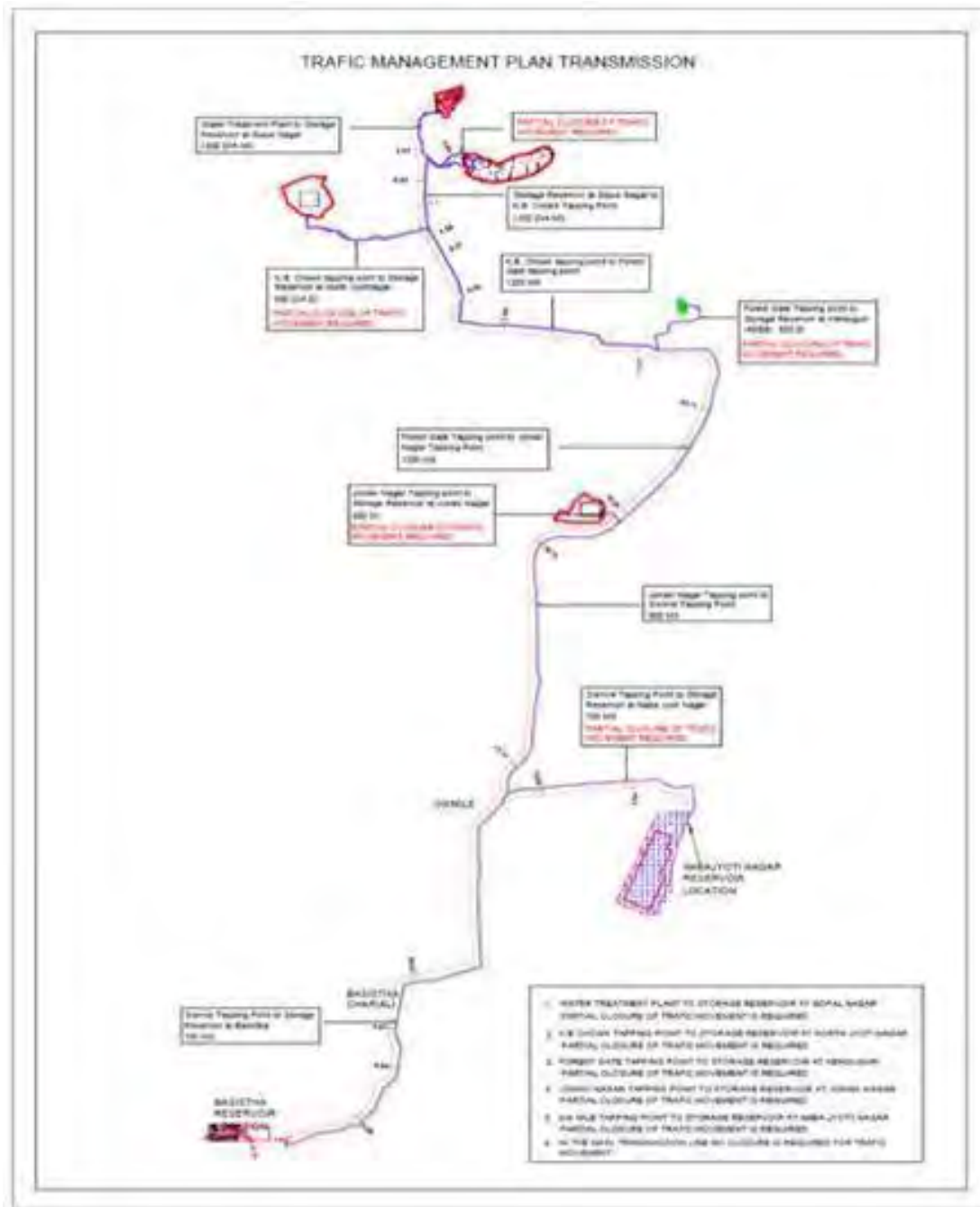
FOR OFFICIAL USE ONLY

Registered by: (Name of official registering grievance)	
If – then mode: <input type="checkbox"/> Note/Letter <input type="checkbox"/> E-mail <input type="checkbox"/> Verbal/Telephonic	
Reviewed by: (Names/Positions of Official(s) reviewing grievance)	
Action Taken:	
Whether Action Taken Disclosed:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Means of Disclosure:	

GRIVENCES RECORD AND ACTION TAKEN

Sr. No.	Date	Name and Contact No. of Complainer	Type of Complain	Place	Status of Redress	Remarks

Traffic Management Plan for Transmission Project



Attendance Sheets

Attendance Register

For the month of FEBRUARY - 2017

No.	NAME	Designation	ATTEN																														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
01	BINAY KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
02	VISHAL KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
03	BRAJESH KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
04	SURENDRA SAH	Welder	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
05	PRAMOD SINGH	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
06	KAMLESH KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
07	RAJESH KUMAR	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
08	MANOJ KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
09	KAMOD KUMAR	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
10	BINOD SAHANI	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
11	PRAMOD KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
12	SAHEB KUMAR	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
13	RAHUL KUMAR	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
14	NIRANJAN SAH	Welder	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
15	KRISHNA SAH	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
16	FATIMA BEGUM	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
17	RATIA KHATOON	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
18	PINKI DAS	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P
19	SARVAR ALAM	Helper	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	-	P	P	P	-	P	P	P	-	P	P

DANCE											Actual No. of days worked	Late	Total No. of Days Salary to due	Rate of Pay	Payable Basic Salary	Advance	Gross Amt Payable	Pro
23	24	25	26	27	28	29	30	31										
P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													
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P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													
P	P	P	-	P	P													

Attendance Register

No.	NAME	Designation	ATTEN																										
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22					
01	BINAY KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	-	-	P	P	P	P	-	P	P	P	P	P	P	P	P	P	P
02	VISHAL KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
03	BRAJESH KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
04	SURENDRA SAH	Welder	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
05	PRAMOD SINGH	Stitcher	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
06	KAMLESH KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
07	RAJESH KUMAR	Helper	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
08	MANOJ KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
09	KAMOD KUMAR	Helper	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
10	BINOD SAHANI	Rigger	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
11	PRAMOD KUMAR	Welder	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
12	SAHEB KUMAR	Helper	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
13	RAHUL KUMAR	Helper	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
14	NIRANJAN SAH	Welder	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
15	KRISHNA SAH	Rigger	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
16	RAZIA KHATOON	Helper	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
17	NUJHAT KHATOON	Helper	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
18	SITARA RAND	Helper	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P
19	GARYAR ALAM	Helper	P	P	P	P	-	P	P	P	P	P	P	-	-	P	P	P	P	P	-	P	P	P	P	-	P	P	P

For the month of MARCH - 2017[illegible]

Attendance Register

[illegible]

For the month of APRIL - 2017

[illegible]

Attendance Register

For the month of MAY - 2017

No.	NAME	Designation	ATTEN																													
			①	2	3	4	5	6	⑦	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
01	BAAJESH KUMAR	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
02	VISHAL KUMAR	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
03	SURENDRA SAH	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
04	JITENDRA KUSWAH	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
05	KAMLESH KUMAR	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
06	KRISHNA SAH	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
07	BINOD SAHANI	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
08	SAHEB KUMAR	Helper	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
09	PINKI DAS	Helper	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
10	NIRANJAN SINGH	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
11	MOKESH ALAM	Helper	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
12	SARWAR ALAM	Helper	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
13	RUBUL DEKA	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P
14	RUKSANA KHATOON	Welder	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P	-	P	P	P	P	P

[illegible]

Attendance Register

No.	NAME	Designation	ATTEN																					
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
01	BRAJESH KUMAR	Welder	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
02	VISHAL KUMAR	Welder	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
03	SURENDRA SAH	Welder	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
04	JITENDRA KUSWAH	Welder	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
05	KAMLESH KUMAR	Welder	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
06	KRISHNA SAH	Welder	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
07	BIHOD SAHANI	Welder	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
08	SAHEB KUMAR	Helper	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
09	VIKASH KUMAR	Helper	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
10	NIRANJAN SINGH	Welder	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
11	ANJALI ROY	Helper	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
12	PINKI DAS	Helper	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
13	RUBUL DEKA	Supervisor	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P
14	KAMEL KUMAR	Helper	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P	P	P	-	P	P	P	P

For the month of JUNE - 2017[illegible]

APPENDIX-GUWAHATI

ASSAM URBAN INFRASTRUCTURE INVESTMENT PROGRAM (ADB Loan No.2806-IND)

Package No-AUIIP/PR-1/GUW/WS/02A

Contract Title: Construction of Storage Reservoirs of various Capacities at Three locations, Approach road and allied Works in South East Guwahati Water Supply Project

WORKPLAN FOR GOPALNAGAR RESERVOIR (17ML)

Sr. No.	SCEI Item No.	Item Description	No. of days	Start Date	Finish Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
8	6	Supplying, fitting and fixing in position reinforcement in substructure	151	01-11-2016	30/3/2017																								
	7	Providing formwork in super structure	82	01-06-2017	31/5/2017																								
	9	RCC works	151	01-09-2017	30/8/2017																								
	5.1	In Sub Structure up to Plinth Level -	151	01-09-2017	30/8/2017																								
	6	Supplying, fitting and fixing in position reinforcement in super structure	168	15/10/2017	31/3/2018																								
	7	Providing formwork in super structure	151	01-11-2017	30/4/2018																								
	5.2	In Super Structure from Plinth level and up to Top of Reservoir	161	01-01-2018	30/6/2018																								
		Reservoir Flooring	24	28/7/2018	20/8/2018																								
	8	Reservoir Flooring	19	28/7/2018	15/8/2018																								
	8	10mm thick cement plaster in two coats	30	01-08-2018	20/8/2018																								
		Finishing on Reservoir Wall	152	01-04-2018	31/8/2018																								
	10	15 mm thick cement plaster in single coat, in cement mortar 1 : 4	5	16/8/2018	20/8/2018																								
	11	Construction of RCC Sump Case	153	01-04-2018	31/8/2018																								
	12	Tests for providing and mixing waterproofing Paints/Coat	31	01-07-2018	31/7/2018																								
	13	Providing grouting by drilling holes @ 3 m x 4	31	01-08-2018	31/8/2018																								
		SLR Compound Development	82	01-06-2018	31/8/2018																								
	14	Providing brick sowing in foundation and under floor	30	06-01-2019	30-6/2019																								
15	Providing and laying PCC of nominal mix 1:3:6	21	15/6/2019	06-07-2019																									
16	75 mm thick cement concrete topping in sump in proportion 1 : 2 : 4	21	20/6/2019	16-07-2019																									
17	Providing sump with cement concrete (1:3:6)	48	15/7/2019	31/8/2019																									
18	Schedule No. 9	GUANO ROOM	82	01-11-2016	31-01-2017																								

