

Semi-Annual Environmental Monitoring Report

Project number: 43253-025

Period: January – June 2016

IND: Karnataka Integrated Urban Water Management Investment Program – Tranche 1

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ABBREVIATIONS

ADB	Asian Development Bank
ADB SPS	Asian Development Bank Safeguard Policy Statement
APMC	Agricultural Produce Market Committee
BOD	Bio-Chemical Oxygen Demand
BPL	Below Poverty Line
CAP	Corrective Action Plan
CBO	Community Based Organizations
CC	Complaint Cell
CC Drain	Cement Concrete Drain
CFE	Consent for Establishment
CFO	Consent for Operation
CGWB	Central Ground Water Board
CMC	City Municipal Council
CPCB	Central Pollution Control Board
dbA	Decibels
DI	Ductile Iron
DPR	Detailed Project Report
DS	Double Suction
EA	Executing Agency
EAC	Expert Appraisal Committee
EC	Environmental Clearance
EIA	Environmental Impact Assessment
ELSR	Elevated Storage Reservoir
EMP	Environmental Management Plan
GDP	Gross Domestic Product
GIL	Grasim Industries Limited
Gol	Government of India
GoK	Government of Karnataka
GLSR	Ground Level Service Reservoir
GRC	Grievance Redress Committee
HDPE	High Density Polyethylene
H&S	Health and Safety
IA	Implementing Agency
IEE	Initial Environmental Examination
IWRM	Integrated Water Resource Management
KIUWMIP	Karnataka Integrated Urban Water Management Investment Program
KMRP	Karnataka Municipal Reforms Project
KSPCB	Karnataka State Pollution Control Board
KSRTC	Karnataka State Road Transport Corporation
KTCP	Karnataka Town and Country Planning
KUIDFC	Karnataka Urban Infrastructure Development & Finance Corporation
KUWSDB	Karnataka Urban Water Supply & Drainage Board
M&M	Major and Medium
MFF	Multitranches Financing Facility
MoEFCC	Ministry of Environment, Forest & Climate Change
MSL	Mean Sea Level
NGO	Non-Government Organisation
NKUSIP	North Karnataka Urban Sector Investment Program
NOx	Nitrogen Oxide

NRW	Non Revenue Water
OCRCP	Office of Compliance Review Panel
OHT	Over Head Tank
OSPF	Office of the Special Project Facilitator
O&M	Operation & Maintenance
PC	Program Consultants
PCU	Project Co-ordination Unit
PMU	Program Management Unit
PMD CSC	Project Management Design and Construction Supervision Consultant
PIU	Program Implementation Unit
PWD	Public Works Department
RCC	Reinforced Cement Concrete
REA	Rapid Environmental Assessment
RF	Resettlement Framework
RP	Resettlement Plan
RPMU	Regional Program Management Unit
RSPM	Residual Suspended Particulate Matter
SC	Scheduled Caste
SEIAA	State Environmental Impact Assessment Authority
SPM	Suspended Particulate Matter
SPS	Sewage Pumping Station
ST	Scheduled Tribe
STP	Sewage Treatment plant
SW	Stone Ware
TMC	Town Municipal Council
ToR	Terms of References
UGD	under Ground Drainage
ULB	Urban Local Body
UDWSP	Urban Drinking Water & Sanitation Policy
USD	US Dollars
(U)WSS	(Urban) Water Supply & Sanitation

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I. INTRODUCTION

A. Background

1. The Karnataka Integrated Urban Water Management Investment Program (KIUWMIP, the Program) aims to improve water resource management in urban areas in a holistic and sustainable manner. Investment support will be provided to modernize and expand urban water supply & sanitation (UWSS) while strengthening relevant institutions to enhance efficiency, productivity and sustainability in water use. The Program focuses on priority investments and institutional strengthening in water supply & sanitation within an IWRM context.

2. The Program will be implemented over a four-year period and will be funded by a loan via the Multitranches Financing Facility (MFF) of Asian Development Bank (ADB). The Executing Agency is the Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC) and implementing agencies for the Investment Program will be respective Urban Local Bodies (ULBs). Initially Byadgi, Harihar, Ranebennur and Davangere are the four towns chosen to benefit from the first tranche of the investment. As the Detailed Project Report costs have exceeded substantially compared to the costs indicated on the basis of feasibility studies, ADB would finance water and sewerage infrastructure only in three towns namely (1) Davanagere, (2) Harihar and (3) Byadgi under Tranche-1 (investments on Ranebennur sewerage and water supply are proposed to be met out of NKUSIP savings and GoK exclusive funding respectively)

3. The programme proposes the MFF spread across two tranches over a period of ten years (2014-2024) with the total size of \$225 M. The shares of ADB propose to be \$150 million and counterpart funding from the state Government is estimated at \$75 million. In addition to the Loan funds of \$150M, the ADB has agreed to support the programme with an additional amount of \$1.8 M as a grant fund out of its urban financing partnership facility.

4. In **Tranche 1** main outcome will be providing 24x7 Water supply and sewerage system including treatment of sewage at Byadgi, Harihar and Davangere. Location of project towns is shown in **Figure 1**.

5. The Program Management Unit (PMU) is located in Bangalore, Regional Program Management Unit (RPMU) in Davangere and Program Implementation Unit in the three Tranche 1 towns has been established. Project Management Design & Construction Supervision Consultant (PMDSC) is also in place.

B. Purpose of the Report

6. **Environmental Categorization.** KIUWMIP **Tranche 1** towns 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.

7. This report is the semi-annual environment monitoring report (SEMR) covering period **January to June 2016**. This SEMR describes the implementation of the environmental management plan (EMP) in each subproject IEE.



Figure 1: Location of project towns

II. IMPLEMENTATION PROGRESS

A. Status of Subprojects under Tranche 1

8. There are 4 sub projects in Tranche 1 (Project 1) under implementation. One sub project at Byadgi is awarded recently. Physical construction has been started for one sub project at Harihar (UGD+STP) and two sub projects at Davangere (separate contract for UGD and STP). Status of sub projects is given in **Table 1**. Site photographs are attached as **Appendix 1**.

Table 1: Status of Sub Project under Tranche 1

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
Byadgi	01BDG01	Design, Build, Operate & Maintain for 6 years for Byadgi comprehensive sewerage system scheme from covering SBR STP (5 MLD), network (82.2 km), and 3202 manholes, construction of one septic tank (275 users, 0.03 ML) and provision of 6,206 nos HSCs	16.04.2016	36 months	16.04.2019	Topographical Survey and finalization of design continued	-	No
Harihar	01HRA01	Expansion of the sewerage network (72.16 km sewers, 2640 nos. manholes, 4 nos. pumping stations, 18 MLD STP)	09.01.2015	30 months	08.07.2018	<p>Cumulative Progress Up to June-2016</p> <p><u>Sewer Pipe Line</u></p> <p><u>RCC-NP3 class</u></p> <ul style="list-style-type: none"> Laying of 469.6 m of 500mm diameter pipes Completed. Laying of 67.5 m of 450 mm diameter pipes Completed. 	35.6%	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<ul style="list-style-type: none"> • Laying of 458.5 m of 350 mm diameter pipes Completed. • Laying of 987.3 m of 300 mm diameter pipes Completed. • Laying of 68 m of 250mm diameter pipes Completed. • Laying of 34 m of 150mm diameter pipes Completed. <p><u>uPVC pipes</u></p> <ul style="list-style-type: none"> • Laying of 28,068.84 m of 160 mm diameter pipes Completed. • Laying of 1,898 m of 200 mm diameter pipes Completed. • Laying of 1,573.5m of 250 mm diameter pipes Completed. <p><u>Total for Pipeline</u></p>		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<ul style="list-style-type: none"> • Total for Sewer Network pipe of 33,625.24 m of pipe line work completed. <u>Manholes</u> • Construction of 1,182 manholes Completed <u>DI Pumping Main (K-7 Class)</u> • Laying of 450 m of 400 mm diameter pipes Completed • Laying of 925 m of 150 mm diameter pipes Completed. • Total 1,375 m of pipe line work completed <u>House service Connection</u> • Total 11,928.8 m of 110mm pipe line work completed. <u>Other Works</u> • Earth work 		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<p>Excavation and PCC completed and raft work under progress at APMC wet well.</p> <ul style="list-style-type: none"> • Wall concreting upto to ground level completed and cover slab centering under progress at Amaravathi wet well. • sidewall concreting upto intermediate slab completed at Guttur wet well and shuttering work under progress • PCC, Raft & wall concrete completed for Baffle 5 walls at STP (FAL 2&3) upto 2.7 m ht from ground level and starter concrete completed at FAL-1, wall B 		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<ul style="list-style-type: none"> • 21 Nos. Raft & 156 Nos. Column Concrete work completed up to Pedestal level Completed. • Key trench Excavation under progress. • Construction drawings for 67.1 Km issued to the contractor. 		
Davangere	01DVG01	Expansion of sewerage system (District 1 & 3) for Davangere - 203.46 km sewers, 7581 nos. manholes	09.01.2015	36 months	10.01.2018	<p><u>Cumulative Progress Upto June-2016</u> <u>RCC-NP3 pipes</u></p> <ul style="list-style-type: none"> • Laying of 443 m for 600 mm diameter completed. • Laying of 352 m for 500 mm diameter completed. • Laying of 604 m for 450 mm diameter 	21.69%	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<p>completed.</p> <ul style="list-style-type: none"> • Laying of 605m for 350 mm diameter completed. • Laying of 2,164 m for 300 mm diameter Completed. • Laying of 626 m for 250 mm diameter Completed. • Laying of 426 m for 200mm diameter Completed. <p><u>GSW Pipes</u></p> <ul style="list-style-type: none"> • Laying of 125 m laying of 250 mm pipe completed. • Laying of 28,737 m laying of 200 mm GSW pipe completed. • Laying of 9,773 m laying of 150 mm pipe completed. <p><u>uPVC Pipes</u></p>		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<ul style="list-style-type: none"> • Laying of 12 m laying of 160 mm pipe completed. • Laying of 422 m laying of 200 mm pipe completed. • Laying of 14 m laying of 250 mm pipe completed. <p><u>Total for pipeline</u></p> <ul style="list-style-type: none"> • Total of 44,305 m of pipe line completed. <p><u>Manholes</u></p> <ul style="list-style-type: none"> • Installation of 1,493 No of manholes completed • Pre-casting for 1,514No. manholes completed <p><u>House service Connection</u></p> <ul style="list-style-type: none"> • Laying of 8,562.1m of House service connection of 110mm 		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<p>diameter completed.</p> <ul style="list-style-type: none"> • 757no's of Brick masonry chamber completed. • 21 no's of Precast RCC receiving chamber completed. <p><u>Other works</u></p> <ul style="list-style-type: none"> • Construction drawings issued for 128.69 Km Sewer lines to the Contractor. • Re-confirmatory survey is under progress. • Condition Assessment Survey under progress. • Reconnaissance survey & topographical survey for balance are is under progress. 		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
Davangere	01DVG01A	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP	28.09.2015	24 months	27.09.2017	<ul style="list-style-type: none"> Contract agreement entered on 28 August 2015. The Basic Engineering Designs for 20 MLD & 5 MLD approved. Construction drawings for major civil structures approved. <p><u>5 MLD STP SBR TYPE</u></p> <ul style="list-style-type: none"> Construction of panel room roof completed for raw sewage pumping station. Construction of Chlorine contact tank completed. Finishing work under progress. Construction of Toner house completed and finishing work under 	37.1%	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<p>progress.</p> <ul style="list-style-type: none"> • Construction of Centrifuge platform completed except handrail and Finishing works. • Construction of SBR PCC and raft completed. • Construction of admin building under progress for Blower room. • Construction of Roof slab of Primary treatment unit completed. • Construction of Brick masonry and plastering under progress for Staff quarters. • Construction of <i>Nallaha</i> protection 		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<p>wall under progress. <u>20 MLD STP SBR TYPE</u></p> <ul style="list-style-type: none"> • Construction of Blower room roof completed and Brick masonry and plastering under progress. • Construction of Toner room completed and brick masonry under progress. • Construction of Centrifuge completed up to roof level and finishing work under progress. • Construction wall concrete of SBR completed. • Construction of Raft and wall concreting completed for Chlorine contact tank 		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Qty as of 30 th June 2016	Package Completed as of 30 th June 2016
						<p>and baffle wall concrete under progress.</p> <ul style="list-style-type: none"> • Construction of Primary treatment unit completed up to roof slab level and brick work under progress. 		

B. Compliance to Safeguard Loan Covenants

9. The loan agreement for KIUWMIP Project 1 was signed on 30th December 2014 and available in ADB website (<http://www.adb.org/sites/default/files/project-document/153027/43253-025-lbj.pdf>). **Table 2** provides a summary of compliance to the loan covenants related to environmental safeguards.

Table 2: Compliance to Loan Agreements (Environmental Safeguards)

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
Schedule 4 Item 9	<p>Procurement of Goods, Works and Consulting Services Conditions for Award of the Contract The Borrower shall ensure or cause the EA to not award any Works contract for a Subproject which involves environmental impacts until the EA has:</p> <p>a) Obtained the final approval of the IEE from the relevant environment authority of the Borrower and the State, and ADB; and b) Incorporated the relevant provisions from the EMP into the Works contract.</p>	<p>a) Obtained concurrence from ADB for IEE sewerage packages of Davangere, Byadgi & Harihar. b) Incorporated EMP into the works contract of Davangere, Harihara and Byadgi sewerage works.</p>
Schedule 5 Item 10	<p>Safeguards -Environment The Borrower shall ensure or cause the EA to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project, and all projects' facilities comply with (i) all applicable laws and regulations of the Borrower and the State relating to environment, health, and safety; (ii) the Environmental Safeguards; (iii) the EARF; and (iv) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.</p>	<p>Under compliance Document is prepared by complying all relevant State and National Laws, Safeguard Policy Statement (SPS 2009) of ADB, Environment Assessment Review Framework (EARF) for Tranche-1 program. Same will be followed for subsequent Tranches. For Tranche 1 project Initial Environmental Examination (IEE), Environment Management Plan (EMP) report prepared and approved by ADB. IEE has been updated for Byadgi sewage package due to change in scope and treatment technology. Report accepted and disclosed by ADB. Further review will be conducted at implementation phase. Final design for Harihar UGD and STP package, Davangere sewerage package and Davangere STP package have been reviewed. IEE and EMP will be updated as per final design and scope at implementation stage. All safeguard measures and requirements as prescribed in IEE/EIA and EMP will be considered during implementation. Corrective or preventive action plans including personal protection will be reflected in Environment Monitoring Report and project implementation authority will be taken care.</p>
Schedule 5 Item 14	Human and Financial Resources to Implement Safeguards Requirements	<p>Complied Budgetary provisions have been included in</p>

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
	The Borrower shall make available, or cause the EA to make available, all necessary budgetary and human resources to fully implement the EMP required.	EMP of Tranche 1 sub project. Environment Engineer (AEE) is placed in PMU Human resource (project consultant, i.e Environmental Specialist of PMDCSC) for implementation of EMPs is in place for regular compliance.
Schedule 5 Item 15	<p>The Borrower shall ensure, or cause the EA to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to:</p> <p>(a) comply with the measures and requirements relevant to the contractor set forth in the IEE, the EMP, the RP and the 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;</p> <p>(b) make available a budget for all such environmental measures;</p> <p>(c) provide the EA with a written notice of any</p>	<p>Under compliance</p> <p>(a) Approved IEE, EMP for Tranche 1 project is attached in Bidding documents. This process will be followed for all the sub projects within the present Tranche and subsequent Tranche. In case of any change of scope, revised IEEs, EMPs will be prepared and corrective measures will be disclosed to contractor and same will be reflected in the “Environment Monitoring Report” For Tranche 1 project Initial Environmental Examination (IEE), Environment Management Plan (EMP) report prepared and approved by ADB. IEE has been updated for Byadgi sewage package due to change in scope and treatment technology. Report accepted and disclosed by ADB. Further review will be conducted at implementation phase Final design for Harihar UGD and STP package, Davangere sewerage package and Davangere STP package have been reviewed and those projects are under implementation..IEE and EMP will be updated as per final design and scope.at implementation stage.</p> <p>Corrective actions were taken on the contractor regarding 1) To ensure PPE at all ongoing sites 2) To ensure separate sanitation facility for men & women and 3) arrangement of public safety and 4) camp site management</p> <p>(b) IEE indicates budgetary provisions for implementation of EMP Appendix 2 shows budgetary provision for safeguard implementation under different packages</p> <p>(c) With the development of sub project and</p>

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
	<p>unanticipated environmental risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the RP or the 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>implementation, in case of additional impacts/risks due to change in scope/area, that will be reflected in the revised IEEs, EMPs and Environment Monitoring Report and accordingly project Executing Agency will inform the Construction Agency for taking relevant corrective measures.</p> <p>Till date no unanticipated environmental risks or impacts reported</p> <p>(d) Haul roads will be marked properly (by avoiding residences and agricultural land) before commencement of transportation of materials.</p> <p>(e) Pathways, land which are likely to be affected for a short period during implementation of the sub project will be restored by concerned construction agency before acceptance of the work. Restoration status will be reflected in post construction monitoring report</p>
Schedule 5 Item 16	<p>Safeguards Monitoring and Reporting</p> <p>The Borrower shall cause the EA 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, 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, promptly after becoming aware of the breach.</p>	<p>Under compliance</p> <p>(a) This is 3rd semi-annual Safeguards Monitoring Report is prepared for the period January to June 2016,</p> <p>(b) With the development of project and implementation, in case of additional impacts/risks due to change in scope/area, will be reflected in revised IEEs, EMPs and accordingly Executing Agency (EA) will inform the ADB along with corrective action plan which will be reflected in the Monitoring Report.</p> <p>(c) in case of any breach of compliance with the measures and requirements set forth in the EMP; EA will promptly inform ADB and suitable corrective action plan will be planned.</p>
Schedule 5 Item 17	<p>Prohibited List of Investments</p> <p>The Borrower shall ensure or cause the State to ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the</p>	<p>Complied</p> <p>Under Tranche -1, there is no violation of prohibited investment activities as per ADB SPS (2009) Appendix 5.</p>

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
	SPS.	Same will be followed in subsequent Tranches
Schedule 5 Item 18	<p>Other Social Measures</p> <p>The EA shall ensure that civil works contracts under the Project 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; and (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. Such contracts will also include clauses for termination in case of any breach of the stated provisions by the contractors.</p>	<p>Complied in document and during implementation</p> <p>Provision are included (as per EMP & BID document) to carry out HIV/AIDS awareness programs for construction contractor, application of all relevant labour laws for health and safety including child labour law and engagement of local labours (preferably from economically backward group) covering women labours.</p> <p>In case of any breach of provision, necessary corrective measures as per contract clauses shall be taken.</p> <p>All activities including awareness program will be reflected in “Monitoring Report”.</p>

C. Implementation Arrangement

10. Overall Implementation Arrangement. Karnataka Urban Infrastructure Development & Finance Corporation (KUIDFC) is the Executing Agency (EA) responsible for implementing the Investment Program. Investment Program implementation activities is monitored by KUIDFC through a separate Investment Program Management Unit (PMU) for the IWRM Project, which setup within KUIDFC.

11. At the Executing Agency (i.e. KUIDFC), environmental issues will be coordinated centrally by an Environmental Specialist (Designated as Assistant Executive Engineer–Environment), reporting to the Task Manager, Assistant Executive Engineer– Environment will ensure that all subprojects comply with environmental safe guards. The IEE/ EIA reports prepared by the Consultant, and will be reviewed by the Assistant Executive Engineer–Environment as per the ADB’s Environmental Guidelines and forwarded to ADB for review and approval.

12. The consultant team includes an environmental specialist to supervise the implementation of environmental safeguards at the divisional level. The consultant team also includes a Construction Supervisor at each ULB/CMC/TMC responsible for the supervision of project implementation including environmental safeguards at the ULB/CMC/TMC level.

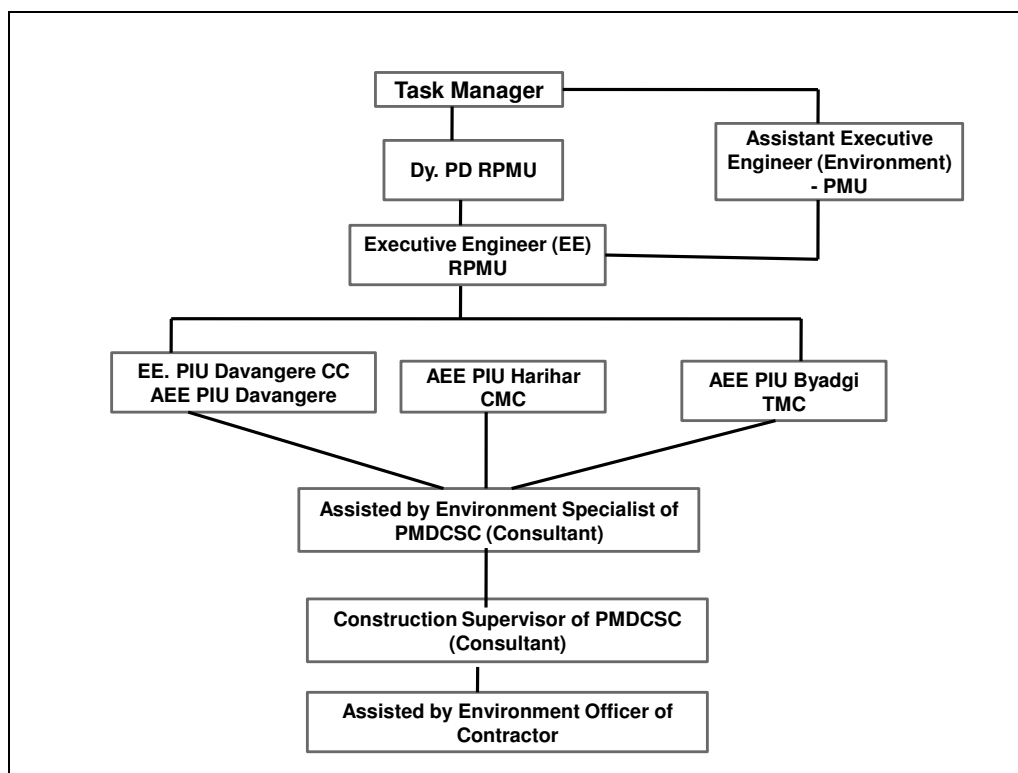
13. The contractor shall appoint one supervisor (environment & safety officer)who will be responsible on a day-to day basis for i) ensuring implementation of EMP ii) Coordinating the CS Engineer and environment specialists(all levels) iii) community liaison, consultation with interested/affected parties and grievance redressal and iv) reporting.

14. **Reporting arrangement.** Construction contractor monitoring safeguard implementation daily basis, while construction Supervisor (Resident Engineer) reviewed safeguard implementation weekly. After review they advised construction contractor for corrective measures. Monthly report summarizing observation, compliance & corrective measures is prepared by Environment Specialist of consultant on monthly basis. Then reports are forwarded from PIU to PMU for their observation and record. Based on monthly reports and site observations, Assistant Executive Engineer (Environment) of PMU, will review and consolidated the semi annual environment monitoring report for onward submission to ADB. **Table 3** shows activity and responsibility on safeguard implementation.

Table 3: Activity, Roles and Responsibility – Safeguard Implementation

Investment Program Phase	Activity	Details	Responsible Agency
Pre construction phase	Investment Program Categorization	Conduct Rapid Environmental Assessment (REA) for each subcomponents using REA checklists	ULB
		Reviewing the REA and assigning Investment Program category (A/B/C) based on KIUWMIP Environmental Assessment Guidelines and ADB Guidelines	PMU
	Conducting EA	Conducting IEE / EIA based on the Investment Program categorization Conducting Public Consultation and information disclosure Preparation of IEE / EIA	PMDCS consultant
	Investment program clearances	Fulfilling GoK/Gol requirement such as clearances from other Government Agencies	ULB
	Review of EIA/IEE	Reviewing the EIA/IEE Reports to ensure compliance thereof as per ADB Guidelines and approval of the same	PMU
	Disclosure of EIA/IEE	Information disclosure - IEE/EIA reports should be made available to the public, and on request IEE/EIA also made available.	ULB
	Incorporation of mitigation measures into Investment Program design	Incorporation of necessary mitigation measures identified in IEE/EIA in Investment Program design and in contract documents.	PMDCS consultant
	Review of design documents	Review of design and contractual documents for compliance of mitigation measures	PMDCS consultant
Construction Phase	Implementation of mitigation measures	Implementation of necessary mitigation measures	Contractor
	Environmental Monitoring	Environmental monitoring as specified in monitoring plan during construction stage; Monitoring of implementation of mitigation measures	PMDCS consultant
	Preparation of progress reports	Preparation of monthly progress reports to be submitted to PMU including a section on implementation of the mitigation measures	PMDCS consultant
	Review of progress reports	PMU to review the progress reports, consolidate and send to ADB review	PMU
Operation Stage	Environmental Monitoring	Conducting environmental monitoring, as specified in the environmental monitoring plan.	ULB/ Contractor
	Compliance Monitoring	Compliance monitoring to review the environmental performance of sub-project component, if required and as specified in Monitoring Plan.	KSPCB

15. **Figure 2** shows the implementation arrangement for environment safeguard. PMU includes a full-time Assistant Executive Engineer (Environment). As on 30th June 2016 position of Assistant Executive Engineer (Environment) is filled up and also Environment Specialist of PMDCSC (Program Consultant) has been placed.



EE: Executive Engineer, AEE: Assistant Executive Engineer

Figure 2: KIUWMIP Safeguards Implementation Arrangement

16. **Table 4** shows detail of environment safeguard team for KIUWMIP.

Table 4: Details of KIUWMIP Environmental Safeguard Team

Designation	Name and Contact Details
Asst. Executive Engineer (Environment) KIUWMIP-KUIDFC Project Management Unit	Name: Mr. K.M.Gurupadaiah Office Address Karnataka Urban Infrastructure Development & Finance Corporation Ltd Urban Infrastructure Bhavan Building, #22, 17 'F' Cross Binnamangala, 2nd Stage, Old Madras Road Indiranagar, Bangalore – 560 038. Phone: 080-22232021,, 09632717930 Email: Gurupadaiah@kuidfc.com
Assistant Executive Engineer, AEE, PIU, Davangere, Package 01DVG01 In-charge Environment safeguard compliance	Name: Mr. Ravikumar D L Office Address: KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Phone: 07676190997 Email: piukiuwmip.dvg@gmail.com
Assistant Executive Engineer, AEE, PIU, Davangere, Package 01DVG01A In-charge Environment safeguard	Name: Mr. Manjunath Rao N R Office Address: KUIDFC-KIUWMIP #1976/9, Corporation zonal office

Designation	Name and Contact Details
compliance	besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Phone: 09535077449 Email: piukiuwmp.dvg@gmail.com
Assistant Executive Engineer, AEE, PIU, Harihar, Package 01HRA01 In-charge Environment safeguard compliance	Name: Mr. K Siddanagowdar Office Address: KUIDFC-KIUWMIP Harihara City municipal Council Phone: 09482396067 Email: ksgowdar@gmail.com
Assistant Executive Engineer,, AEE, PIU, Byadgi, Package 01BDG01 In-charge Environment safeguard compliance	Name: Mr. Suresh K. N. Office Address: KUIDFC-KIUWMIP Byadgi Town municipal Council Phone: 09035533303 Email: aeekiuwmpbyadgi@gmail.com
PMDSC, Environment Specialist	Name: Dr. Ardhendu Mitra Office Address: PMDCSC, KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Phone: 09830415953 Email: ardhendumitra@gmail.com , gkw.Davangere@gmail.com
PMDSC, Support staff – Environment monitoring	Name: Mr. Vishal Shenoy Office Address: PMDCSC, KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Phone: 09886775454 Email: ranjalshenoy.vishal@gmail.com gkw.Davangere@gmail.com
Simplex Infrastructure Ltd. Contractor – Package 01DVG01 Environment Safety Officer	Name: Mr. Dinesh Office Address: Door No. 314, 3 rd Main, 1 st cross S. Nijjalinguppa layout, Davangere Phone: 7813979473, 08192297044 Email: md.eunush@simplexinfra.com
HNB Engineers Pvt. Ltd Contractor – Package DVG01A Environment Safety Officer	Name: Mr. Nishant C Kolambkar Office Address: #3370/11-12, 1st Cross MCC "B" Block, Shamanur Road, Near Lakshmi Flour Mill Davangere-577 004, State Karnataka Phone: 9448282479 Email: davanageresite@hnbc.in
Shriram EPC Ltd. Contractor – Package 01HRA01 Environment Safety Engineer	Name: Mr. Vigneshwara Office Address: 54 B Block, Amaravati Housing Board Colony, Harihar 577601, Davangere Dist. Phone: 9443217193 Email: vigneshwara@shriramepc.com

III. ENVIRONMENTAL PROCEDURE REVIEW

A. Environmental Legal Requirement

17. **Table 5** provides a list of national and state laws, rules, policies and regulations applicable to KIUWMIP Project 1.

Table 5: Environmental Legal Requirements Applicable to KIUWMIP Project 1

Component	Applicable Legislation	Compliance	Action Required for Project 1 Subprojects
1. Tree felling – if required	Karnataka Preservation of Trees Act, 1976 and Karnataka Preservation of Trees Rules, 1977	This Act has put restriction on felling of trees in the State unless until permitted by the Forest Officer. None of the components of this sub project require cutting of trees as per present design. If required permission will be taken.	Compensatory plantation as per rule
2. Sewage Treatment Plant (STP)	Water (Prevention and Control of Pollution) Act 1974 Air (Prevention and Control of Pollution) Act of 1981, Rules of 1982 and amendments.	Consent for Establish (CFE) and Consent for Operate (CFO) from Karnataka State Pollution Control Board (KSPCB), Government of Karnataka In addition for the project, the following will require CFE and CFO from KSPCB: (i) diesel generators; (ii) hot mix plants; and (iii) stone crushers, if installed for construction.	Based on project review and site inspection, KSPCB provides CFE before construction, and stipulates the disposal standards to be met during operation. After completion of construction, CFO is issued confirming compliance with the CFE conditions, if any Compliance against CFE condition is attached as Appendix 3
		Renewal of CFO during operation of STP	Based on the performance of the STP and its compliance with the disposal standards CFO to be renewed every year.

B. Compliance with Environmental Legal Requirements (Consents & Statutory clearances)

18. **Table 6** provides the status of compliance of subprojects to national and state laws, rules, policies and regulations applicable to KIUWMIP Project 1.

