

Environmental and Social Monitoring Report

Second Monitoring Report
Project Number: 44951-014
May 2016

Bangladesh: Bibiyana II Gas Power Project

Prepared by Bangladesh Centre for Advanced Studies (BCAS) for the Summit Bibiyana II Power Company Limited and Asian Development Bank

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PROJECT SITE SECOND ENVIRONMENTAL AND SOCIAL MONITORING REPORT

SUMMIT BIBIYANA II POWER COMPANY LTD

AT

PARKUL, HABIGANJ, BANGLADESH

September 07, 2015

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EXECUTIVE SUMMARY

The Project Site Second Environment and Social Monitoring Report has been prepared for fulfilling the requirement of lenders with the vision of monitoring the Environmental and Social Management and Monitoring Plan (ESMMP) of the ESIA and the corrective action plans specified in the First Environment and Social (EHS&S) Compliance Audit Report, November 2014 (prepared by ERM) as well as ERM's Second EHS&S Compliance Assessment Report, May, 2015. The report consists of 8 chapters.

SBIIPCL is going to establish a 341 MW CCGT power station at Bibiyana on a 'build, own and operate' basis. SBIIPCL has hired Engineering, Procurement and Construction (EPC) Contractor for construction of the power plant. The EPC Contractor has already completed above 95% construction work (physical progress). Construction work for starting single cycle operation has been completed – single cycle operation has been started from 6th June, 2015. However, necessary construction activities will continue until starting the combined cycle operation.

SBIIPCL has developed the organizational structure for the construction phase as well as single cycle operation phase with roles and responsibilities defined for concerned personnel. SBIIPCL has hired Engineering, Procurement and Construction (EPC) Contractor for construction of the power plant and Operation & Maintenance (O&P) Contractor for operation of the plant. SBIIPCL maintains legal register for ensuring legal compliances from the concerned government departments. Besides, SBIIPCL has prepared Environmental and Social Management and Monitoring Plan (ESMMP) and EPC Contractor has prepared Environmental Health Safety (EHS) Manual, which are being followed accordingly. In addition, Social Policy, Environmental Policy, Health and Safety Policy, Stakeholder Engagement Plan and Livelihood Restoration Plan have been developed by SBIIPCL.

SBIIPCL has finalized its HR Policy with inclusion of the suggestions of EHSS Compliance Audit Report, November 2014. EPC Contractor has also revised their HR Policy in compliance with the components of SBIIPCL's HR Policy. EPC Contractor hires vendors, suppliers and sub-contractors for supply of necessary goods and services including construction workers. EPC Contractor complies with the HR Policy requirements of SBIIPCL while engaging local sub-contractor or contract workers. There is a formal grievance redress mechanism in place. Therefore, till date, there is no incidence on labor dispute and conflict between groups and there are no legal disputes.

The EHS Team of EPC Contractor ensures safe working practices through continuous monitoring. All the sub-contractors are bound to ensure EHS compliances and are answerable to EPC Contractor. SBIIPCL EHS personnel monitor the EHS activities of both EPC Contractor and its sub-contractors. Health and safety at workplace and for workers have been ensured by EPC Contractor and it is closely monitored by SBIIPCL. Trainings on EHS and ESMMP are being imparted for ensuring efficiency. Along with health and safety inside the plant, community health and safety as well as surrounding environment has been considered for impacts, and mitigation measures have been followed accordingly.

A total 11 acres of land was acquired for establishing the SBIIPCL Power Plant. Total of 14 landowners lost some or all (1 owner only) of their agricultural land due to this project. All landowners have been compensated for their loss of land. In addition to the allocated compensation, there has been provision for compensating Taka 200,000 more for the single landowner who lost all his land. The Project Affected Household (PAH) has been paid full of the committed amount.

Apart from the 14 land owners, who lost their land, there were also 6 sharecroppers and 11 agricultural laborers, who were also affected by the project. The SCAR document made provision for skills development and livelihood improvement of all the 31 PAHs. The activities are in process of being implemented.

The Livelihood Restoration Plan for all components of the project (376 PAHs) has been finalized, and implementation will be started soon. Hence, this monitoring report has focused on the plant site only being considered by ADB.

SBIIPCL prepared a Stakeholder Engagement Plan (SEP) in June, 2015. SEP has been translated into local language (Bengali), and it has been disseminated to the PAHs as well as other stakeholders. Stakeholder engagements have been taking place over the last few months with various categories of PAHs informally through visits of CDM and other SBIIPCL personnel to the project affected villages. Stakeholder engagement has been done in the forms of meeting, FGD, personal interview, visit etc with PAHs (e.g. landowners, sharecroppers and agricultural laborers) as well as other stakeholders (e.g. nearby village residents, local NGO, JCCR and other community people).

SBIIPCL Grievance Redress Mechanism was put in place and made operational from September, 2014 through direct communication with CDM of SBIIPCL and documentation has been done accordingly. Till date 23 grievances have been lodged from community people. Among them 14 grievances have been resolved, 2 have been rejected and the rest 7 are in the process of resolution.

EHSSCAR, November 2014 identified 66 corrective actions under 6 broad heads, among which 51 were for construction phase and the rest 15 were for commercial operation phase (which are not currently due). Monitoring of the corrective actions reveals that among the due 51 actions 45 actions were complied, while 6 actions were partially complied. The Monitoring report has suggested to ensure compliance for the partially complied actions by the next monitoring period.

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
BCAS	Bangladesh Centre for Advanced Studies
BERC	Bangladesh Energy Regulatory Commission
BIWTA	Bangladesh Inland Water Transport Authority
BOO	Built Operate and Own
BPDB	Bangladesh Power Development Board
CCGT	Combined Cycle Gas Turbine
CDM	Community Development Manager
CDP	Community Development Plan
CEO	Chief Executive Officer
CIB	Chief Inspector of Boilers
COO	Chief Operating Officer
CMT	Construction Management Team
DC	Deputy Commissioner
DoE	Department of Environment
DOEXP	Department of Explosives
DGM	Deputy General Manager
DMD	Deputy Managing Director
EHS	Environment Health and Safety
EHSS	Environment, Health, Safety and Social
EHSSCAR	Environment, Health, Safety and Social Compliance Audit Report
EPC	Engineering, Procurement and Construction
ERM	Environmental Resource Management
ESIA	Environmental and Social Impact Assessment
ESMMP	Environmental and Social Management and Monitoring Plan
F&E	Factories and Establishment
GoB	Government of Bangladesh
GRM	Grievance Redress Mechanism
GSAs	Gas Supply Agreements
HIRAC	Hazard Identification and Risk Assessment Control
HR	Human Resources
HSD	High Speed Diesel
IAs	Implementation Agreements
ID	Identification
JCCR	Joint Committee on Community Relations
JHA	Job Hazard Analysis
LLAs	Land Lease Agreements
LRP	Livelihood Restoration Plan

MoM	Minutes of Meeting
MSDS	Material Safety Data Sheet
MW	Mega Watt
NA	Not Applicable
NEPC	Northeast Electrical Power Engineering Co.
NGO	Non Government Organization
PAH	Project Affected Household
PAPs	Project Affected People
PGCB	Power Grid Company of Bangladesh
PPAs	Power Purchase Agreements
PPE	Personal Protective Equipment
PPP	Procurement Policies and Procedures
RFP	Request for Proposal
SBIIPCL	Summit Bibiyana II Power Company Limited
SCAR	Social Compliance Audit Report
SED	Small Enterprise Development
SEP	Stakeholder Engagement Plan
Tk	Taka
TNA	Training Need Assessment

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1.0 Project Description

1.1 Brief Project Description

The policy of the Government of Bangladesh ('GoB') has been to ensure extension and stabilization of the power sector, through both public and private sector undertakings, towards not only meeting the existing power deficiency throughout the country but also ensuring unhindered power provision in view of the projected future demand.

A Request for Proposal (RFP) was issued by Power Cell (the Power Division of the GoB Ministry of Power, Energy and Mineral Resources) on 3rd May 2010 (and subsequently amended on 2nd September 2010) for the sponsor to develop a 330-450 MW CCGT power station at Bibiyana on a 'build, own and operate (BOO)' basis. The RFP was signed by Summit Bibiyana II Power Company Limited (SBIIPCL) on 6th September 2010. In May 2011, to build, own and operate a 341 MW combined cycle gas turbine power plant, SBIIPCL signed: Implementation Agreements (IAs) with the GoB and the Power Grid Company of Bangladesh (PGCB); Power Purchase Agreements (PPAs) with the Bangladesh Power Development Board (BPDB); Land Lease Agreements (LLAs) with the BPDB; and Gas Supply Agreements (GSAs) with the Jalalabad Gas Transmission and Distribution System Limited ('the Gas Supplier'). In addition, for construction of the power plant, an Engineering, Procurement and Construction (EPC) contract was signed with a joint venture comprising the First Northeast Electrical Power Engineering Co. and Northeast China International Electric Power Corporation (herein referred to as 'the EPC Contractor') in June 2011.

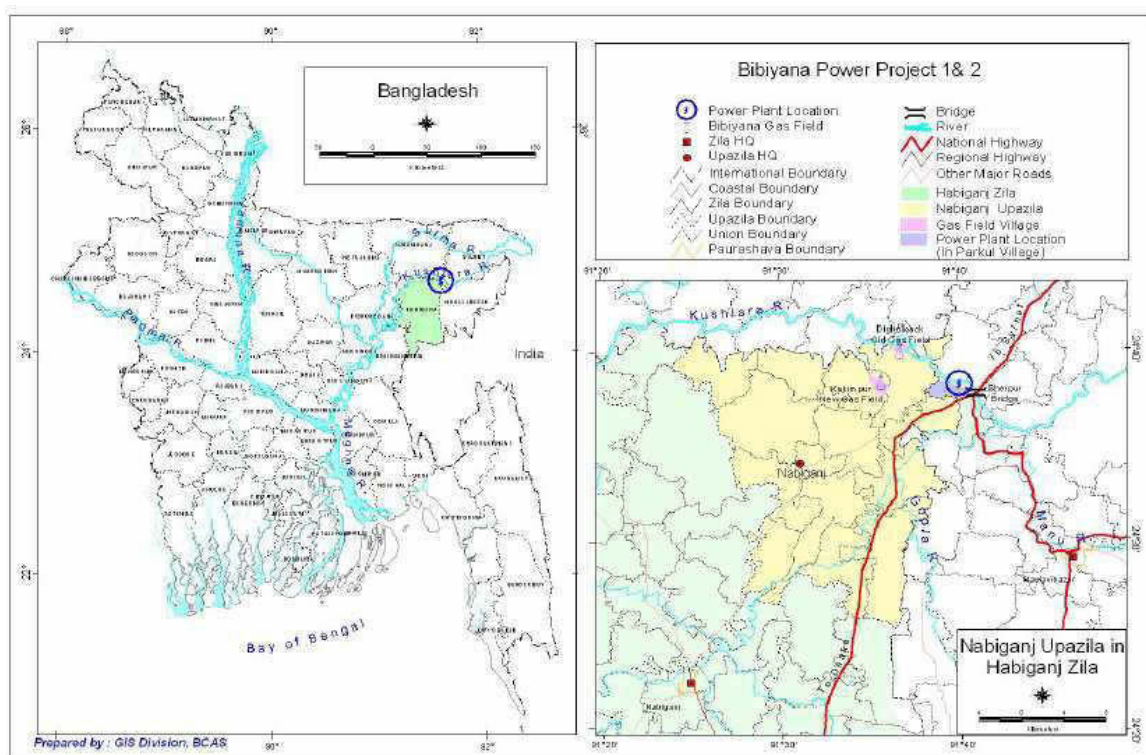


Figure 1.1: Location of SBIIPCL Plant in Bangladesh and in Hobiganj District

The location of SBIIPCL plant in Bangladesh and in Hobiganj District is shown above in Figure 1.1. The SBIIPCL project site is located on the southern bank of the river Kushiara, at Longitude 91° 39' 37" E. and Latitude 24° 38' 18" N. The site is approximately 2 km to the west of the Sherpur bridge, and lies west of the Dhaka - Sylhet National Highway (N2), approximately 180 km north-east of Dhaka and approximately 45 km south-west of the Sylhet District Headquarters. Administratively,

it is located at the village of Parkul at Aushkandi Union under Nabiganj Upazilla of Hobiganj District. Plant layout for the SBIIPCL Power Plant has been shown in Figure 1.2 below:

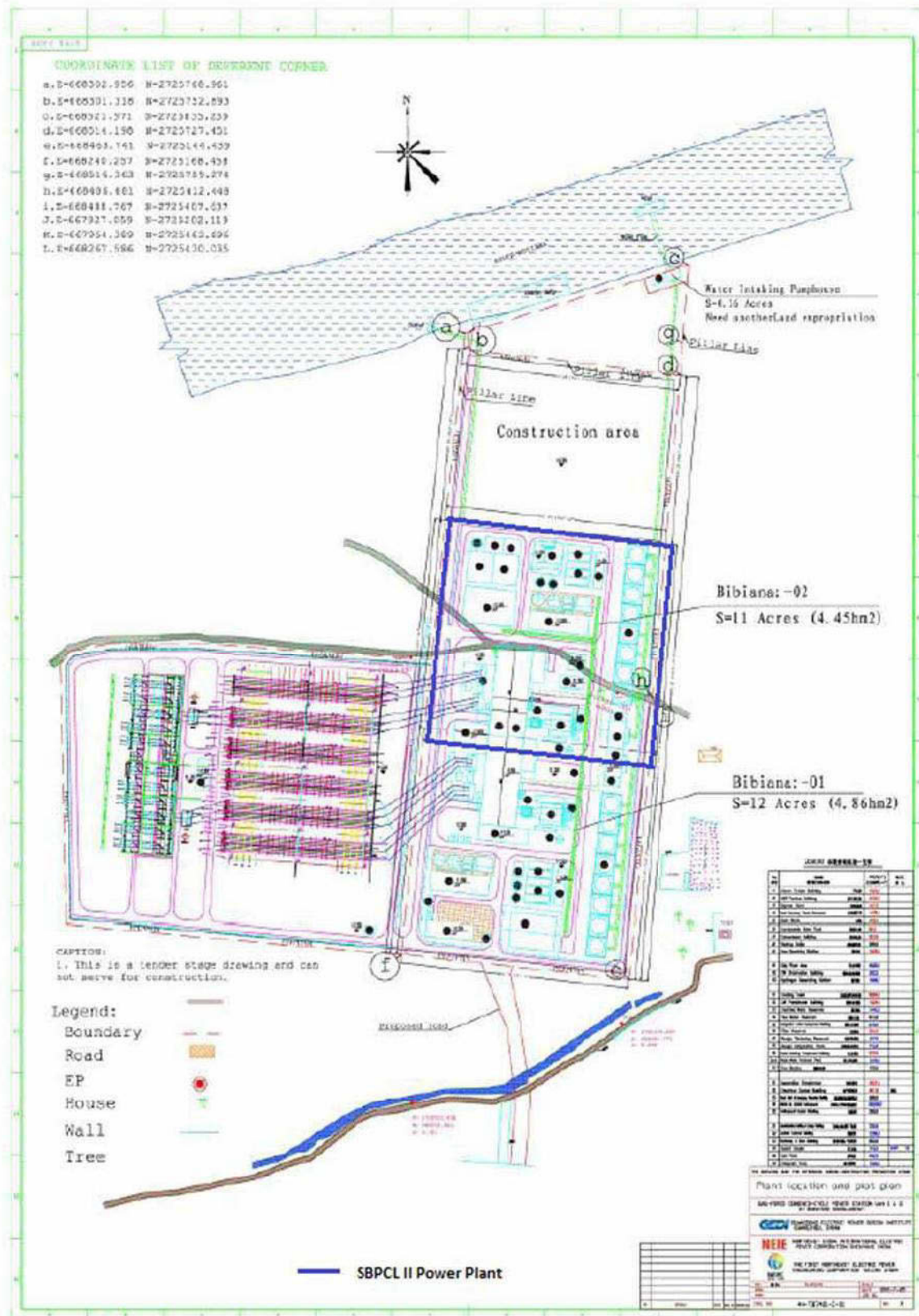


Figure 1.2: Plant layout for the SBIIPCL Power Plant

The project will have a capacity of 341MW and will use a combined cycle technology and will be based on natural gas. The main plant is located on 11 acre single crop agricultural land, which is the main component of the project. SBIIPCL has received this land from BPDB for 22 years under a Land Lease Agreement (LLA). SBIIPCL is responsible for all kinds of development (land filling, machinery setting and electricity production) related to power generation. The main associated facilities of the project are a 8.8km gas pipeline from the nearby gas field and a switchyard, located adjacent to the plant. A 2 km access road connecting the main plant with the Dhaka-Sylhet highway has been built. ADB will fund the power plant which is located on the 11 acres of land in Parkul village, while the associated facilities are to be developed by the parties identified in Table 1.1 below:

Table 1.1: Summary of Associated Facilities which are not financed by ADB

Components	Area (acre)	Responsible Parties	Impacts
Switchyard	26.0	PGCB	15 informal settlers (landless) including 1 land owner have been resettled adjacent to switchyard and given 7 decimals (0.7 acre) of land for 99 years lease and Tk. 60,000 for housing structure loss and Tk. 7,500 as moving allowance.
Access road	4.0	BPDB	Losses of land and landowners have been compensated.
Gas Pipeline	8.5	Jalalabad Gas	Losses of land and landowners have been partially compensated. Compensation is ongoing.
Construction lay down area	14.0	BPDB/SBIIPCL	Losses of land and landowners have been compensated.
Transmission line	70 meters to switchyard	PGCB	No impact, as the transmission line from the plant to the switchyard has no additional environmental or social impact.

1.2 Update on the Status of the Design/Construction Activities of the Bibiyana II Gas Power Plant Project Facilities

SBIIPCL has hired Engineering, Procurement and Construction (EPC) Contractor for construction of the power plant. The EPC Contractor has already completed above 95% construction work (physical progress). Construction work for starting single cycle operation has been completed – first firing has been conducted successfully on 27th April, 2015. Single cycle operation has been started from 6th June, 2015. However, necessary construction activities will continue until the combined cycle operation. Table 1.2 below depicts important dates and timelines for SBIIPCL Project regarding the ongoing construction phase:

Table 1.2: Important Dates and Timelines for SBIIPCL Project

1.	Name of the Company	:	Summit Bibiyana II Power Company Ltd.
2.	Capacity (MW)	:	341 MW
3.	Type of fuel	:	Natural Gas
4.	Date of signing Implementation Agreement (IA)	:	12 May 2011
5.	Date of signing Power Purchase Agreement (PPA)	:	12 May 2011
6.	Date of signing Gas Supply Agreement (GSA)	:	12 May 2011
7.	Date of Signing Land Lease Agreement (LLA)	:	12 May 2011
8.	Contract effective date	:	12 May 2011
9.	Implementation period as per contract	:	31 March 2013 - 31 Dec 2015
10.	Required Simple Cycle Operation Date (RSCOD)	:	31 Dec 2014 (excluding Force Majeure Days)
11.	Simple Cycle Operation Date	:	06 June 2015
12.	Date of Financial closure	:	08 July 2015
13.	Required Commercial Operation Date (RCOD)	:	31 Dec 2015 (excluding Force Majeure Days)
14.	Expected COD	:	30 October 2015

Table 1.3 below shows the financial progress of the project, while Table 1.4 depicts the physical progress:

Table 1.3: Financial Progress (in respect of Amount) of Construction Work

SLNO	Description	Cumulative Progress up to previous month (June) (%)	Cumulative progress up to current month (July) (%)	Actual progress in reporting month (July) (%)	Target in reporting month (July) (%)
1.	Land development	100%	100%	100%	-
2	Survey & Related Data Collection	100%	100%	100%	-
3	Boundary Wall & With flood protection	Boundary wall and flood protection done	100%	100%	-
4	Building & Construction	Included in EPC	Included in EPC	Included in EPC	Included in EPC
5	Main Machineries (including civil works, installation/erection)	Included in EPC	Included in EPC	Included in EPC	Included in EPC
6	EPC	78%	98%	20%	1%

Table 1.4: Physical Progress of Construction Work

SL NO	Description	Progress (July) (%)	Cumulative Progress up to previous month (June) (%)	Cumulative progress up to current month (July) (%)	Actual progress in reporting month (July) (%)	Target in reporting month (July) (%)
a)	Civil Works <ul style="list-style-type: none"> Land Procurement (in respect of Area) Land Development (in respect of volume) Foundation (in respect of volume): pile foundation, lean work, pile cap cutting, rebar work, concrete pouring Civil Construction (in respect of volume): land development, foundation, sub-structure, superstructure, wall, rooftop, etc. 	NA 100% 99% 98.5%	NA 100% 99% 98%	NA 100% 99% 98.5%	NA - 0% 0.5%	NA - .05% 0.5%
b)	Installation/ Erection <ul style="list-style-type: none"> GT/ST, Engine and associates works (GTG, STG, main Stack, By-pass Stack, Main Plant Building, HRSG, etc.) Substation (design, engineering, manufacturing, installation) Control Room (Central Control Building): design, foundation, superstructure, installation, erection, etc. 	96% 100% 99%	94% 100% 98%	96% 100% 99%	2% - 1%	2% - 1%
c)	Interconnection/electrical work	100%	100%	100%	-	-
d)	Arrangement of fuel (Fuel storage, RMS, Pipe Line, etc.) <ul style="list-style-type: none"> a) Pipe Line b) RMS 	100% Installation Completed & Commissioning	100% 100%	100% 100%	- -	- -
e)	Testing/Commissioning	Simple Cycle running and Combined Cycle commissioning on going	-	-	-	-

Table 1.5 below depicts the progress of construction activities of the associated facilities, which are not funded by ADB.

Table 1.5: Progress of Construction Activities of the Associated Facilities

Components	Area (acre)	Responsible Parties	Status of construction
Switchyard	26.0	PGCB	Completed
Access road	4.0	BPDB	Completed
Gas Pipeline	8.5	Jalalabad Gas	Completed
Construction lay down area	14.0	BPDB/SBIIPCL	Developed
Transmission line	70 meters to switchyard	PGCB	Completed

1.3 Key Developments and any Major Changes in Location and Design

There were no new major developments or changes in the location and design of the project.

1.4 Reporting Period Covered by this Monitoring Report (month/year)

The first Environment, Health, Safety and Social (EHSS) Compliance Audit Report prepared by Environmental Resource Management (ERM) was submitted to ADB in November 2014. The audit report suggested that the implementation of the proposed CAPs should be monitored on a quarterly basis during the construction phase up to commissioning followed by half yearly monitoring for at least two consecutive years of operation. In this connection, SBIIPCL hired Bangladesh Centre for Advanced Studies (BCAS) as the environmental and social monitoring consultant.

Following ERM's EHSS audit report suggestion, the first monitoring report was due in February, 2015. However, due to delay for various reasons, the first monitoring report was postponed till April, 2015 through mutual agreement between SBIIPCL and ADB. Hence, the first environmental and social monitoring report was prepared by Bangladesh Centre for Advanced Studies (BCAS) and was submitted on 30th April, 2015. ERM audit team came for validating on the next month, and submitted draft EHS&S Compliance Assessment Report on 17th May, 2015.

Although the 2nd quarterly environmental and social monitoring report was literally due by 31st July, 2015, SBIIPCL considered the next monitoring to be due after three months of ERM audit. Hence, SBIIPCL asked BCAS team to start monitoring work after the 1st week of August, 2015. BCAS monitoring team visited the SBIIPCL Plant from 11th to 14th August, 2015. As per discussion with the lenders, the next monitoring report will be due in October, 2015.

1.5 Environmental and Social Monitoring Team

The Environmental and Social Monitoring Team comprised of the following members from BCAS:

1. Dr. Moinul Islam Sharif, Team Leader.
2. Mohammad Imtiaz Sharif, Social & Environmental Specialist.
3. Ikbal Hossain, Resettlement Specialist.

2.0 Assessment and Management of Environmental and Social Risks and Impacts

2.1 Organizational Structure for Construction and Operation Phases

SBIIPCL has developed its organizational structure for the construction phase. Figure 2.1 and Figure 2.2 below show the organizational structures of SBIIPCL for construction phase (design review and site supervision).

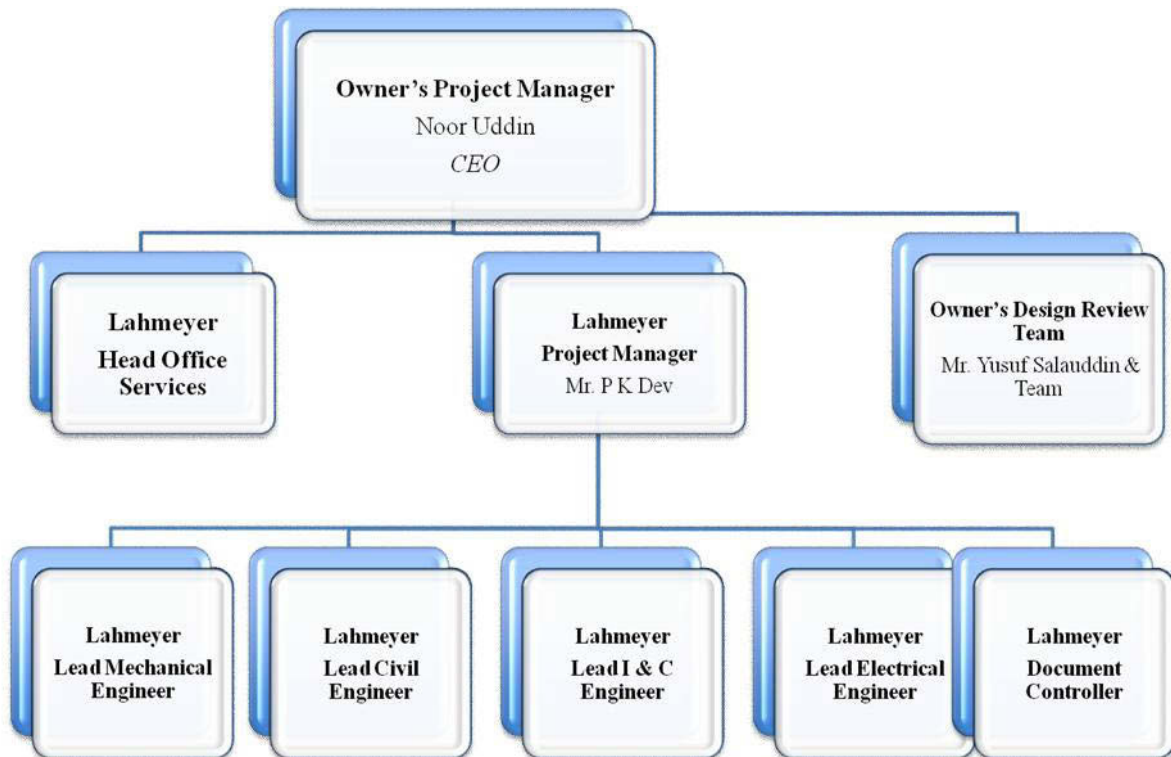


Figure 2.1: Organizational Structure of SBIIPCL for Construction Phase – Design Review

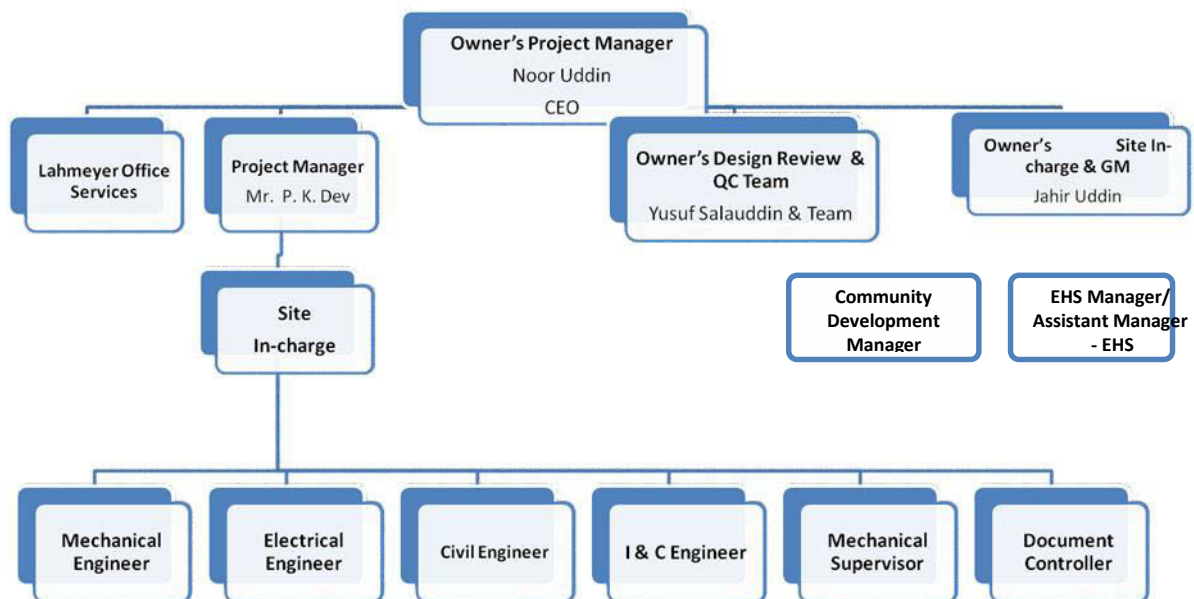


Figure 2.2: Organizational Structure of SBIIPCL for Construction Phase – Site Supervision

With the vision of ensuring construction work efficiently SBIIPCL has formed a Construction Management Team (CMT) having especial focus on EHS and social compliance requirements of the project. Figure 2.3 below depicts the Construction Management Team (CMT) of SBIIPCL.

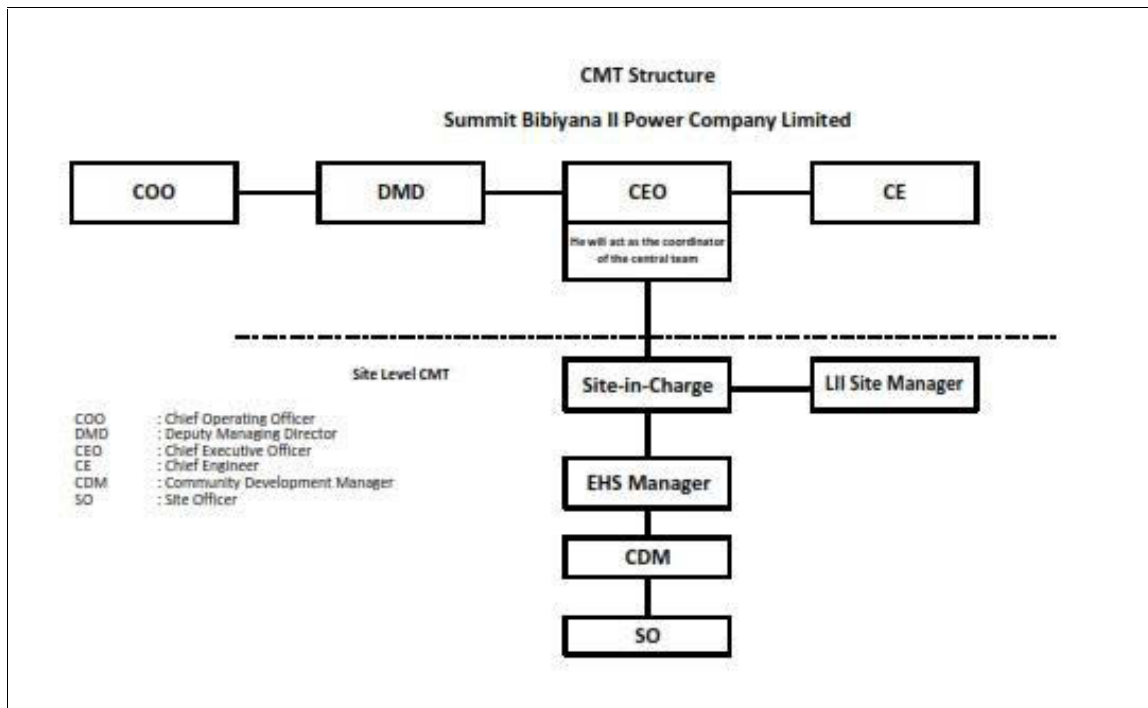


Figure 2.3: Construction Management Team (CMT) of SBIIPCL

It is to be noted that roles and responsibilities have been defined for the concerned personnel of SBIIPCL. As mentioned earlier, single cycle operation is going to be started very soon. But combined cycle operation is planned to be started from January, 2016 after completion of the construction phase. Hence, SBIIPCL has incorporated the organization structure of the construction phase to take care of the single cycle operation. The organizational structure of O&M Contractor for the operations phase has been shown in Figure 2.4 below:

BIBIYANA II O&M Organization Chart

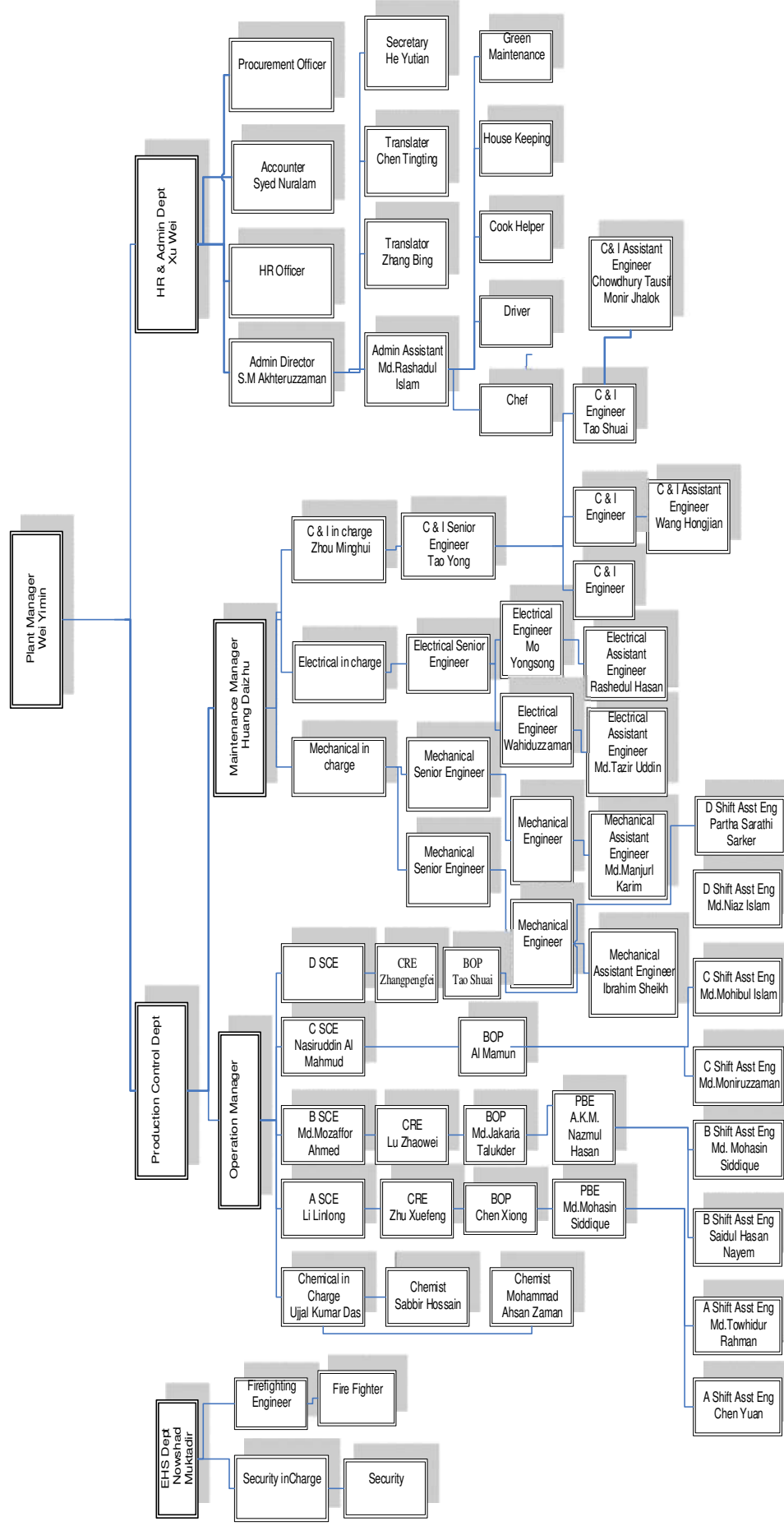


Figure 2.4: Organizational Structure of O&M Contractor for Operations Phase

2.2 Legal Register

The Environmental, Health, Safety and Social Compliance Audit Report (EHSSCAR), November 2014 suggested for development of a legal register for both construction and operations phases. SBIIPCL has prepared a legal register for ensuring timely approval or renewal of all legal compliances of the project. Table 2.1 below shows the Legal Register for construction phase as well as impending operation phase of SBIIPCL:

Table 2.1: Legal Register for Construction & Operation Phase of SBIIPCL

Sl. No.	Description of Permit	Issuing Authority	Date of Issue	Valid until	Remark
1	UP Trade License	UP	1-Jul-15	30-Jun-16	
2	City Trade License	City Corporation	7-Sep-16	30-Jun-16	
3	River water/Foreshore/Jetty	BIWTA	08.29.2014	28-Aug-15	
4	Boiler-HRSG-1,2	DOEXP/CIFE	14.06.2015	13-Jun-16	
5	Generation License	DC	13.02.2015	12-Feb-16	
6	Storage of Acid & Caustic Soda.	DC	09.06.2015	30-Jun-16	
7	Site Clearance Certificate	DOE	31/05/2015	28/05/2016	
8	EIA Approval	DOE	17/06/2015	16/06/2016	
9	Environment Clearance Certificate	DOE	17.06.2015	16-Jun-16	
10	Permission to store Liquid fuel	DOEXP	18.06.2015	31-Dec-15	
11	Fire Service and Civil Defense Act.1959	Fire Service	08.06.2015	30-Jun-16	
12	License for Factories	CIF	24.06.2015	31-Dec-15	
13	Storage for CO2 gas cylinders	DOEXP	18.06.2015	31-Dec-15	
14	Generation and Storage of Hydrogen inside plant	DOEXP	18/06/2015	31/12/2015	
15	License for installation of High Pressure Gas Pipeline	DOEXP	13/05/2015		Permanent
16	Certificate for stack	Civil Aviation	16/06/2014		Permanent
17	Propane storage License	DOEXP	17.06.2015		N/A
18	Compressed gas cylinder storage	DOEXP	17.06.2015		N/A

The legal register depicts that currently there are 18 legal components of the project that require approval or renewal from concerned government departments of Bangladesh. Among them, SBIIPCL has achieved legal approval for 16 legal components. As the quantity of propane gas cylinders and compressed gas cylinders were below the maximum permitted limit without license, Department of Explosive certified that no license is required.