WORKPLAN FOR KENDUGURI

ASSAM URBAN INFRASTRUCTURE INVESTMENT PROGRAM (ADB Loan No.2806-IND)																								
Package No-AU/IRPR-IGU/WS/02A																								
Contract Title: Construction of Storage Reservoir of various Capacities at Three locations, Approach road and allied Works in South East Guwahati Water Supply Project																								
WORK PLAN FOR KENDUGURI RESERVOIR (3.8 ML)																								
Sl. No.	SOG Item No.	Item Description	No. of days	Start Date	Finish Date	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	SURVEY & PREPARATION OF APPROACH ROAD DRAWING	67	23/9/2016	30-11-2016																			
2	2	APPROVAL OF APPROACH ROAD ALIGNMENT	31	01-12-2016	31-12-2016																			
3	3	ARRANGEMENT OF ELECTRIC POWER & WATER	59	01-01-2017	28-02-2017																			
4	4	SHIFTING OF ELECTRIC POLES & FALLING OF TREES	80	01-02-2017	31-03-2017																			
5	5	LABOUR CAMP WITH TOILETS	151	01-11-2016	31/3/2017																			
6	6	SITE OFFICE	151	01-12-2016	30-04-2017																			
7	7	SIGNBOARD	31	01-10-2016	31-10-2016																			
8	8	STORAGE YARD	31	01-04-2017	01-05-2017																			
9	9	STORAGE YARD FOR CONSTRUCTION MATERIALS	59	01-01-2017	28-02-2017																			
10	Schedule No. 4		212	01-12-2016	30-06-2017																			
	1	Clearing lines and removal of Rubbish	7	01-12-2016	07-12-2016																			
	2	Excavation in soil in hilly area by mechanical means	63	08-12-2016	08-02-2017																			
	3	Excavation in hill area in ordinary rock not requiring blasting	63	08-12-2016	08-02-2017																			
	4	Stone masonry work in retaining wall	90	15-03-2017	15-05-2017																			
	4.1	Random Rubble Masonry	90	15-03-2017	15-05-2017																			
	5	Construction of GSB Layer	15	01-06-2017	15-06-2017																			
	6	Laying and spreading of WBM layer	16	17-06-2017	02-07-2017																			
	7	emulsion	15	01-10-2017	15-10-2017																			
	8	emulsion	15	16-10-2017	31-10-2017																			
	9	Open graded premix surfacing which is 20mm thick	15	01-11-2017	15-11-2017																			
	10	Providing and laying seal coat	10	20-11-2017	30-11-2017																			
	Side Drain of Approach Road		87	01-09-2017	26-09-2017																			
	11	Excavation in soil in hilly area by mechanical means	7	01-03-2017	07-03-2017																			
	12	Providing brick soiling	8	08-03-2017	16-03-2017																			
	13	Providing and laying in position PCC of nominal mix 1:2:4	16	10-03-2017	26-03-2017																			
	14	Brickwork in cement mortar in proportion 1: 4	30	01-04-2017	30-04-2017																			
	15	15mm thick cement plastering with 1:4 cement mortar	15	01-05-2017	15-05-2017																			
	16	New cement punning over plastered surface @2kg/sqm	10	16-05-2017	26-05-2017																			
	Drain Cover & Grating of Side Drain		30	01-06-2017	30-06-2017																			
	18	Providing formwork of ordinary timber	30	01-06-2017	30-06-2017																			
	19	Supplying, fitting and fixing in position reinforcement bars (1#-500 Grade) of TATA / SAIL	30	01-06-2017	30-06-2017																			
	20	Providing and laying /RCC work cement	30	01-06-2017	30-06-2017																			
11	Schedule No. 2		472	01-09-2017	17-04-2018																			
	1	Earth work excavation for foundation trenches of walls, retaining walls etc.	31	01-01-2017	31-01-2017																			
	2	Double layer 200mm thick rubble soiling in foundation and under floor	89	01-01-2017	30-04-2017																			
	3	PCC Works	61	01-05-2017	30-06-2017																			
	5	Providing formwork	168	01-08-2017	15-01-2018																			
	5.1	In Substructure	31	01-08-2017	31-08-2017																			
	5.2	In Superstructure	32	15-12-2017	15-01-2018																			
	6	Supplying, fitting and fixing in position reinforcement	199	01-07-2017	15-01-2018																			
		In Substructure	31	01-07-2017	31-07-2017																			
		In Superstructure	32	15-12-2017	15-01-2018																			
	4	Providing & laying M-30 RCC work	197	01-09-2017	16-02-2018																			

Sr. No.	BOQ Item No.	Item Description	No. of days	Start Date	Finish Date	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
12	4.1	In Substructure	91	01-09-2017	30-11-2017																															
	4.2	In Superstructure	60	16-03-2018	16-05-2018																															
	7	Providing and laying pitching on slopes	32	17-02-2018	17-04-2018																															
	8	Providing weep holes	32	17-02-2018	17-04-2018																															
	Schedule No. 1	STORAGE RESERVOIR	518	01-09-2017	30/9/2018																															
	1	Single Clearance	31	01-09-2017	01-09-2017																															
	2	Earthwork in Excavation	214	01-09-2017	01-12-2017																															
	3	Double Layer Rubble Soling	91	01-09-2018	31/5/2018																															
	4	PCC Work	28	01-09-2018	28/5/2018																															
	6	Supplying, fitting and fixing in position reinforcement in substructure	46	01-09-2018	15/4/2018																															
	7	Providing formwork in super structure	15	16/4/2018	30/4/2018																															
	5	RCC Works	31	01-09-2018	01-09-2018																															
	5.1	In Sub Structure up to Fifth Level -	31	01-09-2018	01-09-2018																															
	6	Supplying, fitting and fixing in position reinforcement in super structure	30	01-09-2018	30-09-2018																															
	7	Providing formwork in super structure	31	01-09-2018	31/7/2018																															
	7.2	In Super Structure from Fifth Level and up to Top of Retained	32	01-09-2018	31/7/2018																															
		Retained Flooring	15	16/9/2018	30/9/2018																															
	8	Retained Flooring	15	16/9/2018	30/9/2018																															
	9	20mm thick cement plaster in two coats	11	20/9/2018	30/9/2018																															
		Finishing on Retained Wall	77	01-09-2018	15/9/2018																															
	10	15 mm thick cement plaster in single coat in cement mortar 1:4	15	01-09-2018	15-09-2018																															
	11	Construction of RCC Stair Case	92	01-09-2018	31/8/2018																															
	12	Extra for providing and mixing waterproofing Plastiser	46	01-09-2018	15/8/2018																															
	13	Providing grouting by drilling holes @ 1 m c/c	15	01-09-2018	15/8/2018																															
		Grout Compound Development	61	01-09-2018	30/9/2018																															
	14	Providing brick soling in foundation and under floor	15	01-09-2018	15-09-2018																															
	15	Providing and laying PCC of nominal mix 1:3:6	16	16-09-2018	01-09-2018																															
	16	75 mm thick cement concrete topping in slab in proportion 1:2:4	15	01-09-2018	15-09-2018																															
	17	Providing drain with cement concrete (1:3:6)	61	01-09-2018	30/9/2018																															
13	Schedule No. 3	GUARD ROOM	122	01-09-2017	30-09-2017																															




WORKPLAN FOR NORTH JYOTI NAGAR

ASSAM URBAN INFRASTRUCTURE INVESTMENT PROGRAM (ADB Loan No.2895-IN2)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Sl. No.	BOQ Item No.	Item Description	No. of days	Start Date	Finish Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
12	Schedule No. 3	STORAGE RESERVOIR	499	01-11-2018	30-11-2018																								
	1	Unpaid Clearance	15	01-11-2018	15-11-2018																								
	2	Earthwork in Excavation	120	01-12-2018	31-03-2019																								
	3	Double Layer Bitume Sealing	30	01-04-2019	30-04-2019																								
	4	RCC Work	90	01-05-2017	30-09-2017																								
	6	Supplying, fixing and tying in position reinforcement in substructure	92	01-07-2017	30-09-2017																								
	7	Providing formwork in sub-structure	92	01-10-2017	31-10-2017																								
	5	RCC Slabs	150	29-10-2017	30-09-2018																								
	5.1	In Sub Structure up to Floor Level	70	19-10-2017	31-12-2017																								
	5.2	In Super Structure from Floor Level to top of reservoir	120	01-04-2018	30-09-2018																								
	8	Supplying, fixing and tying in position reinforcement in super structure	92	01-01-2018	28-02-2018																								
	7	Providing formwork in super structure	75	15-01-2018	31-03-2018																								
		Reservoir Flooring	40	20-10-2018	29-11-2018																								
	8	Reservoir Flooring	31	01-10-2018	31-10-2018																								
	9	20mm thick cement plaster in two coats	32	01-11-2018	13-11-2018																								
		Finishing on Reservoir Wall	30	22-09-2018	30-09-2018																								
	10	15 mm thick cement plaster in single coat on cement mortar 1 : 4	30	01-09-2018	30-09-2018																								
	11	Construction of RCC Stair Case	30	01-09-2018	30-09-2018																								
	12	Extra for providing and fixing waterproofing Membrane	30	01-09-2018	30-09-2018																								
	13	Providing grouting by drilling holes @ 3 m c/c	30	01-09-2018	30-09-2018																								
		BLM Compound Development	30	28-11-2018	29-12-2018																								
	14	Providing brick setting in foundation and under floor	30	01-11-2018	30-11-2018																								
	15	Providing and laying RCC of nominal mix 3 : 5 : 6	30	01-11-2018	30-11-2018																								
	16	75 mm thick cement concrete topping in carbor in proportion 1 : 2 : 4	30	01-11-2018	30-11-2018																								
	17	Providing drain with cement concrete (1:2:4)	30	01-11-2018	30-11-2018																								
13	Schedule No. 3	GUARD ROOM	92	22-03-2017	01-06-2017																								




Appendix- II

SHIVAM TRANSCON PVT. LTD.
17MLD CLEAR WATER RESERVOIR PROJECT AT GOPALNAGAR
PHOTO ALBUM FOR THE MONTH OF JAN TO JUNE 2017

	<p>Activity: Approach Road side drain</p> <p>Date: 04/01/2017</p> <p>Place: Gopalnagar</p>
	<p>Activity: PCC in Retaining wall.</p> <p>Date: 07/01/2017</p> <p>Place: Gopalnagar</p>
	<p>Activity: Tool Box Talk At Site.</p> <p>Date: 19/01/2017</p> <p>Place: Gopalnagar</p>






SHIVAM TRANSCON PVT. LTD.
17MLD CLEAR WATER RESERVOIR PROJECT AT GOPALNAGAR
PHOTO ALBUM FOR THE MONTH OF JAN TO JUNE 2017

	<p>Activity: Rock breaking in Reservoir</p> <p>Date: 01/02/2017</p> <p>Place: Gopalnagar</p>
	<p>Activity: Boulder solling on Reservoir base.</p> <p>Date: 06/02/2017</p> <p>Place: Reservoir Area.</p>
	<p>Activity: ADB Visit at site.</p> <p>Date: 20/02/2017</p> <p>Place:Reservoir</p>






SHIVAM TRANSCON PVT. LTD.
17MLD CLEAR WATER RESERVOIR PROJECT AT GOPALNAGAR
PHOTO ALBUM FOR THE MONTH OF JAN TO JUNE 2017

	<p>Activity: MOM in the site Office.</p> <p>Date: 02/03/2017</p> <p>Place: Reservoir Area</p>
	<p>Activity: Rock Breaking</p> <p>Date: 20/03/2017</p> <p>Place: Reservoir Area</p>
	<p>Activity: Retaining wall raft.</p> <p>Date: 27/03/2017</p> <p>Place: Gopalnagar .</p>



SHIVAM TRANSCON PVT. LTD.
17MLD CLEAR WATER RESERVOIR PROJECT AT GOPALNAGAR
PHOTO ALBUM FOR THE MONTH OF JAN TO JUNE 2017

	<p>Activity: Retaining wall casting</p> <p>Date: 02/04/2017</p> <p>Place: Gopalnagar</p>
	<p>Activity: PD Visit at site.</p> <p>Date: 03/04/2017</p> <p>Place: Returning wall</p>
	<p>Activity: Sample collection</p> <p>Date: 10/04/2017</p> <p>Place: Gopalnagar</p>



SHIVAM TRANSCON PVT. LTD.
17MLD CLEAR WATER RESERVOIR PROJECT AT GOPALNAGAR
PHOTO ALBUM FOR THE MONTH OF JAN TO JUNE 2017

	<p>Activity: Raft casting</p> <p>Date: 10/06/2017</p> <p>Place: Reservoir</p>
	<p>Activity: Reservoir retaining wall casting</p> <p>Date: 19/06/2017</p> <p>Place: Reservoir</p>
	<p>Activity: Tool Box Talk at Site,</p> <p>Date: 21/06/2017</p> <p>Place: Gopalnagar</p>