Table 6: Status of Compliance with National and State Legal Requirements

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
Harihar	01HRA01	Expansion of the sewerage network (72.16 km sewers, 2640 nos. manholes, 4 nos. pumping stations, 18 MLD Sewage	Water (Prevention and Control of Pollution) Act 1974 Consent for	CFE for expansion of STP received on 22 January 2015 validity	Compliance against CEF condition is attached in Appendix 3

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
		Treatment Plant)	Establish (CFE) from Karnataka State Pollution Control Board (KSPCB), Government of Karnataka for expansion of STP from 8.84 MLD to 18 MLD	period – 5 years	
			Statutory permission from State Highways Authority for road cutting	NA	-
			Statutory permission from Irrigation Dept. – work under jurisdiction of Irrigation	NA	-
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Approved on 15 June 2015 and is valid for one year.	Application has been submitted for renewal of the same. Attached as Appendix 4 Later it was decided by labour commissioner for online application. Endorsement letter from Asst. Labour commissioner attached herewith (Appendix 4) which indicates consideration of renewal application after commencement of online service from their end.
			Labour compensation	Received. Validity upto	Labour compensation

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
			insurance	25.06.2017	insurance certificate attached as Appendix 5
Davangere	01DVG01	Expansion of sewerage system (District 1 & 3) for Davangere - 203.46 km sewers, 7581 nos. manholes	Statutory permission from Indian Railways - work on the land under their Jurisdiction	Concurrence obtained in January 2015	Supervision charges to be remitted
			Statutory permission from National Highways Authority for road cutting	Concurrence obtained in Feb 2015	Supervision charges to be remitted
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Approved on 24 Feb 2015 and is valid for one year. Renewal has been done on 23.02.2016 and which valid upto 23.02.2017	Labour licence enclosed as Appendix 4
			Labour compensation insurance	Received. Validity upto 06.07.2017	Labour insurance certificated attached as Appendix 5
Davangere	01DVG01A	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP at Shiva nagar, Davangere Taluk & DBO for 5 MLD SBR STP at Avaragere village at Davangere Taluk	Water (Prevention and Control of Pollution) Act 1974 Consent for Establish (CFE) from Karnataka State Pollution Control Board (KSPCB), Government of Karnataka for establishment of 20 and 5 MLD STP Also requirement of	CFE for both 20 MLD and 5 MLD received on 25 th February 2015 and validity period of CFE – 5 years i.e 25 th February 2020 CFE needs to be collected from Pollution Control	Compliance against CEF condition is attached in Appendix 3 Concrete Batching plant consent with condition attached as Appendix 6

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
			CFE for Batching plant	Board for setting up Batching plant. For getting consent for 2 Batching plants online application submitted to pollution control board. Consent received on 24.06.2016, which valid for 2 years	
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Approved on 05.11.2015 and is valid for one year, i.e 05.11.2016.	Labour licence enclosed as Appendix 4
			Labour compensation insurance	Received on 03.10.2015 and valid upto 02.10.2016	Labour insurance certificated attached as Appendix 5
Byadgi	01BDG01	Design, Build, Operate & Maintain for 6 years for Byadgi comprehensive scheme from covering SBR type STP (5 MLD), network (82.2 km), and 3202 manholes, construction of one septic tank (275 users, 0.03 ML) and provision of 6,206 nos HSCs	Water (Prevention and Control of Pollution) Act 1974 Consent for Establish (CFE) from Karnataka State Pollution Control Board (KSPCB), Government of Karnataka for 5MLD SBR Type STP from	CFE application submitted to KSPCB	Obtained CFE from KSPCB in July 2016.

Note: Permissions will be obtained on utilities like BSNL, BESCOM as & when required

IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

19. Civil works (mainly pipe laying and construction work) started for all the awarded packages. Site-specific EMP was prepared by the contractor and submitted to PMDCSC for approval. Sample site specific EMP is attached as **Appendix 7**

20. Daily, weekly and monthly monitoring is continued for all the packages. The overall compliance status for Davangere and Harihar sewerage sub project is partially satisfactory. EMP application for Davangere STP project is satisfactory. Compliance status of mitigation measures against impact field is given in **Table 7 to 9**.

21. There are few partial compliance status has been noted for the running packages.

- Proper signage/information board at all worksite- missing. At Davangere sewerage treatment plant project site it is noted. Time period for construction work for particular area and contact details of PIU, consultant in project display board for any grievances or suggestion should be included
- EMP implementation induction for workers of sewage treatment plant project at Davangere is not regular.
- Need to improve use of PPE by contractor's workers. Use of PPE should be at all times as per site condition and work type. Particularly use of ear plugs by the equipment operator during operation of concrete road breaker is missing
- PUC certificates for all vehicles and equipment used for construction not submitted fully by contractor for sub project at Harihar sewerage and Davangere STP package.
- Insufficient barricading at few locations. Need of properly barricade at all worksite. Temporary arrangement of caution tape is not accepted
- Disposal of excess earth/ spoil on regular basis
- Improvement of labour camp with proper access and toilet facility particularly at Harihar STP site

Table 7: Compliance to EMP of the Package- Sewage System in Davangere City, (District 1 & 3), Package No. 01DVG01

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	<ul style="list-style-type: none"> Limit the sewer depth where possible. Sewers shall be laid away from water supply lines and drains(at least 1m, wherever possible) 	Design report	-	PIU / Design Consultant	Observation and document checking	PMDSC's Resident Engineer PIU	Continuous	Complied as and when required
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines within proposed project sites)	<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 In case of disruption of water supply, alternative supply ,through tankers shall be provided 	<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 	-	PIU / Design Consultant	Observation and document checking	PMDSC's Resident Engineer & Environment Specialist/ PIU	Before start of physical work & Continuous	Complied in design and as & when required Utility services are being restored on the same day or least possible time.
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	<ul style="list-style-type: none"> Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas Prioritize areas within or nearest possible vacant space in the sub project 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	Proposed camp site	PIU / Design Consultant	Observation and document checking	PMDSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Partially Complied. Labour camp construction – done Stockpile and storage areas selected within camp area and construction locations. Access to labour camp is not satisfactory No hot mix plant is required
Emergencies such as leaks, overflows, bursts	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
Construction								
Impacts due to	Prepare and submit a	Document related to	Working	Contractor	Observation	PMDSC's	Daily by	Partially Complied.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	construction management format	locations		and document checking	Environment Specialist and Construction supervisor	construction supervisor- Resident Engineer Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDCSC and Asst.Executive Engineer (Environment) KIUWMIP-KUIDFC 04.03.2016 05.03.2016 15.04.2016 20.04.2016 17.05.2016 18.05.2016 17.06.2016 18.06.2016 29.06.2016	Excess excavated soil after back filling is reused to fill trenches if any or shifted from the sites. Process is slow. Site photo attached as Appendix 1 .
Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water	<ul style="list-style-type: none"> Contractor should obtain material from existing mines approved / licensed by Mines and Geology Department /Revenue Department. Verify suitability of all material sources and obtain approval of implementing agency No new quarry sites shall be developed for the sub project purpose 	<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 sources and permit for 	Quarries and material source areas	Contractor	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
logging, and water pollution	<ul style="list-style-type: none"> Submit a monthly statement of construction material procured indicating material type, source and quantity. 	<ul style="list-style-type: none"> additional quarry sites if necessary Construction Contractor documentation 						
Dust and emissions from construction activity may degrade the air quality	<ul style="list-style-type: none"> Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; Bring materials (aggregates, sand, etc gravel) as and when required; Use tarpaulins to cover sand and other loose material when transported by vehicles; Clean wheels and undercarriage of vehicles prior to leaving construction site Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity 	<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 	All construction sites, stockpile areas	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Complied. Excavated earth is used to refill the trench. Some time process delayed. Materials are brought to the site whenever necessary covered by tarpaulin. Water sprinkling is not required at present. Will be done as and when required</p> <p>Air quality monitoring done during the report period.</p> <p>Result certificate is attached as Appendix 8</p> <p>PUC certificates are obtained mostly</p>
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; Construction work shall be 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Complied Construction work limited to day time only</p> <p>Prior information is not always provided to locals</p> <p>No such noise</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>limited to day light hours (6 AM to 6 PM) for all the works located within the town;.</p> <ul style="list-style-type: none"> Provide prior information to the local public about the work schedule; Ensure that there are no old and sensitive buildings that may come under risk due to the use of pneumatic drills; if there is risk, Cut the rocks manually by chiselling; Maintain maximum sound levels not exceeding 80 decibels (db) when measured at a distance of 10 m or more from the vehicle/s 	<ul style="list-style-type: none"> Monitoring data 						<p>producing machinery mobilized at site</p> <p>Noise quality monitoring is done during the report period</p> <p>Result certificate is attached as Appendix 8</p>
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	<ul style="list-style-type: none"> Avoid stock piling of earth file specially during the monsoon season unless covered by tarpaulins or plastic sheets Stock piles shall be provided with temporary bunds Prioritize re-use of excess spoils and materials in the construction works. Place storage area as for fuels and lubricants away from any drainage leading to water bodies Dispose any wastes generated by construction activities in designated sites 	<ul style="list-style-type: none"> Areas for stockpiles, storage of fuels and lubricants and waste materials Number of silt traps installed along drainages (in slope) leading to water bodies Utilization of spoils 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied.</p> <p>Stockpiling avoided as far as possible</p> <p>Fuel and lubricants stored separately</p> <p>Wastes dispose as per advice of engineer, but process delayed</p> <p>No water bodies nearby the present construction sites</p>
Impacts on landscape and aesthetics due to construction activity	<ul style="list-style-type: none"> Prepare and implement Waste Management Plan—it should present how the surplus waste generated will temporarily stocked at the site, transported and disposed properly. The 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/PMD 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Partially Complied.</p> <p>Excess earth stockpiled and reused. Due to non disposal or use of excavated earth at some of the sites</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>Waste Management Plan will be part of the Construction Management Plan.</p> <ul style="list-style-type: none"> Avoid stock piling of excess excavated soils as far as possible Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas 	CSC to report in writing that the necessary environmental restoration work has been done						result air/ dust pollution and aesthetic get impacted Coordination has been done Spoil management plan will be applied as per EMP (Attached as Appendix 9)
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artefacts, structures or other geologically or archeologically important materials are discovered, the excavation should be stopped and the Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed over to ASI PMDCSC should include the above instruction in the contract document. 	Chance find protocol	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	Not yet arise. Action will be taken as per requirement Instruction has been given to all workers on chance find
Hindrance to traffic movement/ accessibility	<ul style="list-style-type: none"> Plan pipeline (sewer lines) work in consultation with the traffic police Plan work such that trench excavation, pipe laying, and refilling including compacting, at a stretch is completed in a minimum possible time; Provide for immediate consolidation of back filling material to desired 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors Number of signage's placed at subproject location. 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Construction works are completing in least possible time. Sign board and Traffic diversion boards are not placed at all the working sites, even in the case of

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>compaction- this will allow immediate road restoration and therefore will minimised is turbance to the traffic movement;</p> <ul style="list-style-type: none"> Do not close the road completely, ensure that work is conducted on to edge of the road; allow traffic to move on one line; In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions; 							<p>complete closure of road Caution tape – noted, but not available at all the sites Alternative routes provided in case of road closure</p> <p>Traffic Management plan is attached as Appendix 10 Site photo attached as Appendix 1</p>
<p>Impact on sensitive receptors- Schools, hospitals and religious places</p>	<ul style="list-style-type: none"> No material should be stocked in this area; material shall be brought to the site as and when required Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles No work should be conducted near the religious places during religious congregations Material transport to the site should be arranged considering school timings; material should be in place before school starts; Notify concerned schools, hospitals etc 2 weeks prior to the work; conduct a 30 minutes awareness program at on nature of work, likely disturbances and risks and construction work, mitigation measures in place, entry 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	<p>All construction sites</p>	<p>Contractor</p>	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	<p>PMDSC's Environment Specialist and Construction supervisor</p>	<p>Do</p>	<p>Complied Schools, Hospitals and religious places were notified before the work.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>restrictions and dos and don'ts</p> <ul style="list-style-type: none"> Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites. 							
Socio-Economic: Livelihood Impediment of access to houses and business	<ul style="list-style-type: none"> Leave space for access between mounds of excavated soil Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required Consult affected business people; inform them in advance when work will occur Address livelihood issues; implement the Resettlement Plan(RP) to address these issues Provide sign/ caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security; and Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns / complaints. 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ caution board availability with required information 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Partially Complied. Advance information are not always given to the shopkeepers</p> <p>Sign board not provided at all working locations Time of construction not informed in the board Site photo in Appendix 1</p>
Socio-Economic: Employment generation	Employ at least 50% of the labour force, or to the maximum extent, local persons if man power is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly local people are employed where ever possible.
Workers	(i) Develop and implement site-	<ul style="list-style-type: none"> Site-specific 	All	Contractor	<ul style="list-style-type: none"> Checking 	PMDCSC's	Do	Partially Complied.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
occupational health & safety	<p>specific Health and Safety (H&S) Plan which will include measures such as:</p> <p>(a) excluding public from the site; (b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gum boot, gloves, nose mask 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; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms; (iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours; (v) Provide specific guidance for suitable PPE for every on-site work assignment (vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site; (vii) Provide medical insurance coverage for workers; (viii) Secure all installations from unauthorized intrusion and accident risks;</p>	<p>Health and Safety (H&S) Plan</p> <ul style="list-style-type: none"> • Equipped first-aid stations; • Medical insurance coverage for workers • Number of accidents • 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 	construction sites		<ul style="list-style-type: none"> • Visual inspection of sites 	Environment Specialist and Construction supervisor		<p>Health and safety measures are followed. PPEs are given to the workers but used partially First aid box not available at all working locations Tool box training for workers done Drinking water available at working sites Site photo attached in Appendix 1.</p> <p>Internal training document sample copy attached in Appendix 11</p> <p>Insurance arranged for the labourer. Attached as Appendix 5</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>(ix) Provide supplies of potable drinking water at working sites;</p> <p>(x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(xi) 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>(xii) 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>(xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(xiv) Ensure moving equipment is out fitted with audible back- up alarms;</p> <p>(xv) 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>(xvi) Disallow worker exposure to noise level greater than 85 dBA</p>							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	for a duration of more than 8hours per day without hearing protection. The use of hearing protection shall be enforced actively.							
Community Health & safety	<ul style="list-style-type: none"> Provide wooden bracing for all deep excavations (>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work Plan material and waste routes to avoid times of peak-pedestrian activities Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for safe conduct of work 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 of dangerous conditions, for all the sites along the roads Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors 	All construction sites	Contractor	Visual inspection	PMDSC's Environment Specialist and Construction supervisor	Do	Partially Complied Caution tape provided at excavation areas, but not fully complied No road signs and flag persons Transportation of materials done as per convenient time without disturbing locals
Temporary worker camps	<ul style="list-style-type: none"> Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement Train employees in the 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and sanitation 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction	Do	Partially Complied. Camps established with toilet (gender specific), drinking water facility, first

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>storage and handling of materials</p> <ul style="list-style-type: none"> Remove all wreckage, rubbish, or temporary structures 	<p>facilities for employees</p> <ul style="list-style-type: none"> Housekeeping – regular disposal of solid waste 				supervisor		aid box available. Access to camp site not satisfactory. Site photo is attached as Appendix 1

Table 8: Compliance to EMP of the Package- Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP, Package No. 01DVG01A

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	<ul style="list-style-type: none"> Limit the sewer depth where possible. Sewers shall be laid away from water supply lines and drains(at least 1m, wherever possible) 	Design report	-	PIU / Design Consultant	Observation and document checking	PMD CSC's Resident Engineer PIU	-	Not applicable as per nature of work
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines within proposed project sites)	<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 In case of disruption of water supply, alternative supply ,through tankers shall be provided 	<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 	-	PIU / Design Consultant	Observation and document checking	PMD CSC's Resident Engineer & Environment Specialist/ PIU	-	Work at isolated area. Not applicable as per nature of work
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	<ul style="list-style-type: none"> Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas Prioritize areas within or nearest possible vacant space in the sub project location Non use of residential 	List of selected location for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas	Proposed camp site	PIU / Design Consultant	Observation and document checking	PMD CSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Partially Complied. Labour camp constructed- improvement is required. Stockpile and storage areas selected within camp area and construction

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<ul style="list-style-type: none"> area Arrangement of toilet and drinking water facility No disposal of waste in water 							locations. No hot mix plant is required. Concrete batching plant established with NOC from Pollution Control Board
Emergencies such as leaks, overflows, bursts	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
For STP- Design Nuisance due to location of the site in a developing area	<ul style="list-style-type: none"> Select a treatment process that is compact, aesthetically good, and generates no or fewer odours. Provide a green buffer zone of 10-15 m wide around the STP Screen around the facility and will improve the aesthetic appearance. Regulate the surrounding land use in strict compliance with Davangere Master Plan. And declared no development zone around the STP sites. Design the layout plan of the facility such that potential odour generating units – inlet and primary treatment units and sludge thickener, are located away as far as possible from the nearest development, and be provided with green buffer zone. 	<ul style="list-style-type: none"> Review & Check the inclusion/provision in DPR, as appropriate 	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer	Before start of physical work & as per requirement	Design has been developed accordingly To be comply at operation phase

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<ul style="list-style-type: none"> Provide backup power facilities for continuous and uninterrupted operation 							
For STP- Design and development of Treatment plans as per disposal standards set by CPCB (Pollution of surface water, ground water and land resources)	The Treatment Plants should be designed for following treated water disposal standards	Review & Check the inclusion/provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer and Environment Specialist	Before start of physical work & as per requirement	Design is developed considering discharge standard of CPCB
For STP- Emergencies Events like release of bad odours	Develop an emergency response system for events like release of bad odours	Review & Check the inclusion/provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer and Environment Specialist	Before start of physical work & as per requirement	To be comply at operation phase
Construction								
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDCSC and Asst.Executive Engineer (Environment) KIUWMIP-	Excess earth utilized within STP for development of land

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
							KUIDFC 04.03.2016 05.03.2016 15.04.2016 20.04.2016 17.05.2016 18.05.2016 17.06.2016 18.06.2016 29.06.2016	
Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and water pollution	<ul style="list-style-type: none"> Contractor should obtain material from existing mines approved / licensed by Mines and Geology Department /Revenue Department. Verify suitability of all material sources and obtain approval of implementing agency No new quarry sites shall be developed for the sub project purpose Submit a monthly statement of construction material procured indicating material type, source and quantity. 	<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 sources and permit for additional quarry sites if necessary Construction Contractor documentation 	Quarries and material source areas	Contractor	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency
Dust and emissions from construction activity may degrade the air quality	<ul style="list-style-type: none"> Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; Bring materials (aggregates, sand, etc gravel) as and when 	<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 	All construction on site, stockpile areas	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Excavation and construction going on Excavated earth utilized locally Materials not covered by tarpaulin. Water sprinkling is not required at present. Will be done as and when

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>required;</p> <ul style="list-style-type: none"> Use tarpaulins to cover sand and other loose material when transported by vehicles; Clean wheels and undercarriage of vehicles prior to leaving construction site Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity 							<p>required During construction Air quality monitoring – done Result certificate is attached as Appendix 8</p> <p>PUC certificates not fully obtained. Instruction has been given to contractor for collection of PUC certificate for all vehicles and equipments</p>
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; Construction work shall be limited to day light hours (6 AM to 6 PM) for all the works located within the town;. Provide prior information to the local public about the work schedule; Ensure that there are no old and sensitive buildings that may come under risk due to the use of pneumatic drills; if there is risk, Cut the rocks manually by chiselling; Maintain maximum sound 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers Monitoring data 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied Construction work limited to day time only No such noise producing machinery mobilized at site During construction Noise quality monitoring – done Result certificate is attached as Appendix 8</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	levels not exceeding 80 decibels (db) when measured at a distance of 10 m or more from the vehicle/s							
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	<ul style="list-style-type: none"> Avoid stock piling of earth file specially during the monsoon season unless covered by tarpaulins or plastic sheets Stock piles shall be provided with temporary bunds Prioritize re-use of excess spoils and materials in the construction works. Place storage area as for fuels and lubricants away from any drainage leading to water bodies Dispose any wastes generated by construction activities in designated sites 	<ul style="list-style-type: none"> Areas for stockpiles, storage of fuels and lubricants and waste materials Number of silt traps installed along drainages (in slope) leading to water bodies Utilization of spoils 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Stockpiling avoided as far as possible. Water stagnation is noted at storage area. Fuel and lubricants stored separately. Wastes dispose as per advice of engineer. No water bodies nearby the present construction sites
Impacts on landscape and aesthetics due to construction activity	<ul style="list-style-type: none"> Prepare and implement Waste Management Plan—it should present how the surplus waste generated will temporarily stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the Construction Management Plan. Avoid stock piling of excess excavated soils as far as possible Coordinate with PIU for beneficial uses of excess excavated soils or 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/PMDSC to report in writing that the necessary environmental restoration work has been done 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Under Compliance. Excavation and construction under progress. Excess earth utilized within the plant. Spoil management plan will be applied as per EMP (Attached as Appendix 9)

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	immediately dispose to designated areas							
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artefacts, structures or other geologically or archeologically important materials are discovered, the excavation should be stopped and the Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed over to ASI PMDCSC should include the above instruction in the contract document. 	Chance find protocol	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Not yet arise. Action will be taken as per requirement</p> <p>Instruction has been given to all workers on chance find</p>
Hindrance to traffic movement/ accessibility	<ul style="list-style-type: none"> Plan pipeline (sewer lines) work in consultation with the traffic police Plan work such that trench excavation, pipe laying, and refilling including compacting, at a stretch is completed in a minimum possible time; Provide for immediate consolidation of back filling material to desired compaction- this will allow immediate road restoration and therefore will minimised is turbance to the traffic movement; 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors Number of signage's placed at subproject location. 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	Isolated location no needs for traffic management at site. Only during transportation of materials necessary mitigation measures applied

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<ul style="list-style-type: none"> Do not close the road completely, ensure that work is conducted on to edge of the road; allow traffic to move on one line; In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions; 							
Impact on sensitive receptors- Schools, hospitals and religious places	<ul style="list-style-type: none"> No material should be stocked in this area; material shall be brought to the site as and when required Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles No work should be conducted near the religious places during religious congregations Material transport to the site should be arranged considering school timings; material should be in place before school starts; Notify concerned schools, hospitals etc 2 weeks prior to the work; conduct a 30 minutes awareness program at on nature of work, likely disturbances and risks and construction work, 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	No Schools, Hospitals and religious places nearby

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>mitigation measures in place, entry restrictions and dos and don'ts</p> <ul style="list-style-type: none"> Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites. 							
<p>Socio-Economic: Livelihood Impediment of access to houses and business</p>	<ul style="list-style-type: none"> Leave space for access between mounds of excavated soil Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required Consult affected business people; inform them in advance when work will occur Address livelihood issues; implement the Resettlement Plan(RP) to address these issues Provide sign/ caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security; and Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns / complaints. 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ caution board availability with required information 	<p>All construction sites</p>	<p>Contractor</p>	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	<p>PMDSC's Environment Specialist and Construction supervisor</p>	<p>Do</p>	<p>Complied No impact expected as per nature of work</p> <p>Sign board are provided Appendix 1 – site photographs</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Socio-Economic: Employment generation	Employ at least 50%of the labour force, or to the maximum extent, local persons if man power is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly local people are employed where ever possible.
Workers occupational health & safety	<p>(i) Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as:</p> <p>(a) excluding public from the site;</p> <p>(b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gum boot, gloves, nose mask and earplugs;</p> <p>(c) H&S Training for all site personnel;</p> <p>(d) documented procedures to be followed for all site activities; and</p> <p>(e) documentation of work-related accidents;</p> <p>(ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU;</p> <p>(iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms;</p> <p>(iv)Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours;</p> <p>(v)Provide specific guidance</p>	<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 • 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 	All construction sites	Contractor	<ul style="list-style-type: none"> • Checking of records • Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Partially Complied. Health and safety measures are followed.</p> <p>PPEs are given to the workers. They used partially First aid box available Tool box training for workers not arranged Drinking water available at working sites Site photo attached in Appendix 1.</p> <p>Insurance arranged for the labourer. Attached as Appendix 5</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>for suitable PPE for every on-site work assignment</p> <p>(vi) 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>(vii) Provide medical insurance coverage for workers;</p> <p>(viii) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(ix) Provide supplies of potable drinking water at working sites;</p> <p>(x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(xi) 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>(xii) 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>(xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(xiv) Ensure moving equipment is out fitted with audible back-</p>							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>up alarms;</p> <p>(xv) 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>(xvi) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8hours per day without hearing protection. The use of hearing protection shall be enforced actively.</p>							
Community Health & safety	<ul style="list-style-type: none"> • Provide wooden bracing for all deep excavations (>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work • Plan material and waste routes to avoid times of peak-pedestrian activities • Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for safe conduct of work • Maintain regularly the vehicles and use of 	<ul style="list-style-type: none"> • Traffic Management Strategy • Complaints from sensitive receptors 	All construction sites	Contractor	Visual inspection	PMDSC's Environment Specialist and Construction supervisor	Do	Partially Complied Project site at isolated location. Sufficient caution tape not provided at excavation areas Transportation of materials done as per convenient time without disturbing locals Site photo attached in Appendix 1 .

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure</p> <ul style="list-style-type: none"> • Provide road signs and flag persons to warn of dangerous conditions, for all the sites along the roads • Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety 							
Temporary worker camps	<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 	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Partially Complied Camps constructed with incomplete toilet, bathroom not available. Drinking water facility, first aid box available Removal of scrap and unused construction material is required. Stagnant water needs to be discharge from camp location Site photo attached in Appendix 1 .

Table 9: Compliance to EMP of the Package- Providing expansion of sewage system in Harihar city – Package No. 01HRA01

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated	<ul style="list-style-type: none"> • Limit the sewer depth where possible. • Sewers shall be laid away from water supply lines and 	Design report	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer / PIU	Continuous	Complied as and when required

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
due to leakage from sewers	drains (at least 1m, wherever possible)							
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines within proposed project sites)	<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 In case of disruption of water supply, alternative supply, through tankers, shall be provided 	<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 	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied in design and as & when required Utility services are being restored on the same day or least possible time.
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	<ul style="list-style-type: none"> Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas Prioritize areas within or nearest possible vacant space in the sub project 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	Proposed camp site	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Partially Complied. Labour camp construction – done at STP site but incomplete. Toilet not properly constructed Stockpile and storage areas selected nearby camp area and construction locations. No hot mix plant is required
Emergencies such as leaks, overflows, bursts	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
For STP- Design Nuisance due to location of the site in a developing area	<ul style="list-style-type: none"> Select a treatment process that is compact, aesthetically good, and generates no or fewer odours. Provide a green buffer zone of 10-15 m wide around the STP Screen around the facility 	Review & Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer	Before start of physical work & as per requirement	Design has been developed accordingly. To be comply at operation phase

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>and will improve the aesthetic appearance.</p> <ul style="list-style-type: none"> Regulate the surrounding land use in strict compliance with Master Plan. And declared no development zone around the STP sites. Design the layout plan of the facility such that potential odour generating units – inlet and primary treatment units and ludge thickener, are located away as far as possible from the nearest development, and be provided with green buffer zone. Provide backup power facilities for continuous and uninterrupted operation 							
For STP- Design and development of Treatment plans as per disposal standards set by CPCB (Pollution of surface water, ground water and land resources)	The Treatment Plants should be designed for following treated water disposal standards	Review & Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer and Environment Specialist	Before start of physical work & as per requirement	Design is developed considering discharge standard of CPCB
For STP- Emergencies Events like release of bad odours	Develop an emergency response system for events like release of bad odours	Review & Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer and Environment Specialist	Before start of physical work & as per requirement	To be comply at operation phase
Construction								