2.3 Environment, Health and Safety

SBIIPCL has appointed an Assistant Manager – EHS (to function as the EHS Manager) for taking care of EHS issues as well as ESMMP implementation. SBIIPCL has developed EHS Policy (Environment Policy and Health & Safety Policy), which has also been translated into Bengali. EHS Policy in both English and Bengali has been displayed at 2 suitable locations – at gate no. 3 and in front of SBIIPCL Conference Room.

EPC Contractor maintains the EHS records and SBIIPCL keeps close monitoring of EHS practices. The site EHS plan comprising of standard operating procedures (SOPs), and Work Permits including

training records have been translated into English by NEPC and shared with SBIIPCL. Document review reveals that the following records are being maintained by NEPC viz.

- Safety Corrective Action Request
- MoM of Environment, Health and Safety Meeting
- Weekly Inspection Checklist
- Incident Investigation and Report Form
- Injury and Illness Log
- First Aid Log
- Hot Work Permit
- Come - Along And Chain - Fall Monthly Inspection Form
- Fall Protection Equipment Monthly Inspection

In addition, records related to injury/illness are maintained by NEPC and shared with SBIIPCL. Permits related to electrical and height works are issued following the EHS Plan. However, due to language barrier, EPC failed to show the permits to ERM during last audit. Currently, there is no more activity with overhead cranes and gantry cranes.

The ESMMP has been updated with defined action items, responsibilities, monitoring indicators and review/audit mechanisms. Based on document review and discussion with SBIIPCL it is understood that presently plans with respect to emergency response and preparedness, hazardous material management, livelihood restoration, community development, stakeholder engagement, public relations, contractor & labor camp management, management of EHS issues and road transportation have been prepared and is being implemented by both SBIIPCL and NEPC. The aspects related to pollution prevention and abatement have been covered as part of the Project Environmental Plan prepared by NEPC. Fisheries Survey and Bird Survey will be carried out in October, 2015.

Moreover, SBIIPCL has prepared various procedures for its operation i.e. permit to work, caustic and acid handling procedure, spill prevention and response plan, wastage management procedure etc.

2.4 Emergency Preparedness and Response for Construction Phase

The emergency preparedness and response plan for the construction phase has been updated with inclusion of emergency responses during natural disasters, e.g. earthquake, heavy rain and flood and heavy wind. Site In-charge and General Manager has been appointed as Emergency Coordinator for the construction phase. Emergency Mock Drill on earthquake has been conducted as a part of training on 6 august, 2015.

2.5 Training of SBIIPCL Staff and EHS Team of Contractor on ESMMP and EHS

SBIIPCL has developed a training calendar for the construction phase. DGM, Operation & Compliance, SBIIPCL imparted training on ESMMP and EHS to SBIIPCL EHS Staff and EHS Team of EPC Contractor on 22 Jan, 2015. Later on, SBIIPCL organized further trainings on environment quality monitoring, solid waste management, hazardous material handling, traffic management, grievance redress following the suggestions of ERM. Special training is given to worker on the proper use of PPE's. Also training is given to the workers based on the root cause of incident happened in the site during working time.

2.6 Social Policy

A social policy has been developed for SBIIPCL. The policy has been translated into Bengali as well. Social Policy in both English and Bengali has been displayed at 3 suitable locations – gate no. 3, in front of SBIIPCL Conference Room and at CDM's office. Besides, the copy of the social policy is being distributed among the PAHs by CDM.

2.7 Stakeholder Engagement

SBIIPCL prepared a Stakeholder Engagement Plan (SEP) in June, 2015. A copy of the SEP has been attached in Annex 6. SEP has been translated into local language (Bengali), and it has been disseminated to the PAHs as well as other stakeholders.

Stakeholder engagements have been taking place over the last few months (from before preparation of SEP) with various categories of PAHs informally through visits of CDM and other SBIIPCL personnel to the project affected villages. The primary objective of these engagements was dissemination of the Bengali versions of ESIA Summary, CDP and livelihood restoration framework.

SBIIPCL has developed a commitment register as a part of stakeholder engagement process in order to document the outcomes of public consultations and respond to local community expectations, and ensure that these are communicated back to stakeholders and updates provided. Community Development Manager maintains a stakeholder engagement file that includes a sheet named as commitment register. This includes brief mentioning of the issues shared by community and action taken upon those issues by the company.

3.0 Labor and Working Conditions

3.1 Human Resources Policies and Procedures

3.1.1 HR Policy of SBIIPCL

HR policy of SBIIPCL has been finalized, which includes roles and responsibilities of personnel, non-discrimination policy, HIV/AIDS non-discrimination policy, anti-sexual harassment policy, policy for prohibition of child and forced labor and procurement policies and procedures (PPP) for dealing with contractors and suppliers. The HR Policy has ensured that the EPC Contractor complies with the same while engaging local sub-contractor or contract workers. The Assistant Manager – EHS (functioning as EHS Manager) and Community Development Manager deputed by SBIIPCL have been held accountable for ensuring labor compliance of EPC contractor. While the Community Development Manager takes care of labor grievance issues, the Assistant EHS Manager looks after the rest of all labor and EHS issues.

For the construction phase, SBIIPCL has engaged 9 officers and 9 supporting staff at the plant.

3.1.2 HR Policy of EPC Contractor

SBIIPCL has hired Engineering, Procurement and Construction (EPC) Contractor for construction of the power plant through following procurement policies and procedures. The EPC Contractor has updated its HR Policy to comply with the HR Policy requirements of SBIIPCL.

All the contract workers directly employed by EPC Contractor have been contracted with contract agreement. For engaging sub-contractors or labor suppliers, EPC Contractor collects required documents from the concerned parties. During employing workers directly or through sub-contractors, child labor engagement is strictly avoided, and National ID Card of each worker is checked and copy of the same is kept in the file. The workers are appointed only after passing the physical and medical tests. Non-discrimination as well as protection against sexual harassment and forced labor have been ensured by EPC Contractor.

EPC Contractor maintains files of contract agreements with different parties, and maintains records of working hours and overtime of the workers. There are three categories of staff & workers employed by EPC Contractor at SBIIPCL plant. They are:

- EPC contractor's own staffs (Chinese staffs): about 150 staffs including 6 female staffs;
- Directly hired local staffs and workers by EPC Contractor: 100 staffs and workers including 1 female nurse;
- Locally hired sub-contracted staffs and workers: 215 staffs and workers (all are male).

The construction phase is almost at the finishing stage. Hence, over the last few months, the number of workers is decreasing gradually. Except the Chinese female staff and 1 local nurse, no female worker has been employed by EPC Contractor. This is basically due to lack of scope for female workers in construction phase.

3.2 Working Conditions and Terms of Employment

3.2.1 Terms of Employment

Chinese staffs are governed by the NEPC HR policy and conditions for staffs working on international assignments. All the workers employed by EPC or its sub-contractor are engaged with a contract agreement. A common agreement template is followed for hiring local staff and workers by NEPC. Review of the agreement copy indicates the following key observations:

- Previously, agreement languages were in English and Chinese only. However, most of the local workers directly hired by NEPC did not understand either of these two languages. Recently, addressing SBIIPCL's continuous requisition, EPC Contractor has re-written the agreements in Bengali as well, and has provided the same to each worker.

- Agreement conditions discuss about the aspects around contract duration, working time, leave, prohibition of worker under 18 years and forced workers, non-discrimination policy as per regulation of Bangladesh etc.

Review of agreement between NEPC and their labor supply contractors (i.e. M/s. Nation Trade, M/s. Jui Enterprise, M/s. Shotota Enterprise) put forward the following key observations:

- As per agreement, sub-contractors are bound to comply with the HR Policy requirements of SBIIPCL and EPC Contractor.
- Wage rate for different categories of the workers (i.e. labor, welder, other skilled staff), is specified in the agreement.

Review of agreement between sub-contractors and their workers indicates the following key observations:

- The workers will have to work for 8 hours a day and they will receive defined wage.
- Sub-contractors are responsible for provision of free medical service to the workers due to any physical disorder or accident of the worker during work.
- Although in practice as per following HR Policy of EPC Contractor, the workers are enjoying the applications of non-discrimination policy, HIV/AIDS non-discrimination policy, anti-sexual harassment policy, policy for prohibition of child and forced labor as stipulated in SBIIPCL HR Policy, no such reference was made in the agreement document.

It is to be noted that Clause 99 of Bangladesh Labor Law 2006, last amended on 2013 states that group insurance for labors is applicable only where at least 200 permanent labors work. Since, the labors of the SBIIPCL Plant are not permanent in nature, insurance for the labors is not required.

Recently, all the workers of the plant have been issued ID Cards. Besides, each worker has been provided a helmet with an identification number, and he must wear the helmet during work to ensure his identity. The admin supervisors (Chinese) provide attendance, and do record keeping of working hours and overtime of the labors through identifying them with their helmets.

3.2.2 Working Hour and Overtime

According to contemporary labor law of Bangladesh (Bangladesh Labor Law 2006, last amended in 2013), each labor should enjoy a paid weekly holiday after maximum 6 days of continuous works. This implies, there should be maximum 26/27 working days per worker per month, while the worker should be receiving the salary of the whole month. By law, daily working hour is 8 hours and daily overtime should not exceed 2 hours. So, maximum working hours including overtime is 60 hours per week, but on the average this should not be more than 56 hours per week in year (according to Bangladesh Labor Law). This means, average maximum overtime per week is 8 hours, from which it might be implied that maximum average overtime per month should not exceed 48 hours per 4 weeks. SBIIPCL informed that they consistently pursue the EPC Contractor to comply with appropriate laws of the country.

Working hour analysis of the workers reveals that provision of one day leave at the end of 6 continuous days of work was not maintained. Few workers have also been found to be working more than the maximum limit of monthly overtime hours. SBIIPCL has taken up this issue with the EPC Contractor for quick resolution. Recently EPC has confirmed that maximum limit of monthly overtime will not be crossed.

3.2.3 Payment of Salary and Overtime

In the minimum wage circular, Bangladesh Minimum Wages Board of Bangladesh Government has specified minimum wage rate and salary for different sectors. The construction works of SBIIPCL fall under category 29 of the minimum wages circular of Bangladesh Government. Table 3.1 below depicts the monthly salary and wage structure for the construction sector workers and staff specified by Bangladesh Minimum Wages Board:

Table 3.1: Monthly Salary and Wage Structure for the Construction Sector Workers and Staffs

Ref. No.	Industry Name	Year of Wage Fixation	Labor Category	Basic Salary	House Rent Allowance	Medical Allowance	Transport Allowance	Other Allowance	Annual Increment Rate	Total Salary
29	Construction & Carpentry	2012	Labor	6,950	2,432.50	400	200	-	-	9,982.50 Daily Wage Tk 375.
			Staff	-	-	-	-	-	-	-

Source: Minimum Wages Circular, Bangladesh Minimum Wages Board (issued after April, 2015)

EPC Contractor pays salary regularly to the workers and staff at the end of each month. The locally hired sub-contracted workers and staff are paid their salaries through their concerned sub-contractors. According to the minimum wages circular, the minimum daily wage rate is Taka 375 for the construction labors. However, a good number of labors have been found to be paid less than this minimum wage rate. The minimum actual wage received by the workers is Taka 270 per day, while the maximum wage received is Taka 1,350 per day.

Bangladesh labor law has defined that the overtime rate should be at least double of the basic salary rate. So, from Table 2.1, considering the minimum monthly basic salary of Taka 6,950 the minimum hourly overtime rate should be at least Taka 67 ($=6950/(26*8)*2$). If the labor is employed for short period, and is paid on daily wage basis, the OT rate should be double to his hourly wage rate. However, EPC Contractor has been found to be making OT payment almost equal to the wage rate of the workers.

SBIIPCL has taken up the issues of minimum wage rate as well as double payment for OT with the EPC Contractor for quick resolution. However, these issues are still under discussion.

3.2.4 Accommodation of Migrant Workers

No labor camp has been established within the plant site. EPC Contractor has arranged accommodation for these migrant labors at the construction lay-down area. EPC Contractor has formulated labor construction camp guidelines and has shared with SBIIPCL, which has been approved by SBIIPCL accordingly. In this line, EPC Contractor has improved the labor camp. The labor camp in tin shades over concrete floor is found in reasonable good/healthy condition with light, fan and adequate ventilation facilities. About 6 to 8 workers live in each room of the labor camp. There are hygienic and sanitary toilets and bathrooms with running water and light. One separate tin shed with adequate ventilation is dedicated for cooking. No worker cooks at room currently. Adequate lighting facility has been ensured inside the camp as well as along the walkway. Fire extinguisher was observed to be placed inside the labor camp. Paved walkway has been constructed for easy accessibility. Cleaners serve twice a day to keep the labor camp clean and hygienic. EHS personnel of SBIIPCL regularly monitor the living condition of the labor camp to check the standards maintained. The records of monitoring are documented. In case of any non-compliance, EPC Contractor is informed and asked to rectify.

No accommodations are made for subcontractors' workers. It is assumed that the subcontractors' workers come from the nearby areas, and do not need any accommodation facility.

3.3 Workers' Organization

During the construction phase, as most of the workers employed by EPC Contractor are temporary in nature and therefore according to Bangladesh Labor Law, there is no requirement of formation of labor union or collective bargaining agreement (CBA). Moreover, the workers are mainly recruited through local labor suppliers. Hence, no labor union or CBA has been formed in the plant. Labor relations issues are managed by EPC Contractor through a grievance redress mechanism, and it is closely monitored by SBIIPCL personnel.

3.4 Non-discrimination and Equal Opportunity

The HR policy and procedures (handbook) of SBIIPCL has been updated with policy on non-discrimination and equal opportunity. The EPC contractor has also updated their HR Policy following SBIIPCL, and hence ensures non-discrimination and equal opportunity. The agreement with sub-contractors includes a clause regarding following the principle of non-discrimination in recruitment process.

It was observed that there is no female among the existing locally hired workers at the plant. However this is mainly attributed to the prevailing local culture and custom wherein female member of the family remain restricted to household chores.

3.5 Grievance Redress Mechanism

EPC Contractor has placed a gray color box at gate no. 3 for receiving grievances from labors as well as local people. Besides, the safety supervisors move with grievance register books to every site of the plant everyday to note down grievances from the workers. Primarily, grievance issues are solved by EPC Contractor. SBIIPCL personnel monitor grievance redress activities of EPC Contractor on regular basis. Besides, SBIIPCL personnel also remain present in the grievance redress meetings as and when needed as stipulated in the EPC Grievance Redress Mechanism. If the both parties (affected person and EPC Contractor) fail to reach to an agreeable solution, the concerned grievance file will be forwarded to SBIIPCL GRM Plant Committee for redressing the grievance. Then the formal grievance redress mechanism of SBIIPCL will be followed to solve the grievance issue.

Till date, there is no incidence on labor dispute and conflict between groups and there are no legal disputes. Table 3.2 below depicts the summary of the grievances recorded and their status:

Table 3.2: Summary of the Labor Grievances Recorded and Status

NO	Issue	Grievance Details	Status		Remarks
			Receiving Date	Closing Date	
1	Job security for migrant workers	Some workers asked for appointment letters	23.09.2014	23.09.2014	NA as they are temporary workers.
2	Job security for migrant workers	Some workers asked for appointment letters	25.09.2014	25.09.2014	NA as they are temporary workers.
3	Mishap between Bengali supervisor and Chinese supervisor	The supervisor was unable to enter at site because of NEPC embargo	02.10.2014	19.10.2014	Redressed with involvement of SBIIPCL Plant Committee, JCCR and NEPC jointly Continued to enter at site
4	Medicine from the EPC Medical Centre	Doctor did not supply medicine to the patient, rather gave a token	09.11.2014	09.11.2014	At that time, the particular medicine was not available.
5	Mishap between Bengali labor and Chinese supervisor	Verbal quarrel occurred between Chinese supervisor and Bengali labor	14.12.14	02.01.2015	Redressed by SBIIPCL Plant Committee and NEPC EHS Department The Chinese Supervisor was warned and fined
6	Labor grievance	Labor Injury	08.02.2015	21.02.2015	NEPC gave the treatment cost.
7	Mishap between two labors	quarrel occurred between two labors	21.02.2015	23.03.2015	Addressed from the meeting among Supervisor of the labors, EHS Ast. Manager and Safety Supervisor
8	Labor complained about hand gloves	Labor at construction site complained about gloves	03.03.2015	04.03.2015	Received good gloves
9	Mishap between Bengali labor and Chinese supervisor	Verbal quarrel occurred between Chinese supervisor and Bengali labor	03.03.2015	17.03.2015	NEPC Plant committee internally resolved the matter and the applicant started working again under the same supervisor
10	Local boy injured	One local boy injured during an incident with one unknown Chinese person at night	20.03.2015	30.03.2015	NEPC provided treatment cost

NO	Issue	Grievance Details	Status		Remarks
			Receiving Date	Closing Date	
No labor grievances in between April-May, 2015					
11	Chinese Supervisor beats Bengali labor	Chinese Supervisor beat Bengali labor at the boundary wall construction site	16.06.2015	24.06.2015	That was solved by organizing a hearing session.

In consultation with workers, it was observed that workers prefer to verbally share their workplace related concern either with the locally safety In-charge by the EPC contractor or to the site level EHS officer of SBIIPCL. Most of the grievances are taken care of instantly by the safety in-charge.

3.6 Protecting the Work Force – Child Labor & Forced Labor

The agreement with sub-contractors includes a clause about prohibition of child labor, forced labor. There is an adequate system in place to ensure prohibition of child labor and forced labor.

Worker below 18 years of age is not recruited by EPC Contractor on any sub-contractor. During employing workers directly or through sub-contractors, child labor engagement is strictly avoided, and National ID Card of each worker is checked and copy of the same is kept in the file. EPC Contractor maintains files of contract agreements with different parties, and maintains records of working hours and overtime of the workers.

Although great numbers of workers have been found to be working for more hours in comparison to regular maximum working hours and overtime period, verbal discussion with the workers revealed that no forced labor has been executed. Rather, the workers are interested to work for more hours so that they might make maximum salary and OT payment.

3.7 Workers' Health and Safety

3.7.1 Policy and Plan for Workers' Health and Safety

SBIIPCL has finalized Health & Safety Policy and EHS Policy for the plant, which have been displayed at Gate No. 3 as well as in front of SBIIPCL Site Office. The EHS Plan of the EPC Contractor has been developed focusing on site specific construction activities, which outlines the key procedures and permits to be implemented to safeguard onsite employees and workers of SBIIPCL, NEPC and subcontractors at the same time ensuring safe working conditions and efficient operations. EPC contractor also implemented Smoking Policy, different types of safety notice throughout the plant for ensuring safety of all the labors, senior officials who are working in the plant. They have also implemented the program of no use of cell phone/cameras in various places of the plant. All the EHS documents have been translated into English, and for some cases, in Bengali also. EPC Contractor maintains the EHS records and SBIIPCL personnel keeps close monitoring of EHS practices.

3.7.2 Work Permits

The EHS Plan has clearly articulated the provision of work permit for all sorts of routine and non-routine jobs at the construction site with the vision of protecting the workers from occupational injuries, and it is practiced accordingly.

3.7.3 Job Hazard Analysis and Hazard Identification and Risk Assessment Control

Job Hazard Analysis (JHA) for all the construction activities has been ensured through Hazard Identification and Risk Assessment Control (HIRAC). JHA has been depicted in Annex 3. A Major Hazard Control list has also been prepared on the basis of HIRAC to find out possible hazards before starting of any new job in the construction site. All of these being updated according to the recommendation given by ERM on May, 2015 and implemented.

3.7.4 Pre-use Inspection and Safety Construction Permit

A pre-use inspection checklist (activity and equipment specific) has been prepared and is being maintained before starting of any new work. Safety inspection report has been formulated to ensure site safety for different kinds of works. Safety construction permission is given following Project Hazard Identification and Risk Estimation Control Procedure.

EPC contractor has formulated various kinds of Work Permits, such as: hot work permit, confined space permit, safety construction permit, energize area work permit, lifting of materials permit, electrical work permit, work at height permit etc. Moreover, both EHS team of EPC contractor and respective department check and ensure safety as per HIRAC before starting of any work, and then work permit is given to start the work. A hazardous work permit is presented in Annex 2.

3.7.5 Personal Protective Equipment

A Personal Protective Equipment (PPE) Matrix has been developed for ensuring workers' safety for different types of jobs, e.g. cutting, grinding, excavation, work at height, pipe laying or manual lifting, confined spaces, electrical work, welding, spray painting, concreting, chemical handling activities, chainsaw (excluding tree felling), traffic control etc. All the personnel/workers are bound to use mandatory PPEs i.e. safety helmet and safety shoes as well as wear or use job/site specific other PPEs i.e. safety shield, safety gloves, safety goggles, safety mask, gum boots, safety harness/belt etc. Field Supervisors ensure the use of PPEs, while EHS Team of EPC Contractor surveys/monitors it regularly. On-job-training is being imparted by both EHS Team of EPC Contractor and personnel of SBIIPCL regarding usage of PPEs and its importance. In any case of non-compliances, work is stopped immediately and remedial actions are taken. Formal arrangement has been ensured for changing of safety shoes quarterly, gloves in every 15 days, and changing or maintenance of other PPEs as per requirement. Internal audit on PPE is being conducted by SBIIPCL personnel on weekly basis and documentation is being maintained. In addition, PPE and other EHS awareness materials (e.g. display boards, banners etc.) have been sited at different areas of the plant.

3.7.6 Health Facilities for the Labors

EPC Contractor has engaged a full time doctor and an assistant for taking care of first aid, occupational injury and general health problems of the workers, and provides free medicines accordingly. In case of any serious occupational injury, both EPC contractor and its sub-contractors are responsible for ensuring treatment of the injured workers at hospital. EPC Contractor possesses an ambulance for carrying the injured workers to the hospital. Moreover SBIIPCL site is facilitated by trained first aider all the time throughout the day. The list of qualified first aider has been displayed on several places in the plant with their phone number in case of any emergency.

3.7.7 Accident/Incident Investigation

SBIIPCL has formulated an Incident Investigation and Reporting Procedure (Annex 5) with roles and responsibilities. An accident & incident register (Annex 4) has been prepared to include the information related to the accidents, and the register is being maintained accordingly. Site specific accident/incident statistics is maintained. Till date no major incident/accident has occurred. Hence, there is no need for alternative working procedure or any special training. Table 3.3 below shows the Summary Accidents/Incidents at SBIIPCL Plant in 2015 (January - July):

Table 3.3: Summary Accidents/Incidents at SBIIPCL Plant in 2015

Month	Accident Type			Lost Time Accident (LTA)	Reporting Date
	Near Miss	First Aid	Fatality		
January		11	0	0	25-01-2015
February		11	0	0	25-02-2015
March	9	16	0	0	25-03-2015
April	12	26	0	0	25-04-2015
May	6	22	0	0	25-05-2015
June	10	21	0	0	25-06-2015
July	04	09	0	0	25-07-2015
Total	41	116	0	0	

In 2015, a total of 116 accidents or incidents took place at the plant, all of which were sufficiently covered first aid facilities available inside the plant. In addition to the accidents/incidents, there were 41 cases of near misses. Table 3.4 below shows the same accidents/ incidents in terms of location. Table 3.4 reveals that maximum accident/incident took place at cooling tower (30) followed by boiler area (22) and main tower building (15) respectively.

Table 3.4: Accidents/Incidents Statistics in terms of Location at SBIIPCL Plant in 2015

Working Section	Location of accident	No. of incident/accident
Electrical/Mechanical/ Welder/Grinder/Day Labor	Cooling Tower	30
	main Power Building	15
	Water pump House	9
	Mixing Section	6
	Ware-house	9
	Central Control Building	10
	Boiler Area	22
	Miscellaneous	15
Total		116

Source: EPC Contractor

3.7.8 Environment, Health and Safety Trainings

Train the Trainer

DGM, Operation & Compliance, SBIIPCL imparted training on ESMMP and EHS to SBIIPCL EHS Staff and EHS Team of EPC Contractor on 22 Jan, 2015. The training covered the components of occupational health and safety (PPE, safety barrier, smoking and food point, job related hazard, hot work process, confined space, work at height, house keeping, compressed gas cylinder handling, emergency response, accident/incident/near miss), environmental policy, health and safety policy and induction training.

EPC Contractor organized an introductory training under 'train the trainer program' on 'First Aid and Emergency Response' on April 08, 2015, which was imparted by Bangladesh Red Crescent Society. Adequate numbers of trained first aid staff remain available at the plant always.

SBIIPCL EHS Manager has conducted training on environmental quality monitoring, Hazardous Material Handling procedure, traffic management, Grievance redressing etc. for the EHS Team of NEPC and records are being maintained.

Training for Workers and Supervisors

On the basis of first aid and minor injury statistics, work place safety training is being imparted on regular basis. Besides, on-job training is being given by both EHS Team of EPC contractor and EHS personnel of SBIIPCL based on first aid reports to minimize the rate of injuries. Field supervisors have also been instructed to ensure safety while workers are at work under them. Moreover, adequate supervisors have been engaged for high risk jobs. Tool-Box-Talk's are being conducted everyday either in the morning or just before lunch time. Workers are always being under monitor. Periodically workers are being trained on various topics of occupational health and safety as well as general awareness and housekeeping.

The Assistant Manager – EHS holds meeting with EHS Team of EPC Contractor and Field Supervisors of Sub-contractors on weekly basis and provides training on EHS issues including importance and usage of PPEs for different activities. Besides, workers and supervisors are being imparted on-job trainings regularly on different EHS issues, especially on importance and usage of PPEs. Again on regular basis, workers of the site are being trained on 'workplace safety' and 'working in safe manner' by EHS personnel of SBIIPCL. Table 3.5 below shows different on-job trainings imparted so far in 2015 and the number of trainees in each type of training.

Table 3.5: On-job Trainings Imparted in 2015 and Number of Trainees

S. No.	Training Name	No. of Trainees Till Date
1	PPE	150
2	Work at Height	45
3	Hazardous Materials Handling	4
4	Electrical Safety	200
5	Power Tool Safety	160
6	Slips and Falls	30
7	Ladder Safety	30
8	Material Handling	95
9	Confined space	60
10	Fire Prevention	40
11	Use of Fire Extinguisher	120
12	Water damage Prevention	50
13	Environmental Awareness	210
14	Lifting of Materials	30
15	Motivational Training	80
16	Workplace Safety	26
17	Behavioral Safety	15
18	General Housekeeping	90
19	Traffic Management	35
20	Security Training	26
21	Emergency Response and Preparation	190
22	Disciplinary Policy	220
23	Sign Signals, and Barricade	185
24	Fall Protection	190
25	Scaffolding	190
26	Hot Work	170
Total Trainees Till Date		2,641

It is to be noted that job specific EHS training module has been prepared by EPC Contractor. On appointing new workers, appropriate training is being imparted at the beginning of their engagement. Besides, everyday morning before starting of work, Tool Box Talks (TBTs) are organized by the concerned labor supervisors.

3.7.9 Plant Visit Observations on Workers' Health and Safety

Overall workers' health and safety arrangement of SBIIPCL is satisfactory. The labors have been found to be using safety boots and helmets. Few workers have been found with boots not in good condition. Even though they have been provided with safety gloves, it has been observed that many of them do not use gloves as they do not feel easy to work by wearing gloves.

With the vision of ensuring use of PPEs, SBIIPCL personnel provide regular motivational on-job training to the workers for the use of PPEs including gloves. Besides, regular on-job supervision is being done to ensure the use of PPEs.

3.8 Contractor Management System

The EHS Team of EPC Contractor ensures safe working practices through continuous monitoring. All the sub-contractors are bound to ensure EHS compliances and are answerable to EPC Contractor. SBIIPCL EHS personnel monitor the EHS activities of both EPC Contractor and its sub-contractors. SBIIPCL has in place a supplier management procedure to serve as for managing contractors. The procedure comprises of following key components viz.

- Supplier Identification;
- Registration of Contractors based on implementation of contractor selection criteria including contractor obligation to SBIIPCL Policy;
- Supplier assessment and rating by various users' and procurement department; and
- Supplier De-Registration.

4.0 Resource Efficiency and Pollution Prevention

4.1 Monitoring of ESMMP Implementation

ESMMP implementation requirements during construction phase are being followed by the EPC Contractor and implementation of the mitigation measures along with records are being reviewed by the EHS personnel of the SBIIPCL from time to time. Monitoring of pre-construction phase is currently not required. ESMMP implementation monitoring of the construction phase has been attached in Annex 7.

In line with the ESMMP, regular monitoring of air emissions, water consumption, wastewater discharge, solid and hazardous waste disposal, noise levels etc. are being ensured by EHS personnel of the SBIIPCL.

Monitoring of Khusiyara River for erosion has been started from June 2015. Photographs of the river bank along the plant side have been taken. SBIIPCL has established a number of wooden markers along the river bank at the plant side. Due to high flood situation in Kushiara River, erosion assessment can be done after the water level recedes.

Bird survey will be undertaken during the winter for preparation of avifauna management plan to manage the impacts resulting from the proposed T-line.

Signage outside the boundary has already been installed for speed limit.

Material Safety Data Sheet (MSDS) has been pasted in diesel storage area both in English and Bengali languages. Spill prevention control procedure has been developed by SBIIPCL and EPC is abiding by it. It is seen that EPC maintains an inventory of vehicles in operation for the project.

Besides, air quality dispersion modeling study with updated stack characteristics in the design (i.e. 70 m stack height and 7 m stack diameter with design exit velocity of 4.7 m/s) has been conducted. The air quality dispersion modeling study report has been attached in Annex 8. The findings are in compliance with the DoE standards.

Speed limit signage has already been provided in access road. As per ESMMP 3 samples have been taken from river to check river water quality (upstream, near project and downstream). Records are now available to monitor erosion of Kushiara River. Mock drill on earthquake has been conducted in the site on 06 August, 2015.

4.2 Hazardous Materials Management Plan and Its Implementation

Hazardous Materials Management Plan has been formulated by EPC Contractor and it is being implemented accordingly. HSD containment area has been built with enough containment capacity of maximum volume of storage. Spillage kit is available at the HSD storage area. EPC Contractor has prepared a procedure for the HSD loading & unloading and spill control, and has ensured trained workers for the same. A list has been prepared mentioning the names of the authorized persons and the same has been pasted outside the storage shed area, and access control system has been ensured. It is to be noted that temporary electricity connection has been obtained from BPDB, so HSD will no longer be required for power generation during construction. Therefore, EPC Contractor stated that there is no requirement for development of drainage system, and has confirmed that there will be no spillage of HSD into environment during construction. SBIIPCL has conducted a training for hazardous material handling.

EPC Contractor has ensured no use of asbestos containing material as specified in the design of the Project.

5.0 Community Health, Safety and Security

5.1 Traffic Management and Logistics Plan and Its Implementation

Traffic Management and Logistics Plan is incorporated within the EHS Plan of EPC Contractor, and it is being implemented accordingly. The plan has restricted the speed of vehicles up to 15 km/h inside the plant. Based on the plan, a vehicle checklist (i.e. registration, fitness, tax token, insurance of vehicle as well as driver's license etc.) has been developed, and all the vehicles entering into the plant must have to comply with the checklist. Besides, SBIIPCL has instructed EPC Contractor to ensure maximum vehicle speed limit of 20 km/h within 2 km radius from the plant. In addition, instruction on minimum use of horn within 2 km radius from the plant has been made. Speed limit sign-posts have been posted inside the plant as well as across the access road. In order to minimize noise impact on local communities, vehicles carrying construction materials have been restricted after 6 pm.

5.2 Health Facilities for Local People

A doctor has already been employed through a local NGO named SEBA with the vision of delivering free treatment facility to local people. Since the community health complex situated adjacent the plant site is under the government, it is not allowed to permit the private doctor practicing at the premise. Hence, SBIIPCL has rented a separate place at Parkul for ensuring access to the Doctor's service at free of cost. While enjoying free doctor's treatment, there have been growing demands on free supply of medicines and provision of free diagnostic facilities from local people.

5.3 Inundation Problem During Monsoon

Nearby villagers are continually alleging that raising a vast tract of land for construction of SBIIPCL plant, construction lay down area and switch yard has disrupted the natural drainage system of the locality. As a result, the nearby low-lying neighborhood becomes inundated after heavy rain, and the rain water remains logged as no drainage system has been developed to solve the problem. SBIIPCL has addressed the problem – design of the drain has been finalized. Following the design, construction was started, and 40 m drain from the starting point was constructed. However, due to flooding situation, the construction stopped. It is expected to be started as soon as flood water recedes.

6.0 Land Acquisition and Involuntary Resettlement

6.1 Payment of Compensation and Other Allowances

A total 11 acres of land was acquired for establishing the SBIIPCL Power Plant. Total of 14 landowners lost some or all (1 owner only) of their agricultural land due to this project. There were also 6 sharecroppers and 11 agricultural laborers, who were also affected by the project. In total, there were 31 project affected households (PAHs).

Due to land acquisition no physical displacement has occurred. All the 14 landowners as well as 6 sharecroppers and 11 agricultural laborers PAHs were affected by economic displacement. Compensation to the landowners for the 11 acre main plant was started in November 2010 and was completed in December 2013. In some cases land compensation was delayed due to lack of land documents for acquired land and disputes over ownership among the family members of the landowners. All landowners have received their land compensation amounts. There has not been any replacement of agricultural and/or commercial land, as the landowners opted 'money for land' compensation. There was no specific compensation allowance for the landowners due to economic displacement. The amount of compensation paid to the landowners was more than 5 times above the then land price including 50% premium on the average registered land value at the time of the notice of the acquisition.