BUDGET – ENVIRONMENT, HEALTH & SAFETY

SHIVAM TRANSCON PVT.LTD					
SAFETY BUDGET					
NAME OF THE PROJECT:-		ASSAM URBAN INFRASTRUCTURE INVESTMENT PROGRAM		DURATION OF PROJECT:-	
BREIF SCOPE OF WORK:-		PACKAGE-02A		PROJECT COST:-	
WORK ORDER NUMBER:-		2864-IND		WORKMEN STRENGTH:-	
				50 Head	
SITE SAFETY BUDGET					
S.NO.	ITEMS	UNIT	QUANTITY	UNIT COST IN Rs.	ESTIMATED COST
1	SAFETY HELMET WHITE	Nos	9	185	1665
2	SAFETY HELMET RED	Nos	3	185	555
3	SAFETY HELMET BLUE	Nos	18	185	3330
4	SAFETY HELMET GREEN	Nos	3	185	555
5	SAFETY HELMET YELLOW	Nos	150	70	10500
6	HELMET RING	Nos	300	35	10500
7	SAFETY SHOE FOR STAFF	Pair	21	1100	23100
8	SAFETY SHOE FOR LABOUR	Pair	162	480	77760
9	GUM BOOT	Pair	45	345	15525
10	SAFETY GOGGLE WHITE GLASS	Nos	200	60	12000
11	SAFETY GOGGLE BLACK GLASS	Nos	50	60	3000
12	EAR PLUG FOAM BASED	Nos	100	15	1500
13	NOSE MASK	Nos	500	12	6000
14	HAND GLOVES RUBBER	Pair	100	30	3000
15	HAND GLOVES COTTON	Pair	500	22	11000
16	HAND GLOVES LEATHER	Pair	50	60	3000
17	FULL BODY HARNESS	Nos	50	1100	55000
18	REFLECTING JACKET GREEN	Nos	50	80	4000
19	REFLECTING JACKET ORANGE	Nos	150	80	12000
20	HELMET STICKER	Nos	200	2	400
21	SAFETY DISPLAY BANNERS	Nos	6	500	3000
22	SAFETY SIGN BOARD	Nos	45	400	18000
23	FIRE EXTINGUISHER-DCP	Nos	2	6000	12000
24	REFILLING CHARGES	Nos	6	2500	15000
25	ROPE FOR MATERIALS SHIFTING	Kg	50	220	11000
26	ROPE SLEEP PULLY	Nos	2	2000	4000
27	BARRICADING TAPE	Roll (RMT)	30	350	10500
28	25MM PP ROPE FOR LIFELINE	Kg	60	220	13200
29	SALARY FOR SAFETY OFFICER	INR	36	30000	1080000
30	SALARY FOR SAFETY SUPERVISORE	03 Head	36	15000	1620000
30	MOTIVATION & AWARDS	Nos	6	10000	60000
31	FIRST AID ITEM	Nos	2	5000	10000
32	HOSPITAL FACILITY	Nos			50000
33	WINTER SAFETY				50000
34	SAFETY TOOLS & TACKLES INSPECTION (TPI)	Half Yearly	6	5000	30000
35	POLLUTION TEST (EWN)	Half Yearly	6	4000	24000
36	OTHER EMERGENCY SITUATIONS			100000	100000
TOTAL					3365090
Prepared By Umakant Sharma(HSE Officer)		Reviewed By D.Roy Choudhary (PM)		Approved By Pritam Hazarika (CED)	

NOC FROM DIFFERENT DEPARTMENTS AND INDIVIDUAL

Certificate for Land Possession

অসম চৰকাৰ
চক্ৰ বিষয়াৰ কাৰ্য্যালয় :..... গুৱাহাটী ৰাজহ চক্ৰ
গুৱাহাটী
নং প্ৰঃচঃ :..... তাৰিখঃ :.....

দখল সমজাই দিয়া/লোৱাৰ প্ৰমাণ পত্ৰ

আজি আমি ২০.১১ চনৰ ৮/১/২০১৬ ইং
তাৰিখে নিম্ন বৰ্ণিত ৮৮'০১'..... আৰু জমিৰ পটন/আবণ্টন কৰা/ অধিগ্ৰহণ
কৰা জমিৰ কামৰূপ মহানগৰ জিলাৰ আভিবিহীন উনামুক্ত মহোদয়ৰ ২০.১১/১৬
ইং তাৰিখৰ ক্ৰি.প্ৰঃ.নং: ৬২৪/২০০৭/৬৫১-১১১১ চিঠি আৰু অসম ৰাজহ পত্ৰ
নোংৰিত ইং তাৰিখৰ নং চিঠি
মৰ্মে বিভাগীয় কৰ্তৃপক্ষক/ কৰ্তৃপক্ষৰ পৰা দখল সমজাই দিলো/লোৱা।

মাটিন তথ্যসমূহ:

নোজা: উপৰ বাকীচহৰ: চান্দমাৰ্গপট নং
৮৮দাগ নং
৪৪২কালি
৮৮'০১ আৰু ৮৮'০১

দখল সমজি নালো

[Signature]
8-5-13
Suptd, GDA
P. B. B. B.
8/5/13
- adm. B. B.


[Signature]
প্ৰতি স্বাক্ষৰ
চক্ৰ বিষয়া
গুৱাহাটী ৰাজহ চক্ৰ

দখল সমজি দিলো

[Signature]
৮/১/১৬
৮/১/১৬
৮/১/১৬
৮/১/১৬
৮/১/১৬

Land allotment for construction of storage water Reservoir

204


GOVERNMENT OF ASSAM
OFFICE OF THE DEPUTY COMMISSIONER
KAMRUP METROPOLITAN DISTRICT, GUWAHATI
(LAND SETTLEMENT BRANCH)

Telephone - 0361-2540149
Fax - 0361-2544452
E-mail - kamrupmetro@nic.in
Website - www.kamrupmetro.nic.in

No. KRS.48/2015/10/3022 Dated. 29/05/15

To ☒ The Additional Chief Secretary to the Govt. of Assam,
Revenue & D.M. Department,
Dispur, Guwahati-6.

Sub. Regarding allotment of land for construction of Storage Water
Reservoir under Assam Urban Infrastructure Investment
Programme (AUIIP).

Ref/
Sir,


With reference to the subject cited above, I have the honour to submit herewith the proposal for allotment of land measuring 2B-2K-10L covered by dag No. 138/565 of village No. 1 Hengrabari under Beltola mouza received from the Circle Officer, Dispur Revenue Circle vide letter No DIS.2/2014/3359 dtd.16/05/2015, for construction of Storage Water Reservoir under Assam Urban Infrastructure Investment Programme (AUIIP).


The proposal has been examined and found that the proposed land is covered by Sarkari Dag (Khas land) under No.1 Hengrabari Village. As per Revenue Record, the proposed plot belongs to Revenue land. Class of the proposed land is found "Sreni Nai" and the Area of the proposed land is hilly but found without valuable trees. Connected with road and also suitable for heavy construction activities. At present the plot is used as "Cremation Ground" by the local people but land has been kept for their use. High land and free from water logging and flood. Located within the Guwahati Municipal area but not located near any River, Beel or notified water bodies. Roadside reservation not required as no road has passed nearby except approach road.

Considering the urgency the proposal is forward to the Govt. subject to placing the same before to the next L.A.C. meeting for approval.

In this connection, the report submitted by the Circle Officer, Dispur Rev. Circle vide his letter No. DIS.2/2014/3359 dtd.16/05/15, copy of L.R.Staff report, chitha and trace map in duplicate are enclosed for favour of kind information and necessary action from the end of the Govt.

Encl:- As stated above.

Yours faithfully

Deputy Commissioner
Kamrup Metropolitan District,
Guwahati.


J.S.K.

MOU with GMDA and APDCL



असम ASSAM

MEMORANDUM OF UNDERSTANDING (MOU)

C 354638

THIS MEMORANDUM OF UNDERSTANDING is made on day of 1st day of July 2015 by and between GUWAHATI METROPOLITAN DEVELOPMENT AUTHORITY (herein after called GMDA) a government of Assam Organization on behalf of Assam Urban Infrastructure Investment Program (AUIIP) under Guwahati Development Department, Government of Assam, represented by the project Director, AUIIP, Guwahati herein after called the First Party

And


THE ASSAM POWER DISTRIBUTION COMPANY (herein after called APDCL represented by the Chief General Manager (HQ), APDCL, Bijullee Bhawan, Guwahati-1 herein after called the Second Party.

WHEREAS, the client AUIIP carries the work known as, **CONSTRUCTION OF WATER RESERVOIR AND OTHER ALLIED WORKS** for supplying water being carried out by Assam Urban Infrastructure Investment Program (AUIIP) under GMDA for supplying water at Kenduguri, Narengi Hill Top to serve the people of South East part of Greater Guwahati city funded by Asian Development Bank.

WHEREAS, the GMDA on behalf of AUIIP desires to take over land of APDCL measuring 8.65 kathas in Dag No. 97 (Village No.1 Modghoria under Beltola Mouza) as scheduled below for construction of Kenduguri Water Reservoir on consideration of initial payment Rs.5 lakhs and the rest of the cost to be paid later on as ascertained per katha is agreed and decided between the two parties and approved by the second party (APDCL) for construction of water reservoir at Kenduguri to be located at the designated place and both the parties agreed to execute this MOU/Agreement to finalize the agreements with the following terms & conditions.

AND WHEREAS, now this Memorandum of Understanding for the said land witnesseth as follows:

- 1 This Memorandum of Understanding has commenced from 01.07.2015 and is valid till existence of the GMDA Project in the said land.


Chief Executive Officer
Guwahati Metropolitan Dev. Authori.

2. That the land measuring 8.65 kathas will be transferred/handed over by the second party (APDCL) in the name of GMDA for the construction of the water storage reservoir and pipeline alignment work under Assam Urban Infrastructure Investment Program (AUIIP) on receipt of payment as agreed upon both, First Party & Second Party.
3. Another stretch of land with a width of 2m along the pipeline corridor which is of 2m width is decided to be transferred by the second party to GMDA free of cost to carve out a road with a width of (2m + 2m) 4m starting from the APDCL security post to the reservoir site. The road so carved out will be developed and maintained by the first party for its use. The first party after construction of the road, which will also be used by the public, will have the right to transfer maintenance of the road to appropriate authority as deemed fit. The first party shall erect land boundary wall along the road stretch which is necessary to demarcate APDCL land as per drawing approved by the second party.
4. That, first party agrees to supply requisite quantum of water for APDCL staff colony located in the said location that is well within the distribution zone of Kanduguri under AUIIP at a concessional rate agreeable to both parties subject to decision taken by Jal Board.
5. That, the first party shall take special care during execution of the works of the water reservoir, approach road and laying of water transmission line through the approach road shown in the approved drawing (Annexure-A) to avoid hampering of day to day activities of APDCL within the campus.
6. That, the first party shall undertake adequate care/precautions during cutting of hills so that, it doesn't cause any land slide during construction period and thereafter also.
7. That, the first party undertakes to construct WBM approach road to the proposed site up to the water reservoir as per attached drawing, agreed and approved by both parties (Annexure-A) within 6 (six) months from the date of signing this MOU. Till then the first party will be allowed to use the existing road of the APDCL to carry out the proposed constructional activities of the water storage reservoir.
8. That, the first party will be responsible to mending good damages which may occur to the existing infrastructures of APDCL colony of second party while carrying out the works in concern and the entire cost for any minor and major damages of the existing road of the APDCL colony will be borne by the first party.
9. All the works i.e. Water storage reservoir and other allied works that so built within the proposed land will be the property of the first party.
10. That, the first party will bear the cost of such maintenance and repair works of the approach road to the reservoir site as and when necessary.
11. In case of any requirement arises anytime, the second party APDCL cannot revoke any rights as conferred upon the first party (AUIIP) with any manner being liable for any disruption of services.
12. That, the first party agrees and undertakes to bear and pay the requisite stamp duty and registration charges and other legal and miscellaneous expenses in respect of execution of the sale deed of the scheduled land for construction of works in question.
13. Since the newly aligned road will bifurcate the APDCL land, the first party will keep the road open for APDCL to visit APDCL land on the other side of the road.
14. Since the present road is open for public, the first party shall keep the road open for use of public all the time.