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDCSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDCSC and Asst.Executive Engineer (Environment) KIUWMIP-KUIDFC 04.03.2016 05.03.2016 15.04.2016 20.04.2016 17.05.2016 18.05.2016 17.06.2016 18.06.2016 28.06.2016	Partially Complied. Excess excavated soil after backfilling is reused to fill trenches if any or shifted from the sites. Disposal as per permission from PIU. Excess earth from pipe laying is also used in STP Process of removal of excess earth delayed
Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging,	<ul style="list-style-type: none"> Contractor should obtain material from existing mines approved/ licensed by Mines and Geology Department / Revenue Department. Verify suitability of all material sources and obtain approval of implementing agency No new quarry sites shall be developed for the sub 	<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 sources and permit for additional quarry 	Quarries and material source areas	Contractor	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
and water pollution	<ul style="list-style-type: none"> project purpose Submit a monthly statement of construction material procured indicating material type, source and quantity. 	<ul style="list-style-type: none"> sites if necessary Construction Contractor documentation 						
Dust and emissions from construction activity may degrade the air quality	<ul style="list-style-type: none"> Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; Bring materials (aggregates, sand, etc gravel) as and when required; Use tarpaulins to cover sand and other loose material when transported by vehicles; Clean wheels and undercarriage of vehicles prior to leaving construction site Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity 	<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 	All construction on site, stockpile areas	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Partially Complied. Excavated earth is used to refill the trench, but process delayed. Materials are brought to the site whenever necessary covered by tarpaulin, not always. Water sprinkling is not required now, but will be done as per site and weather condition. Air quality monitoring done during the report period.</p> <p>Result certificate is attached as Appendix 8</p> <p>PUC certificates not submitted</p>
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; Construction work shall be 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers Monitoring data 	All construction on sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Partially Complied. Construction work limited to day time only. Prior information is not fully provided to locals. Concrete breaker operated at site. No use of ear plugs by operator at high noise level area.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>limited to day light hours (6 AM to 6 PM) for all the works located within the town;</p> <ul style="list-style-type: none"> • Provide prior information to the local public about the work schedule; • Ensure that there are no old and sensitive buildings that may come under risk due to the use of pneumatic drills; if there is risk, • Cut the rocks manually by chiselling; • Maintain maximum sound levels not exceeding 80 decibels (db) when measured at a distance of 10 m or more from the vehicle/s 							<p>Noise quality monitoring is done during the report period</p> <p>Result certificate is attached as Appendix 8</p>
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	<ul style="list-style-type: none"> • Avoid stock piling of earth specially during the monsoon season unless covered by tarpaulins or plastic sheets • Stock piles shall be provided with temporary bunds • Prioritize re-use of excess spoils and materials in the construction works. • 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 	<ul style="list-style-type: none"> • Areas for stockpiles, storage of fuels and lubricants and waste materials • Number of silt traps installed along drainages (in slope) leading to water bodies • Utilization of spoils 	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Complied.</p> <p>Stockpiling avoided as far as possible</p> <p>Fuel and lubricants stored separately</p> <p>Wastes dispose as per advice of engineer</p> <p>No water bodies nearby the present construction sites</p>
Impacts on landscape and aesthetics due	<ul style="list-style-type: none"> • Prepare and implement Waste Management Plan – it should present how the 	<ul style="list-style-type: none"> • Waste Management List • Complaints from 	All construction sites	Contractor	<ul style="list-style-type: none"> • Checking of records • Visual 	PMDCSC's Environment Specialist	Do	<p>Partially Complied.</p> <p>Excess earth stockpiled and reused</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
to construction activity	<p>surplus waste generated will temporarily stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the Construction Management Plan.</p> <ul style="list-style-type: none"> Avoid stockpiling of excess excavated soils as far as possible Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas 	<p>sensitive receptors</p> <ul style="list-style-type: none"> PMU/PIU/PMDC SC to report in writing that the necessary environmental restoration work has been done 			inspection of sites	and Construction supervisor		<p>Coordination has been done. But process delayed</p> <p>Access to STP is not in proper shape-improvement of housekeeping is required</p> <p>Spoil management plan will be applied as per EMP (Attached as Appendix 9)</p>
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artifacts, structures or other geologically or archeologically important materials are discovered, the excavation should be stopped and the Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed over to ASI PMDCSC should include the above instruction in the contract document. 	Chance find protocol	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Not yet arise. Action will be taken as per requirement</p> <p>Instruction has been given to all workers on chance find</p>
Hindrance to traffic movement/ accessibility	<ul style="list-style-type: none"> Plan pipeline (sewer lines) work in consultation with the traffic police Plan work such that trench excavation, pipe laying, and 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction	Do	<p>Complied. Construction works are completing in least possible time.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>refilling including compacting, at a stretch is completed in a minimum possible time;</p> <ul style="list-style-type: none"> • Provide for immediate consolidation of back filling material to desired compaction-this will allow immediate road restoration and therefore will minimise disturbance to the traffic movement; • Do not close the road completely, ensure that work is conducted on to edge of the road; allow traffic to move on oneline; • In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions; 	<p>receptors</p> <ul style="list-style-type: none"> • Number of signages placed at subproject location. 				supervisor		<p>Road closure board placed.</p> <p>Alternative routes provided in case of road closure</p> <p>Caution tape provided at closure site. Hard barricading needs to be provided at the UGD network site</p> <p>Traffic Management plan is attached as Appendix 10</p>
Impact on sensitive receptors- Schools, hospitals and religious places	<ul style="list-style-type: none"> • No material should be stocked in this area; material shall be brought to the site as and when required • Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles • No work should be conducted near the religious places during religious congregations • Material transport to the site should be arranged considering school timings; material should be in place before school starts; 	<ul style="list-style-type: none"> • Materials storage strategy • Complaints from sensitive receptors • Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> • Checking of records • Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	Not required now Schools, Hospitals and religious places are notified before the work.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<ul style="list-style-type: none"> Notify concerned schools, hospitals etc 2 weeks prior to the work; conduct a 30 minutes awareness program at on nature of work, likely disturbances and risks and construction work, mitigation measures in place, entry restrictions and dos and don'ts Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites. 							
Socio-Economic: Livelihood Impediment of access to houses and business	<ul style="list-style-type: none"> Leave space for access between mounds of excavated soil Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required Consult affected business people; inform them in advance when work will occur Address livelihood issues; implement the Resettlement Plan (RP) to address these issues Provide sign /caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ caution board availability with required information 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Advance information are not given to the shopkeepers and locals Sign board provided. But caution and time of construction not informed in the board Site photo in Appendix 1

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	;and <ul style="list-style-type: none"> Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns / complaints. 							
Socio-Economic: Employment generation	Employ atleast 50% of the labour force, or to the maximum extent, local persons if manpower is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational health & safety	(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, gloves, nose mask 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; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly	<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 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 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Health and safety measures are followed. PPEs are given to the workers but used partially (60- 70% cases used). Partial improvement noted. First aid box available but not at all sites Tool box training for workers arranged Drinking water available at working sites Site photo attached in Appendix 1 . Internal training document sample copy attached in Appendix 11 Insurance arranged for the labourer. Attached

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>technical terms;</p> <p>(iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours;</p> <p>(v) Provide specific guidance for suitable PPE for every on-site work assignment</p> <p>(vi) 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>(vii) Provide medical insurance coverage for workers;</p> <p>(viii) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(ix) Provide supplies of potable drinking water at working sites;</p> <p>(x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(xi) 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 workers;</p> <p>(xii) 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>(xiii) Ensure the visibility of workers through their use of high visibility vests when</p>							as Appendix 5

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>working in or walking through heavy equipment operating areas;</p> <p>(xiv) Ensure moving equipment is out fitted with audible back-up alarms;</p> <p>(xv) 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>(xvi) Disallow worker exposure to noise level 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.</p>							
Community Health & safety	<ul style="list-style-type: none"> • Provide wooden bracing for all deep excavations(>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work • Plan material and waste routes to avoid times of peak-pedestrian activities • Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for 	<ul style="list-style-type: none"> • Traffic Management Strategy • Complaints from sensitive receptors 	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	Partially Complied Caution tape provided at excavation areas. Arrangement is temporary and missing in some locations. Transportation of materials done as per convenient time without disturbing locals

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>safe conduct of work</p> <ul style="list-style-type: none"> • 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 of dangerous conditions, for all the sites along the roads • Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety 							
Temporary worker camps	<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 	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Camps established without proper toilet (gender specific)., Drinking water facility, first aid box available Improvement of access is required

V. ENVIRONMENTAL MONITORING AND EVALUATION

22. 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 and noise levels.

23. The ambient air quality monitoring results are presented in **Table 10**. Results indicate that concentrations of parameters at all the project sites are with the CPCB limit. There is marginal increase in during concentration SO₂ and NO₂ in compared to base line concentration level at Davangere underground drainage package working locations. Both PM₁₀ and PM_{2.5} concentration levels decreased during construction. For Davangere STP package during construction monitoring has been done on quarterly basis (2 times in report period). Concentrations of all parameters are within the standard. There is no as such variation of concentration of SO₂ and NO₂, but concentration of both PM₁₀ and PM_{2.5} are decreased in compared to base line level. Similarly there is no as such variation of concentration of SO₂ and NO₂ at Harihar pipe laying and STP location. There is marginal decrease in average concentration of PM₁₀ and PM_{2.5} during construction phase. At Harihar concentrations of all parameters are within the standard. **Appendix 8** shows sample monitoring result certificates for few locations. Mitigation measures are applied as per EMP.

Table 10: Ambient Air Quality Monitoring at Sites of construction

Town	Phase	Sampling Locations	Date of Monitoring	Parameters			
				SO ₂ ₃ µg/m ³	NO ₂ ₃ µg/m ³	PM _{2.5} ₃ µg/m ³	PM ₁₀ ₃ µg/m ³
Davangere (Package no. 01DVG01)	Base line	Ashraya valley Near NH 4	20.05.2015	4.24	9.33	48.23	78.97
		SPS Nagar	20.05.2015	4.34	9.08	50.26	81.32
		Pune Bangalore Road near Sagar Motors	20.05.2015	4.25	9.37	51.18	90.72
	Average Baseline			4.28	9.26	49.9	83.67
	During Construction	Pre casting yard near Kendagi Road	23.12.2015	5.93	14.02	52.28	96.24
		Ward 1 Ashok nagar	23.12.2015	5.08	13.38	44.62	86.60
		Ward 36 (part 1) Shivkumar Badavane	23.12.2015	5.52	13.74	58.72	99..51
	Average During construction			5.51	13.7	51.9	91.4
	During Construction*	2 nd Main Vinoba nagar	24.06.2016	4.66	9.95	38.34	66.93
		P B Road near Avaragere bus stop	24.06.2016	4.65	9.94	41.34	72.84
		Jaynagar B block , Opposite to Church	24.06.2016	4.61	9.63	39.73	68.72
	Average During construction*			4.64	9.84	39.80	69.50

Town	Phase	Sampling Locations	Date of Monitoring	Parameters			
				SO ₂ µg/m ³	NO ₂ µg/m ³	PM _{2.5} µg/m ³	PM ₁₀ µg/m ³
Davangere (Package No. 01DVG01A)	Base line (Last semi annual period)	20 MLD STP	08.12.2015	4.34	10.16	37.8	84.2
		5 MLD STP	08.12.2015	4.03	10.03	33.95	78.79
	Average Baseline			4.18	10.1	35.9	81.5
	During Construction*	20 MLD STP	16.03.2016	5.07	11.12	44.26	80.64
		5 MLD STP	16.03.2016	5.48	11.45	48.66	88.96
	Average During construction*			5.27	11.28	46.46	84.80
	During Construction*	20 MLD STP	21.06.2016	4.66	9.63	29.86	57.33
		5 MLD STP	21.06.2016	4.91	9.77	32.73	60.10
	Average During construction*			4.78	9.7	31.29	58.71
	Harihar (Package no. 01HRA01)	Base line	Guttur Colony Near Panchyat office	05.05.2015	4.26	9.21	52.41
Keshavapura Near Railway Station			05.05.2015	4.24	9.12	68.48	108.54
Vidyanagar Extension "C" Block			05.05.2015	4.14	9.25	48.15	86.76
Average Baseline				4.2	9.2	56.3	89.3
During Construction (Last semi annual period)		Guttur colony near Panchyat office	15.12.2015	4.22	9.80	53.26	73.45
		STP site near Kirloskar factory	15.12.2015	4.40	9.35	49.21	87.76
		Near Anjaneya Temple Amaravathi	15.12.2015	4.30	9.50	49.25	89.25
Average During construction				4.30	9.55	50.6	83.5
During Construction*		Vidyanagar	28.06.2016	4.29	9.48	48.18	87.34
		STP site near Kirloskar factory	28.06.2016	4.20	9.27	51.17	85.26
	Guttur near Govt. School	28.06.2016	4.21	9.78	53.26	72.37	
Average During construction*			4.23	9.51	50.87	81.65	
		Standard as per CPCB		80.0	80.0	60.0	100.0

Note: CPCB - Central Pollution Control Board, BDL - below detection limit

* Monitoring conducted during report period January to June 2016

Package no. 01DVG01= 3 samples on 24.06.2016

Package No. 01DVG01A= 4 samples on 16.03.2016 (2 nos.) and 21.06.2016 (2 nos.)

Package no. 01HRA01= 3 samples on 28.06.2016

24. The noise level monitoring has also been carried out for construction sites. **Table 11** shows noise level data. **Appendix 8** shows sample monitoring result certificate for few

locations. Day time noise monitoring has been carried out during 10.30-11 AM morning and night time after 10-30 PM. It is noted from the results that day and night time noise levels at Davangere underground sewerage project location is above the standard for commercial and residential areas. There is marginal increase of day time noise level at Davangere pipe laying sites in compared to base line value. Noise level at Davangere STP is within the standard. There is no significant changes of noise level during construction. Day time noise level in Harihar is within the standard when comparing with commercial standard but above the limit when compared with residential area noise limit. Night time noise is always above the standard. Noise level monitoring to be continued as per environment monitoring program throughout the construction period for understanding increase or decrease trend of noise level at project locations. To mitigate noise levels contractor to apply mitigation measures as prescribed in EMP.

25. The next environmental monitoring activities will be conducted within July to December 2016 to measure concentrations of parameters as done earlier and covering all running construction sites. The cost of the environmental monitoring is arranged from contractor budget.

Table 11: Noise Level Monitoring at project sites of Davangere and Harihar

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
Davangere (Package no. 01DVG01)	Base line	Ashraya valley Near NH 4	20.05.2015	62.2	73.3	70.3	51.4	62.5	59.5	R
		Near SPS Nagar school	20.05.2015	65.4	69.0	67.6	53.5	64.6	61.6	S
		Pune Bangalore Road near Sagar Motors	20.05.2015	63.1	74.2	71.2	54.1	65.2	62.2	C
	Average Base line			63.5	72.2	69.7	53.0	64.1	61.1	
	During Construction	Pre casting yard near Kendagi Road (near DG set room)	23.12.2015	71.9	74.5	73.9	58.8	69.9	66.9	I
		Ward 1 Ashok nagar	23.12.2015	56.8	67.9	64.9	55.3	58.2	56.4	R
		Ward 36 (part 1) Shivkumar Badavane	23.12.2015	69.1	70.8	69.9	57.3	68.4	65.4	R
	Average During construction			65.9	71.0	69.6	57.1	65.5	62.9	
	During Construction *	2 nd Main Vinoba nagar	24.06.2016	72.6	75.6	74.0	58.2	63.0	59.6	R
		P B Road near Avaragere bus stop	24.06.2016	68.2	80.3	72.9	55.3	68.3	61.1	R
		Jaynagar B block , Opposite to Church	24.06.2016	69.8	74.5	71.5	58.3	65.3	61.6	S
	Average During construction*			70.2	76.8	72.8	57.3	65.5	60.8	
	Davangere (Package No. 01DVG01A)	Base line	20 MLD STP	08.12.2015	49.4	55.6	53.5	-	-	-
5 MLD S/TP			08.12.2015	60.8	70.1	65.7	-	-	-	I
Average Base line				55.1	62.8	59.6	-	-	-	
During		20 MLD STP	16.03.2016	62.4	68.9	68.1	-	-	-	I

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
	Construction *	5 MLD STP	16.03.2016	62.1	69.8	68.6	-	-	-	I
	Average During construction*			62.2	69.3	68.3	-	-	-	
	During Construction *	20 MLD STP	21.06.2016	53.8	57.8	55.3	-	-	-	I
	During Construction *	5 MLD STP	21.06.2016	50.3	56.0	52.1	-	-	-	I
	Average During construction*			52.0	56.9	53.7	-	-	-	
Harihar (Package no. 01HRA01)	Base line	Near STP site Kirloskar Factory	05.05.2015	60.0	68.6	63.0	54.3	65.4	62.4	I
		Near Anjaneya Temple Amaravathi	05.05.2015	49.3	61.6	61.1	50.4	61.5	58.5	S
		Guttur Colony Near Panchyat office	05.05.2015	58.9	69.7	62.7	53.6	64.7	61.7	R
	Average Base line			56.0	66.6	61.9	52.8	63.9	60.9	
	During Construction	Near STP site Kirloskar Factory	15.12.2015	58.0	67.5	62.75	52.3	62.5	57.40	I
		Near Anjaneya Temple Amaravathi	15.12.2015	51.2	63.5	57.35	47.85	59.25	53.55	S
		Guttur Colony Near Panchyat office	15.12.2015	57.5	68.6	63.05	54.5	68.8	59.15	R
	Average During construction			55.6	66.5	61.05	51.5	63.5	56.7	
	During Construction *	Near STP site Kirloskar Factory	28.06.2016	58.0	67.5	62.75	53.28	61.47	58.30	I
		Vidyanagar	28.06.2016	51.20	63.50	57.35	47.74	58.35	53.46	R
		Guttur near Govt. School	28.06.2016	57.40	69.10	63.05	54.38	63.70	59.28	S
	Average During construction*			55.5	66.7	61.0	51.8	61.7	57.0	

* Monitoring conducted during report period

* Monitoring conducted during report period January to June 2016

Package no. 01DVG01 = 3 samples on 24.06.2016

Package No. 01DVG01A = 4 samples on 16.03.2016 (2 nos.) and 21.06.2016 (2 nos.)

Package no. 01HRA01 = 3 samples on 28.06.2016

CPCB Limits for Industrial area (I): Day Time= 75 dB(A), Night Time (9 PM to 6 AM)= 70 dB(A)

Commercial (C) area: Day Time= 65 dB(A), Night Time (9 PM to 6 AM)= 55 dB(A)

Residential (R) area :Day Time= 55 dB(A), Night Time (9 PM to 6 AM)= 45 dB(A)

Silence Zone (S): Day Time= 50 dB(A), Night Time (9 PM to 6 AM)= 40 dB(A)

26. A performance monitoring fact sheet has been prepared to facilitate tracking and quick reference on environmental monitoring of Project 1 subproject packages (**Tables 12 and 13**).

Table 12: Performance Fact Sheet for Required Environmental Consents/Clearances of KIUWMIP Project 1 (Package-wise)

	Package	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	Providing expansion of sewage system in Harihar city – Package No. 01HRH01	SHRIRAM EPC Ltd.	Yes	Not required till date	Not required	Not required as per present work	Not required as per present work	Not required as per present work	Not obtained
2	Expansion of Sewage System in Davangere City (District 1 & 3) – Package No. 01DVG01	SIMPLEX Infrastructure Limited	Yes	Not required till date	Not required	Not required as per present work	Not required as per present work	Not functioning Application send for Consent	Obtained for contractor's vehicle & equipment
3	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP, Package No. 01DVG01A	HNB Engineers Pvt. Ltd.	Yes	Not required till date	Not required	Established Consent to Operate received	Not required	Required Consent obtained	Partially obtained

Table 13: Performance Fact Sheet for EMP Implementation of KIUWMIP Project 1 (Package-wise)

	Package Number	Name of Contractor	EMP Part of contract Document(Yes / No)	Contractor Social/ Environment Person ¹	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 – Terrestrial	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	Providing expansion of sewage system in Harihar city – Package No. 01HRA01	SHRIRAM EPC Ltd.	Yes	Nominated	Partially Complied	2	1	1	1	1	2	NA	1	NA	1	1	1	2
2	Expansion of Sewage System in Davangere City (District 1 & 3) – Package No. 01DVG01	SIMPLEX Infrastructure Limited	Yes	Nominated	Partially Complied	2	1	1	2	2	1	NA	1	NA	1	1	1	2
3	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP, Package No. 01DVG01A	HNB Engineers Pvt. Ltd.	Yes	Nominated	Complied	2	1	2	1	2	NA	NA	2	NA	1	1	NA	2

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

Package No. 01HRA01= Total score- 2+1+1+1+1+2+1+1+1+1+2= 14. Number of operated field=11, **Then- 14/11=1.27≈ 1, Less than 1.5, Partially Complied**

Package No. 01DVG01= total score- 2+1+1+2+2+1+1+1+1+1+2= 15. Number of operated field= 11. **Then – 15/11=1.36 ≈ 1, Less than 1.5, Partially Complied**

Package No. 01DVG01A= total score- 2+1+2+1+2+2+1 +1+2= 14. Number of operated field= 9. **Then – 14/9=1.56 ≈ 2, More than 1.5, Complied**

¹Nomination of Environmental & Social Safeguard Officer by Contractor(Nominated / Yet to be Nominated)

VI. CONSULTATIONS AND DISCLOSURES CONDUCTED

27. As per approved IEE, consultations and disclosure will be a continuous process throughout Project 1 implementation involving public consultations and focus group discussions. Field level consultation has been done at Davangere and Harihar during the report period. Sample filled public consultation format is attached as **Appendix 12**.

28. During implementation of project general discussion has been done with the local public at Davangere and Harihar along pipe laying locations of impact zone. Such consultation is basically one to one discussion with public and generally to be continued throughout the construction period. The issues like requirement of restoration of utility services, removal of overburden soil, road restoration done or not, dust and noise pollution during implementation of the project, community safety arrangement, availability of public access have been discussed and views has been tabulated. **Appendix 12** shows summary of discussion.

29. The indicative schedule for consultations and disclosure is presented in **Table 14**.

Table 14: Indicative Schedule for Consultations and Disclosure

Type of Consultation/Disclosure	Target Date	Location	Target Participants	Responsible Person and Source of Funds
Local level consultation	Weekly – to be continued	At all construction locations	General public, shop keepers, pedestrian population	Construction supervisor, Environment & safety officer of contractor Project budget – continuous process
Consultation – safety issues, implementation of EMP	Every month	Davangere and Harihar	Supervisor Engineer, PIU Engineer, all safety and environment staff of contractors	Resident Engineer, Environment specialist of PMDCSC, Asst Executive Engineer (Environment) PMU

30. Training program on safety and environment has been arranged for contractors, supervisors by PMDCSC at PIU office, Davangere during the report period. Training details is attached as **Appendix 13**.

VII. GRIEVANCE REDRESS MECHANISM

31. As per approved IEE, a project-specific grievance redress mechanism (GRM) being 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 aims 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 GRC/SC for the project will be headed by Dy. Commissioner (DC) of the district with members as followed: (1) ULB Commissioners of project towns, (2) Revenue Department (Registrar) official, (3) RPMU Social safeguard/ R&R Officer of KIUWMIP, (4) ULB officer who will convene the periodic meeting of GRC and will shoulder responsibility of

keeping records of grievances/ complaints in details with help from resettlement NGO. Other members, such as, NGO/CBO representatives, wards council representatives, DPs' representatives will be selected by the ULB Commissioner to represent in the GRC/SC meeting. NGO should also deploy one person in the team who will be responsible for coordinating with all GRC members and the DPs for grievance redress.

33. In the event when the established GRM is not in a position to resolve the issue, Affected Person also can use the ADB Accountability Mechanism (AM) through directly contact (in writing) to the Complaint Receiving Officer (CRO) at ADB headquarters or to ADB Indian Resident Mission (INRM). The complaint can be submitted in any of the official languages of ADB's DMCs. The ADB Accountability Mechanism information will be included in the PID to be distributed to the affected communities, as part of the project GRM. A Grievance Redress Mechanism is shown in the **Figure 3**.

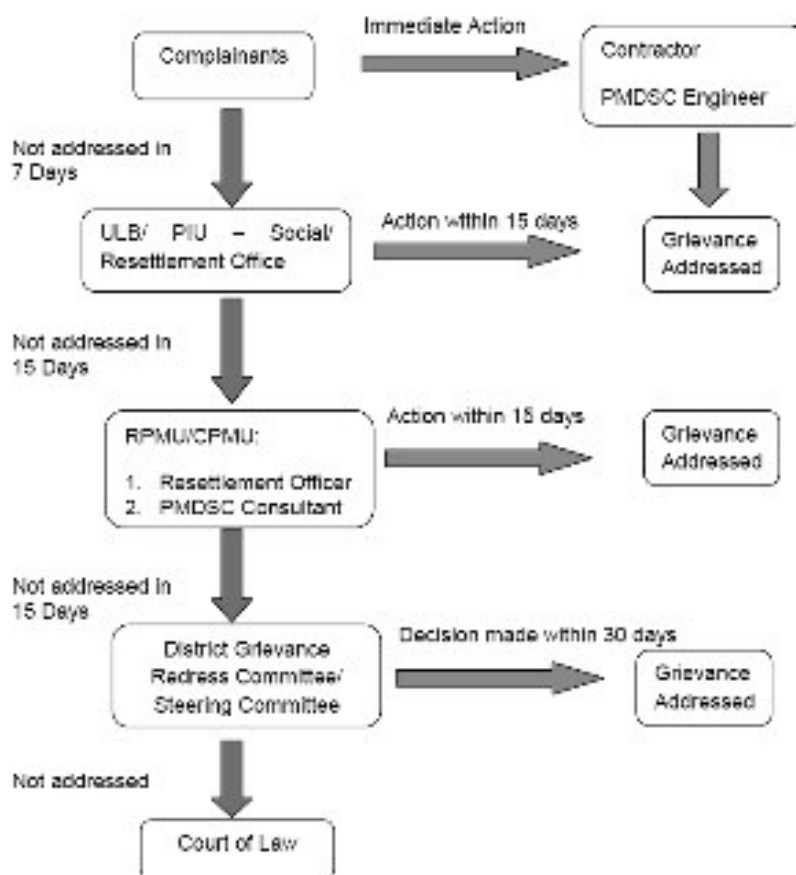


Figure 3: Grievance Redress Process

34. The 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 or by phone with any member of the PIU. The contact phone number of the respective PIUs and the RPMU 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.

35. Project level GRC has been set up on 7th August 2015. Office memorandum is attached as **Appendix 14**.

36. Already complaint register and accident register open at contractor level. Sample copy of registration of grievances and addressing of grievances is attached as **Appendix 15**. Till date all grievances are resolved at contractor level. Accident record is available with the contractor. The status of accident is shown in **Appendix 16**.

VIII. FINDINGS AND RECOMMENDATIONS

37. Based on environmental monitoring conducted during January to June 2016, KIUWMIP Project 1 is in mixed (partial to fully complied) compliance level of environmental safeguards. The main non-compliances include:

- ✓ Proper signage/information board at Davangere sewerage project site is noted but few other sites missing. Time period for construction work for particular area and contact details of PIU, consultant in project display board for any grievances or suggestion should be included
- ✓ EMP implementation induction for workers of sewage treatment plant project at Davangere is not regular.
- ✓ Need to improve use of PPE by contractor's workers. Use of PPE should be at all times as per site condition and work type. Particularly use of ear plugs by the equipment operator during operation of concrete road breaker is not done
- ✓ PUC certificates for all vehicles and equipment used for construction not submitted fully by contractor for sub project at Harihar and Davangere STP package.
- ✓ Insufficient barricading and use of caution tape at few locations. Need of properly barricade at all worksite. Temporary arrangement of caution tape is not accepted
- ✓ Disposal of excess earth/ spoil on regular basis
- ✓ Improvement of labour camp with proper access and toilet facility at Harihar STP location.

38. **Table 15** provides the recommended corrective action plan to address the non-compliances.

Table 15: Corrective Action Plan

	Non-compliance Issues	Action Required	Responsible	Target Date	Indicator of Compliance
1	Proper signage/information board noted at Davangere sewerage project site. At few locations missing. . Time period for construction work for particular area and contact details of PIU, consultant in project display board for any grievances or suggestions	Arrangement of display board with all information	Contractor	15 th July 2016	Information disclosure
2	Tool box training for workers of sewage treatment plant project at Davangere is not regular	Induction and toll box training on regular basis	Contractor	On regular basis with record	Training document , photographs
3	Need to improve use of PPE by contractor's workers. Use of PPE should be at all times as per site condition and work type. Particularly use of ear	Use of PPE should be at all times as per site condition and work type.	Contractor	On regular basis with record	Availability and use of PPE

	Non-compliance Issues	Action Required	Responsible	Target Date	Indicator of Compliance
	plugs by the equipment operator during operation of concrete road breaker is missing				
4	PUC certificates for all vehicles and equipment used for construction not submitted by contractor for sub project at Harihar and Davangere STP	Submission of PUC certificate	Contractor	15 th July 2016	PUC certificate
5	Insufficient barricading and use of caution tape at few locations	Need of properly barricading at all worksite.	Contractor	15 th July 2016	Availability of sufficient barricade
6	Irregular disposal of excess earth/ spoil	disposal of excess earth/ spoil on regular basis	Contractor	15 th July 2016	Improvement of site aesthetic condition
7	Improvement of labour camp with proper access and toilet facility at Harihar STP site	Storage of materials at proper shape	Contractor	15 th July 2016	Improvement of storage of materials

Appendix 1: Photo Illustration



Use of PPE by labourer of Davangere WS package - noted



No caution tape at working area



Toilet facility within camp



No caution board or display board at working area



Arrangement for labourers – within the camp of Davangere



Caution tape at pipe laying area of Davangere. Removal of excess earth is required



Use of cover for storage of materials



Improper storage of pipes



Pipe laying work continued at Davangere



Storage of fuel and lubricant not above platform



Interconnection work going on at Davangere



Excess earth after pipe laying- needs to be remove



Use of PPE by worker is noted at STP site of Davangere



No caution tape at excavated area – 5 MLD STP at Avaragere



Project display board with contact number – noted at STP site of Davangere



Construction going on for 20 MLD STP at Davangere



Use of PPE by worker - noted



Proper storage of cement within closed room. Disposal of cement bag is required



First Aid box available at STP construction site



Inside labour camp at 5 MLD STP site



Toilet needs to be improve at 5 MLD STP site



Batching plant at STP- Consent from Pollution Control Board obtained



Use of PPE by worker for pipe laying work at Harihar



Partial use of PPE by worker- no proper shoes



Road closure – display board and caution tape at working location of Harihar



Use of PPE by worker of pipe laying area of Harihar



Movement of vehicle during monsoon at pipe laying area at Harihar. Working area demarcated by flags and caution tape



Operation of concrete breaker. Generation of high level of noise. No use of ear plugs by operator



Incomplete toilet facility for labourers at STP site of Harihar



Water tanker to meet the water requirement for construction work



Excavation work is going on for pipe laying



Overburden earth needs to be dispose from working site



Excavation work going on for lifting station at APMC. Incomplete arrangement of caution tape and no hard barricading at construction site



Demarcation of construction area by red flags and board noted at Harihar

Monitoring Budget

Davangere- Sewerage (Package: 01DVG01)

**SIMPLEX INFRASTRUCTURES LIMITED
EXPANSION OF SEWERAGE SYSTEM IN DAVANGERE CITY (DISTRICT 1&3)**

**ANNUAL BUDGET OF IMPLEMENTATION MITIGATION & MONITORING
PROGRAMME**

- COST OF SAFETY OFFICER(ANNUAL CTC)- 6 LAKH**
- ENVIRONMENTAL MOINTORING CHARGES-2.5 LAKH**
(noise, air, water, pollution)
- PPES,DISPLAY BOARDS,RESCUE KIT- 7 LAKH**

(HELMET, GUMBOOT,SAFETY JACKET ,NOSE MASK,SAFETY Belt etc)

TOTAL – 15.5 LAKH approx.

Davangere- Sewage Treatment Plant (Package: 01DVG01A)

HNB ENGINEERS .PVT.LTD
5MLD & 20MLD STP –DAVANAGERE

Name of Employer:- The commissioner, City corporation Davanagere

Name of Clients :- The Executive Engineer ,project Implement Unit, KUDIFC-KIUWIP,Davangere ,
City corporation no.1976/9, Shemunur Road Mcc A Block, Asharya Hospital,
Davanagere, Karnataka.577004.

Name of work :-Design Supply , Installation & Commissining of Sewage Treatment Plants Sequential Batch Reactors (SBR/CASP)Of 20MLD Capacity in District 1&5 MLD Capacity in District 3 of Davanagere City corporation Davanagere including Operation and maintenance for three years, Phase:II

BUDGET OF IMPLEMENTATION MITIGATION AND MONITORING PROGRAMME (ANNUAL BUDGET)-2016-17

1. **COST OF SAFTEY OFFICER (ANNUAL CTC) -
5.00 LAKH**
2. **MONITORING CHARGES (NOISE,AIR,HYDROCARBON,WATER,POLLUTION)-
4.00 LAKH**
3. **SAFTEY AND PPP EQUIPMENTS FOR SITE AND OFFICE-
7.00 LAKH**

(Helmet, Gumboot, Saftey Jacket,Mask,Saftey Belt,Saftey Board, Volunteer, Oxygen, Hand Gloves, Sunglass, Saftey Divider/Barrier, First Aid Box With Medicine,Red Danger Tape,Saftey Signs,Saftey Net,Saftey Lights,Saftey Mirror,Barricadding Board,Extinguisher,Rubbish Bin,Fire Alarm, Fire Hose Roll, Bio Toilet, Insects Killer Liquids, Circular Cutter With Noise Barrier For Tmt Cutting, Silent Dg Set.)