From 14 PAHs, 122 PAPs have been affected due to land acquisition for the project. In terms of significance of impact, vulnerable households were identified to be significantly impacted due to acquisition of more than 10% of productive land and most of the PAHs (11 PAHs) have fallen under this category. On the other hand, Abdul Aziz, lost all his land due to the project. SCAR, October 2014 identified one special PAH, Abdul Aziz, who lost all his land due to the project, and suggested for special grant of Taka 200,000 to be provided after providing vocational training (e.g. poultry or goat rearing), so that the grant money can best be utilized for livelihood restoration. Out of this, Taka 100,000 was paid in March, 2015, and the rest of the payment has been made in June, 2015. With this grant money, he has constructed two shops – one is now being run by himself, and the other has been rented to SBIIPCL as CDM's office. Necessary materials (e.g. tins and woods) were also provided to him from SBIIPCL for establishing and decorating the shops.

SCAR, October 2014 suggested for payment of Taka 7,500 to each sharecropper PAH and Taka 8,000 to each agricultural laborer PAH to offset the economic displacement of the affected households. Both the sharecropper PAHs and the agricultural laborer PAHs have received their compensation for loss of their economic displacements.

6.2 Livelihood Restoration of PAHs

Apart from the allowances for economic displacement to the sharecroppers and agricultural laborers, SCAR, October 2014 suggested the following livelihood restoration activities for the PAHs:

- Working opportunities and job training in the plant
- Outside vocational training for the selected male with full scholarship. At the end of the training, participants will get free tool kits.
- Project site vocational training for all interested male. At the end of the training, participants will get free tool kits.
- Project site sewing machine training for selected female. At the end of the training, each participant will get a sewing machine free of cost.
- Project site small enterprise development training for all interested women. At the end of the training, each participant will get interest free business start-up loan of Taka 25,000. After 1 year, on successful return of the loan money, the participants will be eligible for further interest free loan of Taka 25,000 for expanding their business.

Table 6.1 below shows the list of affected persons from the 31 PAHs, who are currently working at the plant:

Table 6.1: List of APs currently working at the Plant (From 31 Households)

SL	Name of Beneficiary	Name of Household Head	PAH Type	Position/Dept
1	Mithu	Tera Miah	Landowner	Security
2	Sowkat	Tonjobullah	Landowner	Security
3	Jomshed	Sonjobullah	Landowner	Security
4	Ripu Miah	Sonjobullah	Landowner	Sub contractor/ Supplier
5	Belal	Ansar Miah	Landowner	Sub contractor/ Supplier
6	Saleh	Tonjobullah	Landowner	Labor
7	Gulzar Miah	Zoynal Miah	Agricultural Labor	EPC Labor

Table 6.1 reveals that most of the job beneficiaries of the plant have come from the landowner PAHs. The prioritization for the sharecropper and agricultural laborer PAHs should be followed in future job provision in the plant.

The Social Compliance Audit Report (SCAR), October 2014 developed livelihood restoration budget for all the 31 PAHs. SCAR, October 2014 suggested for development of a skill development and livelihood Improvement plan within the timeline of January, 2015 that would clearly indicate priority wise skill development and livelihood restoration requirements in line with detailed budget. However, the activities are under process – till date, only a preliminary training need assessment has been completed. Table 6.2 below depicts the preliminary training need assessment:

Table 6.2: Preliminary Training Need Assessment for 31 PAHs

Sl. No	Name of HH Head	Types of PAHs	Sewing Training	Agricultural/Fisheries	Welding	AC/Freeze Repairing	Remarks
1	Mr. Tara Miah	Landowner	Sifa Begum (Niece)	-	-	Mithu (Son)	
2	Mr. Ansar	Landowner	-	-	-	-	Not interested
3	Mr. Ripon	Landowner	-	-	-	-	Not interested
4	Mr. Mosaid	Landowner	-	-	-	-	Not interested
5	Abdul Mosabbir	Landowner	-	-	-	Abdul Hasan (Son)	
6	Tanjubullah	Landowner	-	-	Sowkat Miah (Son)	-	
7	Lablu	Landowner	-	Fozlu Miah (Brother)	-	-	
8	Mosadder	Landowner	-	-	-	-	Living in UK
9	Mr. Dulal	Landowner					
10	Yakubullah	Landowner	-	-	-	-	Living in UK
11	Reasatullah	Landowner	-	-	-	-	Living in UK
12	Asmat	Landowner	-	-	-	Aminul (Son)	
13	Abdul Aziz	Landowner	Shaheda Begum (Sister)	-	-	Javer (Nephew)	
14	Sonjobullah	Landowner			Forhad Miah (Son) Afaz Miah (Son)		
15	Lokaman mia	Sharecropper	-	Himself	-	-	
16	Era mia	Sharecropper	-	Himself	-	-	
17	Nunu mia	Sharecropper	-	-	-	-	Wife: SED capital
18	Hazi Abdul Nur	Sharecropper	-	-	-	-	Not interested
19	Masum mia	Sharecropper	-	-	-	-	Considered for SED capital
20	Hurmot Ullah	Sharecropper	-	Habibur Rahman (Son)	-	-	
21	Ashik Mia	Daily Laborer	Runi Begum (Niece)	-	-	-	Will receive SED capital
22	Joynul Ullah	Daily Laborer	Nilufa (Daughter)	-	-	-	
23	Sayed Mia	Daily Laborer	-	Himself	-	-	
24	Johir mia	Daily Laborer	Amirun (Daughter)	-	-	-	
25	Audud Mia	Daily Laborer	-	-	-	-	Not interested
26	Mohibur	Daily Laborer	-	-	-	-	Brother: SED capital
27	Monfor Mia	Daily Laborer	-	-	Sayek Miah (Son)	-	
28	Faruq Mia	Daily Laborer	-	-	-	-	Considered for SED capital
29	Shalai	Daily Laborer	-	-	-	-	Considered for SED capital
30	Idrias Ali	Daily Laborer	Samina Begum (Wife)	-	-	-	
31	Shayasta Mia	Daily Laborer	-	-	-	-	Considered for SED capital

Based on the preliminary training need assessment, SBIIPCL has started the 3 months long sewing training for women from 15 July. Besides, CDM has sent training budgets to SBIIPCL Corporate Office for approval of trainings on welding and AC/fridge repairing – each training activity comprises only 4 members. It is to be noted that out of 8 preliminarily identified male trainees for welding and AC/fridge repairing, 7 belong to the landowner group – the more vulnerable sharecroppers and agricultural laborers PAHs have been left behind again just like job opportunities in SBIIPCL plant. Besides, the overall process of TNA, training approval and training provision appears very slow.

Sample household visits revealed that TNA (Table 6.2) was not detailed enough. Surprisingly the TNA did not consider any option for poultry and livestock/cattle rearing trainings. Tanjubullah (Sl. No 6, landowner) has 3 sons who are currently unemployed having very limited education – only one of them has been selected for welding training. Lablu (Sl. No 7, landowner) lives in a joint family with his parents, brother and sisters, is currently unemployed. His sisters are interested to receive computer training. Sonjubullah's (Sl. No 14, landowner) daughters also wants computer training. Nunu Mia (Sl. No 17, sharecropper) is currently unemployed and his family is now under tremendous financial crisis. Both he and his wife could have been considered under trainings. Ashik Mia (Sl. No 21, day laborer) and Ullah's (Sl. No 22, day laborer) could have been selected for agriculture/fisheries training and their wives could have been considered for poultry/livestock training. Similarly, Mohibur's Ullah's (Sl. No 26, day laborer) could undergo sewing training as well as poultry/livestock training.

It is to be noted that the formal vocational training is being imparted by Hobiganj Youth Development & Training Center, for which most of the members of the PAHs fail to fulfill the entry criteria of minimum education level (e.g. class 8 pass). Hence, SBIIPCL has planned to provide such trainings through an NGO at nearby workshops.

It is suggested that the SBIIPCL should prepare detailed TNA with individual PAH profile for all the household members accompanied with educational qualification, current skill, priority wise job/training requirement, target deadline for training provision and possible sectors of future job provisions. Based on the detailed TNA, a training calendar should be prepared and maintained accordingly. SBIIPCL should also provide necessary assistance to the trained persons in getting jobs and keep track of them how the imparted trainings ensured benefits to them. Compliance to this has to be ensured by SBIIPCL.

6.3 Stakeholder Engagement Plan

SBIIPCL prepared a Stakeholder Engagement Plan (SEP) in June, 2015. A copy of the SEP has been attached in Annex 6. SEP has been translated into local language (Bengali), and it has been disseminated to the PAHs as well as other stakeholders.

Stakeholder consultations have been carried out not only with the 31 PAHs but also with other stakeholders of the power plant project. Consultations were carried out to disseminate the social and environmental impacts as well as mitigation measures being followed so far by SBIIPCL. The concerns of the participants and future action plan of SBIIPCL were discussed. Table 6.3 depicts the list of different types of consultations done with the different categories of PAHs and other stakeholders, while Table 6.4 shows similar types with consultations done with other stakeholders.

Table 6.3: List of Different Types of Consultations with PAHs

Stakeholder Type	Engagement Process	Date	Covered Subject
Landowners	Meeting	13/09/2013, 10/03/2015, 24/03/2015	GRM, ESIA, CDP, LRP, Other Project Concerns
	FGD	23/03/2015	GRM, ESIA, CDP, LRP, Other Project Concerns
	Personal Interview	26/10/2014, 13/03/2015, 15/03/2015, June-July, 2015	Socio economic survey LR opportunity assessment survey
Sharecroppers	Meeting	10/09/2013, 17/09/2013, 10/03/2015, 24/03/2015,	GRM, ESIA, CDP, LRP, Other Project Concerns, LR opportunity

Agricultural Labors		June-July, 2015	assessment survey
	FGD	23/03/2015	ESIA
	Personal Interview	2/11/2014, 16/03/2015, 17/03/2015	Socio economic survey, LR opportunity assessment survey
	Meeting	10/03/2015, 24/03/2015	GRM, ESIA, CDP, LRP, Other Project Concerns
Agricultural Labors	FGD	23/03/2015	GRM, ESIA, CDP, LRP, Other Project Concerns
	Personal Interview	2/11/2014, 14/03/2015, 17/03/2015, June-July, 2015	Socio economic survey, LR opportunity assessment survey

Table 6.4: List of Different Types of Consultations with other Stakeholders

Stakeholder Type	Engagement Process	Timeline	Covered Subject
Nearby Village	Meeting	03/09/2013, 05/09/2013, 09/09/2013, 10/03/2015, 24/03/2015	GRM, ESIA, CDP, LRP, Other Project Concerns
	FGD	08/03/2015, 22/03/2015	GRM, ESIA, CDP, LRP, Other Project Concerns
	Personal Interview	24/09/2014, 25/09/2014, 14/03/2014, 15/03/2015, June-July, 2015	Socio economic survey, LR opportunity assessment survey
	Visit	23/09/2014, 28/09/2015, 13/10/2014, 13/12/2014, 27/01/2015	Regular visit
Local NGO (SEBA)	Health Service Delivery to community people	October, 2014- Till Date	Health Assessment Skill Development Plan
	Visit to SEBA office	03/02/2015	
JCCR	Meeting	28/10/2014, 05/11/2014, 31/12/2014, 18/02/2015, 04/03/2015, 20/04/2015, 17/05/2015, 07/06/2015, 19/07/2015	CDP, Drainage, Previous issues, Grievances, Future responsibilities, Job at plant, Tree Plantation, School and Hospital Enhancement
Community People (Local Subcontractors)	Meeting	29/09/2014	Site and labor issues
Community People (Local elite)	FGD	05/03/2014	CDP, GRM
Community People	Meeting, FGD based on Baseline Study	29/03/2008, 07/04/2008, 08/04/2008, 09/04/2008, 01/05/2008, 02/05/2008, 06/05/2008, 13/05/2008, 19/03/2011, 20/05/2011, 20/08/2011, 20/08/2011, 02/05/2011, 24/03/2011, 22/03/2011, 29/03/2011, 17/09/2013, 23/09/2011, 05/03/2014	Misc
Community People	Meeting, FGD based on ESIA Study	19/05/2011 28/05/2011	Misc
Community People	Visit	29/12/2014	Drainage and road construction scope

The major issues and concerns raised during the consultation meetings were as follows:

- Provision of more employment at the plant.
- Demand for quick implementation of livelihood restoration plan.
- Ensuring sustainable livelihood after receiving vocational trainings.
- Reassessment of training needs, especially for women.
- Ensuring more roadway connectivity, especially to schools.
- Ensuring better accessibility to management of SBIIPCL.
- Demand for fresh drinking water through improvement of installed tube wells by SBIIPCL.
- Demand for improved efficiency of JCCR.
- Demand for quick implementation of CDP.
- Demand from the resettled PAHs for construction of drainage system to avoid water logging during monsoon.
- Demand for more sanitation coverage.

In the stakeholder consultation process, several women's group discussions were held. The group showed interest in the vocational training programs on sewing, poultry and cattle rearing. Women group in the nearby village expressed their concern on water logging which is affecting their homestead and normal during monsoon. Availability of constant access to the doctor provided by SBIIPCL was appreciated by women. However the demands for free medicine and diagnostic facilities were raised.

6.4 GRM for PAHs and Community

SBIIPCL Grievance Redress Mechanism was put in place and made operational from September, 2014 through direct communication with CDM of SBIIPCL and documentation has been done accordingly. Both GRC-Corporate Committee and GRC-Plant Committee have been formed. For ensuring dissemination of GRM within the community people, hand bills have been distributed, verbal communication has been done, registry book (at CDM Office) is maintained, complain box has been installed outside gate no. 3 and communication details of CDM has been displayed (outside gate no. 3 as well as in front of CDM's Office).

SBIIPCL grievance redress mechanism is basically a three tier mechanism. Local people may lodge their complaints directly to CDM through complaint box, over telephone or email and even by directly coming to his office. CDM is responsible to address the grievance issues and disseminate the result to complainants by two weeks. If the CDM is unable to resolve the issue, it is referred to the GRC-Plant Committee, which is responsible to resolve it by one week. In case of failure of the GRC-Plant Committee in resolving the grievance issue, it is referred to GRC-Corporate Committee, which will have to provide solution by one more week. The grievance redress mechanism has been translated into Bengali, and has been disseminated among the PAHs and other stakeholders.

Till date 23 grievances have been lodged from community people. Among them 14 grievances have been resolved, 2 have been rejected and the rest 7 are in the process of resolution. The unresolved grievances were basically regarding provision of livelihood restoration assistance and job provision requests from the PAHs and drainage facility development at the nearby village to tackle water logging problem during monsoon. All the unresolved issues have been forwarded to GRC-Corporate Committee. Table 6.5 below depicts the grievances lodged by community people and status of addressing them.

Table 6.5: Grievances Lodged by Community People and Status

No.	Issue	Grievance Details	Status		Remarks
			Receiving Date	Closing Date	
1	Land allotment at nearby village	Previously they owned 10 decimal now received 7 decimals of land.	24.09.2014	24.09.2014	On spot redress CDM told that, they have less land but tenure is secured.
2	Road construction request for the village area	The individual requested to construct the road in front of his house	29.09.2014	29.09.2014	On spot redress – additional road will be constructed for the community that needs most.
4	Job request	The local people asked for job at SBII PCL	30.10.2014	30.10.2014	On spot redress CDM assured that local people will be consulted if such opportunity arises.
5	Sand Lifting by subcontractors	Subcontractors lifted sand without submitting written letter	14.11.2014	14.11.2014	On spot redress The subcontractors submitted written letter
6	Scrap materials of Plant	Local people wanted to have the scrap materials	24.11.2014	24.11.2014	On spot redress CDM told them that, these will be given first come first get service, but priority should be given to local people
8	Scarp materials of Plant	Local people wanted to have the scrap materials	03.01.2015	07.01.2015	Closed and feedback given to the applicant after discussion between EHS Dept. of NEPC and Plant Committee of SBII PCL
9	Sub contract scope at Plant	River side people (Tajpur) wanted to have work at plant	25.01.2015	27.01.2015	Redressed by SBII PCL Plant Committee, NEPC and community people. They were given some work orders for sand and labor supply.
10	Road condition improvement	Road became slippery due to excess water use for dust prevention	31.01.2015	01.02. 2015	Quantity of water was reduced
11	Threat to migrant workers	One local people gave threat to a migrant worker	07.02.2015	18.02.2015	This was informed to Site In-Charge and he shared this with local police station.
12	Local boy injured	One local boy injured during an incident with one unknown Chinese person at night	20.03.2015	30.03.2015	NEPC provided treatment cost
13	Chinese worker stole dog	Chinese worker stole a dog and killed which belong to a local people	2.05.2015	12.05.2015	Taka 20,000 was given as compensation
14	Land beside switch yard	Land is useless due to sand and water beside switch yard area	17.06.2015	07.07.2015	BPDB and PGCB will take care of the issues by the time of drain construction
Rejected:					
15	Scarp materials of Plant	Local people wanted to have the scrap materials	03.01.2015	03.01.2015	Rejected Same as case 8
16	Scarp materials of Plant	Local people wanted to have the scrap materials	04.01.2015	04.01.2015	Rejected Same as case 8
Not Closed/ Not addressed:					
17	Community Drainage	Community people want to have the community drainage constructed by SBII PCL	25.10.2015	NA	Not Closed Scope of drainage work assessed but not addressed. Transferred to GRM Corporate Committee
18	Attention and assistance for PAH from SBII PCL	Local people (poor) wanted to have assistance/support from SBII PCL	09.11.2014	NA	Not Closed LRP not implemented yet. Referred to GRC-Corporate Committee.
19	Drainage at nearby village	People at resettlement site want to have the community drainage constructed by SBII PCL	12.12.2014	NA	Not Closed Scope of drainage work assessed but not addressed. Referred to GRC-Corporate Committee.
20	Resettlement	Assistance/job from SBII PCL	22.12.2014	NA	Not addressed

No.	Issue	Grievance Details	Status		Remarks
			Receiving Date	Closing Date	
	PAHs				LRP not implemented yet. Referred to GRC-Corporate Committee.
21	Resettlement PAHs	Assistance/job from SBIPCL	03.02.2015	NA	Not addressed LRP not implemented yet, TNA conducted. Referred to GRC-Corporate Committee.
22	Job opportunity at plant	Job opportunity at plant to local people	2.06.2015	NA	Not addressed LRP not implemented yet
23	Job opportunity at plant	Liton Miah asked to get Job opportunity at plant	04.08.2015	NA	Not Closed. He did not get job yet

GRM monitoring form is filled up on quarterly basis for assessing the effectiveness of grievance mechanism. Till date, GRM monitoring has been done for the 1st and 2nd quarters of the current year. After commencement of implementation of skill development and livelihood restoration plan in full swing as, the effectiveness of the grievance mechanism can be assessed more rigorously from the next reporting periods.

7.0 Biodiversity Conservation and Sustainable Management of Living Natural Resources

7.1 Monitoring of Terrestrial and Aquatic Organisms

The Environmental, Health, Safety and Social Compliance Audit Report (EHSSCAR), November 2014 suggested for six monthly monitoring of terrestrial and aquatic organisms during the construction phase. However, no specific timeline was suggested for the monitoring. SBII PCL has appointed a team of consultants for carrying out the monitoring study of terrestrial and aquatic organisms. The team has already finished field work on terrestrial flora and fauna, and will submit a monitoring study report by end of August, 2015. On the other hand, fisheries survey will be carried out by the same team in October, 2015. However, SBII PCL has not yet outsourced the task of carrying out avifauna monitoring study. It will be done between November, 2015 to January, 2016 at the onset of arrival of migratory birds.

7.2 Develop Green belt within the Project Boundary

Plantation has been done on either sides of the access road. However, no plantation has been done around the project boundary. Rather, the boundaries of the power plant have been paved. Plantation around the project boundary should be ensured by the current monsoon.

7.3 Invasive Alien Species Management Plan in the ESMMP

EHSSCAR, November 2014 suggested for inclusion of an invasive alien species management plan in the ESMMP for the construction and operational phases. Invasive Alien Species Management Plan has been prepared by SBII PCL as an integral to the Environment & Social Management & Monitoring Plan (SBII PCL-EHS-007). The plan recommended for the following interventions:

- There will be more than man height wall around the plant periphery to protect the animals trespassing into the plant.
- 24 hours basis security will be posted at gates and various security posts.
- There will be so many CCTV to monitor inside the plant.
- Green belt development will be carried out after the completion of construction work.
- Emergency response plan has been developed and it will be disclosed to the plant community.

8.0 Assessment of Implementation of Corrective Actions

8.1 Summary Assessment of Implementation of Corrective Actions

EHSSCAR, November 2014 prepared by ERM identified 66 corrective actions under 6 broad heads, among which 51 were for construction phase and the rest 15 were for commercial operation phase (which are not currently due). After the 1st environmental and social monitoring by BCAS in April, 2015, ERM conducted another thorough EHSS assessment in May, 2015. The current monitoring of the corrective actions has taken into ERM's EHSS suggestions of May, 2015. Monitoring of the corrective actions reveals that among the due 51 actions 45 actions were complied, while 6 actions were partially complied. Summary assessment of implementation of corrective actions has been depicted in Annex 1.

8.2 Action Plan for the Next Reporting Period

The next reporting period will be due in October, 2015. All the actions being monitored in the current report will be monitored in the next quarter. Besides, special focus will be provided on the actions that were partially complied during the current monitoring, which have been described below in Table 8.1.

Table 8.1: Partially Complied Corrective Actions to be finished by the Next Quarterly Monitoring

CAP Ref.	Key areas	Status	Corrective Actions Required	Responsible Party	Revised Timeline
1.8	Update the ESMMP with defined action items, responsibilities, monitoring indicators and review/ audit mechanisms	Partially Complied.	Fisheries Survey and Bird Survey should be carried out.	SBIIPCL	Oct-15
1.9	Develop an organizational structure for the construction and operation phase of the Project with defined roles and responsibilities	Partially Complied.	L&FS Expert has to be engaged.	SBIIPCL	Oct-15
2.2	The EPC contractor to provide contracts or clear terms and conditions highlighting the terms of employment. Or the same could be possibly hired through sub-contractors.	Partially Complied.	The Process is ongoing to re-write the terms of conditions for all employments in Bengali, and copies of the same to be provided to the labors. However, the issues of payment above minimum wage rate and double payment for OT have not yet been ensured.	SBIIPCL & EPC Contractor	Oct-15
3.1	Ensure that all the ESMMP implementation requirements during construction phase are being clearly provided to the EPC contractor and implementation of mitigation measures along with records should be reviewed by EHS Officer of the	Partially Complied.	Bird survey is yet to be undertaken for preparation of avifauna management plan to manage the impacts resulting from the proposed T-line. Fisheries survey is also due.	SBIIPCL & EPC Contractor	Oct-15

	SBPCL II.				
4.2	Develop a traffic management and logistics plan taking into consideration community safety	Partially Complied.	No honking signs have not yet been posted.	SBIIPCL & EPC Contractor	Oct-15
6.1	Conduct six monthly construction phase monitoring of terrestrial and aquatic organisms	Partially Complied.	Fisheries survey is still due.	SBIIPCL	Oct-15

Annex 1

Environmental and Social Monitoring Status on Corrective Action Plan

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIIPCL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
1	PS 1: Assessment and Management of Environmental and Social Risks and Impacts									
1.1	Form a Construction Management Team (CMT) to oversee EHS compliance of the Project during	Table 3.2, S. No. 1.1	High	SBPCL II	Project Cost	CMT Formation	Within 1 month of 'date of deal closure'[1] or November 2014.	SBIIPCL has formed a CMT with roles and responsibilities of each position in the team being defined in detail.	Complied	
1.2	Appoint a trained EHS Personnel for day to day monitoring of the EHS Plan and ESMMP implementation	Table 3.2, S. No. 1.1, 2.9	High	SBPCL II	Project Cost	EHS Officer for the Project	Within 1 month of date of deal closure or November 2014, whichever is earlier	SBIIPCL has appointed an Assistant Manager – EHS on 15th Dec 2014. He holds a degree in Chemical Engineering and has nearly 3 years of experience in EHS management in industrial sector.	Complied	
1.3	· Ensure that all the records should also be made available in local language/ English by the EPC contractor	Table 3.2, S. No. 1.1, 1.10, 3.7	High	SBPCL II and EPC Contractor	EPC Contract	Records Review and Corrective Actions	Within 2 months of date of deal closure or December 2014, whichever is earlier	The site EHS plan comprising of standard operating procedures (SOPs), and Work Permits including training records have been translated into English by NEPC and shared with SBIIPCL. Document review reveals the following records are being maintained by NEPC viz.	Complied.	
	· Review of all the records being maintained as part of EHS Plan by the EPC contractor;							<ul style="list-style-type: none"> • Safety Corrective Action Request • MoM of Environment, Health and Safety Meeting • Weekly Inspection Checklist • Incident Investigation and Report Form • Injury and Illness Log • First Aid Log • Hot Work Permit • Come - Along And Chain - Fall Monthly Inspection Form • Fall Protection Equipment Monthly Inspection <p>However it is recommended that records related to injury/illness; inspection of overhead cranes, gantry cranes and fall protection equipment are maintained by NEPC as per the format specified in the EHS Plan and records shared with SBIIPCL. Further update the EHS plan to incorporate permits related to electrical and height work as predominantly such activities are being undertaken at this stage of the project.</p>	Complied; records related to injury/illness are maintained by NEPC and shared with SBIIPCL. Permits related to electrical and height work are issued following the EHS Plan. However, due to language barrier, EPC failed to show the permits to ERM during last audit. Currently, there is no more activities with overhead cranes and gantry cranes.	

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIIPCL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
1.4	Display and communicate environment and health and safety policies of the company	Table 3.2, S. No. 1.2	High	SBPCL II	Project Cost	Disclosure of company policies	Within 1 month of date of deal closure or December 2014, whichever is earlier	EHS Policy has been displayed (only in English) onsite at the Main Gate 1 and at SBIIPCL site office. Efforts need to be made by SBIIPCL to display the EHS policy in local language (Bengali) as well at conspicuous location onsite.	Complied. EHS Policy in Bengali has been displayed at 2 suitable locations -- at gate no. 3 and in front of SBIIPCL Conference Room.	
1.5	Develop a social policy of the Project with defined objectives, principles and performance indicators.	Table 3.2, S. No. 1.2	Medium	SBPCL II	Project Cost	Social Policy	Within 3 months of date of deal closure	Social policy is prepared and approved by SBIIPCL. Same was observed to be displayed (only in English) at different location of the plant. Efforts need to be made by SBIIPCL to display the Social policy in local language (Bengali) as well at conspicuous location onsite.	Complied. Social Policy in Bengali has been displayed at 3 suitable locations -- gate no. 3, in front of SBIIPCL Conference Room and at CDM's office.	
1.6	Develop and maintain legal register for all the Project components	Table 3.2, S. No. 1.4	Medium	SBPCL II and EPC Contractor	EPC Contract	Legal Register for Construction	Within 4 months of date of deal closure for construction phase and quarterly review	The legal register prepared identifies the applicable EHS permits/licenses (Refer Table 3.1) required during both construction and operational phases of the project along with their validity and approval status. SBIIPCL is required to update the legal register to incorporate the conditions specified in the EHS licenses/permits as applicable for the construction phase. This should also include incorporation of the relevant provisions of the Bangladesh Labour Law 2006 (as amended). In addition, permit obtained from Bangladesh Air Traffic Services for construction of exhaust and bypass stack for the project need to be covered in this legal register. The non-compliances identified in case of storage of gas cylinders more than threshold limits require urgent attention of the EPC as well	Complied. Legal register has been prepared for both construction and operation phases.	
			Low	SBPCL II	Project Operation Budget	Legal Register for Operation Phase on Combined Cycle basis	Within 3 months prior to the operation phase and half yearly review	Considering the overlap of some of the licenses for simple cycle operations as well, the legal register shall also be updated for all operational phase requirements.		
1.7	Comply with the findings (not aligned) and recommendations	Table 3.4, S. No. 2 to 5	High	SBPCL II and EPC Contractor	Project Cost and EPC Contract	Legal compliance	Within 2 months of date of deal closure or December 2014, whichever is earlier	Refer Table 5.1 on Project EHS&S Regulatory Compliance Status	Complied. Legal approvals/certificates received on Union Parishad Trade License, City Corporation Trade License, BIWTA License, Boiler License, Power Generation Licenses, License for Storage of Acid & Caustic Soda, Site Clearance Certificate, EIA Approval & Environmental Clearance Certificate, Fire License, Factory License, License for Generation and Storage of Hydrogen inside Plant, Permission to Store Liquid Fuel, License for Storage of CO2 Gas Cylinder, License for Installation of High Pressure Gas Pipeline, Civil Aviation Certificate for Stake. As the quantity of propane gas cylinders and compressed gas cylinders were below threshold limit, Department of Explosive certified that no license is required.	

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1.8	Update the ESMMP with defined action items, responsibilities, monitoring indicators and review/ audit mechanisms	Table 3.2, S. No. 1.5, 1.9	High	SBPCL II	Project Cost	Updated ESMMP	Within 2months of date of deal closure or December 2014, whichever is earlier	<p>As specified in the earlier audit report the terms of reference for ESIA study prepared by Bangladesh Centre for Advanced Studies (BCAS) mentions development of specific plans for construction and operation phases of the Project, which include:</p> <ul style="list-style-type: none"> Occupational and Community Health and Safety Management Plan Contractor Management Plan Contract Labour and Labour Camp management plan Emergency Preparedness and Response Plan Pollution Prevention Plan Hazardous Materials Management Plan Resettlement Action Plan Community Development Plan Stakeholder Engagement Plan Information Disclosure, Consultation, and Participation Community Grievance Redress Plan Livelihood Restoration Plan EHS Plan Public Relations Plan Avifauna Management Plan based on bird survey Transportation Plan <p>Based on document review and discussion with SBIIPCL it is understood that presently plans with respect to emergency response and preparedness, hazardous material management, community development, stakeholder engagement, contractor & labour camp management, m Based on the above discussion it is recommended that necessary efforts are made by SBIIPCL to</p>	Partially Complied. LRP and Public Relations Plan have been prepared. Fisheries Survey and Bird Survey will be carried out in October, 2015.	
1.9	Develop an organisational structure for the construction and operation phase of the Project with defined roles and responsibilities	Table 3.2, S. No. 1.6	High	SBPCL II	Project Cost	Organisation Structure – Construction	Within 2months of date of deal closure or December 2014, whichever is earlier	<p>SBIIPCL has an organogram for construction phase with defined roles and responsibilities (Refer response to S.No. 1.1). SBIIPCL has appointed an Assistant Manager – EHS and Community Development Manager (CDM) for managing the site EHS&S issues in coordination with the EPC contractor.</p>	Complied.	
			Low	SBPCL II	Project Operation Budget	Organisation Structure – Operationon Combined Cycle basis	3 months prior to the operation phase	<p>As suggested in the ERM audit report of 3 rd Nov 2014 SBIIPCL is required to engage a suitably qualified professional to undertake a Life and Fire Safety (L&FS) review of the facility after commissioning. With COD for combined cycle operations expected to be declared in Sep/Oct 2015 engagement of such a professional need to be ensured by SBIICL within the timeline (Jun'15) specified in the CAP.</p> <p>In order to implement the livelihood restoration plan, a livelihood expert is planned to be engaged by SBIIPCL by June 2015, as well.</p>	Partially Complied. L&FS Expert has not yet been engaged. LR Expert has been engaged from 27 May, 2015.	

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIIIPCL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
1.10	Training of SBPCL II Staff and EHS team of EPC Contractor on ESMMP	Table 3.2, S. No. 1.7, 2.9	High	EPC Contractor	EPC Contract	Training Calendar (Construction)	Within 2 months of date of deal closure or December 2014, whichever is earlier	<p>Review of the training records indicates that only "Workplace Safety" training has been conducted at NEPC conference room on 22nd Jan 2015. The training was imparted by DGM-Operations & Compliance and was attended by SBIIIPCL EHS - Assistant Manager, NEPC EHS team along with subcontractor supervisors. The following aspects were covered as part of this training:</p> <ul style="list-style-type: none"> EHS Induction Work Place PPE requirement. Rules related to smoking and food consumption onsite Safety Barrier Job Related Hazards Hot Work Process Confined Space Working at Height Housekeeping Compressed Gas Cylinder Handling Emergency Response Accident/Near Miss <p>SBIIIPCL to arrange for additional training session/programs to enhance awareness of NEPC and its sub-contractors on management of environmental and social/labour issues (environment quality monitoring, solid waste management, hazardous material handling, traffic management, grievance redressal etc.) including various statutory requirements/obligations as mentioned in the ESMMP. Update the training calendar to incorporate the said training program</p>	Complied. Training calendar has been updated. SBIIIPCL arranged additional training sessions as per ERM suggestions.	
			Low	SBPCL II	Project Operation Budget	Training Calendar (Operation)	Within 2 months of Combined Cycle Operation	To be assessed during combined cycle operations	Not due before combined cycle operation.	
1.11	Mapping of training needs of SBPCL II Staff and development of training calendar	Table 3.2, S. No. 1.7	High	SBPCL II	EPC Contract	Training Calendar	Within 2 months of Combined Cycle Operation	To be assessed during combined cycle operations	Not due before combined cycle operation.	
1.12	Develop an emergency response plan into a consolidated document with: <ul style="list-style-type: none"> Identification of, including risks associated with all project components; Key community and environmental sensitivities (such as village settlements, ponds, etc.) and the potential of offsite consequences along with mitigation A common communication and emergency response process flow for onsite emergencies as well as their communication to authorities Disclosure to communities in the vicinity of the project on the emergency readiness of the company in case of any incidents. 	Table 3.2, S. No. 1.8, 4.1 and 4.6	Medium	SBPCL II	Project Operation Budget	Emergency Response Plan for Operation Phase	1 month prior to the date of Combined Cycle Operation	To be assessed during combined cycle operations	Not due before combined cycle operation.	