[Signature]
 Chief Executive Officer
 Assam Metropolitan Dev. Authority

15. The first party will not disturb/dislodge/damage existing HV/LT lines of APDCL, AEGCL standing within the said land area, if any. Adequate distance from HV tower lines to be maintained as per norms from structures to be constructed.
16. Permission for uprooting of existing trees, if necessary, has to be obtained from concerned forest department by first party.
17. Proper and scientific measure will be taken by first party for discharge of storm water/water from the proposed reservoir etc.
18. Any future development and maintenance of the infra structure lying within area handed over that may hamper interests of APDCL are to be mutually decided upon before any such execution.
19. If at any time, the first party wants to vacate the land so possessed for such purpose from the Second Party (APDCL), the first party will intimate its intention of doing so to the second party. The second party will get the first priority to get the land back under terms and conditions that may be fixed mutually at that time.

That, this MOU is executed in duplicate with each copy being an official version of the agreement and having equal validity of both the parties.

By signing below the parties, acting by their duly authorized officers, have caused the Memorandum of Understanding to be executed with reals effective as on the day and year first above written.

Schedule:-

North by:- No.1 Modghoria and Noonmati Garden
 South by:- Modghoria (Part of Dag No. 97)
 East by:- No.1 Modghoria and Noonmati Garden
 West by:- No.1 Modghoria village and Noonmati Garden

On behalf of

Name of 1st party

By:- 
 Ch. Executive Officer
 Guwahati Metropolitan Dev. Authority

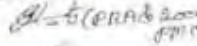
Name:-


Designation

Date:-

Seal:-

Witness:-

1.  (PRA Social Specialist)
 JMC-A/111P

2.  (Project Coordinator, PMU A/111P)

Annexure A- Approved drawing of the said works vide clause -7

On behalf of

Name of 2nd party

By:- 
 01/08/15

Name: HASAN SAZIB AHMED


Designation: General Manager (H.O.)
 APDCL, Bijules Bhawan

Date: Palton Bazar, Guwahati-78100

Seal:-

Witness:-

1.  (D.R. K.)
 01/08/15

2. 
 Land Acquisition Officer
 APDCL

Charge Handing and Taken over Certificate

NAPA STADI HAQAR RESERVE

GOVT. OF ASSAM
OFFICE OF THE CIRCLE OFFICER:DISPUR REVENUE CIRCLE
DISPUR:GUWAHATI:ASSAM

No. Dis-

Date-

Handing Over/Taken Over Certificate

In pursuance to Govt. Letter No. RSS. 20/2015/9 ; Dated- 17/2/2015 issued from Deputy Secretary to the Government of Assam, Revenue & D.M. department and Additional Deputy Commissioner, Kamrup Metropolitan District's Letter No. KRS. 854/2007/pt.1272-77 Dated- 27/2/2015 the possession of the plot measuring 16.00 Are in Dag No. 132 in village- No. 2 Bagharbari, under Mouza- Beltola is handed Over/taken over in favour of dakshin- Pub Guwahati water supply Project, on this day of March, 10 th 2015.

Handed Over By:-

Mahmud Hossain L/M.
Ismael M. S.K.

Taken Over By:-

[Signature]
Development Officer
Guwahati Metropolitan Dev. Authority

[Signature]
10/3/15
Circle Officer
Dispur Revenue Circle
Dispur: Guwahati
Circle Officer
Dispur Rev. Circle

Memo No. Dis- 1/2011/2305-cq

Date- 12-3-15

Copy to:-

1. The Principal Secretary to the Govt. Of Assam, Guwahati Development Department, Dispur for kind information.
2. The Principal Secretary to the Govt. Of Assam, Environment and Forest Department, Dispur for kind information.
3. The Chief Executive Officer, Guwahati Metropolitan Development Authority, Bhangagarh, Guwahati-05 for information.
4. The Project Director, Assam Urban Infrastructure Investment Programme, 3rd Floor, tripti Tower, Ganeshguri, Guwahati-05 for information.
5. P.A to Deputy Commissioner, Kamrup Metropolitan District for appraisal of D.C.

[Signature]
Circle Officer
Dispur Revenue Circle
Circle Officer
Dispur Rev. Circle

NORTH DOWD NACAC BETHLEHEM

চক্র বিষয়ৰ কাৰ্য্যাবলি: গুৱাহাটী ৰাজহ চক্ৰ, গুৱাহাটী
কামৰূপ মহানগৰ জিলা

कानिश्काः

આરોગ્ય અને કુટુંબ કલ્યાણ વિભાગ, ગાંધીધામ, રાજકોટ-૩૬૦૦૦૧
તારીખ: ૨૦/૦૫/૨૦૨૦

आविष्कार निम्न वर्णित २०६७७ आर जमीन मालिक/आवर्तन कर्ता/ आधिकार कर्ता जमीन
कामचुन महानगर जिल्ला अतिरिक्त ईनायत महानगर २१/०२/२०४० ई.
आविष्कार ६६०१२६८७१/११११/११२२-२२ वा छिछि आर
आविष्कार २०६१/२०६१ ई. आविष्कार
आर १६१६२११/२०२१-२१ वा छिछि आर विक्रमी
२०७१/२०७१ वा महानगर जिल्ला/महानगर (२०७१/२०७१ ई. २०२१/२०२१)

..... (Signature)

वास्तुशिल्प...

128224 वाणिज्य 950

ଆମି ଏବେ କହୁଛି—

দেবজি নন্দা
Development Officer
Guwahati Metropolitan Dev. Authority
Bhangagarh, Guwahati-781035

Handwritten signature: *Abhaya*
27/10/75
Circle Officer
Bhavathi Revenue Circle
पवन भगवती दिना
१३ दिना (मार्ग) (मार्ग)
अभय
for [Signature]
2016-12-16

પ્રતિ શાબ્દન

Tree cutting Permission Letter at Reservoir site

15

GOVERNMENT OF ASSAM
OFFICE OF THE DIVISIONAL FOREST OFFICER, KAMRUP EAST DIVISION
BASISTHA, GUWAHATI-29.

Letter No. BKE/Under Storage/ 12/ 13 Dated: Guwahati 13/ 8/ 2013.

To:  The Secretary,
G.D.D. and Project Director,
AI HP, 3rd floor, Tripti Tower,
Guwahati-5.

Sub:- Permission for cutting of Trees at Reservoir sites related to South East
Guwahati Water Supply Project of AIHP at Gopalnagar, Noonmati.

Ref:- Your No. ADB/AIHP/LA/61/2012 dtd 24-05-2013.

Sir:

With reference to the above, I would like to inform you that the permission for removal of trees is hereby accorded at Gopalnagar, Noonmati by the competent authority, subject to observation of Rules and formalities.

In view of the above, I would like to request you to provide fund for an amount of Rs.17,273.00 + Rs.2,02,000.00 = Rs.2,19,273.00 (Rupees two lakhs nineteen thousand two hundred seventy three) only in separate bank draft as Govt. valuation and operation cost which was prepared by the Range Officer, Guwahati Range at an early date.

Yours faithfully,

(Amal Ch. Sarmah, AFS)
Divisional Forest Officer
Kamrup East Division, Assam,
Basistha, Guwahati-29.

Copy to the Range Officer, Guwahati Range, for his information and necessary action. This has a reference to his letter No. G/104/Water Reservoir/157 dtd 19.04/2013.


(Amal Ch. Sarmah, AFS)
Divisional Forest Officer
Kamrup East Division, Assam,
Basistha, Guwahati-29.

Memo No. AKE/Under Storage/ 12/ 13 Dated: Guwahati 13/ 8/ 2013

Copy to the Chief Conservator of Forests, Central Assam, Guwahati-1 for
favour of his kind information. This has a reference to his letter No. JG/50/AC/Reservoir
& Pump house in RI area/08/Pt. dtd 06/08/2013.


(Amal Ch. Sarmah, AFS)
Divisional Forest Officer
Kamrup East Division, Assam,
Basistha, Guwahati-29.

Appendix- V

SITE SPECIFIC ENVIRONMENT MANAGEMENT PLAN, GOPAL NAGAR

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
Utilities	Telephone lines, electric poles and wires, water lines within proposed project area	(i) Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during construction phase; and (ii) Require construction contractors to prepare a contingency plan to include actions to be done in case of unintentional interruption of services.	DSC	(i) List of affected utilities and operators; (ii) Bid document to include requirement for a contingency plan for service interruptions
Structure stability in seismic zone V	Affect during earthquake	Design and analysis as per the Peak Ground Acceleration(PGA) and the seismic acceleration response curve and other factors like Response Reduction Factor (RRF) and Importance Factor (IF) as per the Indian Standard code	DSC/ PIU	(i) Checking of design report – consideration of design measures to minimize earth quake risk
Water Supply	Health risk due to closure of water supply during connection	(i) Plan the construction program to keep the	DSC	(i) Schedule of closure if any;(ii) delivery of potable water to affected

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		cessation of water supplies to the minimum possible (in both area and duration); and (ii) In coordination with GMC, provide alternative potable water to affected households and businesses for the duration of the shut-down if any		people by GMC
Traffic Management	Impede traffic flow during construction	(i) Prepare a traffic management plan during pre-construction phase.	DSC	Ensure Traffic Management Plan is finalized before implementation. Draft Traffic Management Plan is prepared and attached as Appendix 3
Social and Cultural Resources	Ground disturbance can uncover and damage archaeological and historical remains	(i) Consult Archaeological Survey of India(ASI) or concerned department in Guwahati to obtain an expert assessment of the archaeological potential of the site; (ii) Consider alternatives if the site is found to be of medium or high risk; (iii) Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds	DSC	Chance Finds Protocol

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		are recognized and measures are taken to ensure they are protected and conserved.		
Construction work camps, hot mix plants, stock pile areas, storage areas, and disposal areas.	Disruption to traffic flow and sensitive receptors along transmission pipeline laying area	<p>(i) Prioritize areas within or nearest possible vacant space in the sub project location;</p> <p>(ii) If it is deemed necessary to locate elsewhere, consider sites that will not promote in stability and result in destruction of property, vegetation and drinking water supply systems;</p> <p>(iii) Do not consider residential areas; and</p> <p>(iv) Take extreme care in selecting sites to avoid direct disposal to water body which will inconvenience the community.</p>	PMU/PIU and DSC to determine locations prior to construction	List of selected sites for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas.
Sources of Materials	Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and	<p>(i) Prioritize sites already permitted by the Mining Department;</p> <p>(ii) If other sites are necessary, inform construction contractor that</p>	PMU/PIU and DSC to prepare list of approved quarry sites and sources of materials	<p>(i) List of approved quarry sites and sources of materials;</p> <p>(ii) Bid document to include requirement for verification of suitability of sources and permit for additional quarry sites if necessary.</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
	water pollution.	<p>it is their responsibility to verify the suitability of all material sources and to obtain the approval of PMU/PIU and</p> <p>(iii) If additional quarries will be required after construction is started, inform construction contractor to obtain a written approval from PMU/PIU.</p>		
Construction Stage				
Sources of Materials	Extraction of rocks and material may cause ground instability	<p>(i) Use quarry sites and sources permitted by government;</p> <p>(ii) Verify suitability of all material sources and obtain approval of Investment PMU/PIU;</p> <p>(iii) If additional quarries will be required after construction has started, obtain written approval from PMU/PIU; and</p> <p>(iv) Submit to DSC on a monthly basis documentation of sources of materials.</p>	Construction Contractor	Construction documentation Contractor