TOTAL-	16.00 LAKH
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Harihar – Sewerage and Sewage Treatment Plant (Package: 01HRA01)

Monitoring budget for the year 2016-17

Package: Expansion of Sewerage System In Harihar City, KIUWMIP

SHRIRAM EPC LTD

BUDGET OF IMPLEMENTATION MITIGATION AND MONITORING PROGRAMME (ANNUAL BUDGET)

4. COST OF SAFTEY OFFICER (ANNUAL CTC) -	5.5 LAKH
5. MONITORING CHARGES (NOISE,AIR,HYDROCARBON,WATER,POLLUTION)-	2.0 LAKH
6. SAFTEY AND PPP EQUIPMENTS FOR SITE AND OFFICE-	6.0 LAKH

(Helmet, Gumboot, Saftey Jacket,Mask,Saftey Belt,Saftey Board,
Volunteer, Oxygen, Hand Gloves, Sunglass, Saftey Divider/Barrier,
First Aid Box With Medicine,Red Danger Tape,Saftey Signs,Saftey Net,Saftey Lights,Saftey Mirror,Barricadding
Board,Extinguisher,Rubbish Bin,Fire
Alarm, Fire Hose Roll, Bio Toilet, Insects Killer Liquids, Circular Cutter With Noise Barrier For Tmt Cutting, Silent
Dg Set.)

TOTAL-	13.5 LAKH
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Compliance against CFE condition

Davangere- Sewage Treatment Plant – 20 MLD STP (Package: 01DVG01A)

Sl. No	CFE Conditions	Compliance
1	This Consent for Establishment is valid for five years from date of issue.	As per plan establishment work will be completed within 5 years
2	This consent is related only to the pollution aspects of said project with respect to said location and this consent is in no way construed to give any right in any nature to the applicant what so ever in this regard, and shall obtain all statutory clearances before commencement of the project.	All statutory clearances will be obtained before commissioning of the treatment plant
3	The CC shall not undertake expansion/ diversification/ modernization/ change of sites etc., without prior clearance from this Board.	In case of expansion/ diversification/ modernization/ change of sites etc. prior clearance will be obtained from pollution control board
4	The CC shall obtain necessary license/ clearance from other relevant statutory agencies before taking up construction.	Necessary license/ clearance from other relevant statutory agencies will be obtained before starting up construction
5	There shall not be any complaints against the establishment of STP from surrounding public in respect of any kind of pollution	Before establishment of STP consultation has been done with surrounding public and assured local people on application of mitigation measures for non pollution of environment from treatment plant
6	The applicant shall submit the land documents of the proposed site to the Board, before commissioning the establishment work of the proposed STP.	Project authority (City Corporation Davangere) submitted land documents of the proposed site to the Board before getting consent for establishment
7	The applicant shall not discharge treated sewage into nala/river.	Treated water will be utilized for irrigation purpose
I. Specific Conditions		
1	The CC shall up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system.	City Corporation Davangere would up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system
2	The CC shall provide UGD facility for the entire City Corporation and report to the Board	Under the separate project CC already taken up UGD facility for the entire City Corporation (work ongoing) and informed to Board during consent application
3	The CC shall maintain 100 mts buffer zone around the Sewage Treatment Plant area.	CC already planned for 100 mts buffer zone around the Sewage Treatment Plant area
4	The CC shall take adequate measures to avoid any entry to treated /untreated sewage into nearby nalla	The CC took adequate measures in design to avoid any entry to treated /untreated sewage into nearby nalla
5	The responsibility to execute, commission, operation and maintenance of the STP will be taken by CC authorities only.	City Corporation Davangere have already taken responsibility to execute, commission, operation and maintenance of the STP
6	The CC shall ensure that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt shall be developed around the STP site	The CC ensured that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt will be developed around the STP site
7	The consent is issued without prejudice to the Court Cases pending in any Hon'ble Court	Noted
8	The CC shall pay balance cess under The Water	CC would pay balance cess under The Water

Sl. No	CFE Conditions	Compliance
	(Prevention and Control of Pollution) Cess Act 1977 within three months.	(Prevention and Control of Pollution) Cess Act 1977
II. Water Pollution Control		
1	The treatment plant shall be used for the treatment of sewage only, at any point of time.	The treatment plant will be used for the treatment of city sewage
2	The treatment plant shall be used for the treatment of sewage not exceed 20 MLD	The treatment plant will be used for the treatment of sewage upto 20 MLD
3	The CC shall treat the sewage in the STP as per the proposals submitted to the Board.	The CC will treat the sewage in the STP as per the proposals submitted to the Board
4	The CC shall utilize the treated sewage for irrigation purpose after treating the same to the stipulated standards	As per design the CC will utilize the treated sewage for irrigation purpose after treating the same upto the stipulated standards
5	All the treatment units shall be made totally impervious	Considered in the design
6	The CC is liable to reinstate/ restore, damaged or destroyed elements of environment at its cost, failing which the applicant/ occupier as the case may be/shall be liable to pay the entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by competent agency or committee.	Agreed
7	The separate flow meter shall be installed to record hourly inflow & outflow of domestic effluent into the STP and maintain logbooks for hourly recording for verification of inspecting officers.	The separate flow meter will be installed to record hourly inflow & outflow of domestic effluent into the STP and logbooks will be maintained for hourly recording for verification
III. Solid Waste (other than Hazardous waste) disposal		
	The solid wastes collected in the treatment plant premises in the form of general garbage shall be disposed off sufficiently to the satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind	Solid waste from the plant will be disposed off sufficiently to the approved site with satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind
IV. General		
1	The authority shall immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities shall immediately take appropriate corrective and preventive actions under intimation	CC Davangere will immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities will immediately taken up appropriate corrective and preventive actions under intimation
2	Exact date of commissioning of the Sewage Treatment Plant shall be informed to this Board 45 days in advance so as to make necessary inspection of the plant and the pollution control measures provided by the authorities	Date of commissioning of the Sewage Treatment Plant will be informed to the Board 45 days in advance
3	The applicant shall comply with all the rules and guidelines issued from time to time	CC Davangere will comply with all the rules and guidelines issued from time to time
4	The Board reserves right to review and impose additional condition or conditions revoke, change or alter the terms and conditions	Agreed
5	The CFE does not give any right to the Party/ Project Authority/ Industry to forego any requirement that is necessary for starting operation of the plant	Noted

Davangere- Sewage Treatment Plant – 5 MLD STP (Package: 01DVG01A)

Sl. No	CFE Conditions	Compliance
1	This Consent for Establishment is valid for five years from date of issue.	As per plan establishment work will be completed within 5 years
2	This consent is related only to the pollution aspects of said project with respect to said location and this consent is in no way construed to give any right in any nature to the applicant what so ever in this regard, and shall obtain all statutory clearances before commencement of the project.	All statutory clearances will be obtained before commissioning of the treatment plant
3	The CC shall not undertake expansion/ diversification/ modernization/ change of sites etc., without prior clearance from this Board.	In case of expansion/ diversification/ modernization/ change of sites etc. prior clearance will be obtained from pollution control board
4	The CC shall obtain necessary license/ clearance from other relevant statutory agencies before taking up construction.	Necessary license/ clearance from other relevant statutory agencies will be obtained before starting up construction
5	There shall not be any complaints against the establishment of STP from surrounding public in respect of any kind of pollution	Before establishment of STP consultation has been done with surrounding public and assured local people on application of mitigation measures for non pollution of environment from treatment plant
6	The applicant shall submit the land documents of the proposed site to the Board, before commissioning the establishment work of the proposed STP.	Project authority (City Corporation Davangere) submitted land documents of the proposed site to the Board before getting consent for establishment
7	The applicant shall not discharge treated sewage into nala/river.	Treated water will be utilized for irrigation purpose
I. Specific Conditions		
1	The CC shall up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system.	City Corporation Davangere would up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system
2	The CC shall provide UGD facility for the entire City Corporation and report to the Board	Under the separate project CC already taken up UGD facility for the entire City Corporation (work ongoing) and informed to Board during consent application
3	The CC shall maintain 100 mts buffer zone around the Sewage Treatment Plant area.	CC already planned for 100 mts buffer zone around the Sewage Treatment Plant area
4	The CC shall take adequate measures to avoid any entry to treated /untreated sewage into nearby nalla	The CC took adequate measures in design to avoid any entry to treated /untreated sewage into nearby nalla
5	The responsibility to execute, commission, operation and maintenance of the STP will be taken by CC authorities only.	City Corporation Davangere have already taken responsibility to execute, commission, operation and maintenance of the STP
6	The CC shall ensure that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt shall be developed around the STP site	The CC ensured that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt will be developed around the STP site
7	The consent is issued without prejudice to the Court Cases pending in any Hon'ble Court	Noted
8	The CC shall pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977 within three months.	CC would pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977

Sl. No	CFE Conditions	Compliance
II. Water Pollution Control		
1	The treatment plant shall be used for the treatment of sewage only, at any point of time.	The treatment plant will be used for the treatment of city sewage
2	The treatment plant shall be used for the treatment of sewage not exceed 5 MLD	The treatment plant will be used for the treatment of sewage upto 5 MLD
3	The CC shall treat the sewage in the STP as per the proposals submitted to the Board.	The CC will treat the sewage in the STP as per the proposals submitted to the Board
4	The CC shall utilize the treated sewage for irrigation purpose after treating the same to the stipulated standards	As per design the CC will utilize the treated sewage for irrigation purpose after treating the same upto the stipulated standards
5	All the treatment units shall be made totally impervious	Considered in the design
6	The CC is liable to reinstate/ restore, damaged or destroyed elements of environment at its cost, failing which the applicant/ occupier as the case may be/shall be liable to pay the entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by competent agency or committee.	Agreed
7	The separate flow meter shall be installed to record hourly inflow & outflow of domestic effluent into the STP and maintain logbooks for hourly recording for verification of inspecting officers.	The separate flow meter will be installed to record hourly inflow & outflow of domestic effluent into the STP and logbooks will be maintained for hourly recording for verification
III. Solid Waste (other than Hazardous waste) disposal		
	The solid wastes collected in the treatment plant premises in the form of general garbage shall be disposed off sufficiently to the satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind	Solid waste from the plant will be disposed off sufficiently to the approved site with satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind
IV. General		
1	The authority shall immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities shall immediately take appropriate corrective and preventive actions under intimation	CC Davangere will immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities will immediately taken up appropriate corrective and preventive actions under intimation
2	Exact date of commissioning of the Sewage Treatment Plant shall be informed to this Board 45 days in advance so as to make necessary inspection of the plant and the pollution control measures provided by the authorities	Date of commissioning of the Sewage Treatment Plant will be informed to the Board 45 days in advance
3	The applicant shall comply with all the rules and guidelines issued from time to time	CC Davangere will comply with all the rules and guidelines issued from time to time
4	The Board reserves right to review and impose additional condition or conditions revoke, change or alter the terms and conditions	Agreed
5	The CFE does not give any right to the Party/ Project Authority/ Industry to forego any requirement that is necessary for starting operation of the plant	Noted

Harihara Sewage Treatment Plant – 18 MLD STP (Package: 01HRA01)

Sl. No	CFE Conditions	Compliance
1	This Consent for Establishment is valid for five years from date of issue.	As per plan establishment work will be completed within 5 years
2	This consent is related only to the pollution aspects of said project with respect to said location and this consent is in no way construed to give any right in any nature to the applicant what so ever in this regard, and shall obtain all statutory clearances before commencement of the project.	All statutory clearances will be obtained before commissioning of the treatment plant
3	The CMC shall not undertake expansion/ diversification/ modernization/ change of sites etc., without prior clearance from this Board.	In case of expansion/ diversification/ modernization/ change of sites etc. prior clearance will be obtained from pollution control board
4	The CMC shall obtain necessary license/ clearance from other relevant statutory agencies before taking up construction.	Necessary license/ clearance from other relevant statutory agencies will be obtained before starting up construction
5	There shall not be any complaints against the establishment of STP from surrounding public in respect of any kind of pollution	Before establishment of STP consultation has been done with surrounding public and assured local people on application of mitigation measures for non pollution of environment from treatment plant
6	The applicant shall submit the land documents of the proposed site to the Board, before commissioning the establishment work of the proposed STP.	Project authority (City Municipal Council Harihara) submitted land documents of the proposed site to the Board before getting consent for establishment
7	The applicant shall not discharge treated sewage into nala/river.	Treated water will be utilized for irrigation purpose
I. Specific Conditions		
1	The CMC shall up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system.	City Municipal Council Harihara would up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system
2	The CMC shall provide UGD facility for the entire City Council area and report to the Board	Under the separate project CMC already taken up UGD facility for the entire area of City Municipal Council (work ongoing) and informed to Board during consent application
3	The CMC shall maintain 100 mts buffer zone around the Sewage Treatment Plant area.	CMC already planned for 100 mts buffer zone around the Sewage Treatment Plant area
4	The CMC shall take adequate measures to avoid any entry to treated /untreated sewage into nearby nalla	The CMC took adequate measures in design to avoid any entry to treated /untreated sewage into nearby nalla
5	The responsibility to execute, commission, operation and maintenance of the STP will be taken by CMC authorities only.	City Municipal Council Harihara have already taken responsibility to execute, commission, operation and maintenance of the STP
6	The CMC shall ensure that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt shall be developed around the STP site	The CMC ensured that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt will be developed around the STP site
7	The consent is issued without prejudice to the Court Cases pending in any Hon'ble Court	Noted
8	The CMC shall pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977 within three months.	CMC would pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977
II. Water Pollution Control		
1	The treatment plant shall be used for the	The treatment plant will be used for the

Sl. No	CFE Conditions	Compliance
	treatment of sewage only, at any point of time.	treatment of city sewage
2	The treatment plant shall be used for the treatment of sewage not exceed 18 MLD	The treatment plant will be used for the treatment of sewage upto 18 MLD
3	The CMC shall treat the sewage in the STP as per the proposals submitted to the Board.	The CMC will treat the sewage in the STP as per the proposals submitted to the Board
4	The CMC shall utilize the treated sewage for irrigation purpose after treating the same to the stipulated standards	As per design the CMC will utilize the treated sewage for irrigation purpose after treating the same upto the stipulated standards
5	All the treatment units shall be made totally impervious	Considered in the design
6	The CMC is liable to reinstate/ restore, damaged or destroyed elements of environment at its cost, failing which the applicant/ occupier as the case may be/shall be liable to pay the entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by competent agency or committee.	Agreed
7	The separate flow meter shall be installed to record hourly inflow & outflow of domestic effluent into the STP and maintain logbooks for hourly recording for verification of inspecting officers.	The separate flow meter will be installed to record hourly inflow & outflow of domestic effluent into the STP and logbooks will be maintained for hourly recording for verification
III. Solid Waste (other than Hazardous waste) disposal		
	The solid wastes collected in the treatment plant premises in the form of general garbage shall be disposed off sufficiently to the satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind	Solid waste from the plant will be disposed off sufficiently to the approved site with satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind
IV. General		
1	The authority shall immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities shall immediately take appropriate corrective and preventive actions under intimation	City Municipal Council Harihara will immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities will immediately taken up appropriate corrective and preventive actions under intimation
2	Exact date of commissioning of the Sewage Treatment Plant shall be informed to this Board 45 days in advance so as to make necessary inspection of the plant and the pollution control measures provided by the authorities	Date of commissioning of the Sewage Treatment Plant will be informed to the Board 45 days in advance
3	The applicant shall comply with all the rules and guidelines issued from time to time	City Municipal Council Harihara will comply with all the rules and guidelines issued from time to time
4	The Board reserves right to review and impose additional condition or conditions revoke, change or alter the terms and conditions	Agreed
5	The CFE does not give any right to the Party/ Project Authority/ Industry to forego any requirement that is necessary for starting operation of the plant	Noted

Labour license

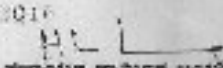
Davangere- Sewerage (Package: 01DVG01)

ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿ
 ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿ
 ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿ

FORM VI (See Rule 25(1))
GOVERNMENT OF KARNATAKA
Office of Licensing Officer

License No. DAV/01DVG01/2015-16 Date: 24-02-2015
 Fee Paid Rs.1500-00
 Security Deposit Paid Rs. 2500-00

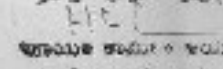
- 1) Licence is hereby granted to DAV Sewerage, Davangere, Dist. Davangere, a/c-314, 3rd floor, 1st cross, 1st stage, Davangere, Dist. Davangere, Karnataka, under Section 12(1) of the Contract Labour (Regulation and Abolition) Act 1970, subject to the conditions specified in Annexure.
- 2) This Licence is for doing the work of DAV Sewerage, Davangere and other DAV Sewerage nature of work to be indicated in the establishment of DAV Sewerage, Davangere (name of the principal Employer to be indicated) at DAV Sewerage (place of work to be indicated).
- 3) The Licence shall remain in force till 23-02-2016.


 ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿ
 ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿ

Date: 24-02-2015
 Officer

RENEWAL
 (Rule 25)

Date of Renewal	Fee Paid for renewal	Date of expiry
<u>19-02-2016</u>	<u>Rs. 15200/-</u> <u>S. No. 2194048</u> <u>24-19-02-2016</u>	<u>23-02-2017</u> <u>111</u>


 ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿ
 ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿ

Davangere- Sewage Treatment Plant : Labour License (Package: 01DVG01A)

ಉದ್ಯೋಗ ಕೆಲಸಕ್ಕೆ ಅನುಮತಿ ನೀಡುವ ಲೈಸೆನ್ಸ್
 ಲೈಸೆನ್ಸ್ ನಂ. 01/2015-16
FORM VI [Se Rule 25(1)]
GOVERNMENT OF KARNATAKA
Office of Licensing Officer

Licence No: 01/2015-16 Date: 05-11-2015
 Fee Paid **Rs.1500-00**
 Security Deposit Paid **Rs.2500-00**

- 1) Licence is hereby granted to ಶ್ರೀ ಎಸ್.ಎಂ.ಎಸ್. ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಂಪೌಂಡ್ಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್
ಎಸ್.ಎಂ.ಎಸ್. ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಂಪೌಂಡ್ಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್
 Under Section 12(1) of the Contract Labour (Regulation and Abolition) Act 1970, Subject to the conditions specified in Annexure.
- 2) This Licence is for doing the work of ಇಂಜಿನಿಯರಿಂಗ್ ಕೆಲಸ (nature of work to be indicated) in the establishment of ಎಸ್.ಎಂ.ಎಸ್. ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಂಪೌಂಡ್ಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್ (name of the principal Employer to be indicated) at ಬೆಂಗಳೂರು (place of work to be indicate)
- 3) The Licence shall remain in force till 04-11-2016

Date: 05-11-2015 [Signature]
 Signature and Seal of the Licensing Officer

RENEWAL
(Rule 29)

Date of Renewal	Fee Paid for renewal	Date of Expiry
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Harihar – Labour license (Package: 01HRA01)- To be renewed

ಸರ್ಕಾರದ ಅಧಿಕಾರಿಗಳಿಂದ ತಯಾರಿಸಿದ ಫಾರ್ಮ್
 FORM VI [Se Rule 25(1)]
GOVERNMENT OF KARNATAKA
Office of Licensing Officer

Licence No: 1464/2015-16 Date: 15-06-2015
 Fee Paid **Rs.1500-00**
 Security Deposit Paid **Rs.2500-00**

- 1) Licence is hereby granted to ಶ್ರೀ ಹೆ. ರಾಜ್ ಎ.ಪಿ. ಎಂ.ಎಸ್. ಲೇಬರ್ಸ್, ಹರಿಹರ, ಮೈಸೂರು, ಮಂಡ್ಯ, ಮಂಡ್ಯ, 56-14/3, ರಾಜ್ಯ ರಸ್ತೆ ಮತ್ತು ಸರ್ಕಾರ, ಹರಿಹರ, ಮೈಸೂರು ಮತ್ತು ಮಂಡ್ಯ ಜಿಲ್ಲೆ, ಕರ್ನಾಟಕ. Under Section 12(1) of the Contract Labour (Regulation and Abolition) Act 1970, Subject to the conditions specified in Annexure.
- 2) This Licence is for doing the work of ಪ್ರತಿಷ್ಠಾಪನಾ ಮತ್ತು ನಿರ್ವಹಣಾ ಕೆಲಸ (nature of work to be indicated) in the establishment of ಹೆ.ಎಂ.ಎಸ್. ಲೇಬರ್ಸ್ (name of the principal Employer to be indicated) at ಮಂಡ್ಯ, ಮಂಡ್ಯ ಜಿಲ್ಲೆ (place of work to be indicate)
- 3) The Licence shall remain in force till 14-06-2016

Date: 15-06-2015 Signature and Seal of the Licensing Officer

RENEWAL
 (Rule 29)

Date of Renewal	Fee Paid for renewal	Date of Expiry
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ANNEXURE

The licence is subject to the following conditions :

- 1) The licence shall be non transferable.
- 2) The number of workmen employed as contract labour in the establishment shall on One any day, exceed... (100) లును మించును గానను నిషేధింతు
- 3) Except as provided in the Rules the Fees paid for the grant as the case may be for renewal of the licence shall be non refundable.
- 4) The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the schedule of employment under the minimum wages Act, 1948, and where the rates have been fixed by agreement, settlement or award, not less than the rates fixed.
- 5) In case where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the principal employer of the establishment, the wage rates, holiday hours of work and other conditions of service of the workmen of the contractor shall be the same as applicable to the workmen directly employed by the principal employer of the establishment on the same or similar be kind of work; provided that in the case of disagreement with regard to the type of work in the same shall be decided by the commissioner of labour whose decision shall be final.
- 6) In other cases the wage rates, holidays hours, of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the commissioner of Labour.
- 7) In every establishment where 20 or more women are ordinarily employed as contract labour there shall be provided 2 rooms of reasonable dimensions for the use of their children under the age of six years. Once of such rooms would be used as play room for the children for this purpose the contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping room. The standard of construction and maintenance of the crèches may be such as may be specified in this behalf by the commissioner of labour.
- 8) The licence shall notify any change in the number of workmen or the conditions of work to the licensing officer.
- 9) A copy of the licence shall be displayed prominently at the premises where the contract work is being carried on.
- 10) If the licence is not renewed within the prescribed time i.e., within 30 days before the expiry of the period penalty of 25% of licence fees will be levied.
- 11) The contract labourers shall be provided with lunch dinner, Coffee/tea and break fast/snacks free of cost during the working hours, if such facilities are extended to regular workmen employed by the principal employer.
- 12) The contract labourers shall be paid the minimum wages fixed under the minimum wages Act 1948, or the wages payable to the last category of regular workmen employed by the principal employer.
- 13) The contract labourers shall be paid with same rate of Bonus and Ex-gratia Payable to the regular workmen employed by the principal employer.
- 14) The contract labourers shall be provided with free uniforms and states if such facilities are extended to the regular workmen employed by the principal employer.
- 15) Availing the services of child labour is subject to the of the provisions of the child labours (Regulation and Prohibition) Act - 1986 and the judgment of the supreme court. Hence it is prohibited.
- 16) The letter and spirit of all labour laws should be complied without any deviation.

Handwritten notes in Telugu at the bottom of the page, including the word "అనుబంధం" (Annexure).

SEPC/HR&ADMIN/RENEWAL L L/CLA/2016

3rd June 2016

To,

The Assistant Labour Commissioner
Bellary Division
Davanagere - 577 301
Karnataka

Regd Post with Ack/Due

Sir,

Sub: Application for Renewal of Labour Licence under Contract Labour (Regulation and Abolition) Act, 1970 and Contract Labour (Regulation and Abolition), Rules, 1975.

Ref: 1) " Expansion of Sewerage System in Harihara City, Package No. 01HRA01.
2) Labour Licence No. ALCD/CLA/LCN-1464/2015-16, dated. 15.06.2015.

For the above Project, you have already issued us a Labour Licence No. ALCD/CLA/LCN-1464/2015-16, dated. 15.06.2015

Since the work is under progress, we would like to renew the Labour Licence for another one year from 15.06.2016 to 14.06. 2017. In this connection we are submit the following documents:-

- 1) Form VII in Triplicate
- 2) Form VI original licence for Renewal.
- 3) Renewal fee of Rs. 1875/- paid Vide D D/Receipt No. dated.
- 4) Power of Attorney duly signed and issued in the name of Mr. G. Ramesh GROUP HEAD (HR&Admin)
- 5) List of Directors of Leitwind Shriram Manufacturing Ltd

In view of the above and based on the documents enclosed, we would be grateful if you could renew the Labour Licence with your Official endorsement.

Thanking you and assuring you of our best co-operation at all times.

Yours faithfully,
For SHRIRAM EPC LIMITED

G. RAMESH
V P & HEAD (HR&ADMIN)

Encl: As above



Shriram EPC Limited



REGD CHITRA SLIP 00000
A RT2055251951H
Dantey HALLIDAY
TO THE ASST LABOUR COM. DIVISION
BELLARY HD, DAVANAGERE
From SHIRAM EPC LTD - 010
M.L.Srivatsa,
Tel: 50 00 04/04/2016 13:40



Shriram EPC Limited
1st Floor, 'Rajah Annamalai Building', No.16/3, Rukmani Lakshmi pathi Road,
Egmore, Chennai - 600 006, India. Ph: +91 44 4900 5555, Fax: +91 44 4900 5580 / 4260 2155
Regd. Office : 4th Floor, 'Srijal Aarti Building', No.16/3, Rukmani Lakshmi pathi Road,
Egmore, Chennai - 600 006. Ph: +91 44 4901 5678 Fax: +91 44 4901 5655
E-mail: info@shriramepc.com, website: www.shriramepc.com



GOVERNMENT OF KARNATAKA



DEPARTMENT OF LABOUR

No:ALCD/Online/2016-17

Office of the
Assistant Labour Commissioner,
Bellary Division, Davanagere,
Date: 04-07-2016.

Endorsement

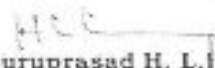
Sub:- Regarding Registration/Licence under Contract Labour Act
(R & A) 1970 .

Ref :- 1. Office Order of the Commissioner of Labour in Karnataka
No.ACTN-01/CR-29/2016-17, dt:22-06-2016.

3. Your application For Registration under Contract Labour Act
(R & A) 1970 dt:03-06-2016. Received at office on 04-07-2016

With referacene to your application for Registration/Licence under Contract
Labour Act (R & A) 1970 dt:03-06-2016. Received at office on 04-07-2016.
referred (2) above. It is informed that department is planning to provide online
services for Registration/Licence under Contract Labour Act (R & A) 1970. As per
the order of Commissioner of Labour, Labour department, referred (1) above, there
will not be any manual process of registration/licence from dt: 26-06-2016.

This endorsement is to inform you that your application will be considered
only after the commencement of online process.



(Guruprasad H. L.)
Assistant Labour Commissioner,
Bellary Division, Davanagere.

To

Sri Ram ep.limited,
Site office: amaravathi colony, harihra-01.

Labour compensation Insurance

Davangere UGD (Package: 01DVG01)



THE NEW INDIA ASSURANCE CO. LTD.
(Wholly owned by the Govt. of India)

POLICY SCHEDULE FOR EMPLOYEES COMPENSATION INSURANCE

Insured's Name : COMPLEX INFRASTRUCTURE LTD.			
Insured's Details		Issuing Office Details	
Customer ID : 28349788	Office Code : Kolkata LCO 29000 (35002)		
Address : PT. SHANKARSHANKAR BAHAN, KOLKATA DIST: KOLKATA, West Bengal	Address : 4, MANJURE LANE, 2ND FLOOR, KOLKATA, 700001		
Phone No : 983012822	Phone No : 302245533		
E-mail/Fax : 983012822@nicl.co.in /	E-mail/Fax : (81)29000@newindia.co.in /		
PAN No :	S.Tax Regn. No : AAJ0241K5021179		

Policy Details			
Policy Number : 5500039615042000106	Business Source Code :	DIRECT BUSINESS (10107432)	
Period of Insurance : From: 03/06/2016 03:54:15 PM To: 02/02/2017 11:52:50 PM	Dev Off level (Broken/Corp. Agent) :		
Date of Proposal : 03-Feb-16	Agent/Reinsurance :		
Free Policy no :	Phone No :		
Client Type : Corporate	E-mail/Fax :		

Premium(₹) : 29640	Service Tax(₹) : 5740	Total (₹) : 45380	Total (₹ in words) : FORTY FIVE THOUSAND THREE HUNDRED EIGHTY EIGHT ONLY	Receipt No. & Date : 55000311500100240 0 - 030216
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Details of Employees with monthly wages upto ₹ 6000:			
Categories	Sub Categories	No of Employees	Cash Total Wages
Buildings All employees engaged in shop or work or in construction of civil buildings and other civil construction like dams, bridges etc. incl. renovation	Edc, building and furnishing	100	720700

Details of Employees with monthly wages above ₹ 6000:			
Categories	Sub Categories	No of Employees	Cash Total Wages
Trade Description	Particulars of Works	Location Details	Included All Sub-Contractors
CIVIL CONTRACTOR	EXPANSION OF SEWERAGE SYSTEM IN DAVANAGERE CITY IN KATRA TAKA (DISTRICT 1 & 2)	PACKAGE NO.01DVG01-CITY CORPORATION DAVANAGERE.	Yes

<<HIDDEN_START_contractr_Details>>Contractor/Sub-Contractor Details					
Serial No	Name of Contractor	Description	Category	No. of Workers	Amount Wages
				Skilled Unskilled Others	

<<HIDDEN_END_contractr_Details>>Extensions under the Policy Cover		
Name of the Extension	Sub Limit of the Extension	Deductible of the Extension
Special Conditions	NA	ESTIMATED WAGES RS.1217204 INCLUDING SUBCONTRACTOR WORKERS SKILLED UNSKILLED SEMI SKILLED ESTIMATED NO. OF WORKERS 100
Special Exclusions	NA	
Special Excess/Deductible	NA	

Policy No. : 5500039615042000106 Document generated by 10505 at 03/22/16 16:08:42 Hours.
 Regd. & Head Office: New India Assurance Bldg., 47 M.O. Road, Fort, Mumbai - 400 021. TOLL FREE No. 1 800 209 1415.
 Page No. 1

THE NEW INDIA ASSURANCE CO. LTD.
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The Policy shall be subject to EMPLOYEES COMPENSATION INSURANCE Policy clauses attached herewith.	
Clauses	Description

In witness whereof the undersigned being duly authorised by the Insurers and on behalf of the Insurers has (have) hereunder set his (their) hand(s) on this 03rd day of February, 2016.