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1.13	Review the emergency preparedness and response plan and include the necessary required emergencies and implement the same at the earliest.	Table 3.2, S. No. 1.8, 2.10	High	EPC Contractor	EPC Contract	ERP for construction phase	Within 1 month of date of deal closure or December 2014, whichever is earlier	The EPC Contractor (NEPC) has updated the ERP to deal with potential emergencies associated with natural hazards viz. earthquake, floods and heavy rain and heavy winds	Complied.	
1.14	Appoint a suitably qualified Emergency Coordinator for the Project	Table 3.2, S. No. 1.8	Medium	SBPCL II	Project Cost	Emergency Coordinator for the Project	Within 2 months of date of deal closure or January 2015, whichever is	SBIIPCL has identified the General Manager and Site-In charge to undertake the additional responsibility as Emergency Coordinator for the project since 1st Mar 2015. This has been ratified by letter issued by the SBIIPCL CEO to this regard.	complied for the construction phase.	
1.15	Develop a Commitment Register as a part of stakeholder engagement process in order to document the outcomes of public consultations and respond to local community expectations, and ensure that these are communicated back to stakeholders and updates provided.	Table 3.2, S. No. 1.11	High	SBPCL II	Project Cost	Commitment Register (Construction)	Within 2 months of date of deal closure	Community Development Officer (CDO) of SBIIPCL maintains a stakeholder engagement file that includes a sheet named as commitment register. This includes brief mention of the issues shared by community and action taken upon those issues by the company.	Complied. Register books is maintained.	
				SBPCL II	Project Operation Budget	Commitment Register (Operation)	Within 2 months of date of Combined Cycle Operation	CDO was observed to be in regular touch of the community and appeared to be first point of contact for the community to register their grievances/issues etc.	Not due before combined cycle operation.	
1.16	Consider preparing a detailed SEP with stakeholder profiling, key concerns, expectations, impact and influence, and risk rating of various stakeholder groups. It should include details on engagement strategy, disclosure, monitoring, reporting etc. The SEP should be subsequently updated with engagement records.	Table 3.2, S. No. 1.12, 5.4	High	SBPCL II	Project Cost	Updated SEP for the Project	Within 3 months of date of deal closure	<p>Draft SEP document is prepared and presently under review stage.</p> <p>CDO also maintains record of the meeting minutes of all community consultation and issues raised by the community.</p> <p>A copy of SIA (social impact assessment), LRP (Livelihood Restoration Plan), RAP (Resettlement Action Plan, CDP (Community Development Plan), executive summary of ESIA in local language, were shared with each of 31 PAHs and their feedback on project were noted down. Record of consultation and distribution of this document is maintained.</p>	Complied. SEP has been prepared, and activities are on going.	
2	PS 2: Labour and Working Conditions									
2.1	SBPCL II while finalising its HR policy may consider the following aspects for <ul style="list-style-type: none"> Roles and responsibilities associated with various positions need to be mentioned; Non-discrimination policy should be mentioned; HIV/ AIDS non-discrimination should also be spelt out; 	Table 3.2, S. No. 2.1	High	SBPCL II	Project Cost	HR Policy and Procedures	Within 3 months of date of deal closure	<p>SBIIPCL's updated HR policy includes the recommended aspects like policy on non-discrimination, prohibition of child labour and forced labour, HIV-AIDS non-discrimination, anti-sexual harassment policy etc.</p> <p>Provisions of updated HR policy of SBIIPCL have been communicated to the EPC contractors. The EHS person deputed by SBIIPCL, has also been held accountable for ensuring labour compliance of EPC contractor.</p>		

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	<ul style="list-style-type: none"> Working with Suppliers and contractors and non-employee workers may also Non-tolerance of child labour and forced labour not only for employee, but for the non-employee workers if Anti-Sexual Harassment Policy may be explicitly captured; All contractors and sub-contractors within the consortium should be required to apply the principles of the SBPCL HR Policy document and also ensure that their internal procedures follow local and 								HR policy of EPC Contractor has been updated complying with the provisions of SBIIPCL HR Policy.	
2.2	<ul style="list-style-type: none"> HR Policy of the EPC contractor should comply with the provisions of SBPCL II HR Policy. EPC contractor's local staffs terms and conditions of employment to be put in compliance with SBPCL II HR policy. The EPC contractor to provide contracts or clear terms and conditions highlighting the terms of employment. Or the same could be possibly hired through sub-contractors. 	Table 3.2, S. No. 2.2	High	EPC Contractor	EPC Contract	HR Policy and Procedures of EPC Contractor	Within 2 months of date of deal closure or December 2014, whichever is earlier	<p>HR policy of EPC contractors i.e. NEPC has not been updated. However it was reported that principles of SBIIPCL' HR policy is practically being followed by the EPC contractor. EHS Manager deputed at site by SBIIPCL has been made accountable for ensuring labour compliance in HR practices of NEPC.</p> <p>There are four categories of staff & workers employed in SBIIPCL plant. These are</p> <ul style="list-style-type: none"> EPC contractor own staff (Chinese staff); Locally contracted staff by EPC contractor; Locally hired workers by EPC contractor; Locally hired sub-contractual workers. <p>Chinese staff are governed by the NEPC HR policy and conditions for staffs working on international assignments.</p> <p>A common agreement template is followed for hiring locally staff and workers by NEPC. Review of the agreement copy indicated following key observation;</p> <ul style="list-style-type: none"> Agreement language is in English and Chinese only. Local workers directly hired by NEPC don't understand either of these two language; Agreement condition discuss about the aspects around contract duration, working time, leave, prohibition of worker under 18 years and forced workers, non-discrimination policy as per there is no provision around insurance for the workers/staff; Overtime is not permitted as per agreement. In case of working on weekly holiday (Friday), w NEPC is actually allowing the workers for overtime as per work requirement and overtime payment <p>Review of agreement between NEPC and their labour supply contractors (i.e. M/s. Nation Trade</p> <ul style="list-style-type: none"> As per agreement, sub-contractors are responsible for insurance of the workers supplied by them Wage rate for different categories of the workers (i.e. labour, welder, other skilled staff), is sp overtime rate paid to the sub-contractor workers by NEPC is equivalent to their ordinary wage <p>Review of agreement between sub-contractors and their workers indicates sub-contractors</p>	<p>HR Policy of EPC Contractor has been updated complying with the provisions of SBIIPCL HR Policy.</p> <p>Complied</p> <p>The Process is ongoing to re-write the terms of conditions for all employments in Bengali, and copies of the same to be provided to the labors. However, the issues of payment above minimum wage rate and double payment for OT have not yet been ensured.</p>	

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	Workers to be provided clear terms and conditions of employment.								Complied to the extent possible.	
2.3	Improve the conditions of the migrant workers- better accommodation and clearly articulated terms and conditions of employment	Table 3.2, S. No. 2.3	High	EPC Contractor	EPC Contract	Improved workers' accommodation	Nov-14	Significant improvement was observed in the labour colony for Bangladeshi Migrant workers as compare to observation of last ERM's audit. Key changes observed in the labour colony were as follows: □ About 6 to 8 workers are living in one room of the labour colony; □ Ventilation of the room has been improved; □ One tin shed with adequate ventilation is dedicated for cooking. No worker is cooking at their room; □ Lighting arrangement is there in the colony; □ Fire extinguisher was observed to be placed within the colony area. etc;	Complied to the extent possible.	
2.4	Clear labour construction camp guidelines to be formulated and shared with SPCBL II. The guidelines should take into consideration observations highlighted in the report.	Table 3.2, S. No. 2.4	High	EPC Contractor	EPC Contract	Labour construction camp guidelines	Within 1 month of date of deal closure or November 2014, whichever is earlier	It was noted that the NEPC has formulated labour construction camp guidelines and same was reviewed and approved by SBIIPCL.	Complied. Regularly monitored by SBIIPCL	
2.5	Ensure that the principles on non-discrimination and equal opportunity are included in the HR Policy Statement and that the EPC Contractor abides by the same while engaging local sub-contractor or contract workers.	Table 3.2, S. No. 2.6	High	SCBPL II	Project Cost	HR Policy of SCBPL II	Within 3 months of date of deal closure	The HR policy and procedures (handbook) of SBIIPCL has been updated with policy on Non-discrimination. The EPC contractor is observed to following this principle of non-discrimination. the agreement with sub-contractors includes a clause regarding following principle of non-discrimination in recruitment process. It was observed that there is no female in the existing locally hired workers at the plant. However this is mainly attributed to the prevailing local culture and custom wherein female member of the family remain restricted to household chores.	Complied. HR policy of EPC Contractor has been updated complying with the provisions of SBIIPCL HR Policy.	

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2.6	The Project should establish channels for management and workers to communicate and for the workers to place their concerns as well as suggestions.	Table 3.2, S. No. 2.7	High	SCBPL II	Project Cost	Grievance redressal mechanism	Within 1 month of date of deal closure or November 2014, whichever is earlier	<p>A formal Grievance Redressal Management (GRM) Committee at plant level as well as at corporate level has been established.</p> <p>Grievance register for plant workers is maintained. Additionally, grievance box is placed at the main entrance gate of the plant for workers.</p> <p>In consultation with workers, it was observed that workers prefer to verbally share their workplace related concern either with the locally safety In-charge by the EPC contractor or to the site level EHS officer of SBIIPCL. Mostly reported grievances of the workers were observed to be pertaining to non-availability PPEs. Such grievances are taken care of instantly by the safety in-charge.</p>	Complied	
	The grievance process should be made accessible for construction workforce and should enable workforce to raise anonymous complaints. The grievance records should be properly documented, tracked and reviewed for redressal of the Grievances.			EPC Contractor	EPC Contract				Complied	
2.7	The EPC contractor's position on non-employment of child, forced or bonded labour has to be clearly stipulated more specifically to the sub-contractors and their associated workforce. There should be proper checks and verification systems in place for the workforce to ensure no cases of child labour or forced labour are not allowed within the site premises.	Table 3.2, S. No. 2.8	High	EPC Contractor	EPC Contract	HR Policy and Procedures of EPC Contractor	Within 1 month of date of deal closure or November 2014, whichever is earlier	<p>The agreement with sub-contractors includes a clause around prohibition of child labour, forced labour. There is an adequate system in place to ensure prohibition of child labour and forced labour.</p> <p>A copy of national ID card of the worker is taken by the sub-contractor and same is submitted to NEPC. Worker below 18 years of age is not recruited by any sub-contractor.</p>	Complied	
2.8	Develop a site specific health and safety manual including SOPs and work permits required to protect the construction manpower (including subcontractors' personnel) from injuries.	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	SOPs for EHS Plan	Within 1 month of date of deal closure or November 2014, whichever is earlier	An EHS plan (in English) prepared by NEPC is in place which outlines the key procedures and permits to be implemented to safeguard onsite employees and workers of SBIIPCL, NEPC and subcontractors at the same time ensuring safe working conditions and efficient operations.	Complied	

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2.9	Develop a work permit system to carry out non routine jobs at the construction site.	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	SOP for work permit system	Within 1 month of date of deal closure or November 2014, whichever is earlier	A non-routine work permit has been prepared however implementation of the permit by NEPC is yet to be undertaken as no records to this regard could be made available for verification. SBIIPL to monitor the implementation of the non-routine permits by NEPC and its subcontractors on a regular basis.	Complied. Work permits for non-routine jobs have been issued by NEPC, and it has been monitored by SBIIPL.	
2.10	Prepare a Job hazard analysis for all the construction activity and same should be communicated to all the workers.	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	Job hazard analysis	Within 1 month of date of deal closure or November 2014, whichever is earlier	<p>Job Hazard Analysis prepared is limited to the following construction activities viz.</p> <ul style="list-style-type: none"> Thermal insulation Cooling tower construction Construction of cooling water intake pipeline <p>It is also understood that communication of JHA to workers is being undertaken by NEPC through Tool Box Talks (TBTs) and On Job Trainings; however no inventory is maintained specifying the work areas covered, no of trainings provided and workforce being trained.</p> <p>In view of the above it is recommended that NEPC prepares a comprehensive JHA encompassing all critical work activities related to electrical installation, material lifting, confined space work, hot work etc. which is to be based taking into account the current and future progress of project construction phase. Further an inventory is to be maintained by NEPC for on job trainings and TBTs being delivered to the contractor workforce as part of JHA communication.</p>	<p>Complied. An inventory is maintained specifying the work areas covered, no of trainings provided and workforce being trained.</p> <p>A comprehensive JHA has been prepared including electrical installation, material lifting, confined space work, hot work etc.</p>	
2.11	Prepare a pre-use inspection checklist (activity and equipment specific) and same should be performed and attach with every permit before starting of activity.	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	Activity and equipment specific checklist	Within 1 month of date of deal closure or November 2014, whichever is earlier	As discussed earlier in S.No. 1.3 the EPC contractor is maintaining work permits for critical work activities (except for electrical and height work) in accordance to the project EHS. Currently NEPC is maintaining scaffolding and pre-dig checklist but the same is being implemented in isolation and not as integral to work permits being issued for such activities viz. height and excavation work. Similarly pre-use inspection checklists also need to be developed for the other work related permits viz. hot work, confined space entry etc. which is in place.	Complied. Pre-use inspection checklists is developed for work related permits viz. hot work, confined space entry etc.	

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2.12	Conduct train the trainer program to increase the knowledge of the safety department.	Table 3.2, S. No. 2.9	Medium	EPC Contractor	EPC Contract	Training Records	Within 2 months of date of deal closure	<p>Refer response to S.No. 1.11. In addition review of records reveals that training programs on housekeeping, compliance policy, PPE usage, fall protection, confined space, height work etc. are being implemented by the EPC contractor for their EHS personnel.</p> <p>In this regard it is recommended that training program for contractor EHS personnel to also cover hot work, excavation, material lifting, usage of power tools, storage & handling of fuels/chemicals with records for the same maintained.</p>	Complied. Training has been conducted for contractor EHS personnel covering hot work, excavation, material lifting, usage of power tools, storage & handling of fuels/chemicals	
2.13	Recruit a qualified doctor to work at first aid centre	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	Qualified doctor at site clinic	Within 2 months of date of deal closure	<p>Reportedly a doctor has been engaged by NEPC at the First Aid Centre; however the work agreement provided to this regard does not bear information related to the date of joining of the doctor.</p> <p>Review of certificates provided in relation to doctor qualification reveals that the later holds a three year diploma degree in Medical Assistance and Family Planning and has been certified to serve as Rural Medical Practitioner (RMP).</p>	Complied.	
2.14	Prepare an Accident & Investigation register to include the information related to the accident.	Table 3.2, S. No. 2.9	Medium	EPC Contractor	EPC Contract	Accident & investigation register	Within 1 month of date of deal closure or November 2014, whichever is earlier	<p>Injury Register, First Aid log and Investigation report is being maintained by the EPC Contractor in accordance to the contractor EHS plan. Review of the incident investigation record maintained reveals the worker unawareness to be one of key root causes for such incidents. The incident investigation was followed by imparting motivational/on job training jointly by NEPC and SBIIPCL to enhance EHS awareness of such workers.</p>	Complied.	

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2.15	Carryout hazard identification and risk assessment (HIRA) for all construction and associated activities and preparation of SOPs	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	HIRA Register and SOPs	Within 2 months of date of deal closure or December 2014, whichever is earlier	<p>Hazard & Risk Assessment & Control (HIRAC) document prepared by NEPC takes into account the hazards related to the following work activities:</p> <ul style="list-style-type: none"> • Setting up and removing of scaffolding • Assembling and dismantling of heavy lifting equipment • Welding work • Machinery operation • Civil work • Radiography work. <p>It is recommended that the HIRAC is updated to also include hazards associated with fuel/chemical storage and handling, electrical work and confined space entry.</p>	Complied. HIRAC is updated including hazards associated with fuel/chemical storage and handling, electrical work and confined space entry.	
2.16	Carry out inspection for the potential hazards at the facility and provide the risk control as per the hierarchy of control.	Table 3.2, S. No. 2.9 Table 3.3, S. No. 2.1.1 (OHS)	High	EPC Contractor	EPC Contract	Risk control measures	Within 1 month of date of deal closure or November 2014, whichever is earlier	The contractor has in place a Hazard Identification and Risk Estimation Control Procedure for identification and control of potential hazards associated with the work activities. In accordance to this procedure the contractor is periodically undertaking safety inspection of the construction site to identify the potential safety risks/hazards along with their mitigation/control measures.	Complied.	
2.17	Provide training to workers, supervisors and employees on importance and usage of PPEs for different activities and organize PPE awareness program.	Table 3.2, S. No. 2.9 Table 3.3, S. No. 2.1.1 (Training)	High	EPC Contractor	EPC Contract	Training Calendar	As per Training Calendar	As per the training calendar a PPE awareness training was undertaken by EPC contractor in Feb 2015. It is recommended that the annual training calendar is updated to include additional training programs on importance and usage of PPEs to cover majority of the workforce.	Complied. the annual training calendar is updated with the inclusion of additional training programs on importance and usage of PPEs to cover majority of the workforce.	
2.18	Prepare a PPE program for the facility and program should cover the following essential elements: - Workplace Survey; - Selecting appropriate Training; - Maintenance;	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	PPE Implementation Program	Within 1 month of date of deal closure or November 2014, whichever is earlier	<p>A PPE matrix has been prepared by the contractor for cutting, grinding, excavation, lifting, confined spaces, welding, spray painting, concreting, and chemical handling activities. Periodic weekly EHS inspections are being undertaken jointly by NEPC and SBIIPL EHS team to monitor implementation of the program. In addition trainings are being imparted to workers on PPE requirement and usage through Tool Box Talks (TBTs)</p> <p>However based on document review it is recommended that the PPE matrix is updated to incorporate PPE requirement for electrical work. Further elements related to maintenance of</p>	Complied. PPE matrix is updated	

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S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
	Audit of the program.							PPEs also need to be covered in this program.	according to ERM recommendation. Furthermore, workers been trained on how to use appropriate PPE on particular job i.e. electrical work, grinding etc.	
2.19	Prepare training modules for job specific trainings and identify workers required to undergo job specific trainings.	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	Training modules	Within 2 months of date of deal closure or December 2014, whichever is earlier	<p>Training modules has been prepared by NEPC for the following critical work activities viz.</p> <ul style="list-style-type: none"> • Work at Height • Confined Space • Electrical Work • Material Lifting <p>In addition to the above, training modules on General Housekeeping, PPE, Hazardous Material Handling, Power Tools Safety, Slips & Falls, Ladder Safety, Fire Prevention, Water Damage Prevention & Environmental Awareness has been prepared by the SBIIPCL Site EHS Manager and shared with NEPC for necessary implementation.</p> <p>As reported by SBIIPCL selection of workers for job specific training on the aforesaid modules is based on daily and weekly EHS inspections being undertaken by both SBIIPCL and NEPC. However it is recommended that training selection is also to be based on worker skill set, experience and job profile with an inventory of such workers maintained.</p>	Complied. Training selection is now based on workers experience, workers work type and most importantly according to the accident happen by evaluating the root cause of accident.	
2.20	Conduct the first aid training with the help of qualified first aider and make sure that first aiders are available at all times at facility.	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	First aid trainings	Within 2 months of date of deal closure or December 2014, whichever is earlier	First aid certification training was imparted by Bangladesh Red Crescent Society on 8 th Apr 2015 to a total of 23 participants from both NEPC and SBIIPCL.	Complied.	

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIIPL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
2.21	Develop a standard operating procedure on incident investigation with roles and responsibilities.	Table 3.2, S. No. 2.9	High	EPC Contractor	EPC Contract	Incident investigation SOP	Within 2 months of date of deal closure	<p>As per the project EHS plan developed by NEPC all accidents involving injury or property damage to members of the public resulting from work related activities is to be immediately reported verbally to the Site Manager, Project Manager and the responsible NEPC EHS Manager. The accident/incident will be recorded and investigated using the Incident Investigation & Reporting Form as specified in the EHS Plan.</p> <p>Although NEPC is maintaining incident investigation records it is noted that no specific roles and responsibilities including process flow has been established as part of this procedure to ensure effective implementation. Hence it is recommended that the incident investigation procedure is to be updated through defining of specific roles and responsibilities of personnel involved in incident investigation process along with work flow chart.</p>	Complied. EPC contractor is now following the SBIIPL accident/incident investigation procedure which includes the particular roles and responsibilities of personnel involved in incident investigation process.	
2.22	Start preparing the accident/incident statistics for each and every area and start identifying the area of concerns and prepare an action plan to address the issues by mean of alternate work procedure, trainings, special attention to the high risk jobs, increase in number of supervisor for high risk jobs.	Table 3.2, S. No. 2.9	Medium	EPC Contractor	EPC Contract	Statistical analysis of accident/incident data and corrective action	Within 2 months of date of deal closure and monthly update of the same	<p>EPC contractor is maintaining accident/incident log however it is understood that the said data has not been analysed to identify the potential risk zones and an action plan prepared for such zones.</p> <p>Accident/injury data to be analysed by NEPC to identify the "areas of concerns" regarding health and safety standpoint and at the same time an action plan specific to such areas need to be prepared and implemented.</p>	Complied. Accident investigation statistics in now being maintained by SBIIPL EHS Manager.	
2.23	<p>SBPCL II will need to put in place a formal contractor management system to audit its contractors as well as those of the EPC contractor. The management system should include:</p> <ul style="list-style-type: none"> - Compliance checklist against the Applicable Standards; - Criterion on contractor selection to minimize HSE or labour related risks and issues at the time of - Monitoring and audit procedures; and <p>Further the EPC contractor and the sub-contractor should be made responsible for the insurance of the workers mobilised at the site.</p>	Table 3.2, S. No. 2.10	High	SCBPL II	Project Cost	Contractor Management System	Within 2 months of date of deal closure or December 2014, whichever is earlier	<p>Reportedly SBIIPL has in place a supplier management procedure to serve as for managing contractors. The procedure comprises of following key components viz.</p> <ul style="list-style-type: none"> • Supplier Identification • Registration of Contractors based on implementation of contractor selection criteria including contractor obligation to SBIIPL Policy. • Supplier assessment and rating by various users' and procurement department. • Supplier De-Registration. <p>However the procedure is applicable for SBIIPL direct contractors with no reference made towards obligation of the contractor to provide insurance for workers. It is therefore recommended that the procedure is updated to be applicable to sub-contractors with provision made for insurance of workers.</p>	Complied. Insurance is not applicable as the workers are employed on temporary basis.	

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIIPL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
3	PS 3: Resource Efficiency and Pollution Prevention									
3.1	Ensure that all the ESMMP implementation requirements during construction phase are being clearly provided to the EPC contractor and implementation of mitigation measures along with records should be reviewed by EHS Officer of the SBPCL II.	Table 3.2, S. No. 3.1	High	SBPCL II and EPC Contractor	EPC Contract (Construction)	ESMMP implementation	As defined in ESMMP during construction phase	<p>Reportedly ESMMP has been shared by SBIIPL to NEPC however no verification checks/monitoring has been undertaken by SBIIPL to check compliance status on a periodic basis. SBIIPL to perform monthly assessment of the ESMMP implementation for construction phase through development and implementation of specific checklists and compliance report to be shared with NEPC for reference and necessary action for closure.</p> <p>Further efforts has been made by ERM team to assess the compliance status of the EHS commitments made by SBIIPL in the construction phase ESMMP of the ESIA study report prepared by BCAS. A summary of the observations and recommendations made to this regard has been tabulated below:</p> <ul style="list-style-type: none"> Speed limit signages are provided within Site. However, no signage is provided for the access road. SBIIPL has also communicated regarding the maximum speed limit of 20 km/hr in access road to the NEPC on 20th January 2015. It was also observed that trainings to the drivers of NEPC and Summit were provided 3 times in last 5 months covering a total of 33 drivers. Provide speed limit and no honking signages in the access road. AAQ monitoring was conducted in February 2015 at 3 locations within the project area. Apart from this, as per ESMMP 3 samples need to be taken (upstream, near project and downstream). Whereas only one sample report was available and no records available pertaining to the erosion monitoring of Khusiyara river. There is some problem with the results. Ground water quality is much better than treated water quality. Need to recertify. Bird survey is yet to be undertaken for preparation of avifauna management plan to manage the impacts resulting from the proposed T-line. Fisheries survey is also due. Traffic and transportation plan implemented with training provided. Signage outside the boundry of the project is also being implemented. Solid, medical and food waste are getting segregated at site. Batteries, filters etc are being kept near HSD storage area. Vertical Promoters, Sylhet (biomedical, solid, hazardous waste) are also being kept near HSD storage area. There are no spill kit provisions at the fuel storage area. No drill has been carried out in last 6 months. Monthly erosion monitoring on both the banks of the river is currently not being conducted. Re 	<p>Partially Complied. Bird survey is yet to be undertaken for preparation of avifauna management plan to manage the impacts resulting from the proposed T-line. Fisheries survey is also due.</p> <p>Speed limit signage has already been provided in access road.</p> <p>As per ESMMP 3 samples has taken from river to check river water quality (upstream, near project and downstream).</p> <p>Records are now available to monitor erosion of Kushiya river.</p> <p>Mock drill on earthquake has been conducted in the site on 06 August, 2015.</p>	
3.2	Undertake regular monitoring of air emissions, water consumption, wastewater discharge, solid and hazardous waste disposal, noise levels, in line with the ESMMP.	Table 3.2, S. No. 3.1	Low	SBPCL II	Project Operation Budget	ESMMP implementation	As defined in ESMMP during operation phase	To be assessed during combined cycle operations	Complied	
3.3	Ensure that impacts associated with the decommissioning phase are assessed and addressed prior to eventual decommissioning.	Table 3.2, S. No. 3.1 Table 3.3, S. No. 4.1	Low	SBPCL II	Project Operation Budget	ESMMP for decommissioning phase.	1 to 2 years prior to eventual decommissioning.	To be assessed during combined cycle operations	Not due	
3.4	Complete an annual GHG emissions estimation based on the actual operations of the Project during the operational phase.	Table 3.2, S. No. 3.4 Table 3.3, S. No. 1.1.7	Low	SBPCL II	Project Operation Budget	GHG estimation and reporting.	Annually, after one year of COD	To be assessed during combined cycle operations	Not due	
3.5	Develop the climate adaptation policy and procedures in line with the requirements specified in the ESMMP.	Table 3.2, S. No. 3.4	Low	SBPCL II	Project Operation Budget	Climate Change Adaptation Policy	Within 12 months of COD (Plant Operations)	To be assessed during combined cycle operations	Not due	
3.6	Provide organisational arrangements, capacity development and training measures and performance indicators for effective implementation of the ESMMP.	Table 3.2, S. No. 3.6	High	SBPCL II	Project Operation Budget	Capacity building and setting up of performance indicators	1 month prior to COD	To be assessed during combined cycle operations	Not due	

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIIPL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
3.7	Develop a Waste Management Plan for operation phase.	Table 3.2, S. No. 3.7	Low	SBPCL II	Project Cost	Waste inventory and disposal options.	3months prior to start of Combined Cycle Operation	With combined cycle COD planned to be declared on Sep'15 SBIIPL is required to develop a Waste Management Plan for operations within the timeframe specified in the CAP i.e. Jun'15.	Not due	
		Table 3.3, S. No. 1.6								
3.8	Develop a Hazardous Materials Management (HMM) Plans.	Table 3.2, S. No. 3.8	High	EPC Contractor	EPC Contract	HMM Plan. – Construction phase	Within 2 months of date of deal closure or December 2014,	Hazardous Material Management Plan has been developed by NEPC for fuel and chemicals in use during construction phase.	Complied	
		Table 3.3, S. No. 1.5	Low	SBPCL II	Project Operation Budget	HMM Plan – Operation Phase	3 months prior to start of Combine Cycle Operation	With combined cycle COD planned to be declared on Sep'15 SBIIPL is required to develop a Hazardous Material Management Plan for operations within the timeframe specified in the CAP i.e. Jun'15.	Not due	
3.9	<ul style="list-style-type: none"> Ensure that spillage kit is available at the HSD storage area. Provide drainage system to the HSD storage shed to collect the rain water and waste water generated after floor cleaning. Prepare a procedure for the HSD loading & unloading and spill control and trained workers for the Prepare a list of the authorised person and same should be pasted outside the storage shed area and access control system to be implemented. 	Table 3.3, S. No. 1.5.2	High	EPC Contractor	EPC Contract	Spillage management plan	Within 1 month of date of deal closure or December 2014, whichever is earlier	<p>The container (~20 KL capacity) being used for the storage of HSD onsite as specified in the earlier ERM audit report was found to be removed. Presently as observed HSD is being stored in only 9 metallic drums (~200 litre capacity each) placed in a paved and covered storage area near batching plant. The storage was found to be access restricted with secondary containment provision. Display of appropriate safety signages/instructions including list of authorized personnel was found to be in place at this shed. However efforts need to be made by NEPC to ensure provision of spill kits at this storage along with display Material Safety Data Sheets (MSDS) for diesel.</p> <p>No drainage has been made available at the said area but as communicated taking into account the covered storage and availability of secondary containment any potential generation of contaminated run-off is likely to be minimal.</p> <p>A procedure for HSD loading and unloading and Hazardous Material Management Plan is available and training provided by SBIIPL to the workers involved in their storage and handling. However as suggested in the earlier audit report NEPC is required to develop and in</p>	Complied	
									Complied	
									Complied	
									Complied	
3.10	Develop a Standard Operating Procedure for Pest Management for the Project.	Table 3.2, S. No. 3.9	Medium	SBPCL II	Project Operation Budget	Standard Operating Procedure for Pest Management.	Within 3 months of COD	To be assessed during combined cycle operations	Not due	
3.11	Develop a Standard Operating Procedure on the use of Ozone Depleting Substances (ODS), with the focus being on no new systems or equipment use ODS.	Table 3.3, S. No. 1.1.5	Medium	SBPCL II	Project Operation Budget	Standard Operating Procedure on the use of Ozone Depleting Substances.	Within 3 months of COD	To be assessed during combined cycle operations	Not due	

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIIPCL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
3.12	Ensure that emissions from on-road and off-road vehicles should comply with Schedule 6 (Standards for emissions from motor vehicles) of the Environmental Conservation Rules, 1997 of GoB.	Table 3.4, S. No. 1.1.6	Medium	SBPCL II and EPC Contractor	EPC Contract	Compliance checks of on-road and off-road vehicles.	Within 2 months of date of deal closure or December 2014, whichever is earlier (with quarterly monitoring)	Reportedly vehicles are being used primarily for construction activities (excavators, load carriers, cranes etc.) and transportation of project personnel. Records review reveals that vehicular certificate of fitness from Bangladesh Road Transport Authority (BRTA) is available for only the ambulance provided by SBIIPCL. However documents related to vehicular emission testing (as required under Environmental Conservation Rules, 1997 of GoB) and certificate of fitness was not available and/or maintained for the NEPC operated vehicles. It is understood based on discussion with SBIIPCL management there exist potential challenges to comply with this requirements given the absence of adequate infrastructure and/or resource for vehicular emissions monitoring. In view of the same it is recommended that NEPC maintains an inventory of vehicles in operation for the project and obtain certificate of fitness for the same.	Complied. NEPC is now maintaining an inventory of vehicles in operation for the project, and fitness certificates of vehicles are obtained.	
3.13	Ensure no use of asbestos containing material is specified in the design of the Project.	Table 3.4, S. No. 2.4.1	High	SBPCL II	-	Written confirmation that no asbestos will be used in the Project development from newly purchased	Within 1 month of date of deal closure	Reportedly no asbestos material is being used part of project development and same has been confirmed by NEPC to SBIICL vide letter dated 15 th Feb 2015.	Complied.	
3.14	Conduct air quality dispersion modelling study with updated stack characteristics in the design	Table 3.3, S. No. 1.1.1	Medium	SBPCL II	Project Cost	Updated air quality dispersion modelling	Within March 2015	The air quality dispersion modelling study was performed considering main stack height as 50 m and stack diameter as 3.0 m, which has been modified to 70 m and 7.0 m, respectively. As suggested in the ERM audit report air quality dispersion is yet to be undertaken by SBIIPCL taking into considerations the revised stack specifications and flue gas velocity.	Complied.	
4	PS 4: Community Health, Safety and Security									
4.1	Conduct a detailed QRA for the Project based on actual design and formulate an emergency response plan.	Table 3.2, S. No. 4.2	Medium	SBPCL II	Project Operation Budget	Quantitative Risk Assessment and	3 months of COD	To be assessed during combined cycle operations	Not due	

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIPCL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
4.2	Develop a traffic management and logistics plan taking into consideration community safety	Table 3.3, S. No. 3.4, 3.5	High	EPC Contractor	EPC Contract	Traffic management plan.	Within 1 month of date of deal closure or November 2014, whichever is earlier	<p>A traffic management plan developed by SBIPCL is currently in place, which also takes into consideration, the traffic management plan of the EPC Contractor. The speed limits within project site, access road and highway are 15 km/hr, 20 km/hr and 60 km/hr respectively. No honking is allowed near the access road. During the site visit, it was noted that speed limit signage are provided within the site, however, no signage was noticed on the access road.</p> <p>SBIPCL has also communicated regarding the maximum speed limit of 20 km/hr in access road to the NEPC on 20th January 2015. It was also observed that trainings to the drivers of NEPC and Summit were provided 3 times in last 5 months covering a total of 33 drivers.</p> <p>It is recommended to provide speed limit and no honking signage on the access road considering no access control on the road and use of the same by local people.</p>	Partially Complied. No honking signs have not yet been posted.	
4.3	Undertake specific communication on health hazards and mitigation measures on an ongoing basis against new activities and associated health and safety risks to the local	Table 3.2, S. No. 4.4	Medium	SBPCL II	Project Operation Budget	Communication on health hazards and mitigation measures.	Within 3 months of COD	To be assessed during combined cycle operations	Not due	

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIIPCL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
4.4	Engage a suitably qualified professional to undertake a Life and Fire Safety (L&FS) review of the facility prior to commissioning and develop a Corrective Action Plan to address any identified deficiencies / gaps between the facility and the requirements of the WBG General EHS Guidelines.	Table 3.3, S. No. 3.3.1	Medium	SBPCL II	Project Operation Budget	Life and Fire Safety Review and Corrective Action Plan	1 month prior to the commissioning of combined cycle	To be assessed during combined cycle operations	Not due	
4.5	Ensure any future security arrangements shall comply with PS4 requirements. The SBPCL II Grievance Mechanism should include security within its scope.	Table 3.3, S. No. 4.5	Low	SBPCL II	Project Operation Budget	Compliance check against PS4 requirement.	1 months of COD	To be assessed during combined cycle operations	Not due	
5	PS 5: Land Acquisition and Involuntary Resettlement									
5.1	<div>Ensure:</div> <div> <ul style="list-style-type: none"> Preparation of the Livelihood restoration plan; Documentation of the stakeholder engagement records; Maintaining proper records of the employment and vendor opportunity provided to the PAFs and the local community </div>	Table 3.2, S. No. 5.2	Medium	SBPCL II	Project Cost	Livelihood restoration plan and stakeholder engagement	Within 3 months of date of deal closure (and periodic review); deal closure with all lenders took place on 29 April, 2015	<ul style="list-style-type: none"> □ Livelihood Restoration Plan (LRP) is proposed to be prepared by LRP consultant. The LRP consultant has been identified and expected to join in the month of June 2015. Thereafter LRP would be prepared. However some initiative related to Livelihood Restoration measures is already taken by Community Development Officer of SBIIPCL like vocational training need identification for 8 male PAP member; identification of 18 female PAP members for sewing training; □ There is a dedicated Community Development Officer (CDO) in place for the last seven months. Regular interaction of CDO is happening with the communities; • Project has constituted a JCCR (Joint Committee for Community Relation) with 11 members that includes Chairman of Union Parishad, Ward member of the Union Parishad, primary school headmaster, a women representative, 2 representatives from PAFs, 2 general community representatives, SBIIPCL project & GM, SBIIPCL CDO, SBIIPCL Assistant EHS Manager. Monthly meeting of JCCR is conducted to discuss to discuss about issues raised by community. Meeting minutes are recorded which was verified by ERM during site visit. □ CDO also maintain record the consultations with communities other than JCCR meeting; □ Employment and vendor opportunity for the PAFs and local is maintained by CD O. 5 PAP provided contractual employment and 4 provided vending opportunity at present. 	<div>complied. LRP has been prepared.</div> <div>complied</div> <div>complied</div>	

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIIPCL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
5.2	Continued engagement and resettlement monitoring by CDO.	Table 3.2, S. No. 5.3	Medium	SBPCL II	Project Cost	Resettlement monitoring reports	Within 3 months of date of deal closure (and periodic review)	Community Development Officer visits the Resettlement Site on regular basis. He was observed to be regular touch with PAFs. He has also prepared a first quarterly resettlement monitoring Report for the internal consumption SPIIPCL which highlights the progress on implementation of RAP.	Complied	
5.3	Establishment of a formal GRM for the PAFs and the community;	Table 3.2, S. No. 5.4	Medium	SBPCL II	Project Cost	GRM for PAFs	Within 3 months of date of deal closure (and periodic review)	<p>SBIIPCL has set up a formal mechanism of grievance redressal system for the PAFs and neighbouring community. Complain boxes have been near two entrance gate of the plant for the plant for receiving grievances of the community.</p> <p>In addition to the above, JCCR meeting provides a formal platform for raising community issues and taking appropriate decision there upon.</p> <p>CDO maintains separate register for registering grievances of PAFs and general community. Based on ERM consultation with local community, it was observed that contact number of CDO is shared with PAFs and regular formal and informal interaction happen between local community and CDO. Community members prefer to report their concern to CDO verbally which is eventually documented by CDO as well.</p>	Complied	
5.4	Consider preparing a detailed SEP with stakeholder profiling, key concerns, expectations, impact and influence, and risk rating of various stakeholder groups. It should include details on engagement strategy, disclosure, monitoring, reporting etc. The SEP should be subsequently updated with engagement records.	Table 3.2, S. No. 5.4	Medium	SBPCL II	Project Cost	Updated SEP for the Project	Within 3 months of date of deal closure (and periodic review); deal closure with all lenders took place on 29 April, 2015	Refer ERM's observation on S.no: 1.17 of this table.	Complied	
5.5	SBPCL II should ensure payment of compensation to sharecroppers in line with the resettlement action plan and records should be maintained.	Table 5.2, S. No. 5.6	Medium	SBPCL II	Project Cost	Records of compensation payment	After finalisation of CAP	ERM observed that payment to sharecroppers and agricultural labourer as per RAP, has been disbursed by SBIIPCL except for one Agricultural labourer (named as Masum Mian). It was reported that this person is residing with his family in Dhaka.	Complied. All payments have been made.	