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
Air Quality	Emissions from construction vehicles, equipment, and machinery used for excavation and construction resulting to dusts and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulphur oxides, particulate matter, nitrous oxides, and hydrocarbons	<p>(i) Consult with PMU/PIU/DSC on the designated areas for stockpiling of clay, soils, gravel, and other construction materials;</p> <p>(iii) Damp down exposed soil and any stockpiled onsite by spraying with water when necessary during dry weather;</p> <p>(iv) Use tarpaulins to cover sand and other loose material when transported by trucks; and</p> <p>(v) Fit all heavy equipment and machinery with air pollution control devices which are operating correctly.</p>	Construction Contractor	<p>(i) Location of stockpiles;</p> <p>(ii) Complaints from sensitive receptors;</p> <p>(iii) Heavy equipment and machinery with air pollution control devices;</p> <p>(iv) Ambient air for respirable particulate matter (RPM- PM10 & PM2.5) and suspended particulate matter (SPM);</p> <p>(v) Vehicular emissions such as sulphur dioxide (SO₂), nitrous oxides (NO_x), carbon monoxide (CO), and hydrocarbons</p>
Traffic Management	Impede traffic flow during construction	(i) Implement a traffic management plan during pre-construction phase.	Construction Contractor	DSC to ensure traffic management measures are implemented and traffic is not significantly impeded during construction period.
Surface water quality	Mobilization of settled silt materials, run-off from stockpiled materials, and chemical contamination from fuels and lubricants during construction	(i) Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets;	Construction Contractor	(i) Areas for stockpiles, storage of fuels and lubricants and waste materials;

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
	works can contaminate nearby surface water quality.	<ul style="list-style-type: none"> (ii) Prioritize re-use of excess spoils and materials in the construction works. If spoils will be disposed, consult with PMU/PIU/DSC on designated disposal areas; (iii) Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies; (iv) Place storage areas for fuels and lubricants away from any drainage leading to water bodies; (v) Dispose any wastes generated by construction activities in designated sites; and (vi) Conduct surface quality inspection according to the Environmental Management Plan (EMP). 		<ul style="list-style-type: none"> (ii) Number of silt traps installed along drainages leading to water bodies; (iii) Records of surface water quality inspection; (iv) Effectiveness of water management measures; (v) For inland water: suspended solids, oil and grease, biological oxygen demand (BOD), and coliforms.
Noise Levels	Increase in noise level due to earth-moving and excavation equipment, and the transportation of equipment, materials, and people	<ul style="list-style-type: none"> (i) Plan activities in consultation with PMU/PIU/DSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will 	Construction Contractor	<ul style="list-style-type: none"> (i) Complaints from sensitive receptors; (ii) Use of silencers in noise - producing equipment and sound barriers; (iii) Equivalent day and night time noise levels

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>result in least disturbance;</p> <p>(ii) Require horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach;</p> <p>(iii) Minimize noise from construction equipment by using vehicle silencers, fitting jack hammers with noise-reducing mufflers, and portable street barriers the sound impact to surrounding sensitive receptor, and</p> <p>(iv) Maintain maximum sound levels not exceeding 80 decibels (dbA) when measured at a distance of 10 m or more from the vehicle/s.</p>		
Ecological resources – Terrestrial	Felling of the trees – affect terrestrial ecological balance	<p>(i) Minimize removal of vegetation and disallow cutting of trees;</p> <p>(ii) If tree-removal will be required, obtain tree-cutting permit from Municipal Corporation,</p>	Construction Contractor	(i) Complaints from sensitive receptors; (ii) checking of conservation management plan for tree species and aquatic fauna/animal

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		(iii) Require to plant three (3) native trees for every one (1) that is removed; and (iv) Prohibit employees from poaching wildlife, bird hunting, and cutting of trees for firewood.		
Existing Infrastructure and Facilities	Disruption of service and damage to existing infrastructure at specified project location	(i) Obtain from PMU/PIU/DSC the list of affected utilities and operators if any; (ii) Prepare a contingency plan to include actions to be done in case of unintentional interruption of service	Construction Contractor	Existing Utilities Contingency Plan
Landscape and Aesthetics	The presence of heavy duty vehicles and equipment, temporary structures at construction camps, stockpiles, may result in impacts on aesthetics and landscape character.	(i) Storage areas will be properly fenced off. (ii) Prepare and implement Waste Management List; (iii) Avoid stock piling of excess excavated soils; (iv) Coordinate with GMC for beneficial uses of excess excavated soils of about 91889 cum or immediately dispose/ use to designated areas;	Construction Contractor	(i)Waste Management List; (ii) Complaints from sensitive receptors; (iii) PMU/PIU/DSC to report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work.

Field	Anticipated Impact	Mitigation Measures	Responsible Mitigation for	Monitoring of Mitigation
		(v) Recover used oil and lubricants and reuse or remove from the sites; (vi) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; (vii) Remove all wreckage, rubbish; (viii) Retain mature trees on and around the site where possible; (ix) Cluster construction activities on site on a specific area to avoid “sprawl”; (x) Unwanted material and litter will be removed on frequent basis; and (xi) Request PMU/PIU/DSC to report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work.		
Accessibility	Traffic problems and conflicts near project locations and haul	(i) Plan transportation routes so that heavy vehicles	Construction Contractor	(i) Traffic Management Strategy; (ii) Complaints from sensitive

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
	road	<p>do not use narrow local roads, except in the immediate vicinity of delivery sites;</p> <p>(ii) Schedule transport and hauling activities during non-peak hours;</p> <p>(iii) Locate entry and exit points in areas where there is low potential for traffic congestion;</p> <p>(iv) Keep the site free from all unnecessary obstructions;</p> <p>(v) Drive vehicles in a considerate manner;</p> <p>(vi) Coordinate with Guwahati Traffic Office for temporary road diversions and with for provision of traffic aids if transportation activities cannot be avoided during peak hours;</p> <p>(vii) Notify affected sensitive receptors by providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints.</p>		<p>receptors;</p> <p>(iii) Number of signages placed at subproject location</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>(viii) Provide planks across trenches in front of businesses, and ensure works are completed quickly to avoid disruption, and</p> <p>(ix) Avoid full street closure</p>		
Socio-Economic–Income.	Impede the access of residents and customers to nearby shops	<p>(i) Leave spaces for access between mounds of soil;</p> <p>(ii) Provide walk ways and metal sheets where required for people;</p> <p>(iii) Increase work force in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools;</p> <p>(iv) Consult businesses and institutions regarding operating hours and factoring this in work schedules; and</p> <p>(v) Provide sign boards for pedestrians to inform nature and duration of construction work and contact numbers for concerns/complaints.</p>	Construction Contractor	<p>(i) Complaints from sensitive receptors;</p> <p>(ii) Number of walkways, signages, and metal sheets placed at subproject location.</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
Employment Generation	<ul style="list-style-type: none"> The subproject will provide employment opportunities for local people during construction. Expectations regarding new employment will be high especially among the unemployed individuals in the area. Laborers gathering at the site for work can be a safety and security issue, and must be avoided. The training of unskilled or previously unemployed persons will add to the skills base of the area. 	(i) The use of labor intensive construction measures will be used where appropriate; (ii) Employ local (unskilled) labor if possible; (iii) Training of labor to benefit individuals beyond completion of the subproject; and (iv) Recruitment of labors will take place offsite.	Construction Contractor	(i) Employment records; (ii) records of sources of materials
Occupational Health and Safety	Occupational hazards which can arise during work	(i) Develop and implement site-specific Health and Safety(H&S) Plan which will include measures such as:(a) excluding public from the site; (b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gumboot, safety belt, gloves, nose mask and ear plugs;(c) H&S Training for all site personnel;(d)documented procedures to be followed	Construction Contractor	(i) Site-specific Health and Safety(H&S) Plan; (ii) Equipped first-aid stations; (iii) Medical insurance coverage for workers; (iv) Number of accidents; (v) Supplies of potable drinking water; (vi) Clean eating areas where workers are not exposed to hazardous or noxious substances; (vii) record of H&S orientation

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>for all site activities; and(e) documentation of work-related accidents;</p> <p>(ii) Ensure that qualified first- aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site;</p> <p>(iii) Provide medical insurance coverage for workers;</p> <p>(iv) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(v) Provide supplies of potable drinking water at working sites;</p> <p>(vi)Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(vii) Provide H&S orientation training to all new workers to ensure that they are apprised of the basics rules of work at the site, personal protective protection, and preventing injuring to fellow</p>		<p>trainings</p> <p>(viii) personal protective equipments;</p> <p>(ix) % of moving equipment outfitted with audible back-up alarms;</p> <p>(xi) Signboards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal.</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>workers;</p> <p>(viii) Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted;</p> <p>(ix) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(x) Ensure moving equipment is outfitted with audible back- up alarms;</p> <p>(xi) Mark and provide sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers,</p>		

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		visitors, and the general public as appropriate; and (xii) Disallow worker exposure to noise level greater than 85 dBA for duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.		
Core Labour Standard (CLS)- safety and compliance	Impact on health of contractor's labour	Monitoring compliance with national labor laws and regulations provided that these national laws are consistent with CLS. PMU will ensure that bidding and contract documents include specific provisions requiring contractors to comply with all: (i) applicable labor laws and core labor standards on: (a) prohibition of child labor as defined in national legislation for construction and maintenance activities; (b) equal pay for equal work of equal value regardless of gender, ethnicity or caste; and (c) elimination of forced labor; and (ii) the requirement to disseminate	Construction Contractor	All records, documents related to health & safety of labours

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the project sites.		
Community Health and Safety.	Traffic accidents and vehicle collision with pedestrians during material and waste transportation	<p>(i) Plan routes to avoid times of peak-pedestrian activities. (ii) Liaise with PMU/PIU/DSC in identifying high-risk areas on route cards/maps.</p> <p>(iii) Maintain regularly the vehicles and use of manufacturer- approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.</p> <p>(iv) Provide road signs and flag persons to warn.</p> <p>(v) Provide protective fencing around open trenches, and cover any open trench with metal planks during non-construction hours. potentially cause soil contamination;</p>	Construction Contractor	<p>(i) Traffic Management Strategy;</p> <p>(ii) Complaints from sensitive receptors</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>(vi) Recover used oil and lubricants and reuse or remove from the site; (vii) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas;</p> <p>(viii) Remove all wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required; and</p> <p>(ix) Request PMU/PIU/DSC to report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of work.</p>		
Office, Work Camps & storage	Temporary air, land and noise pollution from operation of camp & machine, water pollution from storage and use of fuels, oils, solvents, and lubricants	<p>(i) Consult with PIU/ DSC before locating project offices, sheds, and construction plants;</p> <p>(ii) Minimize removal of vegetation and disallow cutting of trees;</p> <p>(iii) Provide water and sanitation facilities for employees/labours;</p>	Construction Contractor	<p>(i) Complaints from sensitive receptors;</p> <p>(ii) Water and sanitation facilities for employees; and</p> <p>(iii) PIU/ DSC report in writing that the camp has been vacated and restored to pre-project conditions</p>

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		(iv) Prohibit employees from poaching wildlife and cutting of trees for firewood; (v) Train employees in the storage and handling of materials which can potentially cause soil contamination; (vi) Recover used oil and lubricants and reuse or remove from the site; (vii) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; (viii) Remove all wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required; and (ix) Request DSC/ PIU to report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of work.		
Social and Cultural Resources	Risk of archaeological chance finds	(i) Strictly follow the protocol for chance finds in any excavation work; (ii) Request PMU/PIU/DSC or	Construction Contractor	Records of chance finds

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
		<p>any authorized person with archaeological field training to observe excavation;</p> <p>(iii) Stop work immediately to allow further investigation if any finds are suspected; and</p> <p>(iv) Inform PMU/PIU/DSC if a find is suspected, and take any action they require ensuring its removal or protection in situ.</p>		

Appendix- VI

POLLUTION UNDERCONTROL CERTIFICATE

POLLUTION UNDER CONTROL CERTIFICATE	
Registration No.	AS-23-AC-0781
Issued on.	07/03/2017
Valid upto	06/09/2017
CO (%)	28.4
HC (ppm)	38.4
SD (HSU)	05/05
PUC Certificate Issue	05/05
Signature	<i>[Signature]</i>

TEST REPORT

AUTHORISED BY TRANSPORT DEPT. GOVT OF ASSAM
MA Manasa AETS, Bhanagagarh, G.S. Road.