For and on behalf of

The New India Assurance Company Limited
(Duly Constituted Attorneys)

Stamp Duty under the Policy is ₹L

Rupees _____ Paise _____ consolidated Stamp Pass Paid by Pay Order number _____
number _____ at _____

IRDA Registration Number: 190

Davangere- Sewage Treatment Plant : Labour Compensation Insurance (Package: 01DVG01A)

दि न्यू इन्डिया एश्योरन्स कंपनी लि.
(सर्वसम्पन्न केन्द्रीय एशियाईकृत)

THE NEW INDIA ASSURANCE CO. LTD.
(Wholly owned by the Govt. of India)



POLICY SCHEDULE FOR EMPLOYEES COMPENSATION INSURANCE

Insured's Name	HNS ENGINEERS PVT LTD.		Issuing Office Details	
Customer ID	PC28801313		Office Code	DD11190001
Address	HFNASHI CENTRAL, 132B, SHUKRAWAR PETH, OFF BALIYAD ROAD, PUNE MAHARASHTRA, 411002		Address	PUNE DD 2, NEHRU MEMORIAL HALL A, DR. AMBEDKAR ROAD, CAMPFUNE 411001 PUNE 411001
Phone No.			Phone No.	0209120292 / 0209120293
E-mail/Fax	/		E-mail/Fax	na 15020000@newindia.co.in / 0209120292
PAN No.			S. Tax Regn. No.	AAACNH150CS117B
Policy Details				
Policy Number	1502000019010000143		Business Source Code	
Period of Insurance	From: 02/10/2015 12:00:01 AM To: 05/10/2016 11:59:59 PM		Ins. Agent/Broker/Corp. Agent	DAVITA INSURANCE BROKING COMPANY PVT LTD. (2800000000) DAVITA INSURANCE BROKERS (800000000)
Type of Proposal	IS-DV-19		Agent/Broker/Insurance	
Prev. Policy no.	15020000140100000100		Phone No.	02091000000 / 02091200000 / NA
Client Type	Non-Corporate		E-mail/Fax	/
Premium(₹)	Service Tax(₹)	Total (₹)	Total (₹ in words)	Receipt No. & Date
178942	25094	203934	RUPES TWO LAC THREE THOUSAND NINE HUNDRED EIGHTY FOUR ONLY	150200001500000384 0 - 01/01/15

Detail of Employees with monthly wages upto ₹ 8000:

Categories	Sub Categories	No of Employees	Cash Total Wages
Sewer and Road Contractors	Open trench work only where no blasting and tunnelling is done and where the depth in no part exceeds 3 meters	10	600000
Sewer and Road Contractors	Open trench work only where no blasting and tunnelling is done and where the depth in no part exceeds 3 meters	252	4800000
Sewer and Road Contractors	Open trench work only where no blasting and tunnelling is done and where the depth in no part exceeds 3 meters	10	600000
Sewer and Road Contractors	Open trench work only where no blasting and tunnelling is done and where the depth in no part exceeds 3 meters	10	500000

Detail of Employees with monthly wages above ₹ 8000:

Categories	Sub Categories	No of Employees	Cash Total Wages
Sewer and Road Contractors	Open trench work only where no blasting and tunnelling is done and where the depth in no part exceeds 3 meters	30	2000000
Sewer and Road Contractors	Open trench work only where no blasting and tunnelling is done and where the depth in no part exceeds 3 meters	20	2000000
Sewer and Road Contractors	Open trench work only where no blasting and tunnelling is done and where the depth in no part exceeds 3 meters	5	1000000

Trade Description	Particular of Works	Location Details	Included All Sub-Contractors
ENGINEERS & CONTRACTORS WASTE WATER TREATMENT.	CONSTRUCTION, COMMISSIONING & TRIAL RUN OF PLANT & ALLED WORK INCLUDING OPERATION & MAINTENANCE OF SEWAGE TREATMENT PLANT.	PROJECT SITES IN MAHARASHTRA, GOA, DELHI, JHARKHAND, KARNATAKA STATE	Yes



Policy No. : 15020000150100000143 Document generated by 33116 at 01/10/2015 16:34 of Hours
Regd. & Head Office: New India Assurance Bldg., 87 M.G. Road, Fort, Mumbai - 400 001. TOLL FREE No : 1-800-999-1115

Page No. 1



CIN No. U18999 MH1919 GO1000526 (BRDA REGN. NO. 190)

दि न्यू इन्डिया एश्योरन्स कंपनी लि.

THE NEW INDIA ASSURANCE CO. LTD.
(Wholly owned by the Govt. of India)

(मानव संसाधन के सुरक्षा कार्यक्रम)



Extensions under the Policy Cover

Name of the extension	Sub Limit of the Extension	Deductibles of the Extension
Medical Extension on	₹25000	NA
Special Conditions	NA AS PER POLICY 10 employees, 20 supervisors, 5 skilled, 10 operators, 10 watchmen, 10 driver, 252 skill & unskilled labour direct & under petty contractors	
Special Exclusions	NA	
Special Excess/Deductible	NA	

The Policy shall be subject to EMPLOYEES COMPENSATION INSURANCE Policy clauses attached herewith.

Clauses	Description
Conditions	Due observance and fulfilment of terms, conditions and endorsements of policy
Conditions	The Company may cancel Policy by sending seven days notice by registered letter
Conditions	Name of every employee with amount of wages/earnings shall be properly recorded
Conditions	No payment shall be made by or on behalf of Insured without consent of Company
Conditions	Remedy available to the insured if the company disclaims liability
Conditions	The insured shall take reasonable precaution to prevent accidents and diseases
Conditions	Notice of communication under this policy shall be delivered in writing to Company
Conditions	The Policy and the Schedule shall be read together as one contract
Conditions	liability being otherwise admitted
Conditions	In the event claim insured shall give notice to Company with full particulars
Exclusions	Any accident, loss or legal liability arising from nuclear weapons material
Exclusions	Death, injury caused directly or indirectly by ionising radiation or contamination by radioactivity
Exclusions	Any legal liability of whatsoever nature
Exclusions	Any sum which the insured would have been entitled to receive from any party but for an agreement between insured and such party
Exclusions	Liability of the insured which arises by virtue of an agreement
Exclusions	Any employee who is not a workman within the meaning of the laws
Exclusions	Insured liability to employees of their contractors
Exclusions	Any injury or disease directly attributable to war or war-like situations
Exclusions	Damage to any property or any consequential losses

In witness whereof the undersigned being duly authorized by the Insurers and on behalf of the Insurers has (have) hereunder set his (their) hand(s) on this 01st day of October, 2015.

For and on behalf of

The New India Assurance Company Limited
Duly Constituted Attorneys

Stamp Duty under the Policy is ₹

Mutrank _____ of _____ consolidated Stamp Fees Paid by Pay Order Number _____ vide receipt

Policy No. : 1500000100100000140 Document generated by 33115 at 01/10/2015 16:34:57 Hours.
Regd. & Head Office: New India Assurance Bldg., 87 M.G. Road, Fort, Mumbai - 400 001, TOLL FREE No. 1 800 266 1415
Page No. 2

प्रधान कार्यालय : दि न्यू इन्डिया एश्योरन्स लिमिटेड, 87, महात्मा गांधी मार्ग, फोर्ट, मुंबई - 400 001.

Head Office: New India Assurance Bldg., 87 M.G. Road, Fort, Mumbai - 400 001

फोन : 022-22708100 / 22708101

टोल फ्री नंबर : 1 800 266 1415

Labour compensation Insurance- Harihar (Package: 01HRA01))

CN No. UR8010R.0006PL.000679

**WORKMEN'S COMPENSATION INSURANCE-OTHER THAN COLLIERIES POLICY
SCHEDULE**

Policy No.	: 42101048/17/004124	Prev. Policy No.	: 42101048/16/000737
Cover Note No.	: -	Cover Note Date	: -
Insured's Code	: 05/0/00	Issue Office code	: 421010
Insured's Name	: M/S. Shtram LPC Limited	Issue Office Name	: CHENNAI
Address	: 18/5, 4th Floor, Sigappi Achi Building, Rukmini Lakshmpathi Sagar (Marshall's Road), Lgmore, CHILNNAI TAMIL NADU 600005	Address	: 2ND FLOOR, MOOKAMBIKA COMPLEX, NO 4, LADY DULSIKA ROAD MYLAPURM CHENNAI TAMIL NADU 600004
Tel./Fax/Email	: 044 434 18700 / /	Tel./Fax/Email	: 044-6800150/200 / / sg.chennai@shtramng.com
Dev. Officer	: -	Broker Details	: LD000000002 M/S. DI WARRI RL INSURANCE BROKERS PVT. LTD. Contact No
Period of Insurance	: From 00:00 on 25/05/2016 To Midnight of 25/05/2017		
Collection No. & Dt	: CHOCSE 1003001843 - 23/06/2016		
Gross Premium	242,519	S Tax	33853
GSI	0	Cess	2428
SI Duty	122	Total	276,090

Co-insurance Details : NIL

Laws

Laws : Indemnity against legal liability to all employees/Whether or not coming within the definition of the term Workmen under the W.C. Act prior to the date of issue of the policy the Fatal Accidents Act 1856 and all Common Law

Risk Information

Type of Risk : GOWDON

Details of Employees with Monthly Wages Above Rs.8000/-


Sr. No.	Est. No. of Emps	Contract Emps	Occupation	Estimated fortnightly wages/other earnings	Value of food/qrnt/ other considerations	Estimated Total earnings	Table	Place of Employment
1	2000		Ligniers not otherwise classified incl. work away from shop or yard upto 9 mtrs height	124,000	0	124,000	A	Various Cities in India

Contract Details

EMPLOYEE DETAIL

Place : CHILNNAI
Date : 23/06/2016

For and on behalf of
SHIRAM GENERAL INSURANCE COMPANY LTD


Authorised Signatory

All the amounts mentioned in this policy are in Indian Rupees

Service Tax Reg. No. AAKC52505K5T001

Page 1 of 2

Attached to and forming part of policy number 42101048/17/054124

Total Premium in words : Indian Rupees Two Lakhs Seventy Eight Thousand Eight Hundred Ninety Eight Only

The insurance under this policy is subject to Warranties & Clauses (as per forms attached).

Subject to adjustment in the terms of Condition 5, the estimated amount of wages/balances & other earnings on which premium is based

- Excess/Deductible - Rs 8,00,000/- per accident.
- Total Sum Insured - Rs.32,44,80,000/- Multiply the column "Est.No.of Emps" with the column "Estimated Total earnings".
- The sum insured is adjustable at the end of the year based on the certification of total wages from the Statutory Auditor.
- The policy covers total 2500 workers of Shriram LPC Limited.
- Contractors & Sub Contractors and all other persons engaged on project site including all manufacturing units, godowns & other locations anywhere in India who are not specifically covered under any other workmen compensation policy
- All persons are engaged in Engineering related works.
- Warranted that Medical expenses are not covered.
- Classification Code No - 157.

Warranted that in case of dishonour of premium cheque(s) the Company shall not be liable under the policy and the policy shall be void ab initio (from inception)

In witness whereof the undersigned being authorised by and on behalf of the Company has/have herein to set his/their hands at CHENNAI on 16th Day of April 2016

Entered by : VARUN VERMA

Approved by : VARUN VERMA

Place : CHENNAI

Date : 23/08/2016

All the amounts mentioned in this policy are in Indian Rupees

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD




Authorized Signatory

Service Tax Reg. No. AAKCS2509KST001

Page 2 of 2

Consent to Operate for Concrete Batching Plant – Davangere 20 MLD STP site

 <p>Consent For Operation (CFO-Air,Water)</p> <p>PCR ID: 29655</p> <p>Consent No. AW-102547</p> <p>Valid upto: 27/09/2017</p>	<p>Karnataka State Pollution Control Board - Davangere Plot No. 501, C-Block, Near Central taxic & Customs Office Devraj area layout, Davangere-577006 Tele : 08192-252895</p>
	<p>(This document contains 6 pages including annexure)</p>

Combined Consent Order No: AW-102547 Date: 24/08/2016

Combined consent for discharge of effluents under the Water (Prevention and Control of Pollution) Act, 1974 and emission under Air (Prevention and Control of Pollution) Act, 1981

- Ref: 1. Application filed by the industry / organization on 17/06/2016
2. Inspection of the Industry/organization by RO, - Davangere on 17/06/2016

Consent is hereby granted under Section 25(4) of the Water (Prevention & Control of Pollution) Act, 1974 (herein referred to as the Water Act) & Section 21 of Air (Prevention & Control of Pollution) Act, 1981, (herein referred to as the Air Act) and the Rules and Orders made there under and subject to the terms and conditions as detailed in the Schedule Annexed to this order.

The Occupier is authorized to operate Ready mix concrete industry/activity & to make discharge of the effluents & emissions conforming to the stipulated standards from the premises mentioned below:

Location:

Name of the Industry: H-b Engineers Pvt. Ltd.
Address: Sy. No. 10, 11, 12, 13 and 12B, Doddabudhal-Village, Shivnagara, Davangere-Tq & Dist.
Industrial Area: Not in I.A, Doddabudhal
Taluk: Davangere, District: Davangere

Discharge of effluents under the Water Act:

Sr	Water Code	WCYR(L)	WWQ(RTD)	Remark
1	Domestic Purpose	1.500	2.000	DOMESTIC WASTEWATER IS BEING DISCHARGED INTO SEPTIC TANK AND SOAK PIT.
2	Manufacturing Processes	121.000	0.000	WATER USED FOR MIXING OF CONCRETE THERE IS NO GENERATION OF TRADE EFFLUENTS

Discharge of Air emissions under the Air Act from the following stacks etc.

Sl. No.	Description of chimney/outlet	Limits specified refer schedule
---------	-------------------------------	---------------------------------

The details of Sources, control equipments and its specification, type of fuel, rate of emissions, constituents to be controlled in emissions etc. are detailed in Annexure-I.

This consent is issued considering the manufacture of Ready mix cement concrete activity.

Sr	Product Name	Applied Qty/Month	Unit
1	CEMENT (OXIDE) :	1981.0331	CHM



**Consent For Operation
(CFO-Air, Water)**

PCB ID: 28658

Consent No. AW-102647
Valid upto: 27/09/2017

Karnataka State Pollution Control Board
- Davangere
Plot No. 581, C-Block,
Near Central excise & Customs Office Davraj Urs layout,
Davangere-577006
Tele : 96192-252895

(This document contains 6 pages including annexure)

This consent is valid for the period from 17/06/2016 to 27/09/2017

For and on behalf of the
Karnataka State Pollution Control Board



MANJUNATH KS - Environmental
Officer

To,
Hnb Engineers Pvt. Ltd.,
HNB Engineers Pvt. Ltd.,
#3370/11-12, MCC B Block,
Shamanna Road, Near
Lakshmi F

NOTE:

The following Conditions Nil mentioned above are not applicable.

COPY TO:-

1. Master Register.
2. Case file.

1. Consent Fee paid Rs. 12000

SCHEDULE

TERMS AND CONDITIONS

A. TREATMENT AND DISPOSAL OF EFFLUENTS UNDER THE WATER ACT.

1. The discharge from the premises of the occupier shall pass through the terminal manhole/manholes where from the Board shall be free to collect samples in accordance with the provisions of the Act/Rules made there under.

2. The sewage/domestic effluent shall be treated in septic tank and with soak pit. No overflow from the soak pit is allowed. The septic tank and soak pit shall be as per IS 2470 Part-I & Part-II.

OR

3. The treated sewage effluent discharged shall conform to the standards specified in Annexure-L



**Consent For Operation
(CEQ: Air, Water)**

PCB ID: 29659

Consent No. AW-102847

Valid upto: 27/08/2017

Karnataka State Pollution Control Board
- Davangere
Plot No. 501, C-Block,
Near Central excise & Customs Office Davangere layout,
Davangere-577006
Tele : 08192-252895

(This document contains 6 pages including annexure)

4. The occupier shall install flow measuring/recording devices to record the discharge quantity and maintain the record.
5. The occupier shall not change or alter either the quality or the quantity or the place of discharge or temperature or the point of discharge without the previous consent/ permission of the Board.
6. The Occupier shall not allow the discharge from the other premises to mix with the discharge from his premises. Storm water shall not be allowed to mix with the effluents on the upstream of the terminal manhole where the flow measuring devices are installed.
7. Domestic Sewage shall be discharged to Underground drainage System/ Sewers owned by Local body.

B. EMISSIONS:

1. The discharge of emissions from the premises of the applicant shall pass through the air pollution control equipment and discharged through stacks/chimneys mentioned in Annexure-I where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under.
2. The occupier shall provide port holes for sampling of emission, access platforms for carrying out stack sampling, electrical points and all other necessary arrangements including ladder as indicated in Annexure-II.
3. The Occupier shall upgrade/modify/replace the control equipment with prior permission of the Board.

C. WATER CESS:

1. The Occupier shall provide water meter at all the intake points as specified under Section (5) of the Water Cess Act, 1977 and shall file the Water Cess returns regularly and also pay the Cess assessed with the time stipulated.

D. MONITORING & REPORTING:

1. The occupier shall get the samples of effluents & emissions collected and get them analyzed once a month/once in 15 days for the parameters.

E. SOLID WASTE (OTHER THAN HAZARDOUS WASTE) DISPOSAL:

1. The Occupier shall segregate solid waste from Hazardous Waste, Municipal Solid Waste and store it properly till treatment/disposal without causing pollution to the surrounding Environment.
2. The solid waste generated shall be handled & disposed by scientific method without causing eye sore to the general public and to the surrounding environment.

F. NOISE POLLUTION CONTROL:

1. The industry shall ensure that the ambient noise levels within its premises will not exceed the limits i.e 75 dB(A) Leq during day time and 70 dB(A) Leq during night time as specified in the Environment (Protection) Rules.

Page 3 e_subwcrno1423-24/05/2016 e-signed Printed through X2M ENVIRONMENTAL OFFICER



**Consent For Operation
(CFO-Air/Water)**

PCB ID: 28856

Consent No. AW-102847
Valid upto: 27/09/2017

Karnataka State Pollution Control Board
- Davangere
Plot No. 501, C-Block,
Near Central excise & Customs Office Bypass
Davangere-577006
Tel : 08192-252895

(This document contains 6 pages including annexure)

G. GENERAL CONDITIONS:

1. The Board reserves the right to review, impose additional conditions, revoke, change or alter terms and conditions of this consent
2. The Occupier shall forthwith keep the Board informed of any accidental discharge of emissions/effluents into the atmosphere in excess of the standards laid down by the Board. The applicant shall also take corrective steps to mitigate the impact.
3. The Occupier shall provide alternative power supply sufficient to operate all Pollution control equipments.
4. The entire premises shall always be kept clean. The effluent holding area, inspection chambers, outlets, flow measuring points should be made easily approachable.
5. The Occupier shall display the consent granted in a prominent place for perusal of the inspecting officers of the Board.
6. The Occupier his heirs, legal representatives or assigns shall have no claims what so ever to the continuation or renewal of this consent after expiry of the validity of consent.
7. The Occupier shall make an application for consent at least 45 days before expiry of this consent.
8. The occupier shall maintain register recording the ambient air quality and stack monitoring. The register shall be open for inspection by the Board Officers at all time.

For and on behalf of the
Karnataka State Pollution Control Board



MANJUNATH KS - Environmental
Officer

Annexure-1

Sno	Characteristics	Tolerance Limits
1	Colour and Odour	See Note
2	Suspended Solids, mg/l, max	30
3	Bio-chemical Oxygen Demand, mg/l, max (3 days at 27 deg.Centigrade)	20

Note: All efforts should be made to remove colour and unpleasant odour as far as practicable.



**Consent For Operation
(CFO-Air,Water)**

PCB ID: 29556

Consent No. AW-102847
Valid upto: 27/09/2017

Karnataka State Pollution Control Board
- Davanagere
Plot No. 501, C-Block,
Near Central excise & Customs Office Devraj srs layout,
Davanagere-577006
Tele : 08192-252895

(This document contains 6 pages including annexure)

Annexure-II

Chim.No.	Chimney attached to	KVA Rating/ Capacity	Minimum chimney height to be provided above ground level (in Mtr)	Constituents to be controlled in the emission	Tolerance limits mg/NM3	Air pollution Control equipment to be installed, in addition to chimney height as per col.(4)	Date on which air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.
	I D.G. Sets	63 KVA	3	---	---	AEC	---

Note:

AEC : Acoustic Enclosure

Note:

1. The Noise levels within the premises shall not exceed 75 dB (A) leq during day time and 70 dB(A) leq during night time respectively.
2. The DG set shall be provided with acoustic measures as per Sl.No 84 in Schedule-I of Environment Protection Rules.
3. There shall be no smell or odour nuisance from the industry.



**Consent For Operation
(CFO-Air,Water)**

PCB ID: 29856

Consent No. AWF-102647
Valid upto: 27/09/2017

Karnataka State Pollution Control Board
- Davangere

Plot No. 501, C-Block,
Near Central excise & Customs Office Devraj new layout,
Davangere-577006
Tele : 08192-252895

(This document contains 6 pages including annexure)

LOCATION OF SAMPLING PORTHOLES, THE PLATFORMS, THE ELECTRICAL OUTLET.

1. Location of Portholes and approach platform:

Portholes shall be provided for all chimneys, stacks and other sources of emission. These shall serve as the sampling points. The sampling point should be located at a distance equal to atleast eight times the stack or duct diameter downstream and two diameters upstream from source of low disturbance such

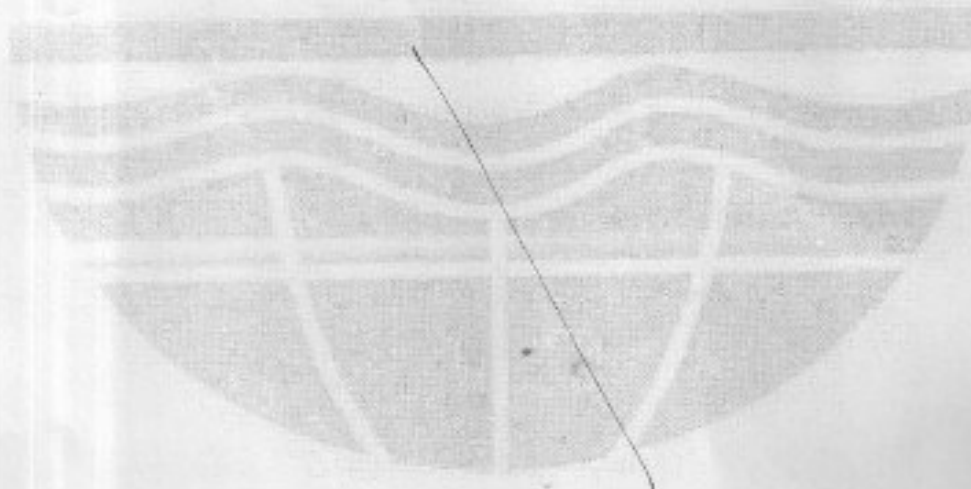
as

a Bend, Expansion, Constriction Valve, Fitting or Visible Flame for rectangular stacks, the equivalent diameter can be calculated from the following equation:


$$\text{Equivalent Diameter} = \frac{2 (\text{Length} \times \text{Width})}{(\text{Length} + \text{Width})}$$

2. The diameter of the sampling port should not be less than 3". Arrangements should be made so that the porthole is closed firmly during the period when it is not used for sampling.

3. An easily accessible platform to accommodate 3 to 4 persons to conveniently monitor the stack emission from the portholes shall be provided. Arrangements for an Electric Outlet Point of 230 V 15 A with suitable switch control and 3 Pin Point shall be provided at the Porthole location.



Consent to Operate for Concrete Batching Plant – Davangere 5 MLD STP site

	Consent For Operation (CEQ-Air,Water)	Karnataka State Pollution Control Board - Davangere Plot No. 501, C-Block, Near Central excise & Customs Office Devraj urs layout, Davangere-577006 Tele : 08192-253895
	PCB ID: 20655	
	Consent No. AW-102648 Valid upto: 27/09/2017	
(This document contains 6 pages including annexure)		

Combined Consent Order No: AW-102648 Date: 24/05/2016

Combined consent for discharge of effluents under the Water (Prevention and Control of Pollution) Act, 1974 and emission under Air (Prevention and Control of Pollution) Act, 1981

- Ref: 1. Application filed by the industry / organization on 17/06/2016
 2. Inspection of the industry/organization by RO, - Davangere on 17/06/2016

Consent is hereby granted under Section 25(4) of the Water (Prevention & Control of Pollution) Act, 1974 (herein referred to as the Water Act) & Section 21 of Air (Prevention & Control of Pollution) Act, 1981, (herein referred to as the Air Act) and the Rules and Orders made there under and subject to the terms and conditions as detailed in the Schedule Annexed to this order.

The Occupier is authorized to operate /carryout industry/activity & to make discharge of the effluents & emissions conforming to the stipulated standards from the premises mentioned below:

Location:

Name of the Industry: Hnb Engineers Pvt. Ltd.,
 Address: Sy. No. 1D, 374/1, Avaragere Village, Davangere-Tq & Dist
 Industrial Area: Not in I.A, Avaragere,
 Taluk: Davangere, District: Davangere

Discharge of effluents under the Water Act:

Sr	Water Code	WE(KLD)	WW(KLD)	Remark
1	Domestic Purposes	3.500	2.800	DOMESTIC WASTEWATER IS BEING DISCHARGED INTO SEPTIC TANK AND SOAK PIT.
2	Manufacturing Processes	100.000	0.000	WATER USED FOR CONCRETE MIXING. THERE IS NO GENERATION OF TRADE EFFLUENTS.

Discharge of Air emissions under the Air Act from the following stacks etc.

Sl. No.	Description of chimney/outlet	Limits specified refer schedule
The details of sources, control equipments and its specification, type of fuel, rate of emissions, constituents to be controlled in emissions etc. are detailed in Annexure-I.		

This consent is issued considering the manufacture of Ready mix cement concrete / activity.

Sr	Product Name	Applied Qty/Month	Unit
1	CEMENT CONCRETE	18000.0000	CUH
2	SOIL, GRAVEL, STONES	0.000	CBM



**Consent For Operation
(CFO-Air,Water)**

PCB ID: 29855

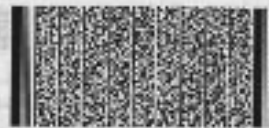
Consent No. AW-102648
Valid upto: 27/09/2017

Karnataka State Pollution Control Board
- Davanagere
Plot No. 501, C-Block,
Near Central excise & Customs Office Devraj ara layout,
Davanagere-577006
Tele : 08193-252895

(This document contains 6 pages including annexure)

This consent is valid for the period from 17/05/2016 to 27/09/2017

For and on behalf of the
Karnataka State Pollution Control Board



MANJUNATH KS - Environmental
Officer

To,

Hnb Engineers Pvt. Ltd.,
HNB Engineers Pvt. Ltd.,
#337D/11-12, MCC B Block,
Shamanur Road, Near
Lakshmi Floor, HNB,
Davanagere

NOTE:

The following Conditions NI mentioned above are not applicable.

COPY TO:

1. Master Register.
2. Case file.

1. Consent Fee paid : Rs. 12000



**Consent For Operation
(CFO-Air,Water)**

PCB ID: 29665

Consent No. AW-102648
Valid upto: 27/09/2017

Karnataka State Pollution Control Board

- Davanagere

Plot No. 501, C-Block,

Near Central excise & Customs Office Devraj urs layout,

Davanagere-577016

Tele : 08192-252095

(This document contains 6 pages including annexure)

SCHEDULE

TERMS AND CONDITIONS

A. TREATMENT AND DISPOSAL OF EFFLUENTS UNDER THE WATER ACT.

1. The discharge from the premises of the occupier shall pass through the terminal manhole/manholes where from the Board shall be free to collect samples in accordance with the provisions of the Act/Rules made there under.

2. The sewage/domestic effluent shall be treated in septic tank and with soak pit. No overflow from the soak pit is allowed. The septic tank and soak pit shall be as per IS 2470 Part-I & Part-II.

OR

3. The treated sewage effluent discharged shall conform to the standards specified in Annexure-I.

4. The occupier shall install flow measuring/recording devices to record the discharge quantity and maintain the record.

5. The occupier shall not change or alter either the quality or the quantity or the place of discharge or temperature or the point of discharge without the previous consent/ permission of the Board.

6. The Occupier shall not allow the discharge from the other premises to mix with the discharge from his premises. Storm water shall not be allowed to mix with the effluents on the upstream of the terminal manhole where the flow measuring devices are installed.

7. Domestic Sewage shall be discharged to Underground drainage System/ Sewers owned by Local body.

B. EMISSIONS:

1. The discharge of emissions from the premises of the applicant shall pass through the air pollution control equipment and discharged through stacks/chimneys mentioned in Annexure-I where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under.

2. The occupier shall provide part holes for sampling of emission, access platforms for carrying out stack sampling, electrical points and all other necessary arrangements including ladder as indicated in Annexure-II.

3. The Occupier shall upgrade/modify/replace the control equipment with prior permission of the Board.

C. WATER CESS:

1. The Occupier shall provide water meter at all the intake points as specified under Section (5) of the Water Cess Act, 1977 and shall file the Water Cess returns regularly and also pay the Cess assessed with the time stipulated.

D. MONITORING & REPORTING:

1. The occupier shall get the samples of effluents & emissions collected and get them analyzed once a month/once in 15 days for the parameters.



**Consent For Operation
(CFO-Air,Water)**

PCB ID: 28055

Consent No. AW-102648
Valid upto: 27/08/2017

Karnataka State Pollution Control Board
- Davangere
Plot No. 501, C-Block,
Near Central excise & Customs Office Devraj urs layout,
Davangere-577006
Tele : 08192-252895

(This document contains 6 pages including annexure)

E. SOLID WASTE (OTHER THAN HAZARDOUS WASTE) DISPOSAL:

1. The Occupier shall segregate solid waste from Hazardous Waste, Municipal Solid Waste and store it properly till treatment/disposal without causing pollution to the surrounding Environment.
2. The solid waste generated shall be handled & disposed by scientific method without causing eye sore to the general public and to the surrounding environment.

F. NOISE POLLUTION CONTROL:

1. The industry shall ensure that the ambient noise levels within its premises will not exceed the limits i.e 75 dB(A) Leq during day time and 70 dB(A) Leq during night time as specified in the Environment (Protection) Rules.

G. GENERAL CONDITIONS:

1. The Board reserves the right to review, impose additional conditions, revoke, change or alter terms and conditions of this consent.
2. The Occupier shall forthwith keep the Board informed of any accidental discharge of emissions/effluents into the atmosphere in excess of the standards laid down by the Board. The applicant shall also take corrective steps to mitigate the impact.
3. The Occupier shall provide alternative power supply sufficient to operate all Pollution control equipments.
4. The entire premises shall always be kept clean. The effluent holding area, inspection chambers, outlets, flow measuring points should made easily approachable.
5. The Occupier shall display the consent granted in a prominent place for perusal of the inspecting officers of the Board.
6. The Occupier his heirs, legal representatives or assigns shall have no claims what so ever to the continuation or renewal of this consent after expiry of the validity of consent.
7. The Occupier shall make an application for consent at least 45 days before expiry of this consent.
8. The occupier shall maintain register recording the ambient air quality and stack monitoring. The register shall be open for inspection by the Board Officers at all time.