6

PS 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources

Annex 1: Environmental and Social Monitoring Status on Corrective Action Plan for SBIPCL

S. No	Measures and/or Corrective Actions	Reference in ESDD Report	Significance	Responsibility	Funding Source and Estimated Cost (USD/BDT)	Deliverable	Suggested Timelines for Completion*	ERM Comments, May 2015	BCAS Comments, August 2015	Status
6.1	Conduct six monthly construction phase monitoring of terrestrial and aquatic organisms	Table 3.2, S. No. 6.1	High	SBPCL II	Project Cost	Terrestrial and aquatic organism monitoring	As defined in ESMMP during construction phase	Monitoring of terrestrial and aquatic organisms within the project study area for the construction phase is currently pending. As reported by SBIPCL efforts are being made to identify a reputed and qualified third party agency to undertake the said work.	Partially complied. SBIPCL has appointed a team of consultants for carrying out the monitoring study of terrestrial and aquatic organisms. The team has already finished field work on terrestrial flora and fauna, and will submit a monitoring study report by end of August, 2015. On the other hand, fisheries survey will be carried out by the same team in October, 2015. However, SBIPCL has not yet outsourced the task of carrying out avifauna monitoring study.	
6.2	Develop greenbelt within the project boundary.	Table 3.2, S. No. 6.2	Low	SBPCL II	Project Cost	Greenbelt Development	After completion of construction activities.	With single cycle COD planned at end of May 2015 reportedly a Green Belt Development Plan will be prepared and implemented by SBIPCL starting July (monsoon) season by engaging a third party contractor. In this regard SBIPCL has obtained financial proposal from SEBA (a local NGO) on 2nd May 2015.	Not due before COD. Most of the areas along the boundary walls of the power plant have been paved. So, provision has to be made to ensure plantation around the project boundary for green belting.	
6.3	Include an invasive alien species management plan in the ESMMP for the construction and operational phases	Table 3.2, S. No. 6.5	Medium	SBPCL II and EPC Contractor	EPC Contract	Invasive alien species management plan.	Within 2 months of date of deal closure	Invasive Alien Species Management Plan has been prepared by SBIPCL as an integral to the Environment & Social Management & Monitoring Plan (SBIPCL-EHS-007).	Complied	

Status Indicators:

Annex 2

Non Routine Work Permit

Hazardous Work Permit

Work Title: 紧急电气设备安装 Emergency electrical equipment install.		Date: 2015.05.27	
Requestor: 刘井心 Liu	Phone:	Start Time: 2:10	End Time: 3:20
Area Group Leader: 张显韦	Location: CCB		
Facility/ Safety Systems: <input type="checkbox"/> Life Safety (Toxic Gas Monitoring) <input type="checkbox"/> Fire Safety (Sprinklers and Exits) <input type="checkbox"/> Ventilation/ Exhausts <input checked="" type="checkbox"/> Electrical (Hazardous Energy Control) <input type="checkbox"/> Other _____	Activities: <input type="checkbox"/> Confined Space Entry <input checked="" type="checkbox"/> Hot Work (Welding/ Burning) <input type="checkbox"/> Work at Height <input type="checkbox"/> Respiratory Protection <input type="checkbox"/> Emergency Response Team	Training Requirements: <input checked="" type="checkbox"/> Personal Protective Equipment <input checked="" type="checkbox"/> Electrical Safety, LO/TO <input type="checkbox"/> Forklift <input type="checkbox"/> Laser <input checked="" type="checkbox"/> Fall Protection	

No.	Work Detail	Responsible Person	OK	Comments
1	紧急电气设备安装	刘井心 - Liu	✓	安保好了
2				
3				
4				
5				
6				

Closure:	刘井心 - Liu 2015.05.27	孙	
	Requestor	Date	EHS Manager
			Date

Annex 3

JHA

重大危险源控制统计表

Job hazard Analysis of SBIIPCL Construction

序号 SN	工程项目或单位名称 Project or unit name	重大危险源名称 Name of major hazards	重大危险源级别 The level of major hazards	具体部位 或位置 Specific part or location	危险源概况及状态 Hazard survey and state	可能导致的重大风险或 危害事件 May cause significant risk or harm	现有控制措施 The existing control measures	项目（单位） 负责人 Project(unit) responsible person	监控责任部门 Monitor the responsibility department
1	保温、封闭及附属 吊装Thermal insulation, sealing and affiliated hoisting	高处作业、起重 吊装 working aloft、lifting	4	烟囱、厂房、循环水泵房及检修 车间 Chimney、plant 、Circulating water pump house、The maintenance workshop	多工种、层间交叉作业，吊车站位受限，道路重新回填压实。 More jobs, interlayer crossover operation, limited crane stance, road to backfill compaction.	高处坠落、起重伤害、物体打击Falling accidents、Lifting harm、Object strike	1.上下交叉作业，在垂直危险区域内，一定避免（下部危险区域清场）2.高处作业，工具有保险绳，小件放置牢固，防止落物。3.下方设危险区域警示、警戒，监护人不得脱岗。4.挂梯牢固，攀爬绳、自锁器齐全，采用双背安全带。道路压实。1.Crossover operation, up and down in the vertical dangerous area, must avoid (lower dangerous area to clear)2.High homework, tool with insurance rope, small place, prevent falling objects.3.Below the dangerous area set alarm, vigilance, the guardian shall not be off duty.4.Hanging ladder, complete climbing ropes, self-locking device, adopts double back seat belts.	韩军、赵伟、王福强JUN HAN、WEI ZHAO、FUQIAN G WANG	安保部、机械化、 综合工地、锅炉工 地 Security Department、Mechanized、Comprehensive site、The boiler site
2	玻璃钢防腐corrosion prevention of glass fiber reinforced plastics	受限空间 Confined Space	4	除盐水箱Deminer alized water tank	受限空间为封闭金属罐，顶部、侧部各有通风口，防腐料为易燃品，有毒。 Limited space for the closed metal cans, each have top, side vents, anti-corrosion material is flammable and	火灾、中毒窒息、触电Fire, poisoning, suffocation, get an electric shock	要求进入容器禁带火源，采用活碳性防毒口罩。加强通风，照明采用12v安全电压。有专人检查监护。 Enter container forbidden band fire, using live carbon respirators.Strengthen the ventilation, lighting use 12 v safe voltage.check monitoring.	韩军JUN HAN	安保部、综合工地 Security Department、Comprehensive site

重大危险源控制统计表

Job hazard Analysis of SBII PCL Construction

序号 SN	工程项目或单位名称 Project or unit name	重大危险源名称 Name of major hazards	重大危险源级别 The level of major hazards	具体部位 或位置 Specific part or location	危险源概况及状态 Hazard survey and state	可能导致的重大风险或 危害事件 May cause significant risk or harm	现有控制措施 The existing control measures	项目（单位） 负责人 Project(unit) responsible person	监控责任部门 Monitor the responsibility department
3	冷却塔施工Cooling tower construction	脚手架、高处 作业 Scaffold、Wor king aloft	4	冷却塔施工Coolin g tower construction	脚手架作业、层间交叉作 业，吊车站位受限，道路 重新回填压实。 Scaffolding, interlayer crossover operation, limited crane stance, road to backfill compaction.	高处坠落、起重伤害、物 体打击、坍塌Falling accidents、Lifting harm、Object strike、Collapse	1. 脚手架搭设牢固，挂牌验收。2. 水平绳牢固。3. 孔洞封严，安全网挂牢。4. 采用双背安全带。5. 吊装区内设警示隔离。道路压实。 1.Scaffolding, firmly, for acceptance2.Horizontal rope firmly.3.Seal the hole, safety net to hang up.4.Adopt double back seat belts.5.The lifting area with warning isolation. Road compaction.	王波、王福强 BO WANG、FUQIANG WANG	安保部、机械化、 建筑工地 Security Department、Mech anized、Construc tion site
4	燃机变压器滤油Ga s turbine transformer oil filter	火灾Fire	4	燃机、主变压器Ga s turbine, and the main transformer	警示隔离专人监护Warning isolation specialist care	火灾Fire	警示隔离专人监护 Warning isolation specialist care	王晓斌白杰 XIAOBIN WANG、JIE BAI	安保部电气汽机 Security Department Electrical Turbine
5	取水口施工 Construction of the intake.	坍塌Collapse	4	钢板桩Steel sheet pile	钢板桩里水冲流沙吸出， 钢板桩外有水和流沙施压。 Water in the steel sheet pile quicksand sucked out, outside the steel sheet pile with water pressure and quicksand.	坍塌Collapse	监视钢板桩加固情况及动态，桩外及时排水。防止 外水渗入。Monitoring of steel sheet pile reinforcement and dynamic, timely drainage pile. Prevent web of infiltration.	王波BO WANG	安保部、建筑工地 Security Department、Con struction site
6	保温、封闭及附属 吊装、取水泵房Th ermal insulation, sealing,Attached lifting, water pump room	高处作业、起 重吊装 aloft、lifting	4	烟囱、厂房、循 环水泵房及检修 车间Chimney、pl ant、Circulating water pump house、The maintenance workshop	多工种、层间交叉作业， 吊车站位受限，道路重新 回填压实。 More jobs, interlayer crossover operation, limited crane stance, road to backfill compaction.	高处坠落、起重伤害、物 体打击Falling accidents、Lifting harm、Object strike	上下交叉作业，在垂直危险区域内，一定避免（下 部危险区域清场）2. 高处作业，工具有保险绳，小件放置牢固，防止落 物。3. 下方设危险区域警示、警戒，监护人不得脱岗。4. 挂梯牢固，攀爬绳、自锁器齐全，采用双背安全 带。道路压实。1.Crossover operation, up and down in the vertical dangerous area, must avoid (lower dangerous area to clear)2.High homework, tool with insurance rope, small place, prevent falling objects.3.Below the dangerous area set alarm, vigilance, the guardian shall not be off duty.4.Hanging ladder, complete climbing ropes, self-locking device, adopts double back seat belts. Road compaction.	韩军、赵伟、 王福强 JUN HAN、WEI ZHAO、FUQIA NG WANG	安保部、机械化、 综合工地、锅炉工 地Security Department、Mec hanized、Compre hensive site、The boiler site

重大危险源控制统计表

Job hazard Analysis of SBII PCL Construction

序号 SN	工程项目或单位名称 Project or unit name	重大危险源名称 Name of major hazards	重大危险源级别 The level of major hazards	具体部位或位置 Specific part or location	危险源概况及状态 Hazard survey and state	可能导致的重大风险或危害事件 May cause significant risk or harm	现有控制措施 The existing control measures	项目（单位）负责人 Project(unit) responsible person	监控责任部门 Monitor the responsibility department
7	冷却塔施工 Cooling tower construction	脚手架、高处作业 Scaffold、Working aloft	4	冷却塔施工 Cooling tower construction	脚手架作业、层间交叉作业，吊车站位受限，道路重新回填压实。 Scaffolding, interlayer crossover operation, limited crane stance, road to backfill compaction.	高处坠落、起重伤害、物体打击、坍塌 Falling accidents、Lifting harm、Object strike、Collapse	1. 脚手架搭设牢固，挂牌验收。2. 水平绳牢固。3. 孔洞封严，安全网挂牢。4. 采用双背安全带。5. 吊装区内设警示隔离。道路压实。 1.Scaffolding, firmly, for acceptance2.Horizontal rope firmly.3.Seal the hole, safety net to hang up.4.Adopt double back seat belts.5.The lifting area with warning isolation. Road compaction.	王波、王福强 BO WANG、FUQI ANG WANG	安保部、机械化、建筑工地 Security Department、Mechanized、Construction site
8	调试、消缺 Commissioning、Eliminating defects	交叉作业 cross-operation	4	各调试设备区域 The debugging equipment area	土建、安装、调试、尾工，高处作业，多工种交叉作业， Civil engineering, installation, debugging, finishing, high homework, much work crossover operation	误操作、触电、物体打击 Wrong operation, electric shock, object	警示隔离、工作票执行监察、经常巡查 Warning isolation, working ticket execution and supervision, often patrol	孙京雷、王力全、华电运行及各调试设备区域内作业负责人 JINGFU SUN、CAIQUN AN WANG、Commissioning HUADIAN and other commissioning department	安保部电气调试运行 Security Department、Electrical、Commissioning
9	保温、封闭及附属吊装、取水泵房 Thermal insulation, sealing, Attached lifting, water pump room	高处作业、起重吊装 working aloft、lifting	4	烟囱、厂房、循环水泵房及检修车间 Chimney、plant、Circulating water pump house、The maintenance workshop	多工种、层间交叉作业，吊车站位受限，道路重新回填压实。 More jobs, interlayer crossover operation, limited crane stance, road to backfill compaction.	高处坠落、起重伤害、物体打击 Falling accidents、Lifting harm、Object strike	1. 上下交叉作业，在垂直危险区域内，一定避免（下部危险区域清场） 2. 高处作业，工具有保险绳，小件放置牢固，防止落物。 3. 下方设危险区域警示、警戒，监护人不得脱岗。4. 挂梯牢固，攀爬绳、自锁器齐全，采用双背安全带。道路压实。 1.Crossover operation, up and down in the vertical dangerous area, must avoid (lower dangerous area to clear)2.High homework, tool with insurance rope, small place, prevent falling objects.3.Below the dangerous area set alarm, vigilance, the guardian shall not be off duty.4.Hanging ladder, complete climbing ropes, self-locking device, adopts double back seat belts. Road compaction.	王波、王福强 BO WANG、FUQI ANG WANG	安保部、机械化、综合工地、锅炉工地 Security Department、Mechanized、Comprehensive site、The boiler site

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10	玻璃钢防腐corrosion prevention of glass fiber reinforced plastics	受限空间 Confined Space	4	除盐水箱Deminer alized water tank	受限空间为封闭金属罐，顶部、侧部各有通风口，防腐料为易燃品，有毒。Limited space for the closed metal cans, each have top, side vents, anti-corrosion material is flammable and poisonous.	火灾、中毒窒息、触电Fire, poisoning, suffocation, get an electric shock	要求进入容器禁带火源，采用活碳性防毒口罩。加强通风，照明采用12v安全电压。有专人检查监护。Enter container forbidden band fire, using live carbon respirators.Strengthen the ventilation, lighting use 12 v safe voltage.check monitoring.	韩军JUN HAN	安保部、机械化、建筑工地Security Department、Mechanized、Construction site
11	冷却塔施工Cooling tower construction	脚手架、高处作业Scaffold、Working aloft	4	冷却塔施工Cooling tower construction	脚手架作业、层间交叉作业，吊车站位受限，道路重新回填压实。Scaffolding, interlayer crossover operation, limited crane stance, road to backfill	高处坠落、起重伤害、物体打击、坍塌Falling accidents、Lifting harm、Object strike、Collapse	1. 脚手架搭设牢固，挂牌验收。2. 水平绳牢固。3. 孔洞封严，安全网挂牢。4. 采用双背安全带。5. 吊装区内设警示隔离。道路压实。1.Scaffolding, firmly, for acceptance2.Horizontal rope firmly.3.Seal the hole, safety net to hang up.4.Adopt double back seat belts.5.The lifting area with warning isolation. Road compaction.	王波、王福强BO WANG、FUQIANG WANG	安保部、机械化、建筑工地Security Department、Mechanized、Construction site
12	6KV受电	受限空间、触电Confined Space	4	燃机主变、高厂变、共箱母线、6KV盘Gas turbine factory of main transformer, high change, the busbar, 6 kv panel	燃机主变、高厂变带电。共箱母线至6KV盘带电，封母至6米母线开关带电。Gas turbine main transformer, high plant become electrically charged. Total box bus to 6 kv dribbling, mother to 6 meters bus	误操作、触电Wrong operation, get an electric shock	警示隔离、执行工作票Warning isolation, executive working ticket	王才全、白杰CAIQUAN WANG、JIEBAI	安保部电气调试Security Department、Electrical、Commissioning

重大危险源控制统计表

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13	Electrical Work	Elctrical Hazard	4	烟囱、厂房、循环水泵房及检修车间 燃机主变、高厂变、共箱母线、6KV盘 Gas turbine factory of main transformer, high change, the busbar, 6 kv panel Chimney、 plant、Circulating water pump house、The maintenance workshop	受限空间为封闭金属罐，顶部、侧部各有通风口，防腐料为易燃品，有毒。 燃机主变、高厂变带电。共箱母线至6KV盘带电，封母至6米母线开关带电。 Gas turbine main transformer, high plant become electrically charged. Total box bus to 6 kv dribbling, mother to 6 meters bus switch electrically charged. Limited space for the closed metal cans, each have top, side vents, anti-corrosion material is flammable and poisonous.	误操作、触电Wrong operation, get an electric shock	1. 上下交叉作业，在垂直危险区域内，一定避免（下部危险区域清场）2. 高处作业，工具有保险绳，小件放置牢固，防止落物。3. 下方设危险区域警示、警戒，监护人不得脱岗。4. 挂梯牢固，攀爬绳、自锁器齐全，采用双背安全带。道路压实。1.Crossover operation, up and down in the vertical dangerous area, must avoid (lower dangerous area to clear)2.High homework, tool with insurance rope, small place, prevent falling objects.3.Below the dangerous area set alarm, vigilance, the guardian shall not be off duty.4.Hanging ladder, complete climbing ropes, self-locking device, adopts double back seat belts. Road compaction.	韩军、赵伟、王福强JUN HAN、WEI ZHAO、FUQIANG WANG	安保部、机械化、综合工地、锅炉工地 Security Department、Mechanized、Comprehensive site、The boiler site
14	發掘 Excavation	崩潰，筒牘和瀑布 Collapsing, Slips & Falls	3	盈方的GT / DM工廠/ RMS / Dormitory /療養院 Infront of GT/DM Plant/RMS/Dormitory/Infirmary.	篇幅所限，沒有觀察員 Limited space, No observer	土壤塌陷的溝槽開挖或作為不當或不充分撐的結果。 土壤類型是在確定危險的可能性非常重要。 Soil collapse in a trench or excavation as a result of improper or inadequate shoring. Soil type is critical in determining the hazard likelihood.	警示隔离、工作票执行监察、经常巡查Warning isolation, working ticket execution and supervision, often patrol	孙家雷、王全、华电运行及各调试设备区域内作业负责人JINGFUSUN、CAIQUAN WANG、Commissioning HUADIAN and other commissioning department	安保部电气调试运行 Security Department、Electrical、Commissioning

重大危险源控制统计表

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15	人體工程學 Ergonomics	組織損壞，折斷 Damage of tissue, Break	3	GT區/ ST區/ DM工廠/ CW泵房/ ETP /鍋爐區 GT Area/ST Area/DM Plant/CW Pump House/ETP/Boiler Area	人為錯誤 Human error	組織因過度勞累（株和扭傷）或重複運動損傷。 Damage of tissue due to overexertion (sprains and sprains) or repetitive motion.	嚴密監管，定期檢查 Close Supervision, Regular check up	王波、王福強 BO WANG、FUQI ANG WANG	安保部、機械化、 建築工地Security Department、Mechanized、Construction site

Annex 4

Accident Investigation Register



Summit Bibiyana II Power Company Limited

Incident/Accident Report For The Year Of 2015

Month	Head Count	Accident Type			Lost Time Accident (LTA)	Incident/Accident Report No.	Reporting Date
		Near Miss	First Aid	Fatality			
January	900		11		0		25-01-2015
February	780		11		0		25-02-2015
March	800	9	16		0		25-03-2015
April	750	12	26		0		25-04-2015
May	720	6	22		0		25-05-2015
June		10	21		0		25-06-2015
July		4	9		0		25-07-2015
August							
September							
October							
November							
December							
Grand Total		41	116	0	0		



UMMIT BIBIYANA II POWER COMPANY LIMITED

A 341 MW GAS FIRED CCPP

Statistics of Incident/Accident

Working Section	Location of accident	No. of incident/accident happens
Electrical/Mechanical/Welder/Grinder/Day Labor	Cooling Tower	25
	main Power Building	11
	Water pump House	8
	Mixing Section	3
	Ware-house	7
	Central Control Building	5
	Boiler Area	20
	Miscellaneous	7



BIBIYANA II POWER COMPANY LIMITED

A 341 MW GAS FIRED CCPP

Training Records

S. No.	Training Name	No. Of attendee	Dept.
1	PPE	150	
2	Work at Height	45	
3	Hazardous Materials Handling	4	
4	Electrical Safety	200	
5	Power Tool Safety	160	
6	Slips and Falls	30	
7	Lader Safety	30	
8	Material Handling	45	
9	Confined space	60	
10	Fire Prevention	40	
11	Use of Fire Extinguisher	120	
12	Water damage Prevention	50	
13	Environmental Awareness	180	
14	Lifting of Materials	30	
15	Motivational Training	80	
16	Workplace Safety	26	
17	Behaviourial Safety	15	
18	General Housekeeping	60	
19	Traffic Management	23	
20	Security Training	26	
21	Emergency Response and Preparation	140	
22	Disciplinary Policy	190	
23	Sign Signals, and Barricade	185	
24	Fall Protection	190	
25	Scaffolding	190	
26	Hot Work	155	

Annex 5

Incident Investigating and Reporting



SUMMIT BIBIYANAI POWER COMPANY LTD.

Document Type: EHS PROCEDURE	Location: ALL DEPARTMENT	Procedure Type: INCIDENT INVESTIGATION & REPORTING	Document No SBIIPCL-EHS- 013
Revision: 0	Date:	Change:	Date:

INCIDENT INVESTIGATION AND REPORTING

SBIIPCCCL-EHS-013

Prepared By:



Document Type: EHS PROCEDURE	Location: ALL DEPARTMENT	Procedure Type: INCIDENT INVESTIGATION & REPORTING	Document No SBIIPCL-EHS- 013
Revision: 0	Date:	Change:	Date:

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SUMMIT BIBIYANAI POWER COMPANY LTD.

Document Type: EHS PROCEDURE	Location: ALL DEPARTMENT	Procedure Type: INCIDENT INVESTIGATION & REPORTING	Document No SBIIPCL-EHS- 013
Revision: 0	Date:	Change:	Date:

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Document Type: EHS PROCEDURE	Location: ALL DEPARTMENT	Procedure Type: INCIDENT INVESTIGATION & REPORTING	Document No SBIIPCL-EHS- 013
Revision: 0	Date:	Change:	Date:

ABBREVIATIONS

NOT APPLICABLE



SUMMIT BIBIYANAII POWER COMPANY LTD.

Document Type: EHS PROCEDURE	Location: ALL DEPARTMENT	Procedure Type: INCIDENT INVESTIGATION & REPORTING	Document No SBIIPCL-EHS- 013
Revision: 0	Date:	Change:	Date:

GLOSSARY OF TERMS

Term	Description
Accident	An accident is an unplanned and unexpected event, the result of which may affect work, with a loss of production, injury or illness to personnel and/or damage to the plant, equipment and the environment.
Fatality	Accident that directly or indirectly results in death of person.
Hospitalization	As the result on an accident, a person(s) is taken to hospital for further treatment and either admitted or treated as an outpatient.
Incident	An incident is an unplanned, undesired event that hinders completion of a task and may cause injury or other damage.
First Aid	Using a nonprescription medication at nonprescription strength, administering tetanus immunizations, cleaning, flushing or soaking wounds on the surface of the skin, Using wound coverings, such as bandages, Band-Aids, gauze pads, using butterfly bandages or Steri-Strips, using hot or cold therapy, using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, using temporary immobilization devices while transporting an accident victim, drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister, using eye patches, removing foreign bodies from the eye using only irrigation or a cotton swab, removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs, or other simple means, using finger guards, using massages, drinking fluids for relief of heat stress regardless of the professional qualifications of the person providing the treatment; even when these treatments are provided by a physician, nurse, or other health care professional, they are considered first aid.
OSHA Reportable	Any treatment behind first aid considered as medical treatment is OSHA reportable.
Record able and Lost Time Incidents	An injury occurred which prevents an individual from attending work or performing their normal work duties.
Near Miss	Near miss is an accident or incident with severity rated below a Category-A accident / incident which, may or may not actually occur but has the potential to result in injury or damage to property.
Record able and Lost Time Incidents	Individual has an accident they wish documented but receives no first aid and refuses medical attention at the time of the accident.
Reporting Supervisor	The Reporting Supervisor shall be that of the eBIIoyee(s) involved in the accident
Safety Committee	Safety Committee constitutes employees representatives from all the departments of Summit Bibyanaii Power Limited, with a representative from Senior
Substandard Act	Substandard acts shall be the acts or omissions, which led directly to the incident
Substandard Conditions	Substandard Conditions shall be the situations, systems, equipment or any other that should have been provided to prevent the incident.



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PART 1.0

PURPOSE AND SCOPE



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1.0 PURPOSE AND SCOPE

The purpose of accident investigation and reporting is to collect accurate, comprehensive and relevant information about an accident, to establish the true facts that contributed to the cause of the accident and to recommend and develop solutions to prevent recurrences. Secondary reason is to gather formal documentation in the event of litigation for any civil/criminal proceedings, or to confirm or refute a claim for industrial injury benefit and for notifications to local government or other enforcing agency.

All accidents shall be investigated. A study of minor injuries and near misses can often reveal a major hazard. The occurrence and severity of injury is a random happening. The degree of investigation may well vary with the degree of injury or damage, but should be based on worst possible case of injury. The scope of the accident investigation and reporting is to cover all accidents causing minor to major injuries including fatality, damages and near misses and communicate the results to all plant personnel.

The main objectives of this procedure are to:

Provide guidelines on the preparation of accident reports, to investigate and analyze the accidents in order to identify causes of the accident, correct deficiencies, etc. in order to minimize consequences on time and budget.

Ensure that all accidents/incidents are reported in a logical consistent manner to Plant Management and appropriate government authority where required.



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PART 2.0
PROCEDURES



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2.0 PROCEDURE

2.1 RESPONSIBILITIES

2.1.1 EMPLOYEES

It is the duty of every employee who is involved in or witnesses an incident, to inform his supervisor immediately. All accidents must be reported regardless of their severity.

No employee shall disturb the incident scene except to the extent necessary to rescue, stabilize and render area safe until a full investigation has been undertaken.

All the employees of Operations and Maintenance Department shall complete the Position qualification requirement on Incident Investigation & Reporting.

2.1.2 SUPERVISOR

The responsibilities of the supervisor who is informed about the incident are as follows:

Attend to the welfare of any injured person.

Attend to the incident location immediately.

Inform the incident to EHS manager and Plant manager immediately.

Ensure that the scene of the incident is not disturbed, except as may be necessary to affect rescue, stabilize and or render area safe until such times as a full investigation may be carried out.

Arranges for assistance from other sources as required, informs responsible authorities such as the EHS Manager and relevant department head(s).

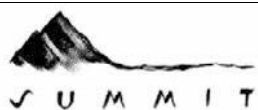
Co-ordinate and co-operate with the EHS Manager in investigating the incident.

Reporting of Incidents and shall be recorded using the appropriate forms.

2.1.3 EHS MANAGER

The responsibilities of EHS Manager are as follows:

- Visit the scene of the incident as soon as practicable.
- Ensure that the injured person has received first aid treatment and or has been moved to hospital.
- Ensure that the site has been made safe and any hazards are removed.
- Make the examination of the workplace; investigate the incident in co-ordination and co-operation of the department concerned.
- Receives details of treatment to the injured from the treating Doctor.
- Co-ordinate with Managers to finalize and implement corrective actions as outlined in section 2.2.6.
- Copies of all such reports shall be circulated to the department managers.
- Communicate the accident details to the employees through email and/or safety meeting.
- Monitor recommended corrective actions stated in the report and ensure that they are implemented.
- Provide training to employees on Accident Investigation and Reporting.



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2.2 ACCIDENT INVESTIGATION AND REPORTING GUIDELINES

2.2.1 NOTIFICATIONS

The injured, the person who provided first aid or the supervisor of the injured should ensure that the concerned supervisor, Department Manager and EHS Manager is informed.

Reporting should be done as soon as practicably possible as but not later than 24 hours from the incident. This will enable prompt availability of medical care, an investigation of the incident and the implementation of corrective actions needed to prevent a re-occurrence of the incident.

2.2.2 ACCIDENT SITE VISIT

In virtually all situations the immediate supervisor should make the initial investigation. He shall probably be the first person in authority at the scene and will have an invaluable assessment of the situation immediately after the event.

Supervisors should be trained in the need to record the reactions and statements of observers before they forget important details and the equipment and tools are disturbed or removed. In addition, the supervisor will have detailed knowledge of the job the employee was engaged in and the workings of the equipment at the time of the accident or incident. Investigating persons shall conduct a review including, but not limited to the following:

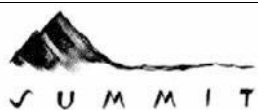
- Visit the scene of the accident.
- Become familiar with the physical layout of the area.
- Ensure that the area is safe to enter and remove any hazard likely to cause imminent danger.
- Establish the activities concerning the accident – work operations, how many and grades of persons, material and equipment being used, environmental conditions.
- Record the physical details at the scene of the accident.
- Take photographs from different angles to assist in investigation review.
- Make dimensional drawings and sketches as necessary.

2.2.3 INTERVIEW

Interview those who sustained injuries, witnesses, people who rendered assistance, supervisors and others, as required. Following are the fact-finding pointers that can be used as guidelines:

- Show concern for the employee's injury, no matter how minor it is.
- Explain why the investigation is necessary.
- Use a friendly approach.
- If possible, discuss the accident at the scene.
- Hear the injured employee's narration of incident before asking questions.
- Check your understanding of the narration.
- Listen carefully. Avoid interruptions.
- Use tact in clearing up discrepancies in the employee's narration.
- Avoid sarcasm, blame and threats.
- Discuss ways to prevent recurrence of the accident.

Keep an open mind before, during and after each accident investigation. If one fails to



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remain open to all possibilities, it will defeat the purpose of the investigation, which is to develop and implement appropriate solutions that will prevent the problems from recurring.

2.2.4 RECORDING THE FACTS

The facts related to all incidents are recorded on the Incident Report form as in Appendix-3.1. In this report he should identify his version of what happened, provide details of pertinent information and give a brief statement on the instruction given, including training briefing or any information given that relates to his action that may have a bearing on the incident.

2.2.5 INVESTIGATION

Incident investigation and analyze in order of:

- Determining the underlying OH&S and environmental deficiencies and other factors that may be causing or contributing to occurrence of incidence.
- Identify the need for corrective action.
- Identify the opportunities for preventive action.
- Identify the opportunities for continual improvement.
- Communicate the result of such investigation.

The investigation will be initiated within 24 hours and completed as soon as possible. Any need for corrective action or opportunity for preventive action shall be dealt with the form in appendix 3.1 of this procedure and the record of this investigation will be documented and maintained.

Studies have suggested that unsafe acts and conditions are the result of deeper, more complex and interrelated causes. To get at the real causes of accidents, it's necessary to examine the following five elements:

- Man
- Machine
- Material
- Methods
- Environment

These five elements must be further broken down and examined in detail. In case of minor spillage, near miss, first aid EHS Manager has to investigate and find out the details cause, for OSHA reportable, loss time accident (LTA) or spillage an investigation team shall be established to identify the cause.

The following information is provided to assist in preparation of root cause analysis:

- Immediate causes – Substandard actions or substandard conditions
- Basic causes – The personal factors and job factors that led to the substandard actions or substandard conditions
- Root causes

Immediate causes

The causes to be identified using the following:



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• Operating equipment without Authority.	• Inadequate Guards (no Safety Net) or Barriers.
• Failure to warn.	• Inadequate / improper protective equipment.
• Failure to secure.	• Defective tools, equipment or materials.
• Operating outside design parameter.	• Congestion or restricted action.
• Making Safety devices inoperable.	• Fire and Explosion hazards.
• Removing Safety devices.	• Poorhouse keeping: disorder.
• Using defective equipment.	• Hazardous environmental conditions:
• Using equipment improperly.	• Gases, dust, smoke, fumes, vapors.
• Failing to use PPE properly.	• Noise exposure.
• Improper loading.	• Radiation exposure.
• Improper placement.	• High or low temperature exposure.
• Improper lifting.	• Inadequate or excess illumination.
• Improper position of task.	• Inadequate ventilation.
• Servicing equipment in operation.	• Improper working method
• Under influence of alcohol and/or other drugs.	• Poor/Faulty equipment.
• Horseplay.	• Others.
• Improper working method.	

Basic Causes

Basic causes are the underlying causes behind the symptoms why the unsafe acts and unsafe conditions occurred. Although they may take a lot of probing to identify, the effort is worthwhile because it is only after identification that meaningful management control can be instituted. Basic causes are actually the personal factors and job factors.

Personal Factors	Job Factors
• Inadequate physical Capability.	• Inadequate Supervision.
• Inadequate psychological capability	• Inadequate Engineering.
• Psychological stress	• Inadequate Purchasing.
• Physical stress or illness	• Inadequate Maintenance.
• Improper Motivation.	• Inadequate Tools/Equipment.
• Carelessness	• Inadequate Work.
• Lack of Knowledge.	• Using Defective Equipment.
• Lack of Skill.	• Abuse or Misuse.
• Domestic or external influences	• Other (State below).

Root Causes

These can be listed as below:

- Procedures- Inadequate quality of existing procedures regarding application, availability, realism and understanding.
- Conflicting targets and / or Priorities.
- Communication difficulties.
- Availability of proper tools and equipment.
- Inadequate design criteria.
- Work place environment.



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- Shortcomings in training program.
- Constraints leading to inadequate management of maintenance.
- Inadequate protection of employees and the environment against hazardous situations.

2.2.6 PREVENTATIVE/CORRECTIVE ACTION

Preventative /corrective actions should be decided jointly and be based on the order of hierarchy of preventive measures:

- a) Elimination of the hazard completely or prevention.
- b) Reduction or combating at source.
- c) Control by engineering methods.
- d) Protection to whole workforce.
- e) Personnel protective equipment usage.
- f) Provision of information, instruction, training and supervision.

2.3 RECORD KEEPING

Summit BibiyanaII Power Company Limited, as part of the health, safety and environmental management system, shall maintain and retain record for future reference.