Vehicle Registration No.	AS-23-AC-0781	Test Fee:	130.00
Year of Registration	2009	Fuel	Diesel
Speedometer Reading	-----		
Engine Number	62706413	Vehicle Make	M/S. TATA
Chassis Number	309606	Vehicle Model	TIPPER
Vehicle Color	-----	Driver	-----
LD. Number	ASDP000224	Owner	M/S. SHIVAM
Time	05:40 PM		
Date	07/03/2017		

Flushing Cycle Mean : RPM Mean : 00712 RPM Max : 02102

Sl. No.	RPM min	RPM max	K m-1	HSU%	OTF C
1	00718	02080	1.65	29.5	63.20
2	00719	02072	1.65	30.2	63.96
3	00692	02138	1.70	19.0	61.05
4	00719	02117	1.65	28.8	60.80
5	00718	02041	1.24	26.7	60.40
6	00597	02041	1.56	25.4	56.24
Mean	00712	02102	1.66	28.4	62.25

Certified that this vehicle's smoke density confirm to the standards prescribed under Rule 115(2) of CMV Rules, 1989

Validity : 6 months

Valid Up To : 06/09/2017

Seal of Testing Centre

Name of Authorized Signatory with Signature

[Signature]
Technician
MANASA AETS STATION

POLLUTION UNDER CONTROL CERTIFICATE

Tender CMV Rules 1989

Registration No. **AS-22-B-0050** Grade **A**

Issued on **31/05/2017** Valid upto **30/11/2017**

CO (%)	TH
HC (ppm)	TH
SD (HSL)	TH

AS-22-B-0050

PUC Certificate Issue Licence No. and Seal

05/05

Technician
MANASA AETS STATION

TEST REPORT

AUTHORISED BY TRANSPORT DEPT. GOVT OF ASSAM

MA Manasa AETS, Bhangagarh, G. S. Road.

Vehicle Registration No.	AS-22-B-0050	Test Fee:	130.00
Year of Registration	2005	Fuel	Diesel
Speedometer Reading		+
Engine Number	9560		+
Chassis Number	8563	Vehicle Make	TEREX
Vehicle Color		Vehicle Model	EXCAVATOR
I.D. Number	ASDP000224	Driver	*****
Time	12:40 PM	Owner	M/S S. T. P. LTD.
Date	31/05/2017		

Flushing Cycle Mean : RPM Mean : 00712 RPM Max : 02102

Sl. No.	RPM min	RPM max	K m-l	HSU%	OTP C
1	00718	02080	1.65	29.5	63.20
2	00719	02072	1.65	30.2	63.96
3	00692	02138	1.70	19.0	61.05
4	00719	02117	1.65	28.8	60.80
5	00718	02041	1.24	26.7	60.40
6	00597	02041	1.56	25.4	56.24
Mean	00712	02102	1.66	28.4	62.25

Certified that this vehicle's smoke density conform to the standards prescribed under Rule 115(2) of CMV Rules, 1989

Validity : 6 months

Valid Up To : 30/11/2017

Grade A

Seal of Testing Centre

Name of Authorized Signatory with Signature

POLLUTION UNDER CONTROL CERTIFICATE

100% CPM 100% 1992 07724

Registration No: **AS-21-2418** ✓

Issued on: **05/01/2017** Valid upto: **04/07/2017**

CO (%)	
HC (ppm)	78.4
SD (HSU)	

Signature: *[Signature]* Licence No. And Seal: **05/05**

AA MANASA AETS

TEST REPORT

AUTHORISED BY TRANSPORT DEPT. GOVT OF ASSAM
MA Manasa AETS, Bhanagarh, G.S. Road.

Vehicle Registration No.	AS-21-2418	Test Fee:	130.00
Year of Registration	2000	Fuel	Diesel
Speedometer Reading		
Engine Number	36351		
Chassis Number	41496	Vehicle Make	M/S. TATA
Vehicle Color	Vehicle Model	TRUCK
LD. Number	ASDP000224	Driver
Time	12:40 PM	Owner	SANKAR DAS
Date	05/01/2017		

Flushing Cycle Mean : RPM Mean : 00712 RPM Max : 02102

Sl. No.	RPM min	RPM max	K m-1	HSU%	OTP C
1	00718	02080	1.65	29.5	63.20
2	00719	02072	1.65	30.2	63.96
3	00692	02138	1.70	19.0	61.05
4	00719	02117	1.65	28.8	60.80
5	00718	02041	1.24	26.7	60.40
6	00597	02041	1.56	25.4	56.24
Mean	00712	02102	1.66	28.4	62.25

Certified that this vehicle's smoke density confirm to the standards prescribed under Rule 115(2) of CMV Rules, 1989

Validity : 6 months

Valid UpTo : 04/07/2017

Grade A



Name of Authorized Person With Signature

[Signature]
AA MANASA AETS

WASTE/ SPOIL MANAGEMENT PLAN

Shivam Transcon Pvt. Ltd.

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Visit us our website : www.shivamtranscon.com



Ref:

Date:

HEALTH SAFETY AND ENVIORNMENTAL OPRATION CONTROL PROCEDURES TRAFFIC MANAGEMENT PLAN (TMP)	
Construction of CWR project in Guwahati (Contract Package AUIIP/PR-1/GUW/WS-02A & 02B)	
Name of Project:- Name of Project:- Clear Water Reservoir Package 02A- Gopalnagar, Kenduguri, Northjyoti Nagar And Package 02B- Hengrabari, Nabajyoti Nagar, Basistha Guwahati ASSAM	
1.0	PURPOSE:-
	Main purpose is to prevent accident between vehicles, pedestrians and employees and also minimize inconvenience to the vehicle. To stop property damage and prevent injury to persons arising from site traffic and site transport
2.0	SCOPE:-
	The procedure is applicable to M/s Shivam Transcon Pvt.Ltd.
3.0	RESPONSIBILITY:-
	It is the responsibility of the construction Manager and all department head to implement this procedure and ensure that delegated staff under their supervision carries it out.
4.0	DEFINATION:-
	Construction Manager: Person responsible for the execution of the project.
5.0	LEGAL REQUIRMENT:-
	The Building and Other Construction Workers (Regulations of Employment and Conditions of Service) Act 1996and Central Rule 1998 Rule 48, 88 and 95. Motor Vehicle Act 1988
6.0	REQUIRMENT:-
6.1	GENRAL:-
	<ul style="list-style-type: none"> ➤ All road works create inconvenience and are a potential hazard to the safety of all road users and those employed in carrying out the work. ➤ All the effects should be reduced to the minimum, and to ensure that the works are properly guarded, lighted and signed. ➤ A clear and early warning of any obstruction to all road users should be provided. ➤ All areas where work is going on should be clearly demarcated by hard barricading and entry into these areas should be restricted to only authorize personnel.

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6.2	PLANING STAGE:-
6.3	ON SITE:-
	The working space shall be defined and "A PLACE EVERYTHING AND EVERYTHING IN ITS PLACE" to be follow
6.4	OPERATORS/DRIVERS:- <ul style="list-style-type: none"> ➤ Only Experienced operators and drivers with valid licensed has been appointed. ➤ One copy of license has been collected. ➤ Refreshment training conducted for all operators and drivers ➤ Operators/Drivers authentication and validation to operate the particular machinery displayed in the machine/vehicles
6.5	EQUIPMENT:- <ul style="list-style-type: none"> ➤ Drivers are made a daily visual inspection of their vehicles include steering, brakes, mirrors, lights, horn, tyres and windshield wipers ➤ Safety Department along with Plant and machinery department shall check the vehicles monthly basis. ➤ All vehicles have reverse horns and it is in working properly ➤ All vehicles, preventive maintenance schedule has to be followed strictly
6.6	ROADS:-
	For safe operation we are following the below safety measure. <ul style="list-style-type: none"> ➤ Safe width of road has been provided. ➤ Flag man deployed at every traffic point to control the vehicles and pedestrians. ➤ Speed limit 10 km/hr within the site. ➤ Caution board has been placed in every location within the site. ➤ Workers are working with reflective jacket as well as required PPE's. ➤ Road for use of pedestrian has been identified. ➤ High Noise intensity reverse horn used in vehicles ➤ While reverse vehicles ensuring Banks man. ➤ Do's and Don't displayed at site office.
6.7	LOADING AND UNLOADING:- <ul style="list-style-type: none"> ➤ Only authorized persons were engage for loading / unloading. ➤ Materials loaded within the permitted safe weigh limit (as per RTO) for the truck ➤ Ensuring Soil and sand loaded trucks are covered with tarpaulin while transporting. ➤ During Toolbox talks intimation has been delivered to all drivers/operators that when the Driver leaves the driving seat the engine of the truck shall be switched off, the gear engaged and parking brakes applied. On slopes, wheel blocks shall be applied

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	<ul style="list-style-type: none">➤ Helper has been provided with all vehicles.➤ After unloading, the banks man ensuring that the tipper is lowered before moving.➤ Turn buckle and side stoppers used while transporting as required
5.8	<p>WARKING AREA:-</p> <ul style="list-style-type: none">a. The working area has been restricted from unauthorized entry.b. The working space has been defined.c. Particular attention has been taken in working area:<ul style="list-style-type: none">➤ traffic signs;➤ cones;➤ barriers;➤ information boards; and➤ site lightinga. Adequate lighting has been provided at the working area.b. All persons wear high visibility jackets



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<p align="center">HEALTH SAFETY AND ENVIORNMENTAL OPRATION CONTROL PROCEDURES SPOIL MANAGEMENT PLAN (TMP) Construction of CWR project in Guwahati (Contract Package AUIIP/PR-1/GUW/WS-02A & 02B)</p>

Name of Project:- Clear Water Reservoir Package 02A- Gopalnagar, Kenduguri, Northjyoti Nagar And Package 02B- Hengrabari, Nabajyoti Nagar, Basistha Guwahati ASSAM

1.0	PURPOSE
	To make a procedure to reduce and manage the spoil generated and reuse related to Construction works.
2.0	SCOPE
	The procedure is applicable to M/s Shivam Transcon Pvt.Ltd.
3.1	DEFINITIONS
	Something that is discarded or going to be discarded
3.2	RESPONSIBILITY:
	Project In charge is responsible for its implementation
4.0	GENERAL HIERARCHY OF CONTROL
	<ul style="list-style-type: none"> ➤ PREVENT ➤ REDUCE ➤ REUSE ➤ RECYCLE ➤ RECOVERY ENERGY ➤ RESPONSBLE DISPOSAL
5.0	LEGAL REQUIREMENT
	<ul style="list-style-type: none"> ➤ The Building and Other Construction Workers (Regulations of Employment and Conditions of Service) Act 1996 and Central Rule 1998 Rule ➤ Environmental Protection Act 1986 ➤ The Water [Prevention & Control Of Pollution] Act-1974 and Rules 1975 ➤ The Water [Prevention & Control Of Pollution] CASs Act-1977 and Rules-1978 as amended in 2003 ➤ The Air [Prevention & Control Of Pollution] Act - 1981 and Rules 1983 ➤ The Environment [Protection] Act-1986 & Rules-1986 as amended from time to time ➤ The Hazardous Waste (Management and Handling) Rules, 1989 as amended from time to time ➤ Bio-Medical waste (Management & Handling) Rules 1996 ➤ Municipal Solid Waste (Management and Handling) Rules 2000 ➤ Noise Pollution Regulation & Control rules, 2000, ➤ Battery (Management and Handling) rules, 2001.
6.0	REQUIREMENTS