For and on behalf of the
Karnataka State Pollution Control Board



**Consent For Operation
(CFO-Air,Water)**

PCB ID: 26005

Consent No. AW-102648
Valid upto: 27/09/2017

Karnataka State Pollution Control Board
- Davangere
Plot No. 501, C-Block,
Near Central excise & Customs Office Devraj Urs Layout,
Davangere-577006
Tele : 08192-252895

(This document contains 6 pages including annexure)



MANJUNATH KS - Environmental
Officer

Annexure-I

S/no	Characteristics	Tolerance Limits
1	Colour and Odour	See Note
2	Suspended Solids, mg/l max	30
3	Bio-chemical Oxygen Demand, mg/l, max (3 days at 27 deg/Centigrade)	20

Note: All efforts should be made to remove colour and unpleasant odour as far as practicable.

Annexure-II

Chim.No.	Chimney attached to	KVA Rating/ Capacity	Minimum chimney height to be provided above ground level (in Mtr)	Constituents to be controlled in the emission	Tolerance limits mg/NM3	Air pollution Control equipment to be installed in addition to chimney height as per col.(4)	Date on which air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.
1	D.G. Sets	15 KVA	3 --	--	--	AEC	--
2	D.G. Sets	100 KVA	5 --	--	--	AEC	--

Note:

AEC Acoustic Enclosures

Note:

- The Noise levels within the premises shall not exceed 75 dB (A) lq during day time and 70 dB(A) lq during night time respectively.
- The DG set shall be provided with acoustic measures as per Sl.No 94 in Schedule-I of Environment (Protection) Rules.
- There shall be no smell or odour nuisance from the industry.



**Consent For Operation
(CFO-Air,Water)**

PCB ID: 29655

Consent No. AW-102648
Valid upto: 27/09/2017

Karnataka State Pollution Control Board
- Davangere

Plot No. 501, C-Block,
Near Central excise & Customs Office Devraj Urs layout,
Davangere-577006
Tele : 08192-252895

(This document contains 6 pages including annexure)

LOCATION OF SAMPLING PORTHOLES, THE PLATFORMS, THE ELECTRICAL OUTLET,

1. Location of Portholes and approach platform:

Portholes shall be provided for all chimneys, stacks and other sources of emission. These shall serve as the sampling points. The sampling point should be located at a distance equal to atleast eight times the stack or duct diameters downstream and two diameters upstream from source of low disturbance such as a Bend, Expansion, Constriction Valve, Fitting or Visible Flame for rectangular stacks, the equivalent diameter can be calculated from the following equation.

$$\text{Equivalent Diameter} = \frac{2 (\text{Length} \times \text{Width})}{(\text{Length} + \text{Width})}$$

2. The diameter of the sampling port should not be less than 3". Arrangements should be made so that the porthole is closed firmly during the period when it is not used for sampling.
3. An easily accessible platform to accommodate 3 to 4 persons to conveniently monitor the stack emission from the portholes shall be provided. Arrangements for an Electric Outlet Point of 230 V 15 A with suitable switch control and 3 Pin Point shall be provided at the Porthole location.



[Handwritten Signature]

Sample Site Specific Environment Management Plan

Package: Davangere- Sewerage (Package: 01DVG01)

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
Climate	The nature and intensity of rainfall events in an area, has implications for storm water management. Smoke from burning activities could be wider spread on windy days especially when dust could be blown off site.	Seasonal climatic variations during scheduling of construction activities in the area will be followed.	HSE work permit system of the company followed.
Air Quality	Sensitive receptors (e.g. hospitals, schools, churches) may be affected temporarily by increased traffic and related impacts during the construction phase (from the proposed detour). Fugitive dust can also impact on roadside air quality during construction. Exhaust fumes from construction machinery, and potential smoke from cooking fires. Burning of waste and cleared vegetation Odours from use of toilet 'facilities' other than provided facilities.	Guidelines that deal with the control of air pollution and dusts as per Environmental Management Plan (EMP) have been followed Compliance with the Air Act. has been submitted. Compliance with emission standards have been conducted and report submitted to KUDIFC Air quality monitoring report for base line environment and during construction period is already submitted. Which will be continued during entire construction period Covering or damp down sand/ earth stockpiled at site will be maintained as per site condition Materials carrying vehicle suitably cover. Covering of materials carrying vehicles-reducing dust hazard Construction equipment and vehicles will be maintained regularly. Pollution Under Control Certificates have been collected and submitted for the vehicles presently engaged in project activity Open fires will be fully avoided at working sites Maintaining toilet in a clean state.	Air quality Monitoring data has been included in Environmental Monitoring Report
Drainage and hydrology	The proposed development is situated within an existing built up area. Due to the nature and locality of the subproject there is unlikely any significant impacts on water resources within the immediate area.	The site surface has been engineered and shaped in such a way that rapid and efficient evacuation of runoff is achieved. No major ground disturbance has been observed till now Waste management practices will be maintained Transport, storage, handling and disposal of hazardous substances will be done as per prevailing laws and approval	

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
Biodiversity Fauna and Flora	The proposed development is situated within an existing built up area. No areas of ecological diversity occur within the subproject location. Due to the nature and locality of the subproject there is unlikely to any significant impacts on biodiversity within the area .	of concerned authority Permission will be obtained from the Division Forest Office for the cutting/ felling of trees if required Landscaping will be undertaken with locally indigenous species and low maintenance requirements.	
Land Uses	Due to the location and nature of the subproject, there will be interference with access Existing public transport facilities and operations will be affected by the road closure and detours. Shops and establishments are located along the transmission mains alignment therefore will need to be relocated during construction. This may impact on livelihoods. There will be disruptions to health services, education services, local businesses, transport services, pedestrian movements, due to traffic and construction related noise, visual, and air pollution.	Project executing agency and consultant have consulted with various organizations, departments, etc within the area and will be continued during the construction phase. Caution board has been display at all site location to aware people Walkways and metal sheets provided if required to maintain access across for people and vehicles. Workforce will be increased in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools. Businesses and institutions consulted regarding operating hours and factoring this in work schedules.	
Infrastructure and Services	There is likely to have temporary disruption of infrastructure and services during the pipe laying There are a number of existing infrastructure and services (roads, telecommunication lines, power lines and various pipelines within the vicinity of the subproject.	Utility shifting will be done by utility agency prior to commencing pipe laying at new location. Keep construction-related disturbances to a minimum. Affected service providers will be consulted regarding impacts on access to infrastructure and services and alternatives. Affected communities or businesses will be consulted prior to foreseeable disruptions, for example notifying residents of a temporary severance of water supply. Executing agency and consultant have consulted with various organizations, departments, to provide access points for infrastructures and services.	


Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
		Regular monitoring and resolving the complaints by the public will be done by company/KUDIFC/ GKW	
Traffic	<p>Increased volume of construction vehicles on the roads may lead to increased wear and tear of roads in the vicinity of the subproject site.</p> <p>Road safety concerns due to slow moving construction vehicles.</p> <p>Traffic flow within the vicinity will be affected.</p> <p>The temporary road closure will result in a decrease in overall network performance in terms of queuing delay, travel times/speeds.</p> <p>The road closure will impact on a public transport operations and routing.</p> <p>On street parking and loading bays will be affected by the proposed road closure.</p> <p>Pedestrian movements will be affected by the road closure.</p>	<p>Traffic Management Plan is prepared. TMP ensured safety of all the road-users along the work zone and to address: (i) protection of work crews from hazards associated with moving traffic; (ii) mitigation of the adverse impact to the road capacity and delays to the road-users; (iii) maintenance of access to adjoining properties; and (iv) issues that may delay the subproject works.</p> <p>Schedule transport and hauling activities will be plan during non-peak hours</p> <p>Site will be free from all unnecessary obstructions.</p> <p>Affected sensitive receptors if any will be notified by providing sign boards informing nature and duration of construction works</p> <p>Privately-owned public transport operators will be negotiated regarding the affected public transport facilities and routing.</p> <p>Business owners and social service operations will be negotiated regarding the loss of parking and loading bays.</p> <p>Clear roads signs has been arranged and to be maintained for the full length of the construction period.</p> <p>All working sites barricaded</p> <p>Construction area clearly defined</p> <p>Deliveries during peak traffic hours will be not allowed</p>	Before starting of any particular project site on the road TMP needs to be approved from KUDIFC/ PMDCSC Engineer.
Health and Safety	<p>Danger of construction related injuries.</p> <p>Open fires in construction camp can result in accidents</p> <p>Safety of workers and general public must be ensured.</p> <p>Poor waste management practices and unhygienic conditions at temporary ablution facilities can breed diseases.</p> <p>Standing water due to inadequate storm water drainage systems, inadequate waste management practices, pose a health hazard to providing breeding grounds for disease vectors such as mosquitoes, flies and snails.</p>	<p>Implement good housekeeping practices at the site office, working area.</p> <p>Strictly implemented health and safety measures and audit on a regular basis.</p> <p>Construction site – particularly excavated area already barricaded and defined by safety caution tape.</p> <p>Thoroughly trained workers assigned to dangerous equipment.</p> <p>Waste management practices will be well undertaken</p> <p>Speed and movement of construction vehicles restricted</p> <p>Personal Protective Equipment are provided to all workers</p> <p>Visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas have been ensured</p>	Company's health and safety guidelines will be followed


Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
		<p>First Aid system available at working sites</p> <p>Medical insurance provided to workers</p> <p>Drinking water arranged at working sites</p> <p>Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.</p>	
Noise and Vibrations	<p>Sensitive receptors (hospitals, schools, religious places) may be affected temporarily by increased traffic and related impacts</p> <p>Use of heavy vehicles and equipment may generate high levels of noise.</p> <p>Vibrations resulting from bulk earthworks, and compaction may create significant disturbances to nearby people and businesses.</p> <p>Disturbance from afterhours work.</p>	<p>Construction activities to be restricted at reasonable working hours near any sensitive receptors.</p> <p>Adjacent landowners will be informed about noisy activities</p> <p>Ensured that machinery in a good state of maintenance.</p> <p>Maintenance of silencers to all machinery is ensured</p> <p>Base line and during construction noise level monitoring has been conducted near project sites</p>	Noise level Monitoring have been done
Aesthetics, Landscape Character, and Sense of Place	The presence of heavy duty vehicles and equipment, temporary structures at site office, stockpiles, may result in impacts on aesthetics and landscape character	<p>Storage areas fenced properly.</p> <p>Solid waste will be manage according to the following preference hierarchy: reuse, recycling and disposal to designated areas</p> <p>Removal of all wreckage, rubbish from the sites done at earliest</p> <p>Waste dispose at suitable location after taken permission from PIU/ PMDCSC</p> <p>Unwanted material and litter will be remove at certain intervals</p>	Excavated soils are utilized for filling purpose.
Construction camps	Affect local environment – soil, air, noise and impact on vegetation	Toilet, drinking water facility arranged	
Workers Conduct	Construction workers on site disrupting adjacent land uses by creating noise, generating litter, and possible loitering.	<p>Ensured strict control of labourers</p> <p>Working hours fixed as per rules</p> <p>Littering at project sites is being avoided</p> <p>Overnight accommodation will be provided as per requirement.</p>	Company policy followed
Employment Generation	The subproject will provide employment opportunities for local people during construction.	<p>Local Workers/labourers are engaged at site</p> <p>Construction materials will be procured from local market</p>	

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
	<p>Expectations regarding new employment will be high especially among the unemployed individuals in the area.</p> <p>Labor gathering at the site for work can be a safety and security issue, and must be avoided.</p> <p>The training of unskilled or previously unemployed persons will add to the skills base of the area.</p>		
Archaeological and Cultural Characteristics	The proposed development will not require demolition of ASI- or state-protected monuments and buildings	There is no Heritage or archaeological protected sites. Construction staff members would be aware of the likelihood of heritage resources being unearthed and of the scientific importance of such discoveries.	
Social Impacts	Impact on local social environment	Restrict activities and movement of staff to designated construction areas.	

Ambient Air Quality and Noise Level – Sample result certificates

Air and Noise Quality-Davangere Sewerage





NTLR
NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED

NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED
 15, 5182 (Part 14), 2006
 (Pavement), 2006
 (Pavement), 2006
 (Pavement), 2006

Form No: NTLR/001/16

Page 1 of 1

TEST REPORT

Name of Customer and Address:
 SIMPLEX INFRASTRUCTURE LIMITED
 DAVANGERE SEWERAGE PROJECT
 Door No.111,3rd Main, 1st Cross,
 Backside of More Shop, S. Nagarajapuram Layout,
 Davangere – 577 004

Sampling Location:
 2nd Main, Vinodha Nagar.

Sample Number: JUNE/2016-17/631
Type of Sample: Air - AMBIENT
Sample Collected by: Nicherome Testing Laboratory and Research Private Limited
 15, 5182 (Part 14), 2006
 (Pavement), 2006
Sampling Method: Respirable Dust Sampler (APM 400 R) /
 Fine Particulate Sampler
Particulars of Sample Collected: Normal
Environmental Conditions: 24/06/2016
City of Collection: 24/06/2016
Date of Sample Collection: 25/06/2016
Date of Analysis started: 27/06/2016
Date of Completion: 27/06/2016
Date of Report: 01/07/2016
Customer Reference: 01/07/2016/11-000/AVL-01/18 Site: 22/06/20
Method used: South West


RESULTS

Sl. NO	PARAMETERS	TEST METHOD	UNIT	DURATION OF MONITORING	RESULT	NAAQ STANDARDS
1	PM ₁₀	IS 5110 (Part 73) : 2006 (IA 2012)	µg/m ³	24 Hrs	16.95	100
2	PM _{2.5}	Lab SOP No: NTLR/SOP/27	µg/m ³	24 Hrs	10.74	60
3	Sulphur Dioxide	IS 5182 (Part 2) : 2006 (IA 2006)	µg/m ³	24 Hrs	4.66	00
4	Nitrogen Dioxide	IS 5182 (Part 6) : 2006 (IA 2012)	µg/m ³	24 Hrs	9.95	80

Inference as per NAAQ Standards

Above listed parameters conforming to standards.

(Signature)
Authorized Signatory
V. H. Hugar (Technical Manager)



— END OF REPORT —

Note :
 1. The results listed here are for the sample collected on the date and time specified. 2. The results are for the sample collected on the date and time specified. 3. The results are for the sample collected on the date and time specified. 4. The results are for the sample collected on the date and time specified. 5. The results are for the sample collected on the date and time specified. 6. The results are for the sample collected on the date and time specified. 7. The results are for the sample collected on the date and time specified. 8. The results are for the sample collected on the date and time specified. 9. The results are for the sample collected on the date and time specified. 10. The results are for the sample collected on the date and time specified.



CIN: U72900KA2011PT000810

NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED

14, JAYALAKSHMI ROAD, SIDDHAPUR ENCLAVE, CHENNAI 600 017
 Tel: 9845 2715 154 (Office) and 9845 2715 155 (Mobile)

TESTING SERVICES, ENVIRONMENTAL CONSULTANTS

DR. S. SURESH K. ANANDARAMAN, CHAIRMAN
 IAS, BANGALORE, DEPT. OF HORTICULTURE, KARNATAKA

Form No: NTLR/023/05

Page 1 of 1

TEST REPORT

Name of Customer and Address:
 SIMPLEX INFRASTRUCTURE LIMITED
 DAVANGERE SEWERAGE PROJECT
 Door No. 314, 3rd Main, 1st Cross,
 Backside of More Shop, S. Nijalingappa Layout,
 Davangere – 577 001

Sampling Location:
 P.B. Road, Near Avarappere Bus stop

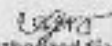
Sample Number: JUNE/2016-17/632
Type of Sample: AIR - AMBIENT
Sample Collected by: Nichrome Testing Laboratory and Research Private Limited
Sampling Method: IS 5182 (Part 14): 2006 (Reaffirmed: 2006)
Particulars of Sample Collected: Respirable Dust Sampler (AFM 460 BL)/ Fine Particulate Sampler
Environmental Condition: Normal
Date of Collection: 24/06/2016
Date of Sample receipt: 24/06/2016
Date of Analysis started: 25/06/2016
Date of Completion: 27/06/2016
Date of Report: 27/06/2016
Customer Reference: 012/DV5/OTH/001/VOL-01/58 Date: 22/06/20
Wind Direction: South West

RESULTS

SL. NO	PARAMETERS	TEST METHOD	UNIT	DURATION OF MONITORING	RESULT	NAAQ STANDARDS
1	PM ₁₀	IS 5182 (Part 23): 2006 (RA 2012)	µg/m ³	24 Hrs	72.64	100
2	PM _{2.5}	Lab SOP No: NTLR/SOP/17	µg/m ³	24 Hrs	41.34	60
3	Sulphur di Oxide	IS 5182 (Part 2): 2001 (RA 2006)	µg/m ³	24 Hrs	4.65	80
4	Nitrogen di Oxide	IS 5182 (Part 6): 2006 (RA 2012)	µg/m ³	24 Hrs	9.94	80

Inference as per NAAC Standards

Above tested parameters conforming to standards.


 Authorized Signatory
V. H. Hugar (Technical Manager)



< END OF REPORT >

Note:

1. The results listed above pertain only to the tested samples and applicable parameters. 2. Samples which are damaged/unusable will be disposed immediately after testing and others will be disposed after 15 days from the date of issue of test report unless otherwise specified. 3. Total liability of our laboratory is limited to the invoiced amount. 4. This report is not to be reproduced either wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without prior written permission. Subject to this and in addition. 5. Sampling is not done by us unless otherwise specified. 6. Any discrepancy in the test report should be notified within 15 days.



NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED

116, 4th Cross, Basavanthnagar, Hyderabad - 500004
Ph: 080-2318-8378, 080-2318-8379
7200WS SERVICES, ENGINEERING & CONSULTANTS
www.nichrome.com, www.nichrome.com/ntlr
INDIA REGISTERED OFFICE OF PARTICULATE CONTROL

Formal No: NTLR/TS-1/01

Page 1 of 1

TEST REPORT

Name of Customer and Address:
SIMPLEX INFRASTRUCTURE LIMITED
DAVANGERE SEWERAGE PROJECT
Door No.314,3rd Main,1st Cross,
Backside of Moro Shop,S.Nijalingappa Layout,
Davangere – 577 004

Sampling Location:
P.B.Road, Avangere Bus stop.

Sample Number: JUNE/2016-17/634
Type of Sample: NOISE
Sample Collected by: Nichrome Testing Laboratory and Research Private Limited
Sampling method: IS:9589-1981 (Reaffirmed 2001)
Particulars of sample collected: Sound level meter
Environmental Condition: Normal
Date of Collection: 24/05/2016
Date of Sample receipt: 24/05/2016
Date of Analysis started: 24/05/2016
Date of Completion: 25/05/2016
Date of report: 27/05/2016
Customer Reference: 012/DWG/DTI/001/VOL-01/54
Date: 27/05/2016

RESULTS

SL. NO.	TEST METHOD	TIME FREQUENCY	PARAMETERS		
			L Min. (dB)	L Max. (dB)	L _{eq} dB (A)
1	IS:9589-1981 (Reaffirmed 2001)	11:20 am to 11:35 am	68.2	80.3	72.9

KSPCB limits for Day time = 75 dB (A) L_{eq}, Night Time (9.00 PM to 6.00 AM) limits = 70 dB (A) L_{eq}

Inference as per KSPCB Standards	Above tested parameters conforming to standards.
----------------------------------	--

Authorized Signatory
V. H. Hugar (Technical Manager)



END OF REPORT-

Note:

- The results listed above pertain only to the tested parameters and applicable parameters. 2. Samples which are rejected due to insufficient weight or other reasons shall be replaced at the cost of the client after retesting and charges will be levied after 15 days from the date of issue of the report, unless otherwise specified. 3. Total liability of our laboratory is limited to the actual amount. 4. This report is not to be reproduced either wholly or in part and/or not to be used in evidence in the court of law and should not be used in any advertising media without prior written permission. Subject to Disposal Clause (4). 5. Sampling is not done by us unless otherwise specified. 6. Any discrepancy in the test report should be notified within 15 days.



NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED

ITS ADDRESS: 20/11/12, 100 STREET, 4TH FLOOR, CHENNAI - 600 004
 TEL: 044 - 20112 100 STREET AND 4TH FLOOR @ 100/100
 TESTING SERVICES, ENGINEERS & CONSULTANTS
 CHENNAI OFFICE: 20/11/12, 100 STREET, 4TH FLOOR, CHENNAI - 600 004
 BANGALORE OFFICE: DEPT. OF AGRICULTURE, BANG.

Format No: NTLR/T/34/05

Page 1 of 1

TEST REPORT

Name of Customer and Address:
 SIMPLEX INFRASTRUCTURE LIMITED
 DAVANGERE SEWERAGE PROJECT
 Door No.314,3rd Main,1st Cross,
 Backside of More Shop,S.Nijalingappa Layout,
 Davangere - 577 004

Sampling Location:
 Jayanagar 'B' Block, Opp to Church.

Sample Number: JUNE/2016-17/635
Type of Sample: NOISE
Sample Collected by: Nichrome Testing Laboratory and Research Private Limited
Sampling Method: IS:9889-1981(Reaffirmed 2001)
Particulars of Sample Collected: Sound level meter
Environment/Condition: Normal
Date of Collection: 24/06/2016
Date of Sample receipt: 24/06/2016
Date of Analysis started: 24/06/2016
Date of Completion: 25/06/2016
Date of Report: 27/06/2016
Customer Reference: 012/DVG/OTM/001/VOL-01/58
 Date:22/06/2016

RESULTS

Sl. NO.	TEST METHOD	TIME FREQUENCY	PARAMETERS		
			L Min. (dB)	L Max. (dB)	L _{eq} dB (A)
1	IS-9889-1981 (Reaffirmed 2001)	12:30 pm to 12:45 pm	69.8	74.5	71.5

KSPCB Limits for Day time = 75 dB (A) L_{eq}, Night Time (9.00 PM to 6.00 AM) Limits = 70 dB (A) L_{eq}

Inference as per KSPCB Standards:	Above tested parameters confirming to standards.
-----------------------------------	--

(Signature)
 Authorized Signatory
 V. H. Hugar (Technical Manager)








- END OF REPORT -

Note:

- The results listed above pertain only to the tested samples and applicable parameters.
- Sample which are degradable/stable will be disposed immediately after testing and others will be disposed after 15 days from the date of issue of test report unless otherwise specified.
- Liability of our laboratory is limited to the views expressed.
- This report and to be reproduced in their whole or in part and cannot be used as evidence in the court of law and should not be used in any advertisement without prior written permission subject to onward jurisdiction.
- Sampling is not done by us unless otherwise specified.
- Any discrepancy in the test report should be notified within 15 days.

Air and Noise Quality-Davangere Sewage Treatment Plant



NTLR
CORPORATE OFFICE

NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED
115, JAYDEVI BUILDING ROAD, NARAYANAPUR, CHENNAI - 600048
PH: 044-27115152, 27115153, 27115154, 27115155, 27115156
TESTING SERVICES, ENGINEERS & CONSULTANTS
CHENNAI OFFICE: 115, JAYDEVI ROAD, NARAYANAPUR, CHENNAI - 600048
UAE BRANCH: DEPT. OF HORTICULTURE, GOV.

Format No: NTLR/13/05

Page 1 of 1

TEST REPORT

Name of Customer and Address:
M/S.HNB Engineers Pvt Ltd.,
3370/11-12 1st Cross MCC-B Block,
Shamanur Road Near Lakshmi Flour Mill
Davangere - 577004

Sampling Location:
Near 20 MLD STP Plant

Sample Number: JUNE/2016-17/S17
Type of Sample: AIR - AMBIENT
Sample Collected by: Nichrome Testing Laboratory and Research Private Limited
Sampling Method: IS -5182 (Part 14): 2000 (Reaffirmed, 2005)
Particulars of Sample Collected: Ecotech AAS271 Combo PM10 and PM2.5 Sampler
Environmental Condition: Normal
Date of Collection: 21/06/2016
Date of Sample receipt: 21/06/2016
Date of Analysis started: 22/06/2016
Date of Completion: 23/06/2016
Date of Report: 24/06/2016
Customer Reference: WD No : 7 Date: 01/12/2015
Wind Direction: South West


RESULTS

SL. NO	PARAMETERS	TEST METHOD	UNIT	DURATION OF MONITORING	RESULT	NAAQ STANDARDS
1	PM ₁₀	IS 5182 (Part 23) : 2006 (RA 2012)	µg/m ³	8 Hrs	57.33	100
2	PM _{2.5}	Lab SOP No : NTLR/SOP/S7	µg/m ³	8 Hrs	29.86	60
3	Sulphur di Oxide	IS 5182 (Part 2) : 2001 (RA 2006)	µg/m ³	8 Hrs	4.66	80
4	Nitrogen di Oxide	IS 5182 (Part 6) : 2006 (RA 2012)	µg/m ³	8 Hrs	9.63	80

Inference as per NAAQ Standards

Above tested parameters confirming to standards.

V. K. Hugar
Authorized Signatory
V. K. Hugar (Technical Manager)



- END OF REPORT -

Note :

1. The results listed above pertain only to the tested samples and applicable parameters. 2. Samples which are degradable/unstable will be disposed immediately after testing and others will be disposed after 15 days from the date of issue of test report unless otherwise specified. 3. Total liability of our laboratory is limited to the invoiced amount. 4. This report is not to be reproduced either wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without prior written permission. Subject to Olanwad Jurisdiction. 5. Sampling is not done by us unless otherwise specified. 6. Any discrepancy in the test report should be notified within 15 days.



Dir: U74900KA2013PTC000100

NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED

PL. JAYDEE BUNGALOW ROAD, WINDSORPURA, SHANMUG - 560048 BANGALORE
 Ph: 0886 - 201115, Fax: 079886, Email: nichrome@ntlr.com

TESTING SERVICES, ENGINEERS & CONSULTANTS

OTHER APPROVALS: KSPCB/KA/001, KUVASCO/KA/001, UAS, CHANNARA, DEPT. OF HORTICULTURE (SOK)

Format No: NTLR/F/34/05

Page 1 of 1

TEST REPORT

Name of Customer and Address:

M/S.HNB Engineers Pvt Ltd.,
 3370/11-12 1st Cross MCC-B Block,
 Shamanur Road Near Lakshmi Flour Mill
 Davanagere - 577004.

Sample Number:

JUNE/2016-17/519

Type of Sample:

NOISE

Sample Collected by:

Nichrome Testing Laboratory and
 Research Private Limited

Sampling Method:

IS:9989-1981(Reaffirmed 2001)

Particulars of Sample Collected:

Sound level meter

Environmental Condition:

Normal

Date of Collection:

21/06/2016

Date of Sample receipt:

21/06/2016

Date of Analysis started:

21/06/2016

Date of Completion:

22/06/2016

Date of Report:

23/06/2016

Customer Reference:

WO No : 7 Date 01/12/2015

Sampling Location:

Near 20 MLD STP Plant

RESULTS

SL. NO.	TEST METHOD	TIME FREQUENCY	PARAMETERS		
			L Min. (dB)	L Max. (dB)	L _{eq} dB (A)
1	IS:9989-1981 (Reaffirmed 2001)	03:15 pm to 03:30 pm	53.8	57.8	55.3

KSPCB Limits for Day time = 75 dB (A) L_{eq}, Night Time (9.00 PM to 6.00 AM) Limits = 70 dB (A) L_{eq}

Inference as per KSPCB Standards	Above tested parameters confirming to standards.
----------------------------------	--

V. H. Hugar
 Authorized Signatory
 V. H. Hugar (Technical Manager)



-< END OF REPORT ->

Note :

1. The results listed above pertain only to the tested samples and applicable parameters. 2. Samples which are degradable/unstable will be disposed immediately after testing and others will be disposed after 15 days from the date of issue of test report unless otherwise specified. 3. Total liability of our laboratory is limited to the invoiced amount. 4. This report is not to be reproduced either wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without prior written permission. Subject to Dharmad Jurisdiction. 5. Sampling is not done by us unless otherwise specified. 6. Any discrepancy in the test report should be notified within 15 days.

Air and Noise Quality-Harihar- Sewerage



NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED

170, 2ND MAIN, SARAYANPURA, DHARWAD - 589005 KARNATAKA
PH : 0836 - 2771115, FAX : 2779885, email : ntlabem@gmail.com
TESTING SERVICES, ENGINEERING & CONSULTANTS
OTHER APPROVALS/ISSUES (ISO/IAQWB08 (ISO),
LMS DHARWAD, DEPT. OF HORTICULTURE (ISO))

Format no:NTLR/F/33/04

Page 1 of 1

TEST REPORT

Name of Customer and Address :
SHRIRAM EPC LIMITED
No.18/3,Rukmani lakshmi pathy road,
Egmore, chennai-60008

Sample number:
Type of sample :

JUN/2016-17/151
AIR - AMBIENT

sample collected by :

Nichrome Testing laboratory and
Research Private Limited

sampling method:

IS : 5182(PART 14):2000
(Reaffirmed 2005)

Particulars of sample collected:

Respirable Dust Sampler (APM 460 BL)/
Fine Particulate Sampler

Environmental Condition:

Normal

Date of collection :

28/06/2016

Date of sample receipt:

28/06/2016

Date of Analysis started:

29/06/2016

Date of completion:

29/06/2016

Date of Report :

30/06/2016

Customer Reference :

237_WO No:100008797 Date: 30/04/2015

wind direction:

South West

Sampling location

STP,
Harihar

RESULTS

SL.NO	PARAMETERS	TEST METHOD	UNIT	DURATION OF MONITORING	RESULT	NAAQ STANDARDS
1	PM10	IS 5182 (Part 23) -2006	µg/m ³	24 Hrs	85.26	100
2	PM2.5	CPCB MANUAL	µg/m ³	24 Hrs	51.17	60
3	Sulphur di Oxide	IS 5182 (Part 2) -2001	µg/m ³	24 Hrs	4.20	80
4	Nitrogen di Oxide	IS 5182 (Part 6) -2006	µg/m ³	24 Hrs	9.27	80

Minimum reportable value for SO₂ - 4.0µg/m³ and NO₂ - 9.0µg/m³

Inference as per NAAQ Standards	The measured values for the above parameters are exceed the standard in case of PM10 & PM2.5
---------------------------------	--

V.H. Hugar
Authorized Signatory
V.H.Hugar(Technical Manager)



-END OF REPORT-

1. The results listed above pertain only to the tested samples and applicable parameters. 2. Samples which are degradable/unstable will be disposed immediately after testing and others will be disposed after 15 days from the test report unless otherwise specified. 3. Total liability of our laboratory is limited to the invoiced amount. 4. This report is not to be reproduced either wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without prior written permission. Subject to District jurisdiction. 5. Sampling is not done by unless otherwise specified. 6. Any discrepancy in the test report should be notified within 15 days.