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PART 3.0

APPENDICES



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EHS INCIDENT REPORT

Date of Incident. (Day/Month/Year)		Time		Report Date. (Day/Month/Year)		Report Number (IR-xxx/Year)			
Incident Type:	<input type="checkbox"/> Spillage			<input type="checkbox"/> Near Miss					
	<input type="checkbox"/> First Aid			<input type="checkbox"/> OSHA Reportable					
	<input type="checkbox"/> LTA			<input type="checkbox"/> Other					
Location of Incident									
Nature Of Incident	<input type="checkbox"/> Personnel Injury		<input type="checkbox"/> Equipment Failure		<input type="checkbox"/> Spill/Release		<input type="checkbox"/> Explosion / Fire		
	<input type="checkbox"/> Inhalation Exposure		<input type="checkbox"/> Equipment Damage		<input type="checkbox"/> Environmental		<input type="checkbox"/> Motor Vehicle		
	<input type="checkbox"/> Chemical Exposure		<input type="checkbox"/> Property Damage		<input type="checkbox"/> Contamination		<input type="checkbox"/> Electrical Shock		
Details of Injury:									
Personal Details of the Injured Person(s):									
Type of Injury		<input type="checkbox"/> First Aid.		<input type="checkbox"/> Medical Treatment.		<input type="checkbox"/> Lost Time.		<input type="checkbox"/> Fatality.	
Description of the Work:									
Description of the incident.									
Witness	1.			2.					
	Remarks:								



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Correction (Immediate action):		
Immediate Causes Analysis of the Incident	Substandard Actions.	Substandard Conditions.
	<div><input type="checkbox"/> 1. Operating equipment without Authority.</div> <div><input type="checkbox"/> 2. Failure to warn.</div> <div><input type="checkbox"/> 3. Failure to secure.</div> <div><input type="checkbox"/> 4. Operating outside design parameter.</div> <div><input type="checkbox"/> 5. Making Safety devices inoperable.</div> <div><input type="checkbox"/> 6. Removing Safety devices.</div> <div><input type="checkbox"/> 7. Using defective equipment.</div> <div><input type="checkbox"/> 8. Using equipment improperly.</div> <div><input type="checkbox"/> 9. Failing to use PPE properly.</div> <div><input type="checkbox"/> 10. Improper loading.</div> <div><input type="checkbox"/> 11. Improper placement.</div> <div><input type="checkbox"/> 12. Improper lifting.</div> <div><input type="checkbox"/> 13. Improper position of task.</div> <div><input type="checkbox"/> 14. Servicing equipment in operation.</div> <div><input type="checkbox"/> 15. Under influence of alcohol and/or other</div> <div><input type="checkbox"/> 16. Horseplay.</div> <div><input type="checkbox"/> 17. Improper working method.</div>	<div><input type="checkbox"/> 1. Inadequate Guards (no Safety Net) or Barriers.</div> <div><input type="checkbox"/> 2. Inadequate / improper protective equipment.</div> <div><input type="checkbox"/> 3. Defective tools, equipment or materials.</div> <div><input type="checkbox"/> 4. Congestion or restricted action.</div> <div><input type="checkbox"/> 5. Fire and Explosion hazards.</div> <div><input type="checkbox"/> 6. Poorhouse keeping: disorder.</div> <div><input type="checkbox"/> 7. Hazardous environmental conditions:</div> <div><input type="checkbox"/> 8. Gases, dust, smoke, fumes, vapors.</div> <div><input type="checkbox"/> 9. Noise exposure.</div> <div><input type="checkbox"/> 10. Radiation exposure.</div> <div><input type="checkbox"/> 11. High or low temperature exposure.</div> <div><input type="checkbox"/> 12. Inadequate or excess illumination.</div> <div><input type="checkbox"/> 13. Inadequate ventilation.</div> <div><input type="checkbox"/> 14. Improper working method</div> <div><input type="checkbox"/> 15. Poor/Faulty equipment.</div> <div><input type="checkbox"/> 16. Other (leackage).</div>
Immediate Causes Analysis of Incident	Personnel Factors.	Job Factors.
	<div><input type="checkbox"/> 1Inadequate physical Capability.</div> <div><input type="checkbox"/> 2Inadequate psychological capability</div> <div><input type="checkbox"/> 3.Psychological stress</div> <div><input type="checkbox"/> 4.Physical stress or illness</div> <div><input type="checkbox"/> 5.Improper Motivation.</div> <div><input type="checkbox"/> 6.Carelessness</div> <div><input type="checkbox"/> 7.Lack of Knowledge.</div> <div><input type="checkbox"/> 8.Lack of Skill.</div> <div><input type="checkbox"/> 9.Domestic or external influences</div>	<div><input type="checkbox"/> 1. Inadequate Supervision.</div> <div><input type="checkbox"/> 2. Inadequate Engineering.</div> <div><input type="checkbox"/> 3. Inadequate Purchasing.</div> <div><input type="checkbox"/> 4. Inadequate Maintenance.</div> <div><input type="checkbox"/> 5. Inadequate Tools/Equipment.</div> <div><input type="checkbox"/> 6. Inadequate Work.</div> <div><input type="checkbox"/> 7. Using Defective Equipment.</div> <div><input type="checkbox"/> 8. Abuse or Misuse.</div> <div><input type="checkbox"/> 9. Other (State below).</div>
Reason Of the Incident		
Corrective Action recommended		
Preventive action recommended		
Reporting Supervisor	Name:	
	Sign:	Date:
Reviewed By Department Manager		
	Sign:	Date:



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Reviewed By HSE Manager	Evaluation of Risk:			
	Frequency Potential.	<input type="checkbox"/> Frequent.	<input type="checkbox"/> Occasional.	<input type="checkbox"/> Rare.
	Severity Potential.	<input type="checkbox"/> Major.	<input type="checkbox"/> Serious.	<input type="checkbox"/> Minor.
	Reviewed HIRA /AIIA after incident On (date) :		Reviewed HIRA/AIIA after RCA on (if required):	
	Reparation of Any past Incident?	No		
	Remarks:			
Sign:		Date:		
Reviewed By Plant Manager	Recommend for Farther investigation:			
	Detail Follow up action recommended:			
Follow up Detail:	Remarks:			
	Sign:		Date:	
	Investigation Report received on:			
	Corrective Action Implemented On:			
Sign off By HSE Manager	Preventive Action Implemented on:			
	Communicate to All Persons:			
	Next Review Date:			
	Sign:		Date:	
Sign off By Plant Manager	Sign:		Date:	



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Annex 6

Stakeholder Engagement Plan



STAKEHOLDER ENGAGEMENT PLAN

Summit Bibiyana II Power Company
Limited

Parkul, Nobigonj, Habiganj

Stakeholder Engagement Plan

INTRODUCTION

Stakeholders are the entities those have stake or share of a project and who are affected directly or indirectly by a project. Generally individual, group, any organization or community within a particular project's influence area are considered as stakeholders of the project. The World Bank Operational Policies, Performance Standard IFC or Safeguard Policy Statements of ADB suggest that, the operating company should have a Stakeholder Engagement Plan (SEP) for better development practices.

According to IFC Stakeholder Engagement Practice Book, a good Stakeholder Plan should be:

- ☐ well targeted towards its stakeholders
- ☐ should properly inform about the actions and key concerns
- ☐ gender inclusive that ensures proper participation of women representatives
- ☐ free from biasness
- ☐ meaningful to its objectives and strategies
- ☐ properly documented
- ☐ continuous

THE PROJECT

Summit Bibiyana II Power Company is developing a 341 MW combined cycle power plant at Parkul, Nabigonj, Habiganj. Economic displacement due to land acquisition for the plant construction, loss of employment for sharecroppers, khashland cultivators and agricultural workers and loss of homestead has resulted due to the project. Good Industrial Practice (GIP) refers that, a stakeholder engagement plan is required to minimize or mitigate the adverse impacts of the project PAHs and the neighboring community.

OBJECTIVES OF STAKEHOLDER ENGAGEMENT PLAN

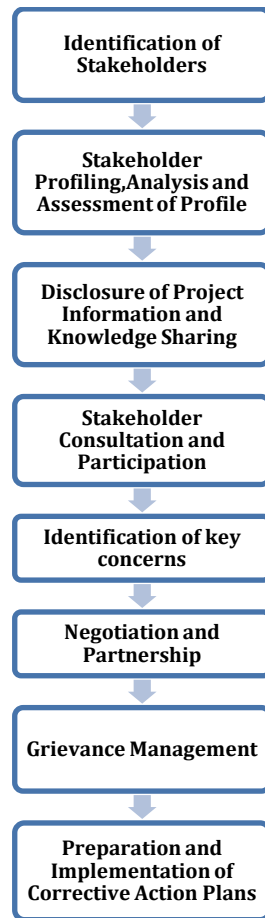
Stakeholder Engagement Plan is considered to be a useful tool for maintaining communications between the project authority and its stakeholders. It will help to improve and facilitate decision making of the local community and will create an atmosphere in such a way so that the stakeholder groups are provided with sufficient opportunities to improve their livelihood.

The objectives for the Stakeholder Engagement Plan should be:

- ☐ to disseminate the SEP to the community and the PAHs.
- ☐ to provide a proper guidance for stakeholder engagement in such a way so that it meets the international standards
- ☐ to identify and monitor the project stakeholders through the SEP
- ☐ to identify and resolve the grievances in an efficient way
- ☐ to engage with the stakeholders on Livelihood Restoration process, Community Development Plan to be executed by SBIIPCL and environmental and social issues..

- to establish a respectful and long lasting relationship with the community and stakeholders

The following flowchart represents the major components of Stakeholder Engagement Process:



A. Identification of Stakeholders

Identification of different level of stakeholders is the primary requirement for the engagement plan. For a large scale project like SBLLPCL, there can be different level of stakeholders. From the analysis of project planning, the stakeholders can be classified into the four following categories:

i. Project Affected Households (PAH)

The project affected households are the families those are directly affected by the project. These include the landowner groups, sharecroppers, khasland cultivators, agricultural labors and resettlers whose livelihoods are disrupted due to the project development. So they will be considered as the most vulnerable groups and the early engagement strategy should be applied for them.

ii. Interested Group

Generally, community people including local elites, politicians, civil society, business people or general community representatives will be considered as the interested group of stakeholders.

iii. Strategic Partners

Since the very inception to smooth operational level, this project will engage several types of entities who will work as strategic partners for the project. The major strategic partners for SBLLPCL are:

- NEPC: The EPC Contractor
- Jalalabad Gas: Exclusive gas pipeline installation
- Power Grid Company Bangladesh: Work of access T-line to transmit power
- NGOs: Social service delivery

iv. Government Entities

Government entities include National and Local Government Officials including Ministries, DC Office, Union Parishad Office, Police Stations etc.

B. Stakeholder Profiling

An effective stakeholder engagement plan can be attained when it is properly documented and is aware about each and every individual stakeholder. To do so, profiling of stakeholders can be key to better SEP. The following template can be used for future level stakeholder profiling.

Type of Stakeholders	Influence and Risk Level	Key Information																			
Affected Households (APs)	Influence Level:	Name of Household Head: Address: Occupation: Contact: Engagement Method: <i>Socio-Economic Information</i>																			
	High																				
	Medium																				
	Low																				
	Risk Level:	<table border="1"> <thead> <tr> <th>Name of Family Member</th><th>Age</th><th>Education</th><th>Occupation</th><th>Key Concerns</th></tr> </thead> <tbody> <tr> <td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> </tbody> </table>					Name of Family Member	Age	Education	Occupation	Key Concerns						1	2	3	4	5
	Name of Family Member	Age	Education	Occupation	Key Concerns																
1	2	3	4	5																	
Interested Group	Influence Level:	Type of Group: Address: Key Concerns: Engagement Method:																			
	High																				
	Medium																				
	Low																				
	Risk Level:	<table border="1"> <tbody> <tr> <td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>																			
Strategic Partners	Influence Level:	Type of Partners: Address: Key Concerns: Engagement Method:																			
	High																				
	Medium																				
	Low																				
	Risk Level:	<table border="1"> <tbody> <tr> <td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>																			
Government Entities	Influence Level:	Type of Entity: Address: Key Concerns: Engagement Method:																			
	High																				
	Medium																				
	Low																				
	Risk Level:	<table border="1"> <tbody> <tr> <td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>																			

Here, 5= Very High Risk, 4= High Risk, 3= Medium Risk, 2= Low Risk, 1= Minimum Risk Level

C. Disclosure of Project Information

The main aim of the stakeholder engagement is to disclose project information as clearly as possible. The technical issues should be communicated in a manner that is comprehensible to the stakeholders and should reflect transparency accountability..

D. Consultation and Participation

World Bank Operational Policy (OP) 4.12 states that, affected persons should be meaningfully consulted and should have opportunities to participate in planning and implementing development programs. Furthermore, one of the core components of ADB's Safeguard Policy Statement is enhancement of consultation and participations of the stakeholders. So to ensure meaningful consultation, the project will initiate some consultation strategies which will include Focus Group Discussion (FGD), structured and semi structured interview, meeting, Participatory Rural Appraisal (PRA), Rapid Rural Appraisal (RRA), visit, Key Informant Interview (KII), Community Mapping, assessment which will be determined based on the requirements of the Project. Most importantly, proper documentation of the consultation events should be regularly maintained and updated.

E. Negotiation and Partnership

Good Industrial Practice suggests that, project within a community should be people intensive. Stakeholder's involvement within project by creating opportunities of partnership is required to be considered with great importance. Community Engagement strategies such as engagement of community people as representatives in committees, involvement within various events led by project will enhance peoples right in the decision making process.

F. Grievance Management

Grievance management is an important task for the implementation of Stakeholder Engagement. From the land acquisition, construction to operation, various grievances can be raised from the community, particularly for environmental and social aspects. So to address and resolve grievances properly, the Company should have a Grievance Redress Plan or Mechanism. The plan will describe grievance address procedure, channel of communication, responsible authority to resolve and timeframe for mitigation. Any grievances which will be raised by the community, will be referred either to Joint Committee for Community Relations (JCCR) or to GRC-Plant based on the type of the grievances. If the GRC-Plant fails to resolve the grievance within one month or deems to transfer, then it will be transferred to GRC-Corporate for better outcomes.

G. Preparation and Implementation of Corrective Action Plans

Corrective Action Plans are the initiatives that take place as an outcome of the consultations and engagement. For SBILPCL, the Livelihood Restoration Plan, GRM, Environmental and Social Impact Assessment, Community Development Plan will be used as guiding documents for making the corrective action plan.

Responsible Departments/Personnel

Following departments or personnel should be responsible for the implementation of Stakeholder Engagement Plan for SBILPCL.

- a. SBII PCL Site Office for Site level assistance or SBII PCL Corporate Office for corporate level assistance
- b. NEPC, the EPC Contractor for site level assistance
- c. Operation and Maintenance Team for site level assistance
- d. CDM of SBII PCL for direct engagement
- e. Ast. EHS Manager for direct engagement
- f. Local NGO assigned by SBII PCL for social service delivery
- g. Any other parties assigned by SBII PCL

The following template will be used for Stakeholder Engagement and will be updated regularly.

Stakeholder Engagement Process for PAH

Stakeholder Type	Engagement Process	Discussed/Raised Issues	Issues referred to the GRC or JCCR	Action Taken	Timeline
Landowners	Meeting				
	FGD				
	Personal Interview				
	KII				
Sharecroppers	Meeting				
	FGD				
	Personal Interview				
	KII				
Resettlers	Meeting				
	FGD				
	Personal Interview				
	Visit				
Agricultural Labors	Meeting				
	FGD				
	Personal Interview				

Stakeholder Engagement Process for Others

Stakeholder Type	Engagement Process	Discussed/Raised Issues	Action Taken	Timeline
Local NGO (SEBA)	Service Delivery to community people			
	Visit to SEBA office			
	Meeting			
JCCR	Meeting			
	Visit			
Community People (Local Subcontractors)	Meeting			
Community People (Local elite)	FGD			
	Meeting			

Community People (General)	FGD			
	Meeting			
	KII			

Annex 7

ESMMP Monitoring Table – Construction Phase

Annex 7 Table 10.2: ESMMP for the Construction Phase

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
PROJECT COMPONENT: Natural Gas Pipeline						
Activity: Land Excavation						
Dust Emissions / Noise Emissions	<ul style="list-style-type: none"> Periodic sprinkling of water throughout the area subject to land excavation to arrest dust emissions. Cover all stockpiles with canvas or plastic sheets during windy periods. Limit the speed of heavy good vehicles over unpaved surfaces. No Piling after 6pm or before 7am. 	Visual Observations.	<ul style="list-style-type: none"> Protect air quality and human health Protect biodiversity Compliance with legal limits Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	Continuous.	EPC Contractor	<p>Complied.</p> <p>Periodic sprinkling of water throughout the area is being conducted by EPC to control dust emission.</p> <p>All the stockpiles and materials are covered with canvas.</p> <p>Traffic and transportation plan is implemented with provision of training. Signage inside the boundary has also been provided for speed limit. Besides signages outside the boundary have been provided for speed limit and no honking.</p> <p>Piling timing was in between 7.30 am to 5.30 pm.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status	
Activity: Laying of Pipeline Across Rivers, Canals, Beels, etc.							
Sedimentation of surface water bodies	<ul style="list-style-type: none">Straw bales and sediment traps will be used to prevent sedimentation of water bodies.	Visual Observations	<ul style="list-style-type: none">To prevent pollution, sedimentation and subsequent impacts on ecologyCompliance with IFICPS 3: Resource Efficiency and Pollution Prevention	Continuous	EPC Contractor	Complied. Since the pipeline does not cross any rivers or wetland, the mitigation measure is not applicable.	

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Health and Safety	<ul style="list-style-type: none"> Risk Assessments and Safe Working Methods will be prepared and implemented at the site. Access restrictions (barriers and signage) will be used to prevent unauthorised access to the Project Site. 	<p>Report all incidents and near misses.</p> <p>Safety audits</p>	<ul style="list-style-type: none"> To ensure safe working practices and to maintain workers' rights and benefits. Compliance with IFC PS 2: Labor and Working Conditions 	<p>Continuous</p> <p>Weekly</p>	EPC Contractor	<p>Complied.</p> <p>EHS plan has been developed by NEPC focusing on site specific construction activities. The plan outlines the provision of work permit for all sorts of routine and non-routine jobs at the construction site with the objective of protecting the workers from occupational injuries.</p> <p>NEPC in coordination with SBIIPCL has initiated implementation of the SOPs and Work Permits outlined in the EHS Plan and records for the same being maintained. Additionally training programs are also organized on workplace safety, housekeeping, compliance policy, PPE usage, fall protection, confined space, height work, electrical, fire protection etc. by NEPC.</p> <p>Storage of HSD shed is under the charge of an authorized person with appropriate hazard signage's posted and secondary containment provided.</p> <p>A Hazard Identification and Risk Assessment Control Procedure (HIRAC) have been prepared by NEPC for identification and control of potential hazards associated with the work activities which is being again checked through Job Hazard Analysis (JHA). A Personal Protective Equipment (PPE) Matrix has been developed for ensuring workers' safety for different types of jobs.</p> <p>Access restriction to prevent unauthorized access to the project site is being implemented by EPC which has been regularly monitored by SBIIPCL EHS personnel.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Waste Management	<ul style="list-style-type: none"> Ensure good waste management practices, with appropriate provisions for the storage of hazardous wastes. Ensure that wastes are removed by an accredited and competent party under fully 'duty of care' (i.e. understand final location of disposal / treatment facilities). 	<p>Visual Observations.</p> <p>Audit waste disposal / treatment facilities to assess suitability.</p> <p>Retain suitable waste disposal records.</p>	<ul style="list-style-type: none"> To provide a healthy, safe working environment. To prevent pollution To ensure legal compliance Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	Continuous	EPC Contractor	<p>Complied.</p> <p>Waste management practice at site with segregation of waste at source, storage within site at designated areas and disposal of waste off-site with the help of waste collection contractor has been ensured. Solid, medical and food wastes are getting segregated at site. Batteries, filters etc are being kept near HSD storage area.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Hazardous Materials Management	<ul style="list-style-type: none"> Refueling, washing and maintenance of plant and vehicles will be prohibited in the vicinity of water bodies. Spill kits will be available to contain any accidental release of hazardous materials (including within vehicles when transporting hazardous materials). All hazardous materials will be provided with secondary containment. Any hazardous materials to be transported to or from the Project Site will include suitable protection (in the form of manufacturer / supplier recommended packaging or as stated in the relevant Material Safety Data Sheet (MSDS) to mitigate against any accidental release. 	<p>Visual Observations.</p> <p>Following supplier / MSDS recommendations as appropriate.</p>	<ul style="list-style-type: none"> To prevent pollution of surface and groundwater and protect ecology Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	Continuous	EPC Contractor	<p>Complied.</p> <p>Hazardous Material Management Plan has been developed by NEPC for fuel and chemicals in use during construction phase.</p> <p>Bulk storage of HSD has been discontinued with less than 2,000 litres of HSD was observed to be temporarily stored in a paved and covered storage shed near batching plant. The storage shed was found to be in charge of an authorized person with appropriate hazard signage posted and secondary containment provided. MSDS and provision of spill kits is maintaining appropriately.</p> <p>Any hazardous material to be transported from the Project Site is under suitable protection according to MSDS (Material Safety Data Sheet) to mitigate any accidental release. Moreover A procedure for HSD loading and unloading and Hazardous Material Management Plan is available and training provided by SBIIPCL to the workers involved in their storage and handling.</p> <p>Presently HSD is being stored in only 1 metallic drum (~200 litre capacity each) placed in a paved and covered storage area near batching plant. The storage is access restricted with secondary containment provision. Display of appropriate safety signage/instructions including list of authorized personnel is in place at this shed.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Dust Emissions	<ul style="list-style-type: none"> Periodic sprinkling of water throughout the area subject to the site preparation and land raising process to arrest dust emissions. Cover all stockpiles with canvas or plastic sheets during windy periods. Limit the speed of heavy good vehicles over unpaved surfaces. Cover materials during transport to site. Clean road vehicles wheels before leaving the site. Prohibit rubbish burning within the construction site. 	<p>Visual Observations.</p> <p>Maintaining liaison with the public including systematic recording and investigation of any complaints in accordance with the grievance redress mechanism (GRM)</p> <p>PM10 and PM2.5 Monitoring</p>	<ul style="list-style-type: none"> Protect air quality and human health Protect biodiversity Compliance with legal limits Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	<p>Continuous</p> <p>Quarterly</p>	EPC Contractor	<p>Complied.</p> <p>Traffic and transportation plan implemented with training provided. Signage inside the boundary also provided for speed limit. Besides signage outside the boundary also been provided for speed limit and no honking.</p> <p>Burning of wastage is strictly prohibited inside SBIIPCL plant, which is confirmed by EPC through official letter.</p> <p>Periodic sprinkling of water throughout the area is being conducted by EPC.</p> <p>All the stockpiles and materials are covered with canvas.</p> <p>Vehicle speed limit is restricted within 15 km/hour inside the SBIIPCL plant area.</p> <p>Ambient air quality is being tested as per schedule.</p>
Air Emissions	<ul style="list-style-type: none"> Vehicle and construction plant combustion engine emissions will be isolated and temporary in nature. However, in the event that vehicles are left standing for significant periods, their engines will be switched off. In addition, the EPC Contractor will ensure that all plant is maintained in a satisfactory manner so as to minimize emissions. 	<p>Ensure all vehicles and plant is maintained in good working order.</p>	<ul style="list-style-type: none"> Protect air quality and human health Protect biodiversity Compliance with legal limits Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	<p>During routine maintenance and during start-up and shut-down.</p> <p>Schedule a monthly inspection of equipment.</p>	EPC Contractor	<p>Complied.</p> <p>Vehicle and construction plant combustion engine emissions are temporary in nature. Engines of these vehicles are kept switched off in the event of left standing for a long period.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Noise	<ul style="list-style-type: none"> Select equipment and construction techniques that cause minimum noise. Maintain equipment in good working order. Construction activities, such as piling, which generate significant noise, will be carried out during the daytime. Install noise reduction equipment i.e. silencers and mufflers, on noisy plant and frequently check the efficiency of noise attenuation equipment. A grievance redress mechanism will be established as part of a stakeholder engagement plan. 	<p>Contractor observations.</p> <p>Review of complaints received via the formalized grievance redress mechanism.</p>	<ul style="list-style-type: none"> Protect human health Compliance with legal limits Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	<p>Daily checks of equipment and whenever complaints are received.</p> <p>Schedule a monthly inspection of equipment.</p>	EPC Contractor	<p>Complied.</p> <p>The equipments used for construction purposes are selected with proper precaution by keeping in mind the sound pollution.</p> <p>Piling timing was in between 7.30 am to 5.30 pm.</p> <p>A grievance redress mechanism has been established as a part of Stakeholder Engagement Plan.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Surface Water Quality and Hydrology	<ul style="list-style-type: none"> An earth bund will be constructed to prevent the discharge of sediment and hazardous materials to neighboring water bodies. Storm water will be discharged via an oil separator and settlement tank to the Kushiyara River. 	<p>Visual inspections. Water sampling and analysis for:</p> <ul style="list-style-type: none"> - pH; - TSS; - Oil & Grease; - Total residual Chlorine; - Total Chromium; - Copper; - Iron; - Zinc; - Lead; - Cadmium; - Mercury; - Arsenic; and - BOD. 	<ul style="list-style-type: none"> To prevent pollution of surface and groundwater and protect ecology Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	<p>Daily visual inspections.</p> <p>Water sampling every three months and three locations: 50 m upstream; adjacent to the Project Site; and 50 m downstream.</p>	EPC Contractor	<p>Complied.</p> <p>Since hazardous materials are being managed following HIRAC and HAZOP, the possibilities of sedimentation in the surface water is not valid. Therefore, earth bund is not required.</p> <p>The final design of the drainage system will not require the storm water to be discharged via oil separator and settlement tank.</p> <p>Surface water is tested at laboratory periodically.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status	
Hydrology – Erosion of the Kushiara River	<ul style="list-style-type: none"> Monitor the banks of the Kushiara River and address any significant increased erosion of the bank adjacent to or opposite to the Project Site by stabilization methods. 	Visual inspection of the river banks adjacent to and opposite to the Project Site (including taking photographs for comparative assessment).	<ul style="list-style-type: none"> To prevent river bank erosion and subsequent impacts on ecology Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	Every month	EPC Contractor	Partially Complied. Photographs of the river bank along the plant side have been taken. SBIIPCL has established a number of wooden markers along the current river bank as the. Due to the high flood situation in Kushiara River, erosion assessment can be done after the water level recedes.	
Groundwater Quality	<ul style="list-style-type: none"> All hazardous materials will be provided with secondary containment to limit the potential for subsurface impacts. 	Groundwater sampling and analysis for: pH, TSS, Oil & Grease, Total residual Chlorine, Chromium (total), Copper, Iron, Zinc, Cadmium, Mercury, Arsenic and BOD.	<ul style="list-style-type: none"> To prevent pollution of groundwater and protect ecology Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	Quarterly from on-site deep and shallow tube wells.	EPC Contractor	<p>Complied. Hazardous Material Management Plan has been developed by NEPC for fuel and chemicals in use during construction phase.</p> <p>According to that plan, all hazardous materials storages are provided with secondary containment to control potential surface impacts.</p> <p>Ground water is tested at laboratory periodically.</p>	

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status	
Terrestrial and Aquatic Ecology	<ul style="list-style-type: none"> Construction workers will be prohibited from felling trees, hunting wildlife and fishing in the vicinity of the Project Site. Trees will be planted around the boundary of the Project Site during the construction phase. New species will not include invasive or alien species. 	<p>Production of a management plan and training of staff</p> <p>Tree planting.</p> <p>Planting specification to be reviewed against recognized invasive species.</p>	<ul style="list-style-type: none"> To protect ecology Compliance with IFC PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources 	-	EPC Contractor	Partially complied. No satisfactory arrangement has been ensured to plant trees around the boundary of the project site.	
Migratory Birds	<ul style="list-style-type: none"> Once the proposed route of the transmission line has been determined, a bird survey and management plan will be prepared. This will be reviewed and assessed to ensure there will be no impact on migratory birds. 	<p>Proposed T-Line route relative to Hakaluki and Hail Haors.</p> <p>Production of management plan</p>	<ul style="list-style-type: none"> To protect ecology Compliance with IFC PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources 	Prior to construction of the T-Line	SBIIPCL	Not due before November, 2015 to January, 2016.	

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Traffic and Transportation	<ul style="list-style-type: none"> • Prepare a traffic and transportation plan for the construction phase, which includes (but not limited to): <ul style="list-style-type: none"> - avoid the transportation of materials or machinery during peak traffic periods; - stick to agreed traffic routes, avoiding narrow roads and villages; - enforce local road and river traffic rules; - implementation of a safety program (signage, speed restrictions, lights on trucks, truck load restrictions etc.) within the construction area; - provide training on safe driving; - prevent unauthorized access (i.e. public access) to the construction site; - load trucks in accordance with legal requirements and cover transported materials to prevent them falling off during transit; and - maintain and/or repair any private and public highways that have been damaged by vehicles from the construction site. • Resolve potential river traffic navigation problems and construction of a jetty along the river bank. No significant increase in river traffic volume is anticipated. • A grievance redress mechanism established as part of a stakeholder engagement plan. 	<p>Implement the traffic and transportation plan.</p> <p>Record and investigate all accidents and near misses.</p> <p>Visual inspection of roads used by construction vehicles.</p> <p>Review of complaints received via the formalised grievance mechanism.</p>	<ul style="list-style-type: none"> • To prevent unnecessary impacts from traffic including issues related to safety • Compliance with IFC PS 4: Community Health, Safety, and Security 	<p>At the start of the project.</p> <p>When necessary.</p> <p>Monthly</p> <p>When necessary.</p>	EPC Contractor	<p>Complied.</p> <p>A traffic management plan developed by SBIIPCL is currently in place, which also takes into consideration, the traffic management plan of the EPC Contractor. The speed limits within project site, access road and highway are 15 km/hr, 20 km/hr and 60 km/hr respectively. No honking is allowed near the access road. It was noted that speed limit signage are provided within the site as well as in the access road.</p> <p>SBIIPCL has also communicated regarding the maximum speed limit of 20 km/hr in access road to the NEPC on 20th January 2015. It was also observed that trainings to the drivers of NEPC and Summit were provided 3 times in last 5 months covering a total of 33 drivers.</p> <p>Accordingly, trucks are covered with canvas while transporting materials to outside or plant.</p> <p>A grievance redress mechanism has been established as a part of Stakeholder Engagement Plan.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Solid Wastes	<ul style="list-style-type: none"> • Apply the waste hierarchy and reduce, reuse or recycle wastes wherever possible. • Segregate wastes by types and provide appropriate waste containers for the storage of all waste streams. • Provide a specific area for the storage of solid hazardous wastes (i.e. batteries, fluorescent lighting tubes, used oil filters, aerosol cans etc.). • Prohibit the burning of wastes. • Arrange a waste removal contract and schedule at least weekly waste collections to prevent the build-up of waste materials. • Audit waste contractors to ensure appropriate disposal methods are applied according to the waste stream. 	<p>Visual inspections of all waste storage areas to ensure the mitigation measures applied.</p> <p>Ensure suitable waste documentation is retained on-site.</p>	<ul style="list-style-type: none"> • To provide a healthy, safe working environment • To prevent pollution • To ensure compliance legal environmental limits • Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	Weekly	EPC Contractor	<p>Complied.</p> <p>Waste management practice at site is continuing with segregation of waste at source, storage within site at designated areas and disposal of waste off-site with the help of waste collection contractor Solid, medical and food waste are getting segregated at site. Batteries, filters etc are being kept near HSD storage area.</p> <p>Burning of wastage is strictly prohibited inside SBIIPCL plant, which is confirmed by EPC through official letter.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status	
Human and Sanitary Wastes	<ul style="list-style-type: none"> Provision of an appropriate number of toilets and hand-washing points. Provision of on-site treatment of sanitary wastes. Training on sanitation practices. 	Visual inspection and surface and groundwater quality sampling with analysis for BOD.	<ul style="list-style-type: none"> To provide a healthy, safe working environment. To prevent pollution To ensure compliance legal environmental limits Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	<p>Continuous observations.</p> <p>Surface water and groundwater quality sampling every 3 months.</p>	EPC Contractor	<p>Partially complied.</p> <p>Training on sanitation practices has not yet been imparted.</p>	

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Hazardous Materials Management	<ul style="list-style-type: none"> Refuelling, washing and maintenance of plant and vehicles will be prohibited in the vicinity of water bodies. Spill kits will be available to contain any accidental release of hazardous materials. All hazardous materials will be provided with secondary containment. 	Visual Observations	<ul style="list-style-type: none"> To prevent pollution of surface water and groundwater and protect ecology <ul style="list-style-type: none"> Compliance with IFC PS 3: Resource Efficiency and Pollution Prevention 	Continuous	EPC Contractor	<p>Complied.</p> <p>Hazardous Material Management Plan has been developed by NEPC for fuel and chemicals in use during construction phase.</p> <p>Bulk storage of HSD has been discontinued with less than 2000 litres of HSD was observed to be temporarily stored in a paved and covered storage shed near batching plant. The storage shed was found to be in charge of an authorized person with appropriate hazard signages posted and secondary containment provided. MSDS and provision of spill kits is maintaining appropriately.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Occupational Health and Safety	<ul style="list-style-type: none"> Notify local clinics and hospitals before commencement of construction works. Job specific medicals for all employees. EHS training and safety induction for all employees and 6 monthly updates. First aid kits and trained first aid practitioners on-site at all times. Access restrictions (barriers and signage) will be used to prevent unauthorized access to the Project Site. Preparation of an EHS Plan for approval by SBIIPCL, including: <ul style="list-style-type: none"> EHS Policy and Objectives; Appointment of qualified EHS specialist(s) who will be onsite throughout the construction project; Project EHS rules; Details of how rules and updates (if required) will be communicated to workers Identification and risk assessment of hazardous activities and high risk areas; Safe working methods for hazardous activities, including confined space working and working at heights; Ensure all personnel are provided with all required PPE for the environment they are in and the tasks they are performing; Implementation of a Lock-out Tag-out program; and Reporting and investigation procedure for all severe and minor accidents, and near misses. Ensuring all subcontractors (if any) sign and agree to the site EHS Plan. Provide training for all subcontractors to ensure site procedures are fully understood and complied with (in appropriate languages as required) 	<p>Weekly EHS inspections, including:</p> <ul style="list-style-type: none"> - Scaffolding; - Excavations; - Mobile and lifting equipment; - Confined spaces. <p>Weekly site safety inspections shall be conducted and the results documented using a weekly inspection checklist.</p> <p>Analysis of minor accident and near miss statistics to identify 'hot spots' and take appropriate action.</p>	<ul style="list-style-type: none"> To ensure safe working practices and to maintain workers' rights and benefits. Compliance with IFC PS 2: Labor and Working Conditions 	Weekly	EPC Contractor or EHS Plan to be approved by SBIIPCL.	<p>Complied.</p> <p>The EHS Plan of the EPC Contractor has been developed focusing on site specific construction activities, which outlines the key procedures and permits to be implemented to safeguard onsite employees and workers of SBIIPCL, NEPC and subcontractors at the same time ensuring safe working conditions and efficient operations. EPC contractor also implemented Smoking Policy, different types of safety notice throughout the plant for ensuring safety of all the labors, senior officials who are working in the plant. They have also implemented the program of no use of cell phone/cameras in various places of the plant. All the EHS documents have been translated into English, and for some cases, in Bengali also. EPC Contractor maintains the EHS records and SBIIPCL personnel keeps close monitoring of EHS practices.</p> <p>The EHS Plan has clearly articulated the provision of work permit for all sorts of routine and non-routine jobs at the construction site with the vision of protecting the workers from occupational injuries, and it is practiced accordingly.</p> <p>A Personal Protective Equipment (PPE) Matrix has been developed for ensuring workers' safety for different types of jobs, e.g. cutting, grinding, excavation, work at height, pipe laying or manual lifting, confined spaces, electrical work, welding, spray painting, concreting, chemical handling activities, chainsaw (excluding tree felling), traffic control etc.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Labor Conditions	<ul style="list-style-type: none"> Bangladesh has ratified key International Labor Organization (ILO) conventions, to ensure the work conditions are reasonable and safe, and employees are free from any form of discrimination. 	Employment records.	<ul style="list-style-type: none"> To ensure safe working practices and to maintain workers' rights and benefits. Compliance with IFICPS 2: Labor and Working Conditions 	At the start of employment	EPC Contractor	<p>Partially complied.</p> <p>The EHS Plan of the EPC Contractor has been developed focusing on site specific construction activities, which outlines the key procedures and permits to be implemented to safeguard onsite employees and workers of SBIIPCL, NEPC and subcontractors at the same time ensuring safe working conditions and efficient operations. EPC contractor also implemented Smoking Policy, different types of safety notice throughout the plant for ensuring safety of all the labors, senior officials who are working in the plant. They have also implemented the program of no use of cell phone/cameras in various places of the plant. All the EHS documents have been translated into English, and for some cases, in Bengali also. EPC Contractor maintains the EHS records and SBIIPCL personnel keeps close monitoring of EHS practices.</p> <p>EPC Contractor has engaged a full time doctor and an assistant for taking care of first aid, occupational injury and general health problems of the workers, and provides free medicines accordingly. In case of any serious occupational injury, both EPC contractor and its sub-contractors are responsible for ensuring treatment of the injured workers at hospital. EPC Contractor possesses an ambulance for carrying the injured workers to the hospital. Moreover SBIIPCL site is facilitated by trained first aider all the time throughout the day. The list of qualified first aider has been displayed on several places in the plant with their phone number in case of any emergency.</p> <p>However, there are non-compliances with respect to payment of minimum wage rate, and OT payment rate.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Emergency Response (i.e. Fire, Earthquake, Flood etc.)	<ul style="list-style-type: none"> Appoint a suitably qualified Emergency Coordinator(s). Develop an Emergency Response Plan (ERP), covering all foreseeable emergencies, for approval by SBIIPCL. The ERP will include: <ul style="list-style-type: none"> what should be done and who should do it; what equipment is required and where this will be located; and staff training requirements and inductions for new workers and site visitors. In addition, the ERP will include: <ul style="list-style-type: none"> a method for communication of the ERP to all workers and people arriving on-site; an emergency contacts document which is maintained up to date; a review of local emergency services capability and resources. Where they cannot respond to a foreseeable emergency, ensure suitable resources are available at the site and trained/equipped to respond; and liaison with local emergency services to ensure they are familiar with the Project Site layout and potentially hazardous locations. 	<p>Emergency drills, which are documented and critiqued. The drills should cover all emergencies and, where shift work is undertaken, include all shifts to ensure full staff participation.</p> <p>A schedule for inspections of Emergency equipment located around the site, to ensure it is in the correct location and in a suitable condition to be used.</p>	<ul style="list-style-type: none"> Ensuring minimum risks to local communities Compliance with IFC PS 4: Community Health, Safety, and Security 	<p>At least every three months.</p> <p>Weekly</p>	Emergency Coordinator (appointed by EPC Contractor)	<p>Complied. Emergency Response Plan has been updated by NEPC to include natural hazards.</p> <p>SBIIPCL has identified the General Manager and Site-In charge to undertake the additional responsibility as Emergency Coordinator for the project since 1st Mar 2015. This has been ratified by letter issued by the SBIIPCL CEO to this regard.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Socio-Economics	<ul style="list-style-type: none"> The CDO will monitor social impacts on the local villages due to increased demand for goods, services and public health facilities arising out of an influx of workers in the project area. A grievance mechanism through a Joint Committee for Community Relations (JCCR) has been proposed to address the grievances related to the resettlement and compensation. The committee will comprise representatives of the PAPs, a representative of SBIIPCL management and elected local representatives. Review the suitability and capacity of local workers. The EPC Contractor will be encouraged to recruit local labor, goods and services, wherever these are available at an acceptable quality and price. The EPC Contractor will be required to follow a local procurement policy. The EPC Contractor will develop a Recruitment Policy for approval by SBIIPCL. The Recruitment Policy will include: <ul style="list-style-type: none"> iv. ensure equal opportunities, fair treatment and nondiscrimination in relation to recruitment, compensation, remuneration, working conditions and terms of employment; v. a means of expressing grievances; and vi. engaging subcontractors and suppliers who do not employ child labor or forced labor, and operate appropriate management systems consistent with requirements (i) and (ii). 	<p>JCCR meetings.</p> <p>The EPC Contractor will provide SBIIPCL with details of the amount of local labor, goods and services.</p> <p>SBIIPCL to review recruitment policy and worker employment contracts.</p>	<ul style="list-style-type: none"> Ensuring minimum risks to local communities and ensure benefits are maximized Compliance with IFC PS 4: Community Health, Safety, and Security 	<p>To be confirmed by JCCR.</p> <p>Quarterly</p> <p>At the outset of the project.</p>	<p>EPC Contractor</p> <p>CDO and JCCR</p> <p>SBIIPCL</p>	<p>Complied.</p> <p>CDM is continuously monitoring the social impacts and conducting consultations with the community people. A commitment register has been prepared to address the community demands and status of implementation measures. It was also observed that, due to the labor influxes, community people were economically benefitted due to demand for houses, increase in goods selling at stores etc.</p> <p>The JCCR has been formed. SBIIPCL also developed a Grievance Redress Mechanism Plan to address grievances more effectively.</p> <p>As per the HR policy, EPC prioritizes local resources. From labor to vendors, office staffs, sub contractors or kitchen goods, they informally follow the local procurement strategy. The HR policy of EPC also ensures equal opportunities, fair treatment and non discrimination strategies.</p> <p>To address the grievances, EPC has a Grievance Redress Plan of their own. Furthermore, they set up complain boxes and use note books for on spot grievance collections.</p> <p>EPC strictly follows no use of child or forced labor policy. Each workers eligibility as an adult is verified with the National ID Cards.</p>