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6.1	Procedure:- <ul style="list-style-type: none"> ➤ Spoil volume calculations: Estimate the volumes of spoils produced from each of the construction sites. ➤ Characterization of spoil: Based on the type of spoil; characterization is done (sand stone, mud mix materials, reusable materials) • Adopt Spoil Reduce, Reuse Opportunities • An overview of the assessment methodology to be used is mentioned below. <ul style="list-style-type: none"> ➤ Consideration of likely spoil characteristics ➤ Identification of possible reuse sites ➤ Screening of possible reuse opportunities ➤ Identification of possible safe disposal sites for spoil: Those spoils which can't be reuse shall be properly disposed in designated areas, such disposal areas should be identified in project locations. Such disposal areas should be safe from environmental aspects and there should be any legal and resettlement related issues. Such areas need to be identified and prior client approval should be obtained to use it as spoil disposal area. The local administration must be consulted and if required permission should be obtained from them. 		
6.2	Identification and Assessment of Soil Aspect and Impacts <ul style="list-style-type: none"> ➤ There is some place assessed and identified jointly Inside the Garden reach STP for Dumped and dressed the extra earth which is presently down from actual level. ➤ During shifting through trucks we are ensuring that the trolley loaded is covered by tarpaulin and there is harm of dust pollution 		
7.0	SPOIL VOLUMES, CHARACTERISTICS AND MINIMIZATION <ul style="list-style-type: none"> ➤ Volumes Not conformed ➤ Characteristics Normal earth basically Clay types ➤ Minimization Excavation of earth to be done as per requirements only. No extra earth shall be excavated 		
8.0	Spoil Reuses Opportunities, Identification and Assessment <ul style="list-style-type: none"> ➤ Some Cubic Metre of Spoils will be reused for backfilling of excavated shaft location. ➤ Balance spoils will be removed 		
9.0	Spoil Transportation Methodology <ul style="list-style-type: none"> ➤ Extra earth will be shifted by Truck / Dumper from site to dumping yard. ➤ Address of dumping yard: Chunchali, Kanchan Nagar Po-Noonmatl. Dist:-Guwahati, Assam- 781020. 		
10.	Monitoring, Reporting, Review and Improvements <ul style="list-style-type: none"> ➤ Monitoring, Reporting and all necessary improvements will be as required. 		
11	List of Relevant Guide Lines/ Documents		
12	References		
13	Related other Procedures		
	The key aspects of potential impacts are listed in table below		
14	<table> <tr> <th>Aspects</th><th>Potential Impacts</th></tr> </table>	Aspects	Potential Impacts
Aspects	Potential Impacts		

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Air Quality	Potential for high winds generating airborne dust from the movement of vehicles and machineries
Surface and Groundwater	Contamination of water (surface and ground water)
Noise	Associated with spoil handling and haulage and
storage	Impacts associated with
Traffic	spoil haulage
Land Use	Land used for dumping is a government land, permission obtained from client and is down from actual ground level.
Design specifications	Limitations on opportunities to minimize spoil generation
Sustainability	Limited sites for storage, reuse opportunities

DISPOSED SILT FROM Jan TO June 2017 APPROXIMATELY-QUANTITY Not conformed.

ADDRESS OF DUMPING YARD- Kanchan Nagar, PO-Noonmati

Dist- Guwahati Assam-781020



SCANNED COPY OF NOISE AND AIR QUALITY TESTING REPORT



ग्रीन टेक एनवायरनमेंटल इंजीनियर और कंसल्टेंट्स GREEN TECH ENVIRONMENTAL ENGINEER & CONSULTANTS

सारायण पथ, चम्पक नगर, गुवाहाटी, असम-781028

 House No-11, Champoknagar, Narayan Path, Bhetapara, Guwahati-781028, www.greentechec.in
 Telefax-0361 2300278 Mobile: 9435046677, 9954089052, E-mail: green_pranjal@hotmail.com, info@greentechec.in

TEST REPORT

Ref. No.:	GEEC/FL/23/2017/05/02	Date of Reporting:	22/05/2017
Customer Name:	M/S SHIVAM Transcon Pvt. Ltd.	Lab. ID No.:	13/05/2017
Customer Address:	Gopalnagar, Noonmati Guwahati, Assam	Date of Sampling:	13/05/2017
Sampling Location:	Bore Well	Sample Receipt Date:	13/05/2017
Sample Description:	Ground Water	Test Start Date:	13/05/2017
Sample Drawn By:	Mr. P. Talukdar	Test Completion Date:	19/05/2017
Sample Condition:	Sealed	Sampling Method :	GEEC/SOP/02

SL. NO.	PARAMETERS	METHODS	UNITS	RESULTS	IS-10500:2012	
					Requirement (Desirable Limit)	Permissible limit in the absence of alternate source
1	pH	APHA 22nd Edn, 2012, 4500 H+	-	7.6	6.5 to 8.5	No relaxation
2	TSS	APHA 22nd Edn, 2012, 2540 D	mg/l	21	-	-
3	TDS	APHA 22nd Edn, 2012, 2540 C	mg/l	110	500	2000
4*	Hardness	APHA 22nd Edn, 2012, 2340 C	mg/l	8	200	600
5*	Chlorides	APHA 22nd Edn, 2012, 4500 Cl-B	mg/l	14	250	1000
6	Calcium	APHA 22nd Edn, 2012, 3500 Ca B	mg/l	17	75	200

***** End of Report*****

Authorised by: Laboratory In-charge

(Dr. Belinda Lahon)

* The results relate only to the item tested.

* The parameters marked with + are not under the scope of NABL.

* The test report shall not be reproduced except in full, without written approval of the laboratory.

* The test report cannot be used as an evidence in a court of law without prior written approval of the laboratory.

PAGE 1 of 1

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 Head Office: B. P. Chaliha Road, Melachakar, Sivasagar, Assam-785640
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TEST REPORT

Test Report No:	GEEC/FL/22/2017/05/02	Date of Reporting:	26/05/2017
Customer Name:	M/S SHIVAM Transcon Pvt. Ltd.	Lab. ID No.:	GEEC/AA/2017/05/02
Customer Address:	Gopalnagar, Noonmati Guwahati	Date of Sampling:	13/05/2017 & 14/05/2017
Sampling Location:	Near Office Room	Time of Monitoring:	10.30 am to 10.30 am
Sampling Condition:	In GF/A, PTFE Filter Paper & Plastic Bottle	Duration:	24 hours
Humidity:	Max. Min.	Ambient Temperature:	Max. Min.
	86% 55%		33.2°C 23.2°C
Equipments Details:	Ecotech, RDS AAS Sampler 217 BL & ADS PM Sampler	Test Start Date:	15/05/2017
Monitored By:	Mr. P. Talukdar	Test End Date:	22/05/2017

AMBIENT AIR QUALITY

Sampling and Analysis carried out as per GEEC/SOP/01

Sl. No.	Parameters	Unit	Results	Limits	Test Method
1	Particulate Matter (PM ₁₀)	µg/m ³	71	100	IS 5182(23)
2	Particulate Matter (PM _{2.5})	µg/m ³	39	60	CPCB Guidelines
3	Sulphur Dioxide (SO ₂)	µg/m ³	12	80	IS 5182(2)
4	Nitrogen Dioxide (NO ₂)	µg/m ³	20	80	IS 5182(VI)

***** End of Report*****

Authorised by: Lab -in-Charge

Blahon

(Dr. Belinda Lahon)

The parameters tested on the specific date are found to be within the NATIONAL AMBIENT AIR QUALITY STANDARDS, CPCB NOTIFICATION DATED 18TH NOVEMBER, 2009.

* The results relate only to the item tested.

* The test report shall not be reproduced except in full, without written approval of the laboratory.

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ग्रीन टेक एनवायर्नमेंटल इंजीनियर और कंसल्टेंट्स

GREEN TECH ENVIRONMENTAL ENGINEER & CONSULTANTS

मोरायण पथ, चम्पक नगर, गढ़ाहाटी, असम-781028

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Telex-0361 2300275 Mobile-9435046677, 9954088052 E-mail: green_pranjal@hotmail.com, info@greentechec.in

TEST REPORT

Test Report No:	GEEC/AAQM/2017/05/04		Date of Reporting:	22/05/2017	
Customer Name:	Shivam Transcon Pvt Ltd		Lab ID No:	GEEC/AA/2017/05/04	
Customer Address:	Shivam Tower Monalisa Path Mother Teresa road Gitanagar Ghy-21		Date of sampling:	08/05/2017 & 09/05/2017	
Sampling Location:	North Jyotingar Ghy-781003 N-26°11'29" E-91°47'1"		Duration:	24 hours	
Sampling Condition:	In GF/A, PTFE Filter Paper & Plastic Bottle		Sample Receipt Date:	09/05/2017	
Humidity:	Max.	Min.	Ambient Temperature:	Max.	Min.
	91%	70%		25.9°	21.3°
Equipment Details:	Ecotech, RDS AAS Sampler 217 BL & ADS PM Sampler		Test Start Date:	10/05/2017	
Monitored By:	Mr. P. talukdar		Test End Date:	16/05/2017	
AMBIENT AIR QUALITY					
Sampling and Analysis carried out as per GEEC/SOP/01					
Sl. No.	Parameters	Unit	Result	Limits	Test Method
1	Particular Matter (PM ₁₀)	µg/m ³	79	100	IS 5182 (23)
2	Particular Matter (PM _{2.5})	µg/m ³	33	60	CPCB Guidelines
3	Sulphur Dioxide (SO ₂)	µg/m ³	8	80	IS 5182 (2)
4	Nitrogen Dioxide (NO ₂)	µg/m ³	18	80	IS 5182(VI)
*****End of Report*****					
Authorised by: Lab -in-charge  (Dr. Belinda Lahon)					
The parameters tested on the specific date are found to be within the NATIONAL AMBIENT AIR QUALITY STANDARDS, CPCB NOTIFICATION DATED 18TH NOVEMBER, 2009					

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Page 01/01



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Tefax-0361 2300278 Mobile: 9435048677, 9854089052, E-mail: green_pranjal@hotmail.com, info@greentechec.in

TEST REPORT

REPORT NO: GEEC/SLM/ST/2017/05/05 Date:22/05/2017
Lab. ID No.: GT/SLM/ST/2017/05/05 Date of Sampling :05/05/2017
Customer Name: Shivam Transcon Pvt.Ltd.
Customer Address: Shivam Tower
Monalisa Path, Mother Teresa Road
Gitanagar ghy-21
Sample Description: Sound Level Monitoring
Monitoring Done By: Mr. P. Talukdar

North Jyotinagar: 05/05/2017 (Sound level in Leq)			
Day Time		47.8	
Night Time		33.9	
POLLUTION CONTROL LAW SERIES: PCLS/06/2000-01 CPCB			
Area Code	Categories of Area/Zone	Limits in dB(A) Leq	
		Day Time (6 am -10 pm)	Night Time (10 pm-6 am)
A	Industrial Area	76	69
B	Commercial	69	58

*****End of Report *****

Instruction Used: Model: SLM 4023SD, Make Lutron, Taiwan
The above finding is based on reading collected on the specific date. The sound level recorded are within the CPCB Limit.