ISO 9001:2008



ISO 14001:2004



KSPCB
Certificate No. T-1000



MINISTRY
Government of India



ISO/IEC 17025:2005

NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED

176, 2ND MAIN, BASANTAPUR, DHARWAD - 58002, KARNATAKA
PH : 0838 - 2771111, FAX : 2770085, email : nichrom@gmail.com
TESTING SERVICES, ENGINEERING & CONSULTANTS
OTHER APPROVALS: KSPCB, DHARWAD (2004),
IAS DHARWAD, DEPT. OF NOCT/STAT/EE (2004)

Format no NTLR/T/34/04

Page 1 of 1

TEST REPORT

Name of Customer and Address :
SHRIRAM EPC LIMITED
No.18/3,Rukmani lakshmpathy road,
Egmore,chennai-60008

Sample number:
Type of sample :

JUN/2016-17/134/1
NOISE

sample collected by :

Nichrome Testing laboratory and
Research Private Limited
IS : 5182(PART 14):2000
(Reaffirmed 2005)

sampling method:

Respirable Dust Sampler (APM 460 SL)
Fine Particulate Sampler

Particulars of sample collected:

Environmental Condition:

Normal

Date of collection :

28/06/2016

Date of sample receipt:

28/06/2016

Date of Analysis started:

29/06/2016

Date of completion:

29/06/2016

Date of Report :

30/06/2016

Customer Reference :

287/WO No:1100000797 Date: 30/04/2015

wind direction:

South West

Sampling location
STP,
Harihar

RESULTS

Sl.NO	TEST METHOD	TIME FREQUENCY	PARAMETERS		
			L Min.(dB)	L Max.(dB)	LEQ dB (A)
1	IS-9989-1981 (Reaffirmed 2001)	9:15am to 9:30am	58.00	67.50	62.75

KSPCB Limits for Day time = 75 dB (A) LEQ, Night Time (9.00PM to 6.00AM)Limits = 70 dB (A)

Inference as per KSPCB Standards	The measured values for the above parameters are within the standard as specified above.
----------------------------------	--

V.H. Hugar
Authorized Signatory
V.H.Hugar(Technical Manager)



-END OF REPORT-

1. The results listed above pertain only to the tested samples and applicable parameters. 2. Samples which are degradable/unstable will be disposed immediately after testing and others will be disposed after 15 days from the test report unless otherwise specified. 3. Total liability of our laboratory is limited to the invoiced amount. 4. This report is not to be reproduced either wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without prior written permission. Subject to Dharmad Jurisdiction. 5. Sampling is not done by unless otherwise specified. 6. Any discrepancy in the test report should be notified within 15 days.



ENTREPRENEURSHIP

NICHROME TESTING LABORATORY AND RESEARCH PRIVATE LIMITED

176, 2ND MAIN, NARAYANPUR, DHARWAD - 58008, KARNATAKA
PH : 9896 - 2771115, FAX : 2770985, email : rtothore@gmail.com

TESTING SERVICES, ENGINEERING & CONSULTANTS
(OTHER APPROVALS/ISSUES (ISO/EN/AS/NEN/BSI),
LAS DHARWAD, DEPT. OF HORTICULTURE (SOH)

Format no:NTLR/T/14/04

Page 1 of 1

TEST REPORT

Name of Customer and Address :

SHRIRAM EPC LIMITED
No.18/3,Rukmani lakshmi pathy road,
Egmore,chennai-60008

Sample number:

JUN/2016-17/134/2

Type of sample :

NOISE

sample collected by :

Nichrome Testing laboratory and
Research Private Limited

sampling method:

IS : 5182(PART 14)-2000
(Reaffirmed 2005)

Particulars of sample collected:

Respirable Dust Sampler (APM 860 BL)/
Fine Particulate Sampler

Environmental Condition:

Normal

Date of collection :

28/06/2016

Date of sample receipt:

28/06/2016

Date of Analysis started:

29/06/2016

Date of completion:

29/06/2016

Date of Report :

30/06/2016

Customer Reference :

237.WO No:1300008797 Date: 30/04/2015

wind direction:

South West

Sampling location

STP ,
Harlhar

RESULTS

Sl.NO	TEST METHOD	TIME FREQUENCY	PARAMETERS		
			L Min. (dB)	L Max. (dB)	L EQ cB (A)
1	IS 9989-1981 (Reaffirmed 2001)	10:00pm to 10:15pm	53.28	61.47	58.30

KSPCB Limits for Day time = 75 dB (A) LEQ, Night Time (9.00PM to 6.00AM)Limits = 70 dB (A)

Inference as per KSPCB Standards	The measured values for the above parameters are within the standard as specified above.
----------------------------------	--

V.H. Hugar
Authorized Signatory
V.H.Hugar(Technical Manager)



-END OF REPORT-

1. The results listed above pertain only to the tested samples and applicable parameters. 2. Samples which are degradable/unstable will be disposed immediately after testing and others will be disposed after 15 days from the test report unless otherwise specified. 3.Total liability of our laboratory is limited to the invoiced amount. 4. This report is not to be reproduced either wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without prior written permission subject to Dhawad jurisdiction. 5. Sampling is not done by unless otherwise specified. 6. Any discrepancy in the test report should be notified within 15 days.

Spoil Management Plan

SPOIL MANAGEMENT PLAN

M/S – SIMPLEX INFRASTRUCTURES LIMITED

Package: Davangere- Sewerage (Package: 01DVG01)

•INTRODUCTION OF SMP

SMP is to describe how the project will manage the spoil generated and reuse related to design and construction works. This is an integral part of EMP. The objective of SMP is to reuse of spoil from works.

•LEGAL AND OTHER REQUIRMENTS

In this project, there is no legal litigation at site for land and working area or site. Disposal of spoil will confirming the Environmental Protection Rules and Regulations of Govt. of India and The state Govt.

•ROLES AND RESPONSIBILITY

In this project, there are major roles and responsibilities are followings

- Extra excavated earth should be removed from site
- Traffic movement should not be obstructed by dumping soil during the work
- No low land, pond, ditch etc will be filled up by extra soil
- No accident occurs during rainy season by excavated earth during or finished the work
- All the drains, outlet should be free from our excavated earth

•SPOIL VOLUMES,CHARACTERISTICS AND MINIMIZATION

In this project, generation of excavated excess earth will be no plan to reuse in the project. As per report from soil expert excavated earth is clayey in nature. Generation of excavated earth would be minimize as per design

•SPOIL REUSES OPPORTUNITIES,IDENTIFICATION AND ASSESMENT

In this project, there is no opportunity to reuse of excavated earth; total excavated earth would be dispose as per plan. As required level and dressing to be done at the both work site and balance excess to be dispose as planned.

•ON SITE SPOIL MANAGEMENT APPROACH

In this project, the approach is ready where soils to be dispose

•SPOIL TRANSPORTATION METHODOLOGY

Extra excavated earth will be shifted by truck & Tractor Trolley from working site to disposal area if required after level and dressing.

•MONITORING,REPORTING,REVIEW,AND IMPROVEMENTS

Monitoring, Reporting and all necessary improvements will be done as per requirement.

SPOIL MANAGEMENT PLAN
M/S –Shriram EPC.Ltd

Package: Harihar Sewerage (01HRA01)

1. INTRODUCTION OF SMP

SMP is to describe how the project will manage the spoil generated and reuse related to design and construction works. This is an integral part of EMP. The objective of SMP is to reuse of spoil from works.

2. LEGAL AND OTHER REQUIRMENTS

In this project, there is no legal litigation at site for land and working area or site. Disposal of spoil will confirming the Environmental Protection Rules and Regulations of Govt. of India and The state Govt.

3. ROLES AND RESPONSIBILITY

In this project, there are major roles and responsibilities are followings

- 1) Extra excavated earth should be removed from site
- 2) Traffic movement should not be obstructed by dumping soil during the work
- 3) No low land, pond, ditch etc will be filled up by extra soil
- 4) No accident occurs during rainy season by excavated earth during or finished the work
- 5) All the drains, outlet should be free from our excavated earth

4. SPOIL VOLUMES.CHARACTERISTICS AND MINIMIZATION

In this project, generation of excavated excess earth will be no plan to reuse in the project. As per report from soil expert excavated earth is clayey in nature. Generation of excavated earth would be minimize as per design

5. SPOIL REUSES OPPORTUNITIES,IDENTIFICATION AND ASSESMENT

In this project, there is no opportunity to reuse of excavated earth; total excavated earth would be dispose as per plan. As required level and dressing to be done at the both work site and balance excess to be dispose as planned.

6. ON SITE SPOIL MANAGEMENT APPROACH

In this project, the approach is ready where soils to be dispose

7. SPOIL TRANSPORTATION METHODOLOGY

Extra **47.72 cum** excavated earth will be shifted by truck from working site to disposal area at STP if required after leveling and dressing.

8. MONITORING,REPORTING,REVIEW,AND IMPROVEMENTS

Monitoring, Reporting and all necessary improvements will be done as per requirement.

SPOIL MANAGEMENT PLAN
HNB Engineers

Name of Project: **DESIGN, SUPPLY, INSTALLATION & COMMISSIONING OF SEWAGE TREATMENT PLANTS –SEQUENTIAL BATCH REACTORS (SBR/CASP) OF 20 MLD CAPACITY IN DISTRICT 1 & 5 MLD CAPACITY IN DISTRICT 3 OF DAVANAGERE CITY CORPORATION INCLUDING OPERATION AND MAINTENANCE FOR THREE YEARS.**

1.0	Purpose
	To describe how the project will manage the spoil generated and reuse related to design and construction works.
2.0	Scope
	The procedure is applicable to HNB Engineers Pvt.Ltd., Davangere.
3.1	Responsibility
	Project In charge is responsible for its implementation. Corporate Head EHS is responsible for its review and modification.
3.2	RESPONSIBILITY AND AUTHORITY FOR EHS MANAGEMENT
	<p><u>RESPONSIBILITY</u> <u>Project In charge (PI)</u></p> <ul style="list-style-type: none"> • Ascertain that all plants and machinery utilized at the project site meets the safety standard and are safe for use. • Ensure that all personnel are aware of commitment to environmental protection and worker safety; <ol style="list-style-type: none"> 1. Ensure that safe system of work are implemented and maintained by the project Engineers / Supervisors / Foreman and employees at the work site. 2. Ensure that sufficient induction training for all employees and workers is given before commencement of work at site and subsequently for new inductees; 3. Undertake program of regular EHS Inspection at site. 4. Arrange Site EHS Management Review Meeting. <p><u>Site Engineers/Supervisors</u></p> <ul style="list-style-type: none"> • Maintain safe working conditions and good housekeeping in all areas under his supervision. • Enforce use of PPE as requested by Project Specific Rules and regulations. • Immediately Inform & report to the EHS-Officer while any accident, near misses, dangerous occurrence, occupational poisoning or diseases shall be noticed within the project sites. • Plan safety in accordance with the approved work methodology for daily work activities. • Establish and maintain proper communication with all workers with regard to EHS; and
4	Procedure- Spoil Management Plan
	<ul style="list-style-type: none"> ☞ 1) Spoil volume calculations: Estimate the volumes of spoils produced from each of the construction sites. ☞ 2) Characterization of spoil: Based on the type of spoil; characterization is done (sand stone, mud mix materials, reusable materials) ☞ 3) Adopt Spoil Reduce, Reuse Opportunities ☞ 4) 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.
5	Spoil Volumes, Characteristics and Minimization

	<ul style="list-style-type: none"> Volumes 10,000Cu.M approx. Characteristics Normal earth basically clay types Minimization Excavation of earth to be done as per requirements only. No extra earth shall be excavated. 																		
6	Spoil Reuses Opportunities, Identification and Assessment																		
	<ul style="list-style-type: none"> All quantity of spoils will be re used for new road. Balance spoils will be removed. 																		
7	Monitoring, Reporting, Review and Improvements																		
	<ul style="list-style-type: none"> Monitoring, Reporting and all necessary improvements will be as required. 																		
8	<p>Related other Procedures The key aspects of potential impacts are listed in table below</p> <table border="1"> <thead> <tr> <th>Aspects</th> <th>Potential Impacts</th> </tr> </thead> <tbody> <tr> <td>Air Quality</td> <td>Potential for high winds generating airborne dust from the stock piles</td> </tr> <tr> <td>Sedimentation</td> <td>Potential for sediment laden site runoff from spoil stockpiles and potential for spillage of spoil from truck on roads</td> </tr> <tr> <td>Surface and Groundwater</td> <td>Contamination of water (surface and ground water)</td> </tr> <tr> <td>Noise</td> <td>Associated with spoil handling and haulage and storage</td> </tr> <tr> <td>Traffic</td> <td>Impacts associated with spoil haulage</td> </tr> <tr> <td>Land Use</td> <td>Potential for spoil to be transported to a receivable site that doesn't have permission for storage/disposal</td> </tr> <tr> <td>Design specifications</td> <td>Limitations on opportunities to minimize spoil generation</td> </tr> <tr> <td>Sustainability</td> <td>Limited sites for storage, reuse opportunities</td> </tr> </tbody> </table>	Aspects	Potential Impacts	Air Quality	Potential for high winds generating airborne dust from the stock piles	Sedimentation	Potential for sediment laden site runoff from spoil stockpiles and potential for spillage of spoil from truck on roads	Surface and Groundwater	Contamination of water (surface and ground water)	Noise	Associated with spoil handling and haulage and storage	Traffic	Impacts associated with spoil haulage	Land Use	Potential for spoil to be transported to a receivable site that doesn't have permission for storage/disposal	Design specifications	Limitations on opportunities to minimize spoil generation	Sustainability	Limited sites for storage, reuse opportunities
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Traffic Management Plan

MAY-2016

PROJECT: Expansion of Sewerage System in Davangere City (District 1& 3)

Contract No: 01 DVG 01

PROGRAM: Karnataka Urban Infrastructures Development & Finance Corpn. Ltd..

EMPLOYER: Commissioner of City Corporation Davangere

CONTRACTOR: SIMPLEX INFRASTRUCTURES LTD

EXPANSION OF SEWERAGE SYSTEM IN DAVANGERE CITY (DISTRICT 1& 3)

Location (As on 14 MAY 2016)

Traffic Diversion – PB.ROAD NEAR AWARGIRI BUS STOP(WARD-23) DISTRICT-3 for pipe laying & pre-cast manhole fixing.

1.0	Purpose
	To provide a clear and simply worded procedure to be understood by most employees on preventing injury to persons and damage to property arising from site traffic and site transport.
2.0	Scope
	The procedure is applicable to Expansion of sewerage system in Davangere City, (District 1& 3) sites and depots.
3.0	Responsibility
	It is the responsibility of the Project In charge and Depot Head & safety officer implement this procedure and ensure that delegated staff under their supervision carries it out.
4.0	Definitions
	Project In charge: 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 1996 and Central Rule 1998 Rule 48, 88 and 95, Motor Vehicle Act 1988
6.0	Requirements
6.1	General
	<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 mitigated or 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 barricading and entry into these areas should be restricted to only authorized personnel.
6.2	Planning stage
	<ul style="list-style-type: none"> • The client Engineers should be consulted as regards the execution of the works and the safety measures which would be put in place. • Particular attention should be given to : <ul style="list-style-type: none"> ○ traffic signs; ○ cones; ○ barriers; ○ road hazard warning lights; ○ information boards; and ○ site lighting • Consider necessity of traffic control systems such as temporary Stop/Go boards. • Access should be planned to eliminate dangerous movements of site traffic (e.g. reversing of vehicles) and personnel (e.g. crossing dual carriageways). • Provision of adequate lighting.
6.3	On site
	<ul style="list-style-type: none"> • The working area in the live road/footway shall be defined. • The working space shall be defined – this includes the area of storage of tools and equipment and space to move around the job. • Provision of safety zone- it shall be kept clear of all work, material storage and people and shall be clear of working radius of all plant.
6.4	Operators / Drivers
	<ul style="list-style-type: none"> • Experienced operators and drivers with valid licensed has been appointed. • One copy of license has been collected by Safety Department.
6.5	Equipment

	<ul style="list-style-type: none"> • Drivers are made a daily inspection of their vehicles include steering, brakes, mirrors, lights, horn, tyres and windshield wipers. • Safety Department along with Plant department has been checking the vehicles monthly basis • All vehicles have reverse horns and it is in working properly. • All vehicles, periodical maintenance has conducted.
6.6	<p>Roads</p> <p>For safe operation we are following the bellow safety measure:</p> <ul style="list-style-type: none"> • Safe width has been provided. • Speed limit will be varied as per the site. • Safe walkway with proper guard has been provided. • Caution board has been placed in every location within the site. • During night alert light has been provided. • Conducting Toolbox training as regular basis. • Road will be closed with proper permission (if required). • Reflective type Diversion board has been placed in required places.
6.7	<p>Loading and unloading</p> <ul style="list-style-type: none"> • Only authorised persons were engage for loading / unloading. • Materials loaded within the permitted safe weigh limit for the truck, • Dimensions of loads carried on a vehicle in strict accordance with relevant provisions. • A red flag is being used at the rear extremity of an overhanging load. • During the hours of darkness or in poor visibility conditions, a white light showing ahead at each side of the front extremity and a red light showing to the rear extremity of the hanging load are has been provided. • 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. • Helper has been provided with all vehicles.
6.8	<p>Working Area</p> <ul style="list-style-type: none"> • The working area in the live road/footway has defined and barricaded. • The working area has been restricted from unauthorized entry. • The working space has been defined – this includes the area of storage of tools and equipment and space to move around the job. • Particular attention has been taken in working area : <ul style="list-style-type: none"> ○ traffic signs; ○ cones; ○ barriers; ○ road hazard warning lights; ○ information boards; and ○ site lighting • Adequate lighting has been provided.

TRAFFIC MANGEMENT PLAN
SIMPLEX INFRASTRUCTURES LTD

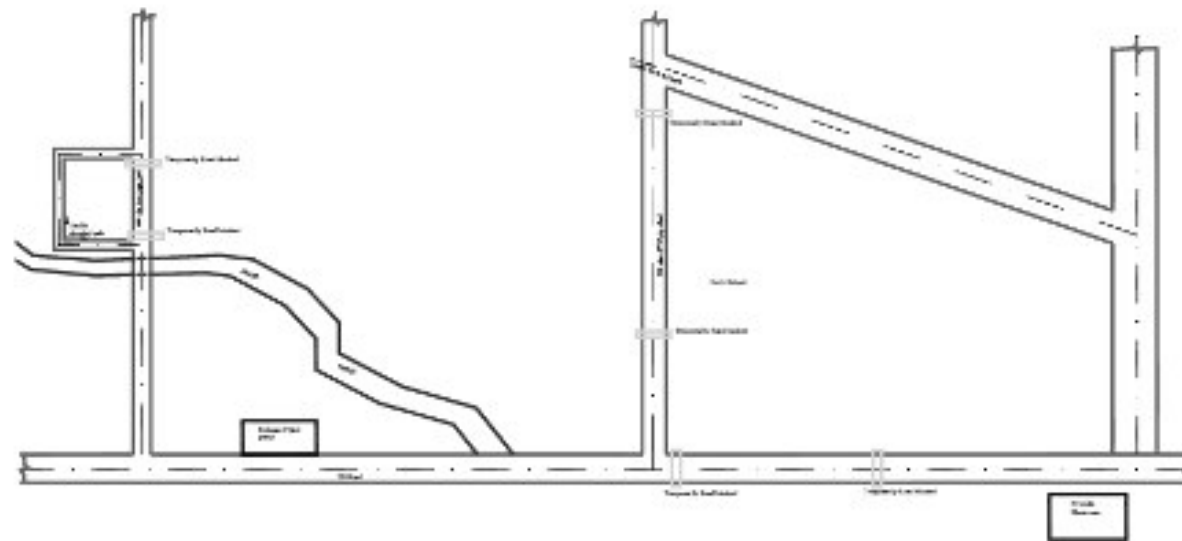
Name of the Road	Ward no & Location	Type of Action full closed/Partial closed	Duration.....days	Type of work
PB.ROAD	OPPOSITE TO RELIANCE PETROL PUMP (WARD-23)	PARTIAL CLOSED	15 DAYS	Pipe laying & installation of Pre- cast manhole.
TATA MOTORS LANE	(WARD-23)	PARTIAL CLOSED	7 DAYS	Pipe laying & installation of pre -cast manhole
UTTAM LAYOUT	OPPOSITE TO ASIAN PAINT	PARTIAL CLOSED	7 DAYS	
AWARGIRI BUS STOP PB.ROAD	NEAR AWARGIRI BUS STOP (WARD-23)	PARTIAL CLOSED	7 DAYS	pipe laying & installation of Pre- cast manhole

Prepare By- Aishurya Das
H.S.E OFFICER
SIMPLEX INFRASTRUCTURES LTD
DAVANGERE SEWERAGE PROJECT

Aishurya

EXPANSION OF SEWERAGE SYSTEM
IN DAVANGERE CITY (DISTRICT 18.2)

Traffic management diagramme



Traffic Management Plan

JUNE 2016

**PROJECT :KARNATAKA INTEGRATED URBAN WATER MANAGEMENT
INVESTMENT PROGRAM**

Contract No : CMC/HRR/KIUWMIP/03/2013-14

**PROGRAM : EXPANSION OF SEWERAGE SYSTEM IN HARIHAR CITY DAVANGERE
DISTRICT.**

EMPLOYER : CITY MUNICIPAL COUNCIL (CMC), HARIHARA

CONTRACTOR : SHRIRAM EPC LTD.

Prepared by

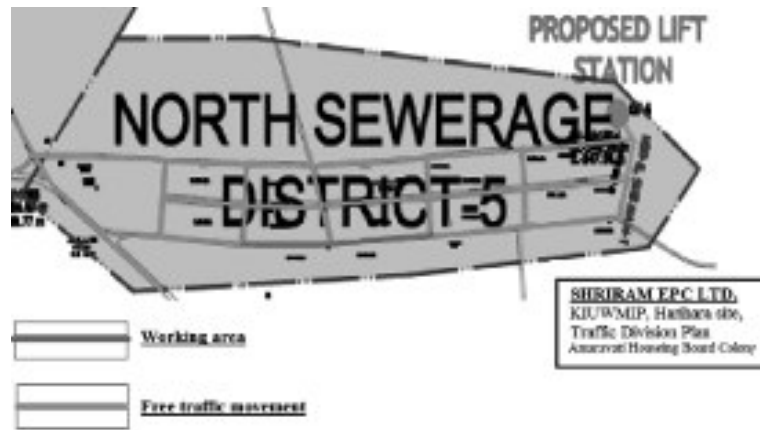
SHRIRAM EPC LTD.

Location (As on 24th June 2016)

Traffic Diversion: Main road Guttur and Vidyanagar for Pipe Laying and Manhole construction.

1.0	Purpose
	To preventing injury to persons and damage to property arising from site traffic and site transport.
2.0	Scope
	The procedure is applicable to Shriram EPC Ltd. Sites.
3.0	Responsibility
	It is the responsibility of the Project In charge and Depot Head & safety officer implement this procedure and ensure that delegated staff under their supervision carries it out. <ul style="list-style-type: none"> Responsible for ensuring that material movement to and from the workface does not cause damage to the works, the workforce or the public. There is a primary duty to provide a safe workplace environment that minimises the risk of injury to workers within, or adjacent to, the work area.
4.0	Definitions
	Project In charge: 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 1996 and Central Rule 1998 Rule 48, 88 and 95, Motor Vehicle Act 1988
6.0	Requirements
6.1	General
	<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 mitigated or 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 barricading and entry into these areas should be restricted to only authorized personnel.
6.2	Planning stage
	<ul style="list-style-type: none"> The client and GKW's consultant Engineer should be consulted as regards the execution of the works and the safety measures which would be put in place. Particular attention should be given to : <ul style="list-style-type: none"> traffic signs; cones; barriers; road hazard warning lights; information boards; and site lighting Consider necessity of traffic control systems such as temporary Stop/Go boards. Access should be planned to eliminate dangerous movements of site traffic (e.g. reversing of vehicles) and personnel (e.g. crossing dual carriageways). Provision of adequate lighting.
6.3	On site
	<ul style="list-style-type: none"> The working area in the live road/footway shall be defined. The working space shall be defined – this includes the area of storage of tools and equipment and space to move around the job. Provision of safety zone- it shall be kept clear of all work, material storage and people and shall be clear of working radius of all plant.
6.4	Operators / Drivers
	<ul style="list-style-type: none"> Experienced operators and drivers with valid licensed has been appointed. One copy of license has been collected by Safety Department.
6.5	Equipment



	<ul style="list-style-type: none"> • Drivers are made a daily inspection of their vehicles include steering, brakes, mirrors, lights, horn, tyres and windshield wipers. • Safety Department along with Plant department has been checking the vehicles monthly basis • All vehicles have reverse horns and it is in working properly. • All vehicles, periodical maintenance has conducted.
6.6	Roads
	<p>For safe operation we are following the bellow safety measure:</p> <ul style="list-style-type: none"> • Safe width has been provided. • Speed limit will be varied as per the site. • Safe walkway with proper guard has been provided. • Caution board has been placed in every location within the site. • During night alert light has been provided. • Conducting Toolbox training as regular basis. • Road will be closed with proper permission (if required). • Reflective type Diversion board has been placed in required places.
6.7	Loading and unloading
	<ul style="list-style-type: none"> • Only authorised persons were engage for loading / unloading. • Materials loaded within the permitted safe weigh limit for the truck, • Dimensions of loads carried on a vehicle in strict accordance with relevant provisions. • A red flag is being used at the rear extremity of an overhanging load. • During the hours of darkness or in poor visibility conditions, a white light showing ahead at each side of the front extremity and a red light showing to the rear extremity of the hanging load are has been provided. • 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. • Helper has been provided with all vehicles.
6.8	Working Area
	<ul style="list-style-type: none"> • The working area in the live road/footway has defined and barricaded. • The working area has been restricted from unauthorized entry. • The working space has been defined – this includes the area of storage of tools and equipment and space to move around the job. • Particular attention has been taken in working area : <ul style="list-style-type: none"> ○ traffic signs; ○ cones; ○ barriers; ○ road hazard warning lights; ○ information boards; and ○ site lighting • Adequate lighting has been provided.
6.9	Signage:
	<ul style="list-style-type: none"> • Ensure that signage and signage symbols used are internationally recognised. • Ensure additional languages are used in signage to ensure messages are understood.
7.0	Safety:
	<ul style="list-style-type: none"> • Ensuring the organisation's safety policies are followed • Creating of site-specific safety manual, ensure first aid cover and equipment is present • Responsible for ensuring that material movement to and from the workface does not cause damage to the works, the workforce or the public. • Manage and maintain visitor PPE stocks to an agreed number. • Produce method statements, risk assessments ensure lifting plans are produced. • Safeguard vulnerable road users from traffic and transport created by the site.



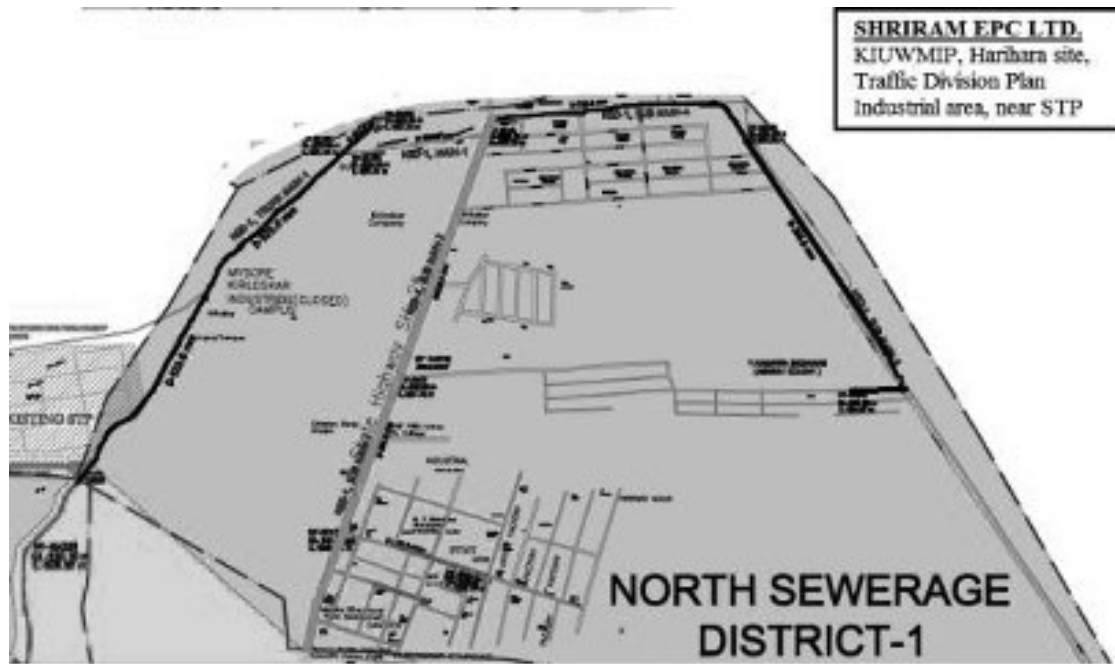
Amaravathi area- Harihar



SHRIRAM EPC LTD.
KIUWMIP, Harihara site,
Traffic Division Plan
GUTTUR

-  **Working area**
-  **Free traffic movement**

Gutter area- Harihar



Near STP area – Harihar



Complete road closure – Harihar

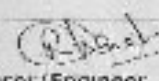


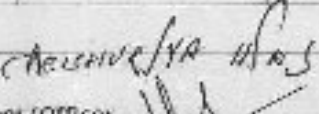
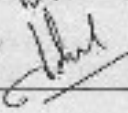
SIMPLEX INFRASTRUCTURES LIMITED

DAVANGERE SEWAGE PROJECT-C-3014

I will do my level best to do the job safely. I will not use any unsafe equipment;
 I will not do any work for which I am not authorized. I will be responsible for my personal
 damage and injury.

Sl. No.	NAME	DESIGNATION	CONTRACTOR	SIGNATURE
	AMARNATH TINDARI	SUPERVISOR	SUCHITRA	Amr
	GOKUL SEKH	HELPER	11	
	MILTON	HELPER	11	Milton
	ISMILE SEKH	HELPER	11	ISMAIL SK
	HALIM SEKH	11	11	Halim SK
	KATAM MANDOL	11	11	
	ANU LAYA MANDOL	11	11	
	IGBAL	11	11	
	HEK MUTH	11	11	
	MUKUL	11	11	
	HASIBUL	COOK	11	
	SANBUR	11	11	
	SARFARAZ	11	11	
	MARUTI	SCB Operator	DEPARTMENT	Maf

me : 
 (Supervisor/Engineer
 concern Dept.)