Aspect	Mitigation measures / compensation	Action	Rationale	Time Frame	Responsibility	Status
Public Relations & Stakeholder Engagement	<ul style="list-style-type: none"> Conduct proactive public relations (PR) exercises consisting of news/information dissemination to increase understanding of the project. The PR will be carried out using local media, leaflets and meetings/seminars on the progress of the project and environmental and social enhancement measures associated with the project. A Public Relations Plan will be prepared by SBIIPCL, in order to: <ul style="list-style-type: none"> establish clear stakeholder engagement channels. People in the neighboring villages should have clear lines of communication to SBIIPCL; communicate how environmental mitigation measures will be implemented throughout the project; receive, investigate and address any complaints and/or concerns from all stakeholders. 	-	<ul style="list-style-type: none"> Ensuring full engagement with local community to improve project and maximise benefits <ul style="list-style-type: none"> Compliance with IFC PS 4: Community Health, Safety, and Security 	-	SBIIPCL	<p>Complied.</p> <p>Public Relation Plan, Stakeholder Engagement Plans are in place and are followed accordingly.</p> <p>All the consultation events and stakeholder engagement activities are properly recorded.</p> <p>The plans have mechanisms to address complains or demands arise from the community.</p>

Annex 8

Air Dispersion Model

SUMMIT BIBIYANA POWER COMPANY LIMITED

**Air Dispersion Modeling of the 341 MW
Combined Cycle Power Plant at Bibiyana,
Habiganj**

Submitted : 31 July, 2015



BANGLADESH CENTRE FOR ADVANCED STUDIES

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Air Dispersion Modelling of 341MW Power Plant at Bibiyana, Habiganj

Introduction

Dispersion models provide the ability to mathematically simulate atmospheric conditions and behaviour. They are used to calculate spatial and temporal sets of concentrations and particle deposition due to emissions from various sources. Dispersion models can be used to determine the affected zone around an emitter by producing results that can be compared against impact assessment criteria.

Dispersion models can provide concentration or deposition estimates over an almost unlimited grid of user-specified locations, and can be used to evaluate both existing and forecast emission scenarios. In this capacity, air dispersion modelling is a useful tool in assessing the air quality impacts associated with existing and proposed emission sources. The results of the dispersion modelling analysis can be used to develop control strategies that should ensure compliance with the assessment criteria. Dispersion models can also be used to estimate the cumulative impacts of various industries that are located close to one another.

Dispersion models are widely used by environmental regulators in almost all the countries. The results have been shown, through numerous model evaluation studies, to be sufficiently robust to be relied on to calculate concentration limits for point-source stack emissions.

Background

As per terms of the contract signed in August 2010 between SUMMIT Bibiyana Power Company Ltd. and Bangladesh Centre for Advanced Studies (BCAS) for the proposed 341 MW natural gas-based power plant at Bibiyana in the district of Habiganj, an air dispersion modeling was completed to predict ground level concentrations (GLCs) of different pollutants (NO_x, CO₂) for the required averaging period across modeled domain (7.5km × 7.5 km around the stack). The modeling was carried out for a stack height of 50 meters and stack diameter of 3 meters. The final as built stack height and stack diameter are 70 meters and 7 meters respectively. As per recommendation made by ERM during the first external audit an air dispersion modeling exercise needed for the final stack height and stack diameter.

The baseline air quality measured in October 2013 has been considered as the ambient conditions have not changed in terms of any additional sources of emission within the project air shed. Moreover, SBIIPCL has not yet gone into commercial production. The basis on which the modeling was carried out is as follows:

Stack Height: 70 meters
Stack diameter 7 meters

Exit gas velocity calculated assuming the same volumetric flow rate.....4.69m/s
 Fuel consumption per unit power production 8042 BTU/kWh
 Mass of pollutant emission per unit power production: 0.697 g/kWh
 Mass of pollutant emission per unit time: 87 g/sec NOx
 Emission control system used if any: Low NOx burners (<25 ppm)

Location of the site

The plant is located at Bibiyana in the district of Habiganj, Bangladesh

Latitude: 24° 38' North

Longitude: 91° 39.6' East

Model Selection

Though, according to USEPA (www.epa.gov/scram001/7thconf/aermod_mep.pdf), AERMOD and ISC-PRIME had a similar evaluation outcome for the full year Bowline Point data, featuring buoyant steam electric plant releases, with no significant differences in model performance, AERMOD model, version 09292, has been selected for this study as it is currently the preferred model.

AERMOD is a steady-state plume model. In the stable boundary layer (SBL), the concentration distribution is assumed to be Gaussian in both the vertical and horizontal. In the convective boundary layer (CBL), the horizontal distribution is assumed to be Gaussian, but the vertical distribution is described with a bi-Gaussian probability density function (p.d.f.). Additionally, in the CBL, AERMOD treats “plume lofting,” whereby a portion of plume mass, released from a buoyant source, rises to and remains near the top of the boundary layer before becoming mixed into the CBL. AERMOD also tracks any plume mass that penetrates into elevated stable layer, and then allows it to re-enter the boundary layer when and if appropriate.

Modelling Methodology

1. Model Setup

AERMOD was used with the following setup:

- A model domain of 7.5 km by 7.5 km centred on the stack (0.0, 0.0) and 500m grid spacings using Cartesian Co-ordinates.
- Assumption of no terrain as the site surrounding the proposed plant is essentially flat with no hilly areas.
- Surface roughness lengths between 0.1m and 0.3m depending on the seasons were used to account for the primary flows of concern across relatively flat areas.

- d) Building wake effects were not included as the heights of the nearest buildings were not sufficient to influence emissions.

2. Meteorological data requirement

The meteorological data used in the dispersion model is of fundamental importance as it drives the transport and dispersion of the air pollutants in the atmosphere. The most critical parameters are wind direction, which determines the initial direction of transport of pollutants from their sources; wind speed, which dilutes the plume in the direction of transport and determines the travel time from source to receptor; and atmospheric turbulence, which indicates the dispersive ability of the atmosphere.

All meteorological stations used to collect data for dispersion modelling purposes must use an anemometer that has a stall speed of 0.5 m/s or less.

For the AERMOD dispersion model, two meteorological files (surface file and profile file) are needed. The meteorological parameters required for the surface file are:

H = sensible heat flux (W/m²)

u^* = surface friction velocity (m/s)

w^* = convective velocity scale (m/s)

$VPTG$ = vertical potential temperature gradient in the 500 m layer above PBL

Z_{ic} = height of convectively-generated boundary layer (m)

Z_{im} = height of mechanically-generated boundary layer (m)

L = Monin-Obukhov length (m)

z_o = surface roughness length (m)

Bo = Bowen ratio

r = Albedo

W_s = wind speed (m/s)

W_d = wind direction (degrees)

z_{ref} = reference height for W_s and W_d (m)

$temp$ = temperature (K)

$ztemp$ = reference height for $temp$ (m)

The meteorological parameters required for the profile file are:

$height$ = measurement height (m)

top = 1, if this is the last (highest) level for this *hour*, or 0 otherwise

WD_{nn} = wind direction at the current level (degrees)

WS_{nn} = wind speed at the current level (m/s)

TT_{nn} = temperature at the current level (°C)

SA_{nn} = F2 (degrees)

SW_{nn} = F_w (m/s)

The data files (both) should include hourly average values for the above parameters.

Wind speed, wind direction, ambient temperature, cloud cover, solar radiation, pressure, relative humidity and precipitation rate can be directly measured, but other parameters need to be determined indirectly using other meteorological parameters with empirical formulae.

Preparation of meteorological data

1. Friction velocity, Monin-Obukhov length and surface roughness length

Surface characteristics in the form of albedo, surface roughness and Bowen ratio are standard values depending on the season. Standard meteorological observations (wind speed, wind direction, temperature, and cloud cover) for the site have been procured from the Bangladesh Meteorological Department (BMD) and are used to calculate the PBL parameters: friction velocity (u^*), Monin-Obukhov length (L), convective velocity scale (w^*), temperature scale (θ^*), mixing height (z_i), and surface heat flux (H). These parameters are then used to calculate vertical profiles of wind speed (u), lateral and vertical turbulent fluctuations (v , w), potential temperature gradient (d/dz)

Meteorological data period: 1st January 2014 – 31 December 2014.

Ambient Air Quality Standards

National Ambient Air Quality Standards (NAAQS) for Bangladesh are given in Table 1. In the 4th column, WB standards are also given.

Table 1: National Ambient Air Quality Standards (NAAQS) for Bangladesh

Pollutant	DOE (Bangladesh) Stds.	Averaging period	WB Stds.
CO	10 mg/m ³	8 hours(a)	-
	40 mg/m ³	1 hour(a)	-
Pb	0.5 µg/m ³	Annual	-
NO ₂	150 µg/m ³	24 hours	150 µg/m ³
	100 µg/m ³	Annual	100 µg/m ³
PM ₁₀	50 µg/m ³	Annual (b)	50 µg/m ³
	150 µg/m ³	24 hours (c)	150 µg/m ³
PM _{2.5}	15 µg/m ³	Annual	-
	65 µg/m ³	24 hours	-
O ₃	235 µg/m ³	1 hour (d)	-
	157 µg/m ³	8 hours	-
SO ₂	80 µg/m ³	Annual	80 µg/m ³
	365 µg/m ³	24 hours (a)	150 µg/m ³

Notes:

- (a) Not to be exceeded more than once per year
- (b) The objective is attained when the annual arithmetic mean is less than or equal to 50 µg/m³
- (c) The objective is attained when the expected number of days per calendar year with a 24-hour average of 150 µg/m³ is equal to or less than 1
- (d) The objective is attained when the expected number of days per calendar year with the maximum hourly average of 235 µg/m³ is equal to or less than 1 (Source: AQMP, DOE).

Background air quality data and windroses for 4 months

To facilitate collection of background air quality data taking wind direction into consideration, four windroses for the year 2014 are given in figures 1 (January), 2 (April), 3 (July), 4 (October).

Wind roses based on Time

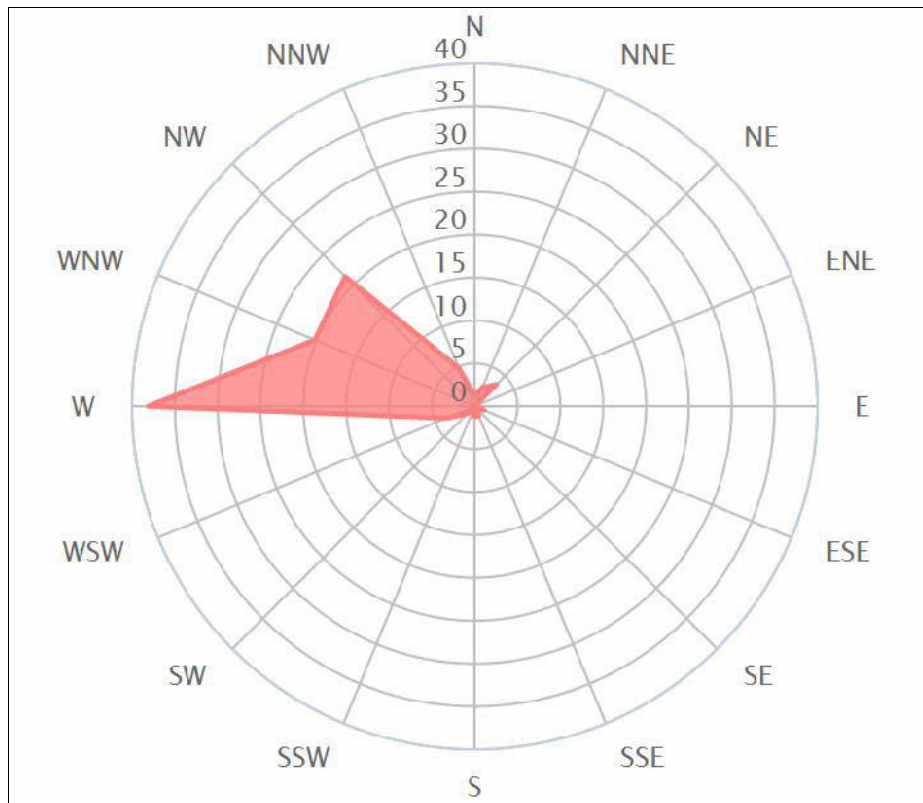


Figure 1: Wind distribution in percentage (%) for January 2014

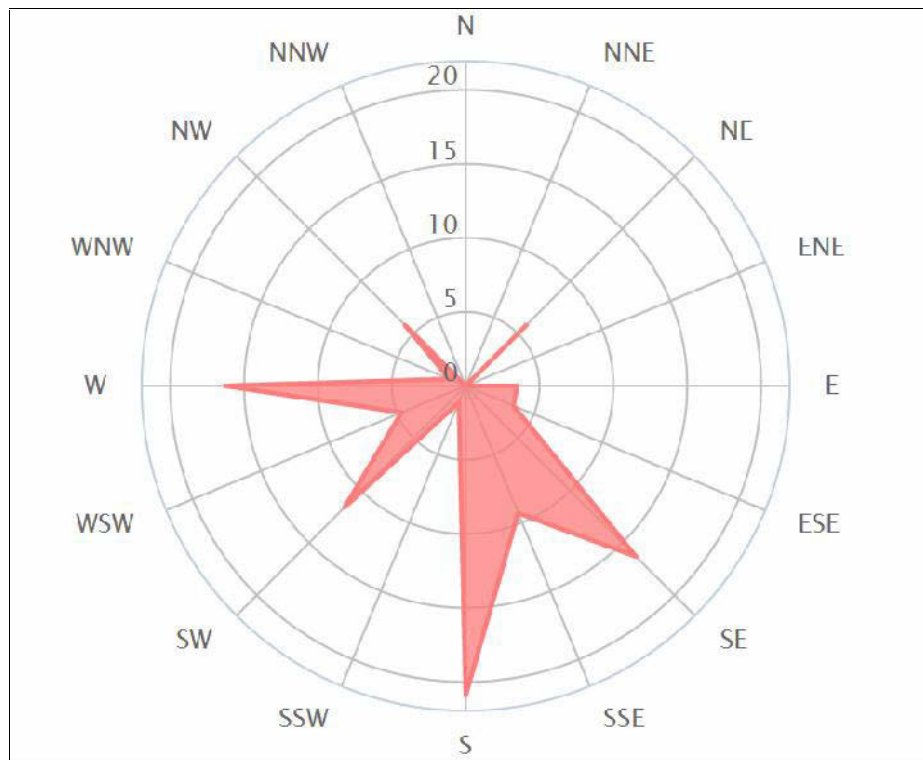


Figure 2: Wind distribution in percentage (%) for April 2014

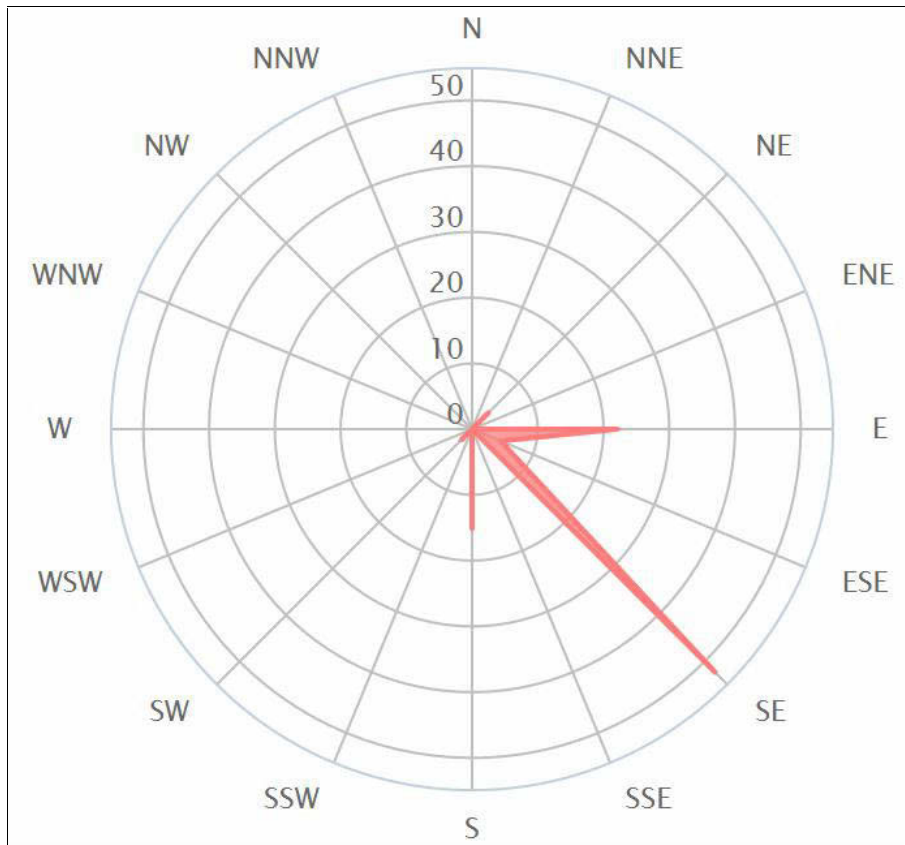


Figure 3: Wind distribution in percentage (%) for July 2014

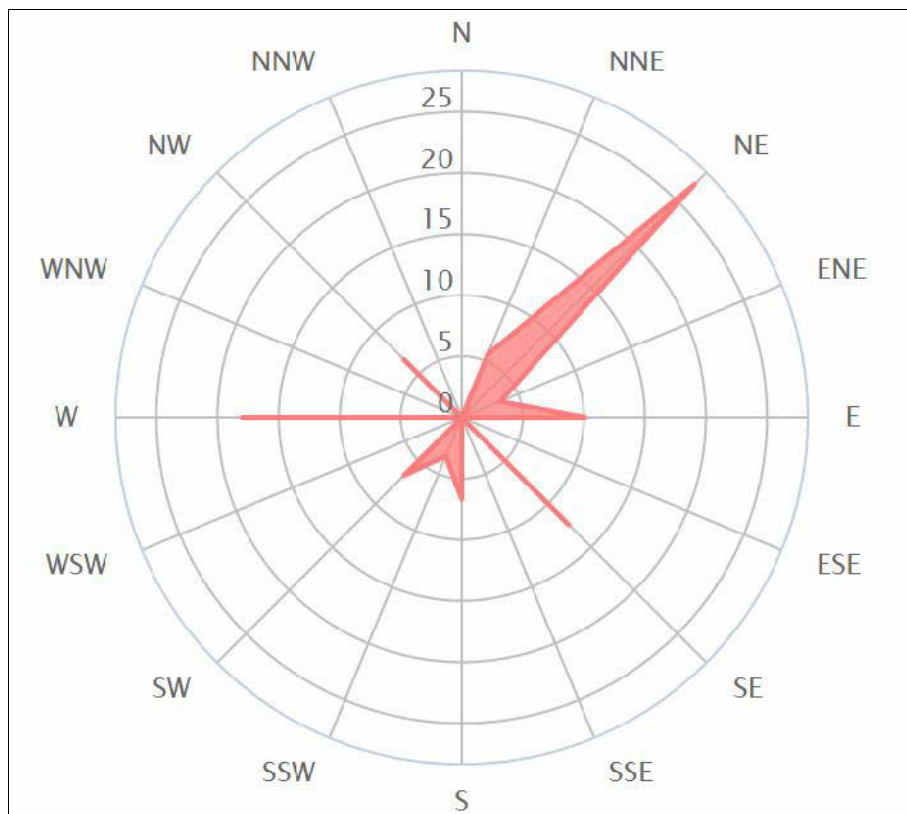


Figure 4: Wind distribution in percentage (%) for October 2014

The measured background concentrations (maximum) for NO_x, CO and PM₁₀ are given in Table 2

Table 2: Measured background concentrations of Pollutants.

Pollutant	Background concentration (µg/m ³)
NO _x	11.99
CO	131*
PM ₁₀	156.93

* As measured data is not available, literature value is used.

Emission estimates and stack parameters for the proposed plant at Bibiyana

Emission estimates and stack parameters used in the present modeling are presented in Table 3 Data have been supplied by the client.

Table 3: Emission rates and stack parameters for 341 MW Natural Gas-based power plant

Source	Stack height (m)	Stack diameter(m)	Exhaust temp (K)	Exit velocity (m/sec)	Emission rates (g/sec)					
					NO _x as NO ₂	SO ₂	PM ₁₀	PM _{2.5}	CO	O ₂
NG Unit	70	7.0	418	4.69	8.59	-	-	-	3.31	15%
	50	3.0	418	25	8.59	-	-	-	3.31	15%

Modeling results of NO_x for 70 m stack height

1st high 24-hr average concentration values of NO_x (µg/m³) for July for 70 m stack height at different receptors are given in Table 19 (Appendix-1)

Table 4: Project highest 24-HR average concentration (µg/m³) of NO_x for July for 70 m stack height

Pollutant	Highest Concentration (µg/m ³)	Avg. Period	Month	High	Type
NO _x	1.95	24-HR	July	1ST	GC

Isopleths of NO_x for 70 m stack height (monthly and annual average concentration in µg/m³) around the plant site are given in Figure 5 and Figure 6

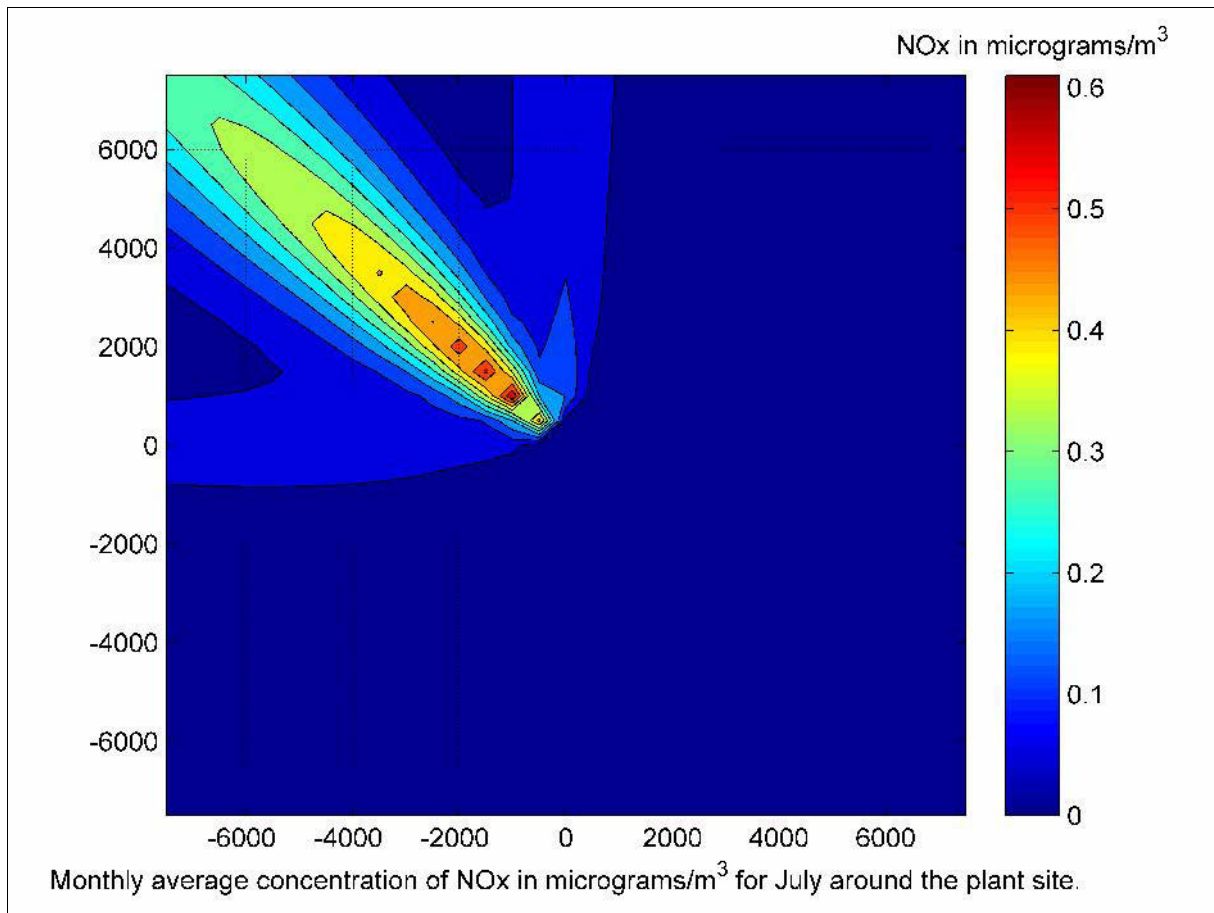


Figure 5: Monthly average concentration of NOx in $\mu\text{g}/\text{m}^3$ for July for 70 m stack height around the plant site.

Table 5: Maximum 10 monthly average concentration ($\mu\text{g}/\text{m}^3$) values of NOx for July for 70 m stack height

Receptor (m)		Avg. Conc.	High	Type
X	Y			
-1000.00	1000.00	0.60029	1ST	GC
-1500.00	1500.00	0.55883	2ND	GC
-2000.00	2000.00	0.52254	3RD	GC
-2500.00	2500.00	0.49285	4TH	GC
-3000.00	3000.00	0.46580	5TH	GC
-500.00	500.00	0.45777	6TH	GC
-3500.00	3500.00	0.44087	7TH	GC
-2500.00	2000.00	0.42551	8TH	GC
-2000.00	2500.00	0.42483	9TH	GC
-3000.00	2500.00	0.42026	10TH	GC

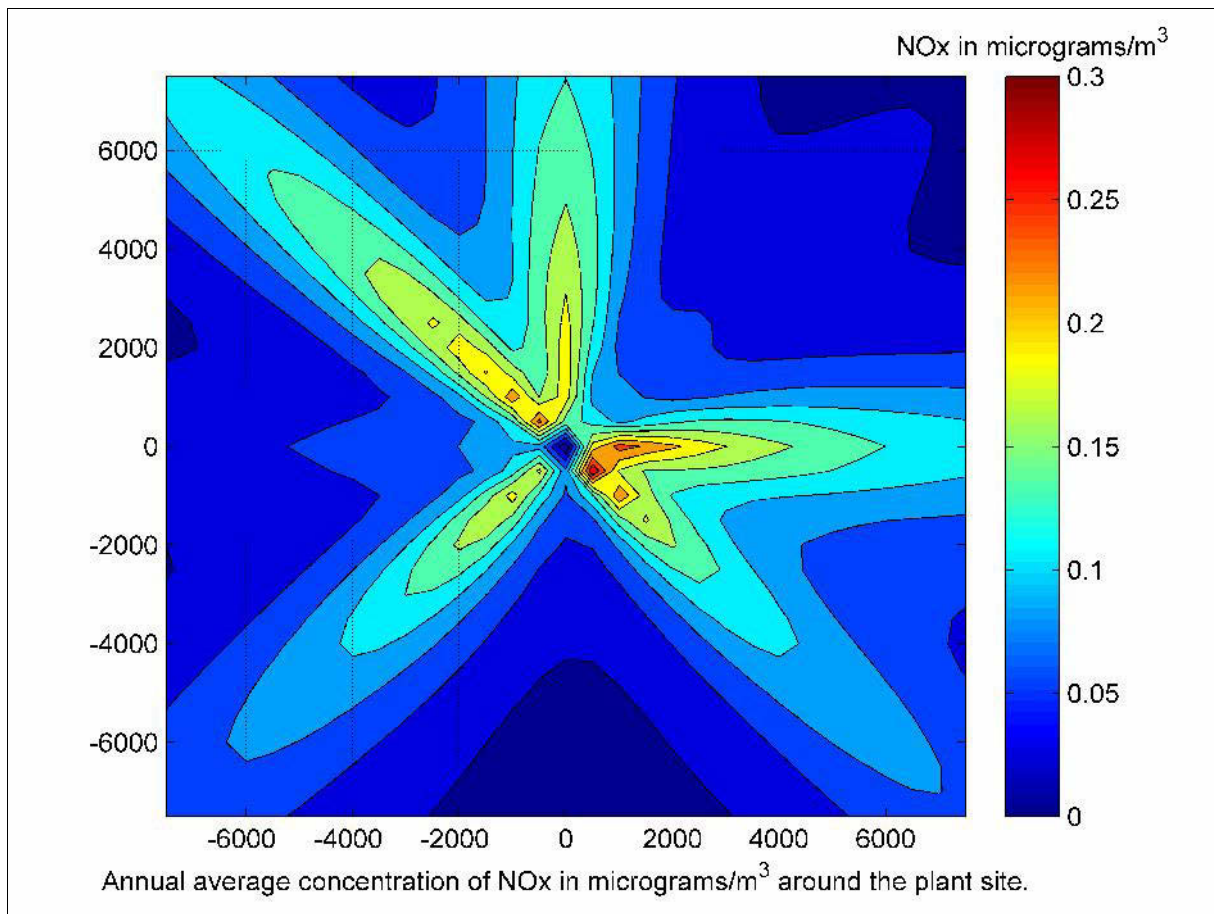


Figure 6: Annual average concentration of NOx in $\mu\text{g}/\text{m}^3$ for 70 m stack height around the plant site.

Table 6: Maximum 10 annual average concentration ($\mu\text{g}/\text{m}^3$) values of NOx for 70 m stack height

Receptor (m)		Avg. Conc.	High	Type
X	Y			
500.00	-500.00	0.29351	1ST	GC
1000.00	0.00	0.25246	2ND	GC
-500.00	500.00	0.24930	3RD	GC
1500.00	0.00	0.23707	4TH	GC
1000.00	-1000.00	0.23654	5TH	GC
-1000.00	1000.00	0.23460	6TH	GC
2000.00	0.00	0.21917	7TH	GC
-1500.00	1500.00	0.21657	8TH	GC
0.00	1500.00	0.20396	9TH	GC
-2000.00	2000.00	0.20308	10TH	GC

Modeling results of NOx for 50 m stack height

1st high 24-hr average concentration values of NO_x ($\mu\text{g}/\text{m}^3$) for July for 50 m stack height at different receptors are given in Table 21 (Appendix-3)

Table 7: Project highest 24-HR average concentration ($\mu\text{g}/\text{m}^3$) of NO_x for July for 50 m stack height

Pollutant	Highest Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	Month	High	Type
NO _x	2.32	24-HR	July	1ST	GC

Isopleths of NO_x for 50 m stack height (monthly and annual average concentration in $\mu\text{g}/\text{m}^3$) around the plant site are given in Figure 7 and Figure 8

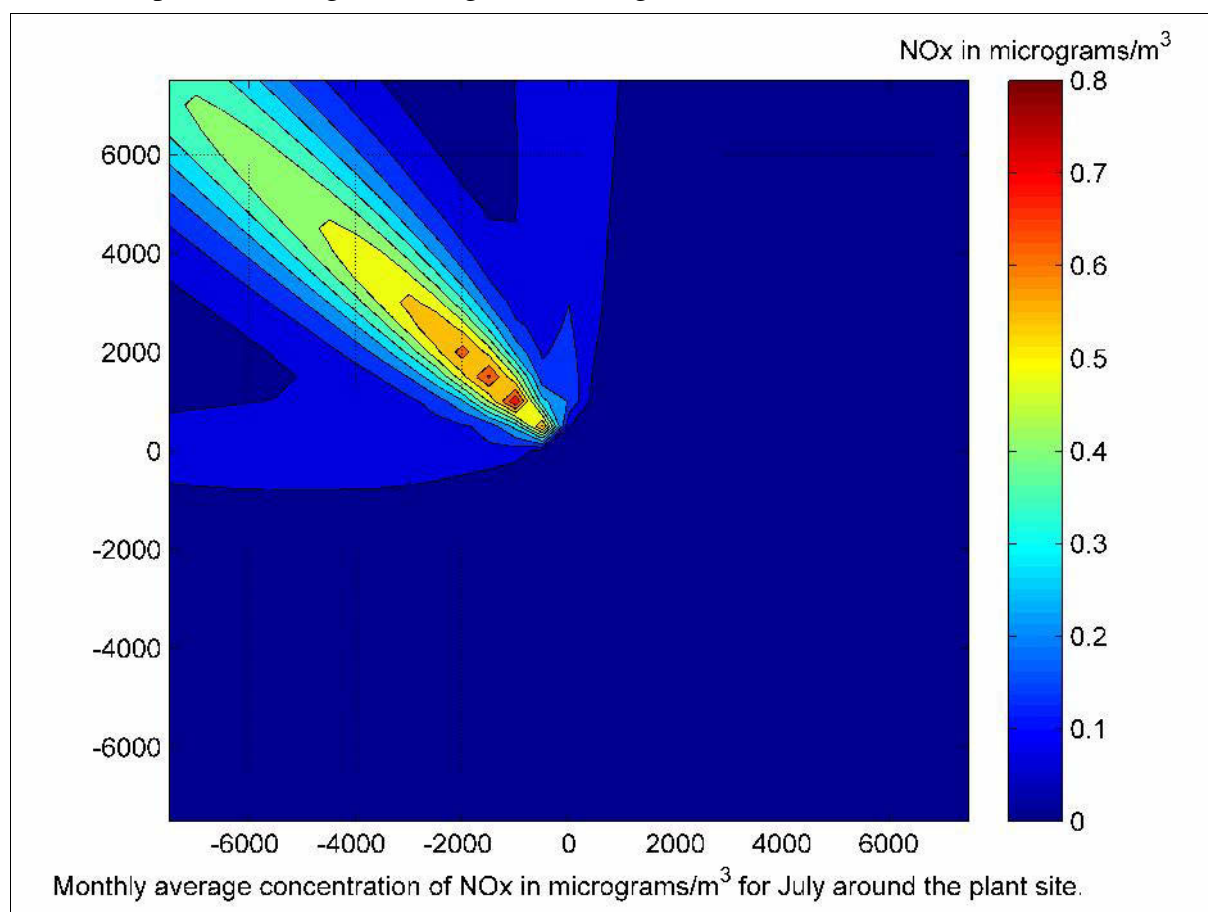


Figure 7: Monthly average concentration of NO_x in $\mu\text{g}/\text{m}^3$ for July for 50 m stack height around the plant site.