For GREEN TECH Environmental Engineer & Consultant

B. Lahon

(Dr. B. Lahon)
Lab In-charge

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TEST REPORT

Test Report No:	GEEC/AAQM/2017/05/03	Date of Reporting:	22/05/2017
Customer Name:	Shivam Transcon Pvt Ltd	Lab ID No:	GEEC/AA/2017/05/03
Customer Address:	Shivam Tower Monalisha Path Mother Teresa road Gitanagar Ghy-21	Date of sampling:	05/05/2017 & 06/05/2017
Sampling Location:	Jonaki Nagar, Hengrabari Ghy-781036	Duration:	24 hours
Sampling Condition:	In GF/A, PTFE Filter Paper & Plastic Bottle	Sample Receipt Date:	07/05/2017
Humidity:	Max. Min. 89% 63%	Ambient Temperature:	Max. Min. 26.5 ^o 20.8 ^o
Equipment Details:	Ecotech, RDS AAS Sampler 217 BL & ADS PM Sampler	Test Start Date:	07/05/2017
Monitored By:	Mr. P. Talukdar	Test End Date:	13/05/2017

AMBIENT AIR QUALITY

Sampling and Analysis carried out as per GEEC/SOP/01

Sl. No.	Parameters	Unit	Result	Limits	Test Method
1	Particular Matter (PM ₁₀)	µg/m ³	77	100	IS 5182 (23)
2	Particular Matter (PM _{2.5})	µg/m ³	39	60	CPCB Guidelines
3	Sulphur Dioxide (SO ₂)	µg/m ³	7	80	IS 5182 (2)
4	Nitrogen Dioxide (NO ₂)	µg/m ³	16	80	IS 5182(VI)

*****End of Report*****

Authorised by: Lab -in-charge

[Signature]

(Dr. Belinda Lahon

The parameters tested on the specific date are found to be within the NATIONAL AMBIENT AIR QUALITY STANDARDS, CPCB NOTIFICATION DATED 18TH NOVEMBER, 2009

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Page 01/01



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TEST REPORT

REPORT NO: GEEC/SLM/ST/2017/05/06

Date: 22/05/2017

Lab. ID No.: GT/SLM/ST/2017/05/06

Date of Sampling : 05/05/2017

Customer Name:

Shivam Transcon Pvt.Ltd.

Customer Address:

Shivam Tower
Monalisa Path, Mother Teresa Road
Gitanagar ghy-21

Sample Description:

Sound Level Monitoring

Monitoring Done By:

Mr. P. Talukdar

Jonaki Nagar: 05/05/2017 (Sound level in Leq)			
Day Time		47.6	
Night Time		33.7	
POLLUTION CONTROL LAW SERIES : PCLS/06/2000-01 CPCB			
Area Code	Categories of Area/Zone	Limits in dB(A) Leq	
		Day Time (6 am -10 pm)	Night Time (10 pm-6 am)
A	Industrial Area	74	68
B	Commercial	66	56

*****End of Report *****

Instruction Used: Model: SLM 4023SD, Make Lutron, Taiwan

The above finding is based on reading collected on the specific date. The sound level recorded are within the CPCB Limit.

For GREEN TECH Environmental Engineer & Consultant

B. Lahon

(Dr. B. Lahon)
Lab in-charge

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Page 01/01

TRAFFIC MANAGEMENT PLAN

Shivam Transcon Pvt. Ltd.

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Guwahati - 781021
Ph. No. : 2416960, 2417548
Fax : 0361-2410728
e-mail : shivam2000in@yahoo.com, shivamtranscon@gmail.com
Visit us our website : www.shivamtranscon.com



Ref:.....

Date:

**HEALTH SAFETY AND ENVIRONMENTAL OPERATION CONTROL PROCEDURES
TRAFFIC MANAGEMENT PLAN (TMP)**

Construction of CWR project in Guwahati (Contract Package AUIIP/PR-1/GUW/WS-02A & 02B)

Name of Project:- Name of Project:- Clear Water Reservoir Package 02A- Gopainagar, Kenduguri, Northjyoti Nagar And Package 02B- Hengrabari, Nabajyoti Nagar, Basistha Guwahati ASSAM

1.0	PURPOSE:-
	Main purpose is to prevent accident between vehicles, pedestrians and employees and also minimize inconvenience to the vehicle. To stop property damage and prevent injury to persons arising from site traffic and site transport
2.0	SCOPE:-
	The procedure is applicable to M/s Shivam Transcon Pvt.Ltd.
3.0	RESPONSIBILITY:-
	It is the responsibility of the construction Manager and all department head to implement this procedure and ensure that delegated staff under their supervision carries it out.
4.0	DEFINATION:-
	Construction Manager: Person responsible for the execution of the project.
5.0	LEGAL REQUIREMENT:-
	The Building and Other Construction Workers (Regulations of Employment and Conditions of Service) Act 1996and Central Rule 1998 Rule 48, 88 and 95, Motor Vehicle Act 1988
6.0	REQUIREMENT:-
6.1	GENRAL:-
	<ul style="list-style-type: none"> ➤ All road works create inconvenience and are a potential hazard to the safety of all road users and those employed in carrying out the work ➤ All the effects should be reduced to the minimum, and to ensure that the works are properly guarded, lighted and signed. ➤ A clear and early warning of any obstruction to all road users should be provided. ➤ All areas where work is going on should be clearly demarcated by hard barricading and entry into these areas should be restricted to only authorize personnel.

Shivam Transcon Pvt. Ltd.

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Visit us our website : www.shivamtranscon.com



Ref.....

Date

6.2	PLANING STAGE:-
6.3	ON SITE:-
	The working space shall be defined and "A PLACE EVERYTHING AND EVERYTHING IN ITS PLACE" to be follow
6.4	OPERATORS/DRIVERS:- <ul style="list-style-type: none"> ➤ Only Experienced operators and drivers with valid icensed has been appointed. ➤ One copy of license has been collected. ➤ Refreshment training conducted for all operators and drivers ➤ Operators/Drivers authentication and validation to operate the particular machinery displayed in the machine/vehicles
6.5	EQUIPMENT:- <ul style="list-style-type: none"> ➤ Drivers are made a daily visual inspection of their vehicles include steering, brakes, mirrors, lights, horn, tyres and windshield wipers ➤ Safety Department along with Plant and machinery department shall check the vehicles monthly basis. ➤ All vehicles have reverse horns and it is in working properly ➤ All vehicles, preventive maintenance schedule has to be followed strictly
6.6	ROADS:- <p>For safe operation we are following the below safety measure.</p> <ul style="list-style-type: none"> ➤ Safe width of road has been provided. ➤ Flag man deployed at every traffic point to control the vehicles and pedestrians. ➤ Speed limit 10 km/hr within the site. ➤ Caution board has been placed in every location within the site. ➤ Workers are working with reflective jacket as well as required PPE's. ➤ Road for use of pedestrian has been identified. ➤ High Noise intensity reverse horn used in vehicles ➤ While reverse vehicles ensuring Banks man. ➤ Do's and Don't displayed at site office.
6.7	LOADING AND UNLOADING:- <ul style="list-style-type: none"> ➤ Only authorized persons were engage for loading / unloading. ➤ Materials loaded within the permitted safe weigh limit (as per RTO) for the truck. ➤ Ensuring Soil and sand loaded trucks are covered with tarpaulin while transporting. ➤ During Toolbox talks Intimation has been delivered to all drivers/operators that when the Driver leaves the driving seat the engine of the truck shall be switched off, the gear engaged and parking brakes applied. On slopes, wheel blocks shall be applied

Shivam Transcon Pvt. Ltd.

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Visit us our website : www.shivamtranscon.com



Ref.....

Date

	<ul style="list-style-type: none">➤ Helper has been provided with all vehicles.➤ After unloading, the banks man ensuring that the tipper is lowered before moving.➤ Turn buckle and side stoppers used while transporting as required.
6.8	<p>WARKING AREA:-</p> <ul style="list-style-type: none">a. The working area has been restricted from unauthorized entry.b. The working space has been defined.c. Particular attention has been taken in working area:<ul style="list-style-type: none">➤ traffic signs;➤ cones;➤ barriers;➤ information boards; and➤ site lightinga. Adequate lighting has been provided at the working area.b. All persons wear high visibility jackets





Project Safety, Health and
Environmental Plan
for
Water Reservoir project

DOC No STPL/SP/001
Rev : 0




Date :01 09 2016

Page 1 of 24

SHIVAM TRANSCON PVT.LTD

PROJECT SAFETY, HEALTH AND ENVIRONMENTAL PLAN FOR

Water Reservoir Project Guwahati Assam

Prepared By	Checked By	Approved By
 Umakant Sharma (HSE Officer)	 S.N.L.Reddy (Project Manager)	 Pritam Hazanka (CEO)



Project Safety, Health and
Environmental Plan
for
Water Reservoir project

DOC No.STPL/SP/001
Rev : 0

Date :01.09.2016

Page 2 of 24

Table of Contents

1. Intent	5
2. Duties and Responsibilities	6
3. Overview of Project	7
4. Safety Philosophy and Factors	7
4.1. Philosophy of Safety	7
4.2. Factors affecting safety	7
4.3. Safety Campaign	8
5. Safety Regulations	8
5.1. Accident Reporting	8
5.2. Statistics of Accidents	9
5.3. Visitors	9
6. Housekeeping	9
7. Personal Protective Equipment	10
7.1. Introduction	10
7.2. Safety Helmets	11
7.3. Foot Protection	11
7.4. Hand Protection	11
7.5. Shields for Welding Jobs	11
7.6. Ear Protectors	11
7.7. Respirators (Masks)	12
7.8. Safety Harnesses	12
8. Safe Handling of Materials	12
8.1. Introduction	12



Project Safety, Health and
Environmental Plan
for
Water Reservoir project

DOC No.STPL/SP/001
Rev : 0

Date :01.09.2016

Page 3 of 24

8.2.	Manual Lifting	12
8.3.	Wire Ropes and Slings	12
8.4.	Mechanical Lifting	13
8.5.	Hazardous Materials	13
9.	Electrical Safety	14
9.1.	Introduction	14
9.2.	Electrical Cables	15
9.3.	Electrical Work	15
9.4.	Power Appliances	16
9.5.	Monsoon Precautions - Electrical	16
10.	Safety in Construction Equipment	16
10.1.	General Precautions	16
10.2.	Maintenance	16
10.3.	Vehicles and Trailers	17
10.4.	Cranes	17
10.5.	Earth Moving Equipment	18
11.	Safety in Construction Process	18
11.1.	Cast in Situ Bored Piles	18
11.2.	Ladders	18
11.3.	Scaffolds	18
11.4.	Welding and Gas Cutting	19
12.	Emergencies	20
12.1.	Fires	20
12.2.	First Aid	20



Project Safety, Health and
Environmental Plan
for
Water Reservoir project

DOC No.STPL/SP/001
Rev : 0

Date :01.09.2016

Page 4 of 24

13.	Welfare	21
13.1.	Site Offices and Accommodation.....	21
13.2.	Labour Accommodation of Site.....	21
14.	Environmental	22
14.1.	Noise Pollution.....	22
14.2.	Air Pollution	22
14.3.	Pollution of Surface and Ground Water.....	22
14.4.	Damage to Land	23
14.5.	Socio-economic and Cultural Impact.....	23
15.	Attachments.....	24



Project Safety, Health and
Environmental Plan
for
Water Reservoir project

DOC No.STPL/SP/001
Rev : 0

Date : 01.09.2016

Page 5 of 24

1. Intent

This document is Shivam Transcon Pvt.Ltd. Health, Safety and Environmental Management Plan for the **Clear Water Reservoir project**. The document is based on Clear Water Reservoir Project Safety, Health and Environmental Policy principles for this Project and shall form an integral part of overall Shivam Safety, Health and Environmental Program.

Architect/consultant/project management-DSC.

This document sets out the duties and responsibilities of the personnel involved in this project.

This Health, Safety & Environmental Management Plan provides a focus on coordinated approach to the implementation of Health, Safety and Environment within the project premises during the construction phase. Protection of environment is necessary and shall form an integral part of line management control of the site construction works. Site Management shall have environmental responsibility in regard to handling of hazardous/non-hazardous materials, cleaning of debris like plastic products, food waste etc. etc. Waste of sanitary product as well as wastewater disposal shall be taken care off.

All control documents will be referred to for implementation.

The following are the details of the Safety, Health and Environmental Management Plan and will be updated as the project proceeds to ensure proper implementation, as far as is reasonably practicable to ensure:

- Proper and timely information
- Supporting the principles of Health, Safety and Protection of the Environment to ensure that the overall safety objectives are maintained throughout the project.
- To ensure execution in a manner that minimizes the risk of injuries to personnel, damage to equipment and property and damage to the environment as far as reasonably practicable.
- That protection of the health and welfare of the workforce is safeguarded.
- That pro-active incident prevention measures are adopted including safety promotion, toolbox talks, development and implementation of risk assessments and Method statement.