Name: 
 Sign: 
 Engineer/Officer
 (Safety Dept.)



SIMPLEX INFRASTRUCTURES LIMITED

DAVANGERE SEWAGE PROJECT-C-3014

SAFETY OFFICER/ENGINEER GIVING INDUCTION

INTERPRETER: _____

AEISHURYA HAS

FILE REFERENCE: _____

Day FRIDAY

DATE 24 JUNE 2016


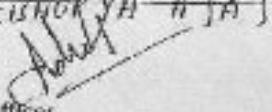
TIME 10:30 AM

TRAINING DURATION: _____

GENERAL INDUCTION: ALL EMPLOYEES

Simplex Safety Policy, Brief of Simplex Safety Requirements, Zero Accident/Zero Injury, Personal Protective Equipment, Overview of Project Work & Hazards, Common Law, Statutory Duties, Fundamental Safety Principles, Our Safety System, Making the workplace Safe, General Safety Rules, General Security Rules, General Traffic Rules including use of Seat Belt, Drugs & Alcohol, Material Handling, Safety Hazards Communication System, Good Housekeeping, Working at Height & Fall Protection, Excavation, Explosives, Machine Guarding, Electrical Safety, Isolation of Equipment, Lockout, Tag out, Tryout System (LOTOTO System), Lifting Work, Reporting & Correction of Hazards/Incident/Accident Reporting, Fire Prevention / Protection, Permit to Work (PTW), Work Method Statement (Work Methodology), Job Safety Analysis (JSA), Risk Assessment, Available Facilities, Disciplinary Procedure.

WHAT ELSE WAS DISCUSSED?

Name : Sign :  Supervisor/Engineer (Concern Dept.)	Name: <i>AEISHURYA HAS</i> Sign:  Engineer/Officer (Safety Dept.)
--	--

NOTES: -

1. PEOPLE ATTENDING INDUCTION SESSION COMPLETE REVERSE OF FORM.
 2. FROM RETAINED ON INDUCTION RECORDS COPIED TO FILE.
- SIMPLEX INFRASTRUCTURES INDUCTION: TRAINING RECORD**

I confirm that I understood the Simplex Safety requirements and I follow the same. I will do my level best to do the job safely. I will not use any unsafe equipment.

I will do my level best to do the job safely. I will not use any unsafe equipment;
 I will not do any work for which I am not authorized. I will be responsible for my personal
 damage and injury.


Sl. No.	NAME	DESIGNATION	CONTRACTOR	SIGNATURE
	R. KARIM	HELPER	SUCHITRA	[Signature]
	ARUN MONDAL	HELPER		Arum Mondal
	MITHUN SEKH	HELPER		[Signature]
	B. MONDAL	HELPER	R. S. T	[Signature]
	Ashok Mondal	HELPER	R. S. T	[Signature]
	MITHU	HELPER	SUCHITRA	[Signature]
	HALIM SEKH	HELPER	SUCHITRA	[Signature]

Name: [Signature]
 Supervisor/Engineer
 (Safety Dept.)

Name: [Signature]
 Sign: [Signature]
 Engineer/Officer
 (Safety Dept.)

Drill No	01	Date	15.06.2016
----------	----	------	------------

Attach to this form a list of all staff who participated in the drill, and any visitors participating.

Time Alarm Sounded: 06.05 pm	Time Drill Concluded: 06.20 pm	Time to Evacuate (fire evacuation drills only):
Type of Drill:	Notification / Alert Method:	Weather Conditions:
<input type="checkbox"/> Fire / Evacuation <input type="checkbox"/> Insect bites <input type="checkbox"/> Earthquake <input type="checkbox"/> Medical Emergency <input type="checkbox"/> Electrical Accident <input checked="" type="checkbox"/> Other: <u>Falling of Person in Trench</u>	<input type="checkbox"/> Bell or Buzzer <input checked="" type="checkbox"/> Voice Notification <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Raining <input type="checkbox"/> Rain and wind <input type="checkbox"/> Windy
Participants: (check all that apply)	Situation at Start of Drill:	
<input type="checkbox"/> Senior Management <input checked="" type="checkbox"/> Safety Personnel <input checked="" type="checkbox"/> Employees/Staff <input type="checkbox"/> Security Officers <input type="checkbox"/> Law Enforcement <input type="checkbox"/> Fire Department <input type="checkbox"/> Emergency Medical Services <input type="checkbox"/> County Emergency Mgmt. <input type="checkbox"/> Other _____	<input type="checkbox"/> Before Business Hours <input checked="" type="checkbox"/> During Business Hours <input type="checkbox"/> Peak Business Hours <input type="checkbox"/> Lunch Time <input type="checkbox"/> After Business Hours <input type="checkbox"/> Other: _____	
Management previously trained on emergency procedures this year?	Employees previously trained on emergency procedures this year?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Incident Command System Used?	Incident Controller Name :	Incident Controller Signature
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Mr. ERODIAH . A	

Problems Encountered: (Check all that apply)

- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Congestion in hallways <input type="checkbox"/> Alarm not heard <input type="checkbox"/> Employees unsure of what to do / proper <input type="checkbox"/> Staff unsure of responsibilities / response <input type="checkbox"/> Weather-related problems <input type="checkbox"/> Unable to lock doors <input type="checkbox"/> Windows not covered <input type="checkbox"/> Windows left open <input type="checkbox"/> Doors left open <input type="checkbox"/> Lights left on <input type="checkbox"/> Personnel not accounted for / attendance <input type="checkbox"/> Difficulties with evacuation of disabled personnel, customers or visitors <input type="checkbox"/> Personnel unaccounted for (note # below) | <ul style="list-style-type: none"> <input type="checkbox"/> Radio communication problems <input type="checkbox"/> Network / computer problems <input type="checkbox"/> Noise impedes communications <input type="checkbox"/> Personnel not out of sight (lockdown drill) <input type="checkbox"/> Long time to evacuate building <input type="checkbox"/> Personnel not serious about drill <input type="checkbox"/> Improper or unavailable supplies (SiP) <input checked="" type="checkbox"/> Confusion <input type="checkbox"/> Doors or Exits blocked <input type="checkbox"/> Transportation <input type="checkbox"/> Interagency miscommunications <input type="checkbox"/> Incident command problems <input type="checkbox"/> Other: _____ |
|--|--|

Extenuating Circumstances / Identified Factors / Special Conditions Simulated:

It was presumed that there is one person fell down on the Trench. After clap eyes on this situation all workers are gathering in the vicinity. At that time supervisor immediate telephoned to Site In charge about this. Immediately rescue team alerted and mobilized to tackle the situation. Evacuation team immediately assembled all the staff, workers and directed to assemble at Assembly point. ✓

Mitigation / Plans for Improvement: (check all that apply and explain below)

- | | |
|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> Additional management training <input type="checkbox"/> Additional staff training <input type="checkbox"/> Address need for additional equipment <input checked="" type="checkbox"/> Improved emergency supplies | <ul style="list-style-type: none"> <input type="checkbox"/> Cooperative planning with responders <input type="checkbox"/> Revised emergency procedures <input type="checkbox"/> Other: |
|--|---|

Explain corrective efforts here:

Refresher training organized to all the employees and worker.

Incident Controller Name

Mr. Enomire, A

Incident Controller Signature



SHRIRAM EPC LTD.
EMERGENCY DRILL ATTENDANCE SHEET



Venue: Guttur, Hanibara

Date: 15-06-2016

Sl No.	Name	Designation	Company	Signature
1	A. Eronimus	Gr. PM	SEPC	
2	P. K. Bisoni	Safety Officer	SEPC	
3	P. Yogesh Kumar	Asst. Engineer	SEPC	
4	Gururaj	Sub-Contractor		
5	Parmesh Deotarama	Mason		
6	Vishal Rawat	Mason		
7	Sankar Seth	Helper		
8	Pandu Enkappa	Helper		
9	Mounesh Manappa	Helper		
10	Hannuranta Inappa	Supervisor		
11	J. B. VIGNESWARA	SAFETY ENG	SEPC	J.B. Vigneswara
12				

SHRIRAM EPC LTD.

MOCK DRILL PHOTO

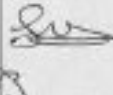


Sample filled public consultation format

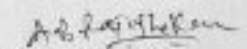
Package – Davangere water supply

Public Consultation during construction

Package- O/SUBNO
Area- 4th D NO 4 (BETH LAPOU).

Sl. No.	Road/Lane No.	Date	PHE Connection Restoration- (in case affected) Remarks	Overburden soil removal - Remarks	Road Restoration- Remarks	Dust and noise problem- Remarks	Social safety arrangement- Caution tape/ barricade etc. by contractor - Remarks	Problem of local movements due to project activity - Remarks	Other Problem faced if any	Name of the person with address/ contact No.	Signature
1.	SIR HIEZA CONVENT ROAD.	4-2-16	NO ISSUES	NO ISSUES	NO ISSUES	minimum	done.	minimum	-	8050175322	HASAN
2.	NEAR THOURED HASTID.	6-4-16	NO ISSUES.	lean but cleared.	NO ISSUES.	NO ISSUE	done.	NO ISSUES.	-	9822468042	MHAR
2.	NEAR EST Hospital (LASSING)	11-4-16	NO ISSUES.	NO Problem.	NO Problem.	minimum	done	NO ISSUES	-	9855165913	Bijal
4	S. HIEZA CONVENT PARADE ROAD.	12-4-16	NO ISSUES	NO ISSUES.	NO ISSUES.	NO ISSUES.	not done.	NO ISSUES.	-	9986178683	

Verified by Construction Supervisor- Resident Engineer Environment SpI PMDCSC -


(Date & Signature)

Package- Sewerage - Harihara

Public Consultation during construction

Package- **KIUMAP, Harihara**
 Area- **Gulbarga**

Sr. No.	Road/Lane No.	Date	Is it Connection Restoration- (in case affected) Remarks	Overburden soil removal - Remarks	Flood Restoration- Remarks	Dust and noise problem- Remarks	Social safety arrangement- Caution tape/ barricade etc. by contractor - Remarks	Problem of local movements due to project activity - Remarks	Other Problem faced if any	Name of the person with address/ contact No.	Signature
1	Hanpahal/ Main Road	03-06-16	Not affected	Yes	Yes	No	Yes	No	No	Anand Kumar 5080423685	<i>[Signature]</i>
2	Hanpahal/ Main Road	10-06-16	NA	Yes	Yes	No	Yes	No	No	Pamolu 9093628942	<i>[Signature]</i>
3	Hanpahal/ Main Road	27-06-16	NA	Yes	Yes	No	Yes	No	No	Hemappa 8575362143	<i>[Signature]</i>
4	Hanpahal/ Main Road	24-06-16	NA	Yes	Yes	No	Yes	No	No	Nagananna 3877026894	<i>[Signature]</i>

Verified by Construction Supervisor- Resident Engineer/ Environment Sri PMDCSC-

[Signature]
 (Date & Signature)

Outcome of consultation as follows,

- There is no issue on impact of utility services like PHE line etc.
- Excess earth removed in most of the cases. Public have no complaint on that
- Road restoration done without affecting the public
- There is minimum impact due to generation of dust and noise from project activity
- Arrangement of caution tape is done in most of the cases. No public complaint
- Local movement of public is not affected

Safety and Environment Training- Note

ENVIRONMENTAL SAFEGUARD – ORIENTATION TRAINING PROGRAM FOR CONTRACTOR, CONSTRUCTION SUPERVISOR and ENGINEER– Karnataka Integrated Urban Water Management Investment Program (KIUWMIP)

Safeguard training program has been conducted on safeguard issues and application of Environmental Management Plan (EMP) at Karnataka Urban Infrastructures Development and Finance Corporation (KUIDFC) office at Davangere on 18th April 2016 afternoon.

Resident Engineer and other Engineers of PMDCSC, and Safety Officer of Contractor agency are participated in the Training program.

The issues discussed like,

- Statutory compliance from Pollution Control Board like – consent for Batching plant and DG sets
- Overall application of EMP and compliance of safety requirement
- Labour and Office Camp site management- requirement of proper sanitation and solid waste management
- Disposal / utilization of overburden earth , rocks, spoil materials after work
- Storage of construction materials
- Occupational and public safety during construction
- Community safety
- Traffic management and spoil management during laying of pipes (as per requirement)
- Requirement of Pollution Under Control (PUC)/ No Objection Certificate (NOC) from concerned department and renewal of the same before expiry
- Requirement of baseline monitoring data

EMP application requirement and methodology have also been discussed.

Specific non compliance issues have been discussed with respective contractors for compliance within 10 days. The issues are,

1. Package- Expansion of sewerage system (District 1 & 3) for Davangere - 204.12 km sewers, 7581 nos. manholes (01DVG01)

Major Issues need to be comply

- ✓ Improvement of housekeeping at yard and working location
- ✓ Proper storage of scrap materials and broken pipes for disposal
- ✓ Disposal and utilization of excess excavated earth at pipe laying area
- ✓ Storage of fuel above metal sheet
- ✓ Complete arrangement of caution board, caution tape as per requirement
- ✓ Display board with grievance registration contract number at working location and yard
- ✓ Arrangement of proper First Aid box at all working locations
- ✓ Complete use of PPE by worker
- ✓ Maintaining of Accident Register

2. Package- Improvements to sewerage system in Davangere (STP) - DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP (01DVG01A)

Major Issues need to be comply

- ✓ Immediate application to Pollution Control Board for Consent to establish and operate for 2 batching plants which are pending for a long time.
- ✓ Consent to operate for 3 generators installed and running in both the STP locations
- ✓ Improvement of housekeeping
- ✓ Immediate disposal of scrap materials and construction waste
- ✓ Complete arrangement of caution board, caution tape as per requirement
- ✓ Display board with grievance registration contract number
- ✓ Sufficient medicine at First Aid box
- ✓ Improvement of material storage
- ✓ Complete use of PPE by worker

- ✓ Maintaining of Accident Register
- 3. **Package- Expansion of the sewerage network (72.19 km sewers, 2640 nos. manholes, 4 nos. pumping stations, 18 MLD STP) (01HRH01)**

Major Issues need to be comply

- ✓ Improvement of housekeeping
- ✓ Immediate disposal of scrap materials and construction waste
- ✓ Disposal and utilization of excess earth at pumping station and pipe laying sites
- ✓ Complete arrangement of caution board, caution tape as per requirement
- ✓ Display board with grievance registration contract number
- ✓ Sufficient number of caution board and diversion board
- ✓ Immediate arrangement of toilet facility and waste disposal facility at STP site
- ✓ Arrangement of First Aid box at all working locations
- ✓ Complete use of PPE by worker
- ✓ Maintaining of Accident Register

Instruction is given to supervisor engineer and construction contractor to arrange weekly consultation/ training program particularly on safety and other safeguard issues for labourer.

Instruction sheet handed over to contractor is attached as **Annex 1**

Attendance sheet attached as **Annex 2**



Photo: Safeguard Training



Photo: Safeguard Training



Photo: Safeguard Meeting

Ardhendu Mitra
(Dr. Ardhendu Mitra)
Environment Specialist PMDCSC

Instructions for Contractor/ Supervisor- Environmental Safeguard- **KIUWMIP**

- Nomination of environment-safety officer in contractor team
- Setting up camp office with proper sanitation condition, solid waste management facility and sufficient drinking water supply. Non cutting of trees during setting up camp
- Removal / disposal of overburden/surplus earth/ stone, sludge materials at earliest without any accumulation at working sites - Use of overburden materials at site (preferred option)
- Proper disposal of other construction waste –Reuse in other projects
 - Site should be selected in consultation with PIU and concerned Supervisor Engineer of PMDCSC
- Proper storage of construction materials - wastage of materials to be checked. Slope should be avoided
- Felling of trees if done to be compensated by plantation (1:5 ratio)
- Scheduling of work without any social impact – movement of pedestrian (particularly during tourist/ festive seasons) or other disturbances etc.
- Regular water sprinkling (at least 2-3 times in a day during dry period) at construction site for arresting of dust – record should be maintain at site
- Covering of materials carrying vehicles in case of transportation of wind- blown material like sand
- Personnel safety of workforce – use of ear plugs (noise producing area), nose mask (dust producing area and sewer connection work), helmet, gloves, gumboots, safety belt etc at working sites (as per site condition). Use of gas detector instrument for sewerage pipe laying work
- Filling up trenches and restoration of road after pipe laying at earliest
- Arrangement of shoring, if required
- Instruction to material supplier/ contractor to arrange pollution under control (PUC) certificate for material carrying vehicles, equipments and machinery – Timely Renewal of PUC
- In case of purchase of stone aggregates consent to establish and operate of stone crusher should be collected from supplier
- No objection certificate from pollution control board for use of DG set(5 KVA and above capacity)
- Regular maintenance of noise producing machinery
- Arrangement of enclosure for noise producing equipment like generator, concrete mixture
- Implementation of traffic stop/diversion measures including use of safety tape/ barricade/ caution board at working sites with proper diversion sign
- Proper drainage of waste water/ rain water from working sites
- Arrangement of common medicine and First Aid box at camp site, site office and working area
- At all working sites there should be a display board which shows location and contact phone number of PIU/PMDCSC office and grievance redress cell and respective officers for registering public complain. Keep Grievance Redress register at PIU office for recording and addressing public complain.
- Display of all emergency contact number at STP and other construction site
- Awareness program on HIV/AIDS
- Maintain chance find protocol for archeological objects
- No use of child labour below 14 yrs age
- Carry out monitoring work base line & during construction (air, water, noise) as per schedule EMP
- Regular public consultation at all sensitive receptor within project influence area

Attendance

Karnataka Integrated Urban Water Management Investment Program (KIUWMIP)

Environment and Safety - Training Program

Venue: Davangere , Project office

Date: 18.04.2016

Sl. No.	Name	Organization / Designation	Contact No. / E mail	Signature
1	N. R. MANSUNATHA KAN	Asst. Ex. Engineer P.W.D.	9686551300	<i>[Signature]</i> 18/4
2	Prakash S. Hirave	HNB Engg. P.Ltd. (P.M.) ³³ Pune.	9448282483	<i>[Signature]</i> 18-4-16
3	A.B. RASASHEKAR	AKW/Resident Business	8884416580	<i>[Signature]</i> 18/4/16
4	Aswath/VA SAs	SIMPLEX/Safety OFFICER	9776104046	<i>[Signature]</i>
5	Elayappan P.	Shivram EPC. Ltd Senior Engineer.	8553463974	<i>[Signature]</i> 2 Clay P.
6	Sadanand. G.O.	Resident Engr. P.M.P.C.C.	8147487611	<i>[Signature]</i>
7	Pradyumna K. Biswal	Shivram EPC. Ltd. Safety Officer	7877283211	<i>[Signature]</i>
8				
9				

A. Mitra
18/04/16

GRM – GRC Notification

ಕರ್ನಾಟಕ ನಗರ ಮೂಲಸೌಕರ್ಯ ಅಭಿವೃದ್ಧಿ
 ಮತ್ತು ಪೂರೈಕೆ ನಿಗದಿ ನಿರ್ಮಾಣ
 ಸಂಸ್ಥೆಯ ಕಛೇರಿ : ೨ನೇ ಮಹಡಿ, ಉಳಿ
 ಕಟ್ಟಡ, ಮಿಷನ್ ರೋಡ್, ಬೆಂಗಳೂರು - ೫೬೦ ೦೨೭.
 ದೂರ ಸಂಖ್ಯೆ - ೨೨೨ ೨೨೨, ೨೨೨ ೨೨೩, ಫ್ಯಾಕ್ಸ್ : ೨೨೨ ೨೨೪

**Karnataka Urban Infrastructure
 Development & Finance Corp. Ltd.,**
Regd. Office : Silver Jubilee Block, 2nd Floor,
 Unity Building Annex, 3rd Cross,
 Mission Road, Bangalore - 560 027.
 Phone : 080 - 22232021, 22232134, Fax : 22232157
 E-mail : info@kuidfc.com website : www.kuidfc.com

KUIDFC/KUIWMIP/DUC/2014-15/225 Date: 7th August 2015

OFFICIAL MEMORANDUM

Sub: ADB Assisted KUIWMIP-Jalasiri Implementation of Resettlement and Rehabilitation Plans (RRP).

Under Karnataka Integrated Urban Water Management Investment Programme (KUIWMIP) land was purchased for implementation of various components under the programme. A Resettlement and Rehabilitation Plan for Affected Families (AFs) and Programme Affected Persons (PAPs) is prepared for land acquired under the programme and the compensation payable to them is determined as per the guide lines of ADB.

A project specific Grievance Redressal Mechanism (GRM) is to be established to receive and evaluate concerns, complaints and grievances of the Affected Persons (APs). To provide time bound and transparent mechanism to resolve social and environmental concerns and ensure proper implementation and monitoring of the grievances, there is a need to designate Rehabilitation and Resettlement Officer and to constitute a Grievance Redressal Committee. Hence the following order:

ORDER

Rehabilitation and Resettlement Officer: The Special Land Acquisition Officer/the Assistant Commissioner of the concerned sub division "shall be the Rehabilitation and Resettlement Officer". He will be responsible for implementation of the Resettlement plans. He is authorised to release all compensation to the beneficiaries (based on land acquisition Awards and other assistance/ benefits decided by GRC based on approved Resettlement plans).

Grievance Redressal Committee: The committee shall consist of the following members:

The Special Land Acquisition Officer/ Assistant Commissioner of the concerned subdivision	Chairman
The Deputy Project Director KUIWMIP Davanagere	Member Secretary
The Commissioner / Chief Officer of the ULB	Member
Most affected Beneficiary	Member
One Vulnerable Beneficiary, (if none of the Beneficiaries are classified as vulnerable any other beneficiary shall be the member.)	Member
SDO of RPMU- KUIWMIP Davanagere	Member



ANNEXURE

Guidelines for implementation of resettlement and rehabilitation Plan.

- A project specific redressal mechanism will be established to receive, evaluate and facilitate concerns, complaints and grievances of the Displaced Persons (DPs) in relation to project's social and environmental performances. The main objective of the Grievance Redressal Mechanism (GRM) will be to provide time bound action and a transparent mechanism to resolve social and environmental concerns.
- The Deputy Project Director KIUWMIP Davanagere will convene the periodic meeting of the Grievance Redressal Committee (GRC) and will shoulder the responsibility of keeping records of grievances/complaints in details with help from Resettlement NGO. Other members such as community based organizations (CBO) representatives, ward council representatives, displaced persons representative will be selected by the respective Commissioners of the ULB to represent in the GRC. NGO will also deploy one person who will be responsible for coordinating with all GRC members and DPs for grievance redressal.
- Grievance redressal committee (GRC) should ensure that the list of affected persons mentioned in the resettlement plan tally with the list of persons mentioned in the award passed by the Assistant Commissioner (AC)/ Special land acquisition officer (SLAO).
- The committee should finalize the subsistence allowance and other assistance/benefits payable to the affected persons based on the approved resettlement plans and ensure delivery of project affected persons (PAP) entitlements and benefits.
- All payments made to the beneficiaries and other expenses for implementation of the Resettlement plan should be through "Account Payee" cheques only. Proper documentation and acknowledgement for receipt be maintained to facilitate Audit.
- Grievance if any, may be submitted by project affected persons (PAP) to the Chairman of the GRC.
- The Grievance Redressal Committee will redress the issues at the local level in a consultative manner.
- The date and time of the GRC meeting should be communicated to the PAPs by the implementing NGO or Regional Program management Unit (RPMU) Davanagere office, a week in advance.
- Proceedings of the GRC meeting should be documented and copy should be sent to task Manager KIUWMIP-KUIDFC Bengaluru.
- The GRC will determine the merit of each grievance and attempt to resolve the same within a month from date of lodging the complaint, failing which the grievance shall be addressed to the Deputy Commissioner.
- The Deputy Commissioner shall hear the appeals against the decision of the GRC. The decision of the Deputy Commissioner is final and cannot be contested in any other forum except in court of Law.
- All costs incurred in resolving the complaints will be borne by the concerned urban local body.

ಕೆ.ಯು.ಪಿ.ಡಿ.ಎಚ್.ಸಿ.



KUIDFC

The committee shall ensure implementation of R&R strictly in accordance with the guidelines attached as Annexure.

Appeals against the decision of the GRC are to be addressed to the Deputy Commissioner of the concerned District.

Internal Monitoring: Implementing NGO of the programme town shall be responsible for internal monitoring.

External Monitoring: The DPD KIUWMIP Davanagere shall be the external monitoring agency.

Managing Director
KUIDFC, Bengaluru.

Enclosures: Guidelines

To:

- 1) Executive Director -KUIDFC Bengaluru
- 2) The Deputy Commissioner, Davanagere & Haveri
- 3) The Special Land Acquisition Officer/Assistant Commissioner of the concerned subdivisions under Davanagere & Haveri districts
- 4) Commissioner/Chief Officer of the concerned ULBs
- 5) Deputy Project Director-KUIWMIP, RPMU Davanagere


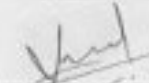

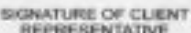
Sample filled Grievance Register

Davangere Sewerage

Name of the Project : Expansion of Sewerage System in Davangere City District 1 & 3 No: 3
 Name of the Client : KUIDFC Name of the Contractor : Simplex Infrastructure Ltd.
 Name of the Consultant : GKW Contact Period : 36 Month

Complaint No.	Date	Complaint through (phone/letter/site)	Name of complainer	Complaint Details & Location	Action Taken By Contractor/PMU/DSC	Date Case Resolved (Date required)	Remarks further action if any
	24/12/15	Phone	Chelan	Excavated Soil pit. In front of the house & road cleaning work	Immediately the work by using vehicle is buy Soil and returned to excavated soil.	24/12/15	

GRIEVANCE REDRESS RECORD

 SIGNATURE OF COMPLAINER
 SIGNATURE OF CONTRACTOR REPRESENTATIVE
 SIGNATURE OF CONSULTANT REPRESENTATIVE
 SIGNATURE OF CLIENT REPRESENTATIVE

Harihara Sewerage

Customer Complaint Register								Shriram epc	
Project: URS - Harihara - MSHA - 1464.								Form No.	PROJECT
								Date No.	1
								Rev No.	1
S.No	Receipt date & Month of Completion of Complaint	Description of Complaint	Details of Correction	Target	Action Taken on / by	CAPA	Signature of the Incharge / Project Manager	Status of the Complaint (Open / Closed)	
15)	1/12/15	Road levelling & excess earth removal at gutter main Road	Excess earth filled and Road levelled	3/12/15	3/12/15 Ramesh			Closed.	
16)	23/12/15	manhole Backfilling not done at Pankaj Road	Backfilled properly	24/12/15	24/12/2015 Yogesh.			Closed	
17)	27/12/15	BSNL cable damaged at Astralima Badavase	Requested to request parties to restore.	28/12/15	28/12/15 Ramesh.			Closed.	
18)	2/1/2016.	Water line damaged at Annapath Colony	water pipe line Rusted.	3/1/2016	3/1/2016 Mathan Kumar			Closed.	
19)	11/1/2016.	Excess earth removed at Afric.	Excess earth closed & levelled.	12/1/2016	12/1/2016 Animesh M.L			Closed	
20)	28/1/2016.	Proper Demarcation not done at Bahadurwara Nagar	Proper Demarcation done.	29/1/16	29/1/2016 Animesh M.L			Closed.	

Customer Compliant Register

Form No. EPSCCR/12
Issue No. 1
Rev No. 1



Project:

S.No	Receipt date & Mode of Communication of Complaint	Description of Complaint	Details of Correction	Target	Action Taken on / by	CAPA	Signature of Site Incharge / Project Manager	Status of the Complaint (Open / Closed)
21)	20/2/2016.	Barication is not done at amonavathi Colony.	Atke Barica - tion done afterwards.	21/2/16	21/2/2016 Yogesh.			Closed.
22)	12-2-2016	Roads are not entered & public gave complaint. at Mahalaxmi Badavane.	Roads are Restored properly.	13/3/16	13/3/2016. Ramesh.			Closed.
23)	21-3-2016.	BSNL wire damaged. at Jyamadtha Colony	Instructed to responsible person to restore the cable.	21/3/2016	21/3/2016 AKbar.			Closed.
24)	22/3/2016	Electrical cable damaged at APMC Shirsanga Road.	Restoration of Electrical cable done.	29/3/16	29/3/2016 Avinash M.L			Closed.
25)	1/4/2016	Covering is not done properly at nagappa Badavane.	Covering done properly.	2/4/16	2/4/16 AKbar.			Solved.
26)	12/4/16	Excess material left at vidyanagar C1 Block.	Shifted to stock yard	12/4/16	13/4/2016. Store. Suresh			Solved.

Customer Complaint Register

Form No: **EPCC/CCR/12**
 Issue No: **1**
 Rev No: **1**

Project:

S.No	Receipt date & Mode of Communication of Complaint	Description of Complaint	Details of Correction	Target	Action Taken on / by	CAPA	Signature of Epc Incharge / Project Manager	Status of the Complaint (Open / Closed)
27.	14/5/2016	Road Restriction not done at amravathi Colony	Restored properly afterwards	16/5/2016	16/5/2016 Yogesh.		 	closed.

Accident Record

SIMPLEX INFRASTRUCTURES LIMITED
ACCIDENT & INCIDENT RECORD
PERIOD-JANUARY 2016 TO JUNE 2016
PROJECT- EXPANSION OF SEWERAGE SYSTEM IN DAVANGERE CITY (DISTRICT 1& 3)

1. NEAR-MISS- NIL
2. FIRST-AID CASE-01
3. REPORTABLE ACCIDENT-NIL
4. FIRE INCIDENT- NIL
5. ELECTRICAL INCIDENT- NIL



PREPARE BY- AEISHURYA DAS
OFFICER SAFETY GR-II
SIMPLEX INFRASTRUCTURES LIMITED

ANALYSIS OF ACCIDENT REPORT	Format No	F/EPC/AAR/09
	Issue No	01
	Rev No	00
Name of the Project	:	EXPANSION OF SEWERAGE SYSTEM IN HARIHAR KUDMIP
Location	:	Harihara Site
Name of the Person Injured	:	
Nature of injury	:	
Reasons	:	Individual Fault Lack of Supervision Lack of Knowledge Unguarded Machine
Measures Suggested	:	
Corrective Measures taken	:	
Action taken by Person incharge:		
Signature of Person incharge	:	
Directions & Signature of Head:		<u>NIL</u>
Date:		

Filed
24.06.12
Safety Officer
Shriram EPC