Table 8: Maximum 10 monthly average concentration ($\mu\text{g}/\text{m}^3$) values of NO_x for July for 50 m stack height

Receptor (m)		Avg. Conc.	High	Type
X	Y			
-1000.00	1000.00	0.75589	1ST	GC
-1500.00	1500.00	0.70039	2ND	GC
-2000.00	2000.00	0.65001	3RD	GC
-500.00	500.00	0.63374	4TH	GC
-2500.00	2500.00	0.60972	5TH	GC
-3000.00	3000.00	0.57339	6TH	GC
-3500.00	3500.00	0.54410	7TH	GC
-2500.00	2000.00	0.53000	8TH	GC
-2000.00	2500.00	0.52897	9TH	GC
-2000.00	1500.00	0.52717	10TH	GC

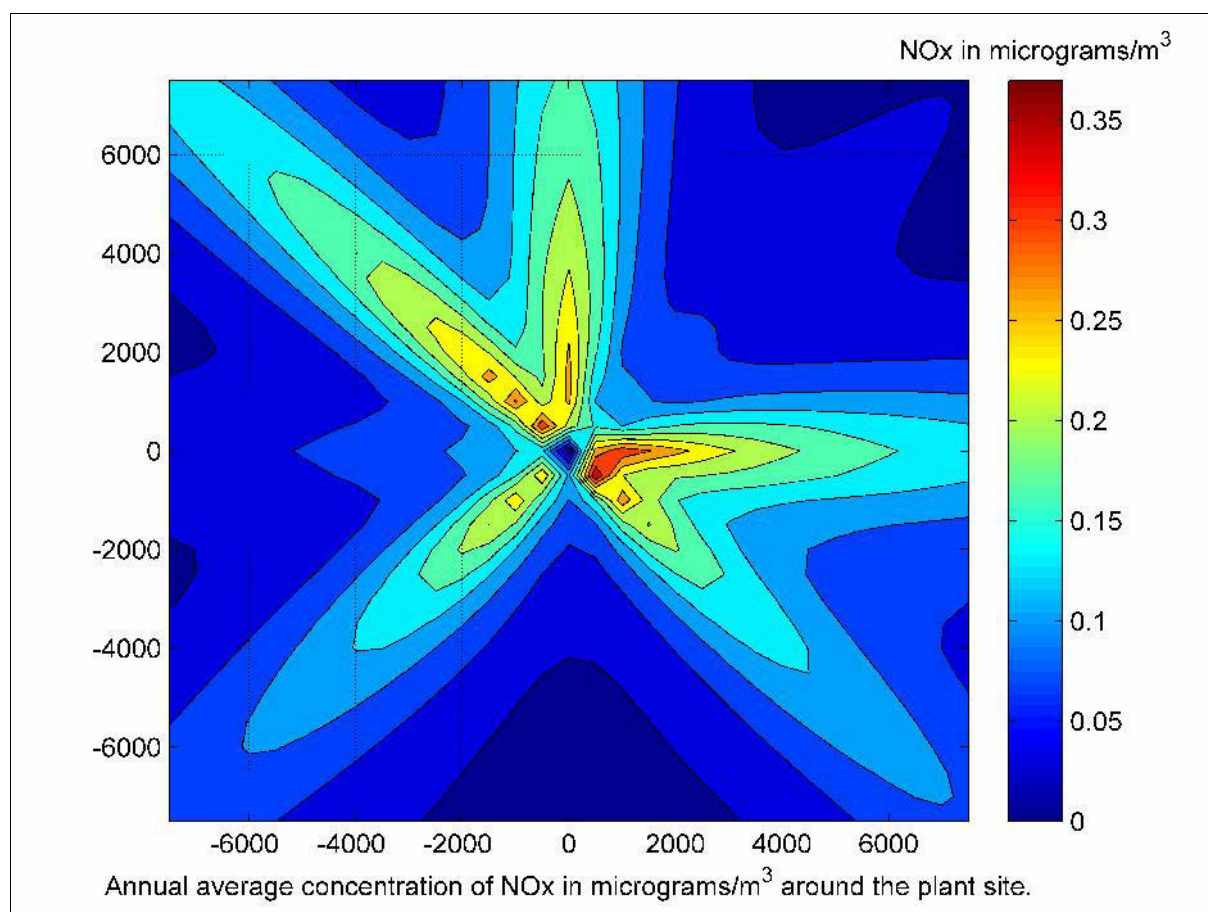


Figure 8: Annual average concentration of NO_x in $\mu\text{g}/\text{m}^3$ for 50 m stack height around the plant site.

Table 9: Maximum 10 annual average concentration ($\mu\text{g}/\text{m}^3$) values of NO_x for 50 m stack height.

Receptor (m)		Avg. Conc.	High	Type
X	Y			
500.00	-500.00	0.36253	1ST	GC
-500.00	500.00	0.32347	2ND	GC
1000.00	0.00	0.32050	3RD	GC
-1000.00	1000.00	0.30262	4TH	GC
1500.00	0.00	0.29874	5TH	GC
1000.00	-1000.00	0.28550	6TH	GC
-1500.00	1500.00	0.27973	7TH	GC
2000.00	0.00	0.27499	8TH	GC
500.00	0.00	0.27464	9TH	GC
0.00	1500.00	0.27444	10TH	GC

Modeling results of CO for 70 m stack height

1st high 8-hr average concentration values of CO ($\mu\text{g}/\text{m}^3$) at different receptors for July for 70 m stack height are given in Table 20 (Appendix-2)

Table 10: Project highest 8-hr average concentration ($\mu\text{g}/\text{m}^3$) of CO for July for 70 m stack height

Pollutant	Highest Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	Month	High	Type
CO	2.25	8-hr	July	1ST	GC

Isopleths of CO (monthly and annual average concentration in $\mu\text{g}/\text{m}^3$) around the plant site for 70 m stack height are given in Figure 9 and Figure 10.

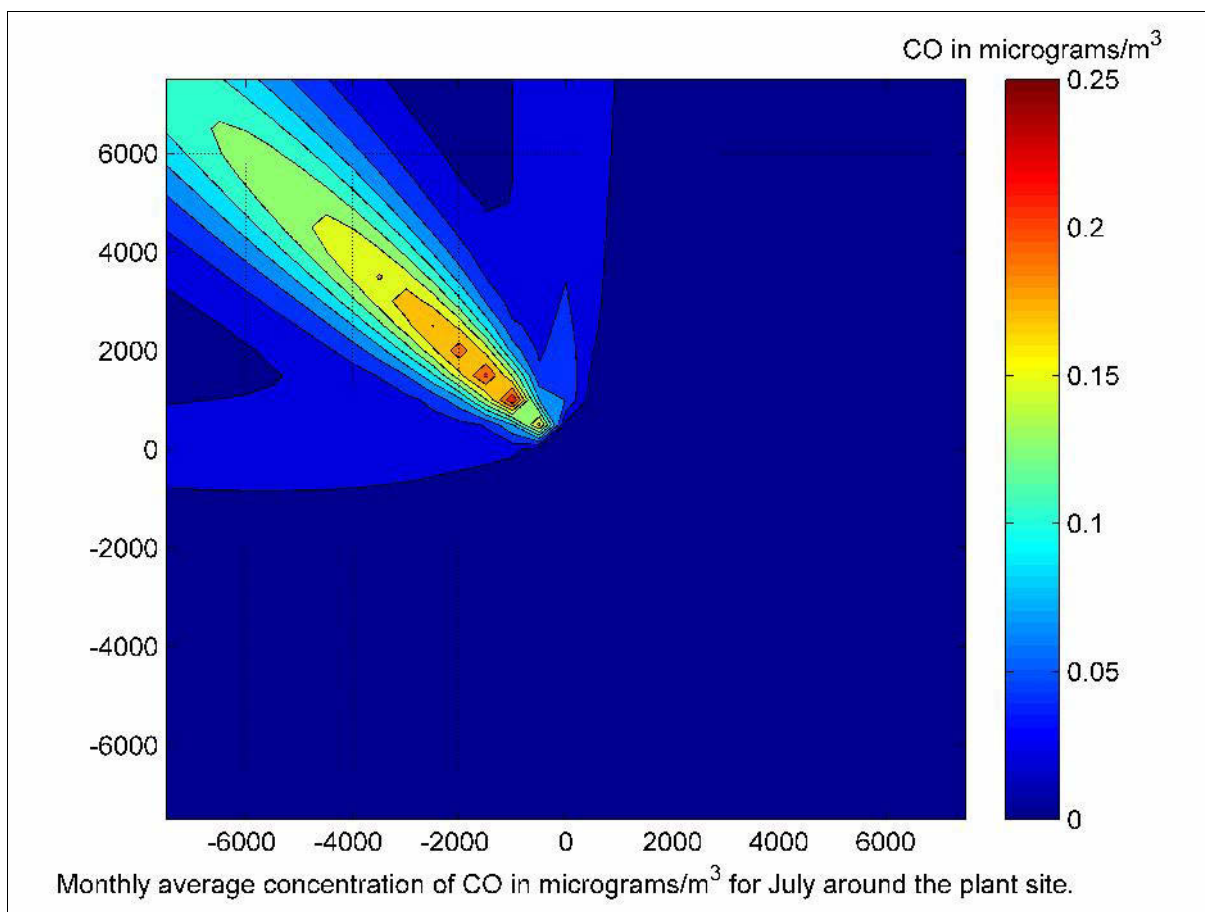


Figure 9: Monthly average concentration of CO in $\mu\text{g}/\text{m}^3$ for July for 70 m stack height around the plant site.

Table 11: Maximum 10 Monthly average concentration ($\mu\text{g}/\text{m}^3$) values of CO for July for 70 m stack height

Receptor (m)		Avg. Conc.	High	Type
X	Y			
-1000.00	1000.00	0.23131	1ST	GC
-1500.00	1500.00	0.21534	2ND	GC
-2000.00	2000.00	0.20135	3RD	GC
-2500.00	2500.00	0.18991	4TH	GC
-3000.00	3000.00	0.17949	5TH	GC
-500.00	500.00	0.17639	6TH	GC
-3500.00	3500.00	0.16988	7TH	GC
-2500.00	2000.00	0.16396	8TH	GC
-2000.00	2500.00	0.16370	9TH	GC
-3000.00	2500.00	0.16194	10TH	GC

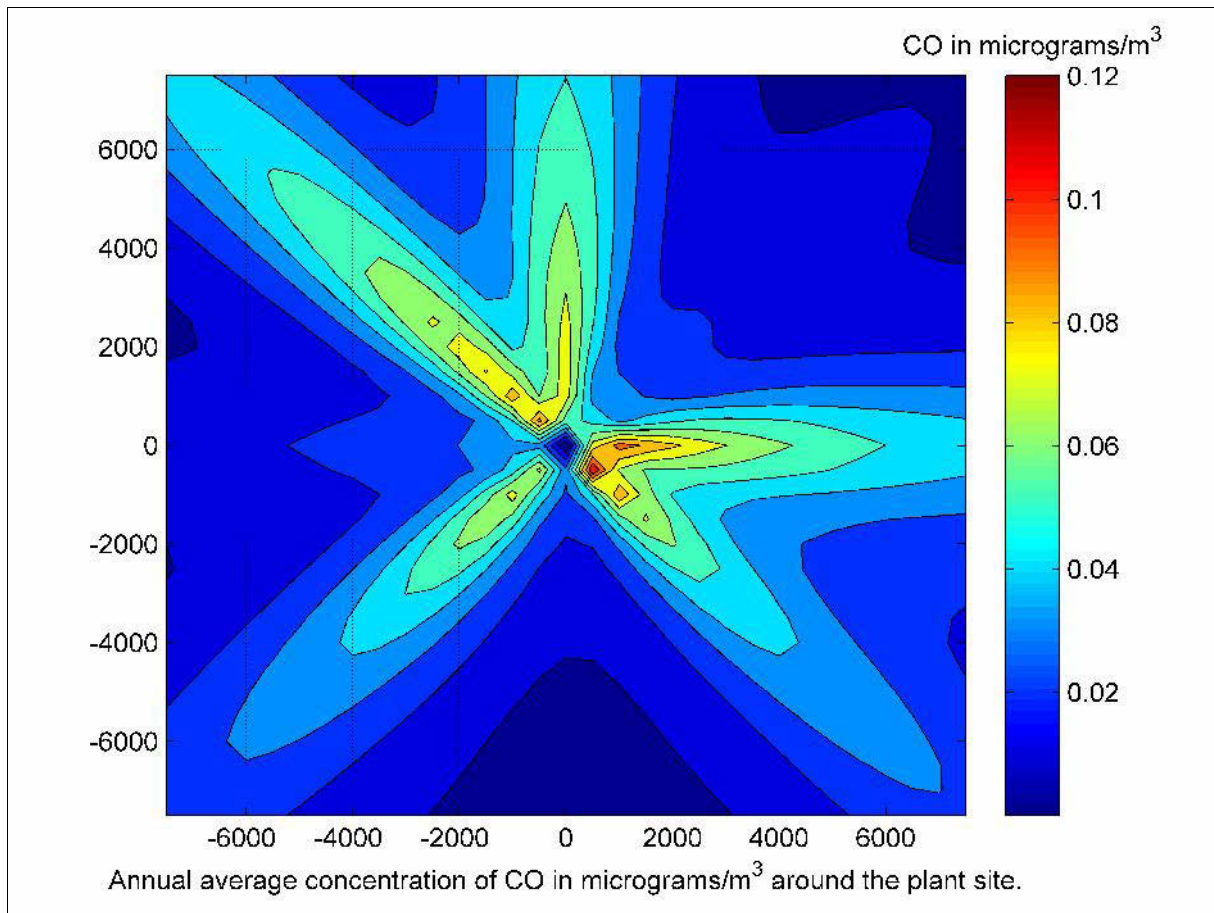


Figure 10: Annual average concentration of CO in $\mu\text{g}/\text{m}^3$ for 70 m stack height around the plant site.

Table 12: Maximum 10 annual average concentration ($\mu\text{g}/\text{m}^3$) values of CO for 70 m stack height

Receptor (m)		Avg. Conc.	High	Type
X	Y			
500.00	-500.00	0.11310	1ST	GC
1000.00	0.00	0.09728	2ND	GC
-500.00	500.00	0.09606	3RD	GC
1500.00	0.00	0.09135	4TH	GC
1000.00	-1000.00	0.09115	5TH	GC
-1000.00	1000.00	0.09040	6TH	GC
2000.00	0.00	0.08445	7TH	GC
-1500.00	1500.00	0.08345	8TH	GC
0.00	1500.00	0.07859	9TH	GC
-2000.00	2000.00	0.07825	10TH	GC

Modeling results of CO for 50 m stack height

1st high 8-hr average concentration values of CO ($\mu\text{g}/\text{m}^3$) at different receptors for July for 50 m stack height are given in Table 22 (Appendix-4)

Table 13: Project highest 8-hr average concentration ($\mu\text{g}/\text{m}^3$) of CO for July for 50 m stack height

Pollutant	Highest Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	Month	High	Type
CO	2.69	8-hr	July	1ST	GC

Isopleths of CO (monthly and annual average concentration in $\mu\text{g}/\text{m}^3$) around the plant site for 50 m stack height are given in Figure 11 and Figure 12.

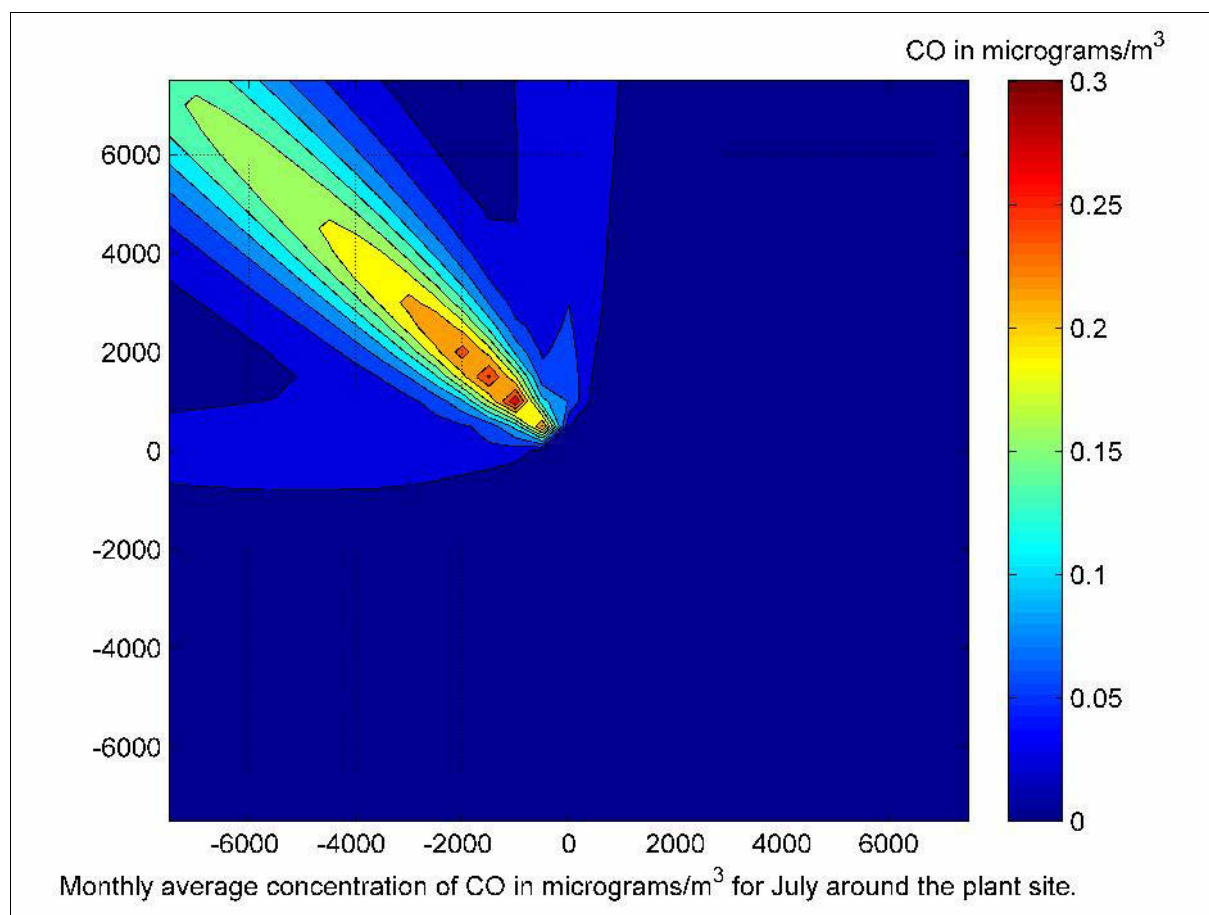


Figure 11: Monthly average concentration of CO in $\mu\text{g}/\text{m}^3$ for July for 50 m stack height around the plant site.

Table 14: Maximum 10 Monthly average concentration ($\mu\text{g}/\text{m}^3$) values of CO for July for 50 m stack height

Receptor (m)		Avg. Conc.	High	Type
X	Y			
-1000.00	1000.00	0.29127	1ST	GC
-1500.00	1500.00	0.26988	2ND	GC
-2000.00	2000.00	0.25047	3RD	GC
-500.00	500.00	0.24420	4TH	GC
-2500.00	2500.00	0.23494	5TH	GC
-3000.00	3000.00	0.22095	6TH	GC
-3500.00	3500.00	0.20966	7TH	GC
-2500.00	2000.00	0.20422	8TH	GC
-2000.00	2500.00	0.20383	9TH	GC
-2000.00	1500.00	0.20313	10TH	GC

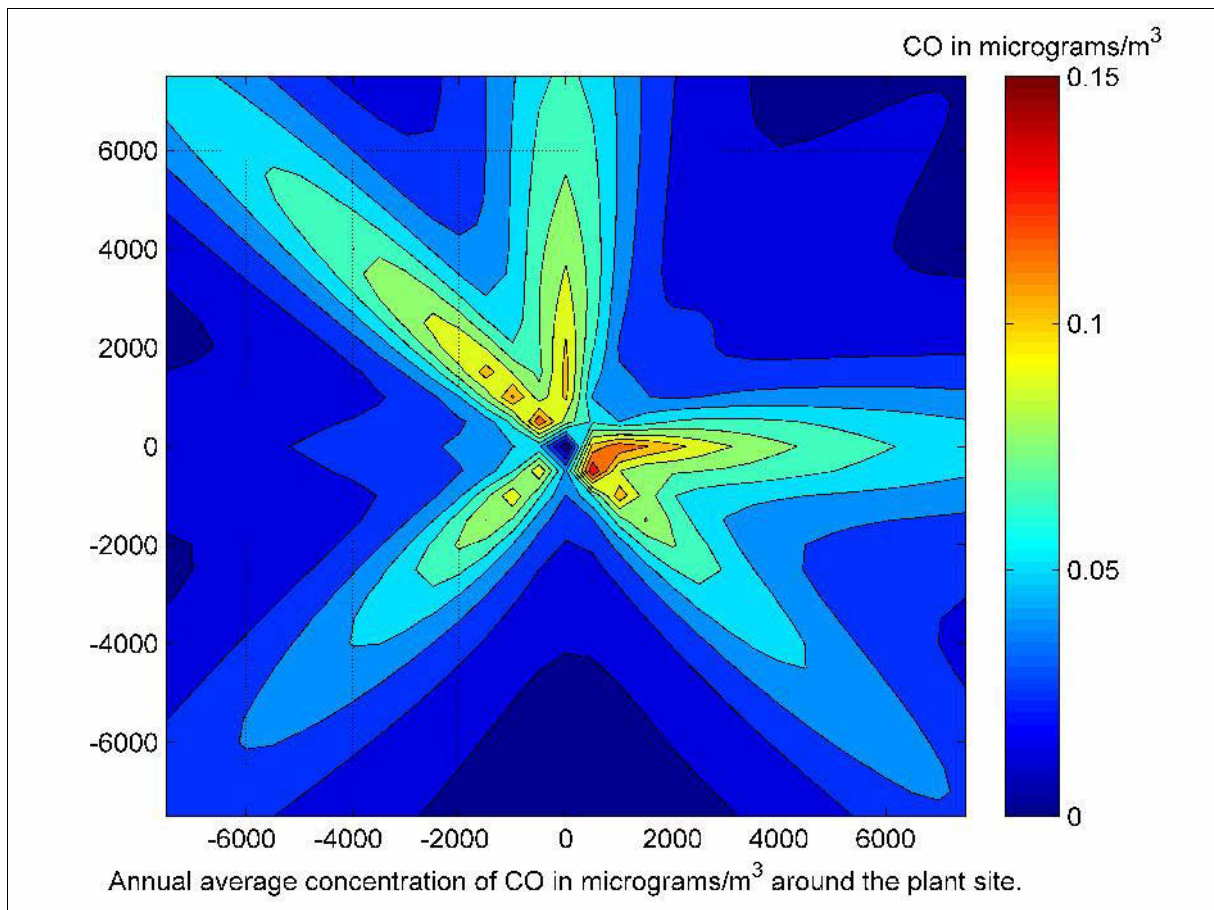


Figure 12: Annual average concentration of CO in $\mu\text{g}/\text{m}^3$ for 50 m stack height around the plant site.

Table 15: Maximum 10 annual average concentration ($\mu\text{g}/\text{m}^3$) values of CO for 50 m stack height

Receptor (m)		Avg. Conc.	High	Type
X	Y			
500.00	-500.00	0.13969	1ST	GC
-500.00	500.00	0.12464	2ND	GC
1000.00	0.00	0.12350	3RD	GC
-1000.00	1000.00	0.11661	4TH	GC
1500.00	0.00	0.11511	5TH	GC
1000.00	-1000.00	0.11001	6TH	GC
-1500.00	1500.00	0.10779	7TH	GC
2000.00	0.00	0.10596	8TH	GC
500.00	0.00	0.10583	9TH	GC
0.00	1500.00	0.10575	10TH	GC

The predicted highest values for NO_x and CO contributed by the plant are given in the table below:

Table 16: Project highest concentration ($\mu\text{g}/\text{m}^3$) for 70 m stack height.

Pollutant	Project highest concentration ($\mu\text{g}/\text{m}^3$)
NO_x	1.95
CO	2.25

Table 17: Comparison between project highest concentration ($\mu\text{g}/\text{m}^3$) for 70 m and 50 m stack height.

Pollutant	Project highest concentration ($\mu\text{g}/\text{m}^3$)	
	70 m stack height	50 m stack height
NO_x	1.95	2.32
CO	2.25	2.69

Summary of maximum GLCs over the model domain is given in Table 12.

Table 18: Summary of predicted maximum GLCs over the model domain

Pollutant	Averaging period	DOE Bangladesh Std ($\mu\text{g}/\text{m}^3$)	Background conc ($\mu\text{g}/\text{m}^3$)	Predicted Maximum contribution by the plant ($\mu\text{g}/\text{m}^3$)	Combined value ($\mu\text{g}/\text{m}^3$)	% of DOE Std.
NO ₂	24hr	150	11.99	1.95	13.94	9.29
CO	8hr	10,000	131*	2.25	133.25	1.33

* As local value is not available, literature value is used.

Conclusions

The highest concentrations of NO_x and CO for stack height of 70 meters is considerably lower than the stack height of 50 meters as shown in Table: 17

Modeling results indicate that the NO₂ and CO emissions around the power plant site during the operation of the plant will remain much below the DOE standards as shown in Table: 18.

Annex 8_Appendix 1

Appendix-1

Table 19: 1st high 24-hr Average Concentration values of NO_x (µg/m³) at different receptors for July for stack height 70 m

Receptor		Average Concentration (µg/m ³)	Avg. Period	High	YYMMDDHH
X	Y				
-7500	-75001	0.00754	24-HR	1ST	14072224
-7000	-7500	0.00787	24-HR	1ST	14072224
-6500	-7500	0.0082	24-HR	1ST	14072224
-6000	-7500	0.00854	24-HR	1ST	14072224
-5500	-7500	0.00889	24-HR	1ST	14072224
-5000	-7500	0.00924	24-HR	1ST	14072224
-4500	-7500	0.00959	24-HR	1ST	14072224
-4000	-7500	0.00994	24-HR	1ST	14072224
-3500	-7500	0.01027	24-HR	1ST	14072224
-3000	-7500	0.01058	24-HR	1ST	14072224
-2500	-7500	0.01087	24-HR	1ST	14072224
-2000	-7500	0.01111	24-HR	1ST	14072224
-1500	-7500	0.01131	24-HR	1ST	14072224
-1000	-7500	0.01146	24-HR	1ST	14072224
-500	-7500	0.01156	24-HR	1ST	14072224
0	-7500	0.01159	24-HR	1ST	14072224
500	-7500	0.01156	24-HR	1ST	14072224
1000	-7500	0.01146	24-HR	1ST	14072224
1500	-7500	0.01131	24-HR	1ST	14072224
2000	-7500	0.01111	24-HR	1ST	14072224
2500	-7500	0.01087	24-HR	1ST	14072224
3000	-7500	0.01058	24-HR	1ST	14072224
3500	-7500	0.01027	24-HR	1ST	14072224
4000	-7500	0.00994	24-HR	1ST	14072224
4500	-7500	0.00959	24-HR	1ST	14072224
5000	-7500	0.00924	24-HR	1ST	14072224
5500	-7500	0.00889	24-HR	1ST	14072224
6000	-7500	0.00854	24-HR	1ST	14072224
6500	-7500	0.0082	24-HR	1ST	14072224
7000	-7500	0.00787	24-HR	1ST	14072224
7500	-7500	0.00754	24-HR	1ST	14072224
-7500	-7000	0.00787	24-HR	1ST	14072224
-7000	-7000	0.00823	24-HR	1ST	14072224
-6500	-7000	0.0086	24-HR	1ST	14072224
-6000	-7000	0.00899	24-HR	1ST	14072224
-5500	-7000	0.00939	24-HR	1ST	14072224
-5000	-7000	0.00979	24-HR	1ST	14072224
-4500	-7000	0.0102	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-4000	-7000	0.01061	24-HR	1ST	14072224
-3500	-7000	0.011	24-HR	1ST	14072224
-3000	-7000	0.01137	24-HR	1ST	14072224
-2500	-7000	0.01171	24-HR	1ST	14072224
-2000	-7000	0.01201	24-HR	1ST	14072224
-1500	-7000	0.01226	24-HR	1ST	14072224
-1000	-7000	0.01244	24-HR	1ST	14072224
-500	-7000	0.01256	24-HR	1ST	14072224
0	-7000	0.01259	24-HR	1ST	14072224
500	-7000	0.01256	24-HR	1ST	14072224
1000	-7000	0.01244	24-HR	1ST	14072224
1500	-7000	0.01226	24-HR	1ST	14072224
2000	-7000	0.01201	24-HR	1ST	14072224
2500	-7000	0.01171	24-HR	1ST	14072224
3000	-7000	0.01137	24-HR	1ST	14072224
3500	-7000	0.011	24-HR	1ST	14072224
4000	-7000	0.01061	24-HR	1ST	14072224
4500	-7000	0.0102	24-HR	1ST	14072224
5000	-7000	0.00979	24-HR	1ST	14072224
5500	-7000	0.00939	24-HR	1ST	14072224
6000	-7000	0.00899	24-HR	1ST	14072224
6500	-7000	0.0086	24-HR	1ST	14072224
7000	-7000	0.00823	24-HR	1ST	14072224
7500	-7000	0.00787	24-HR	1ST	14072224
-7500	-6500	0.0082	24-HR	1ST	14072224
-7000	-6500	0.0086	24-HR	1ST	14072224
-6500	-6500	0.00902	24-HR	1ST	14072224
-6000	-6500	0.00946	24-HR	1ST	14072224
-5500	-6500	0.00992	24-HR	1ST	14072224
-5000	-6500	0.01039	24-HR	1ST	14072224
-4500	-6500	0.01087	24-HR	1ST	14072224
-4000	-6500	0.01134	24-HR	1ST	14072224
-3500	-6500	0.01181	24-HR	1ST	14072224
-3000	-6500	0.01226	24-HR	1ST	14072224
-2500	-6500	0.01267	24-HR	1ST	14072224
-2000	-6500	0.01304	24-HR	1ST	14072224
-1500	-6500	0.01334	24-HR	1ST	14072224
-1000	-6500	0.01357	24-HR	1ST	14072224
-500	-6500	0.01371	24-HR	1ST	14072224
0	-6500	0.01376	24-HR	1ST	14072224
500	-6500	0.01371	24-HR	1ST	14072224
1000	-6500	0.01357	24-HR	1ST	14072224
1500	-6500	0.01334	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
2000	-6500	0.01304	24-HR	1ST	14072224
2500	-6500	0.01267	24-HR	1ST	14072224
3000	-6500	0.01226	24-HR	1ST	14072224
3500	-6500	0.01181	24-HR	1ST	14072224
4000	-6500	0.01134	24-HR	1ST	14072224
4500	-6500	0.01087	24-HR	1ST	14072224
5000	-6500	0.01039	24-HR	1ST	14072224
5500	-6500	0.00992	24-HR	1ST	14072224
6000	-6500	0.00946	24-HR	1ST	14072224
6500	-6500	0.00902	24-HR	1ST	14072224
7000	-6500	0.0086	24-HR	1ST	14072224
7500	-6500	0.0082	24-HR	1ST	14072224
-7500	-6000	0.00854	24-HR	1ST	14072224
-7000	-6000	0.00899	24-HR	1ST	14072224
-6500	-6000	0.00946	24-HR	1ST	14072224
-6000	-6000	0.00996	24-HR	1ST	14072224
-5500	-6000	0.01048	24-HR	1ST	14072224
-5000	-6000	0.01103	24-HR	1ST	14072224
-4500	-6000	0.01159	24-HR	1ST	14072224
-4000	-6000	0.01215	24-HR	1ST	14072224
-3500	-6000	0.01271	24-HR	1ST	14072224
-3000	-6000	0.01325	24-HR	1ST	14072224
-2500	-6000	0.01376	24-HR	1ST	14072224
-2000	-6000	0.01421	24-HR	1ST	14072224
-1500	-6000	0.01459	24-HR	1ST	14072224
-1000	-6000	0.01488	24-HR	1ST	14072224
-500	-6000	0.01506	24-HR	1ST	14072224
0	-6000	0.01512	24-HR	1ST	14072224
500	-6000	0.01506	24-HR	1ST	14072224
1000	-6000	0.01488	24-HR	1ST	14072224
1500	-6000	0.01459	24-HR	1ST	14072224
2000	-6000	0.01421	24-HR	1ST	14072224
2500	-6000	0.01376	24-HR	1ST	14072224
3000	-6000	0.01325	24-HR	1ST	14072224
3500	-6000	0.01271	24-HR	1ST	14072224
4000	-6000	0.01215	24-HR	1ST	14072224
4500	-6000	0.01159	24-HR	1ST	14072224
5000	-6000	0.01103	24-HR	1ST	14072224
5500	-6000	0.01048	24-HR	1ST	14072224
6000	-6000	0.00996	24-HR	1ST	14072224
6500	-6000	0.00946	24-HR	1ST	14072224
7000	-6000	0.00899	24-HR	1ST	14072224
7500	-6000	0.00854	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-7500	-5500	0.01092	24-HR	1ST	14071424
-7000	-5500	0.0096	24-HR	1ST	14071424
-6500	-5500	0.00992	24-HR	1ST	14072224
-6000	-5500	0.01048	24-HR	1ST	14072224
-5500	-5500	0.01108	24-HR	1ST	14072224
-5000	-5500	0.01171	24-HR	1ST	14072224
-4500	-5500	0.01237	24-HR	1ST	14072224
-4000	-5500	0.01304	24-HR	1ST	14072224
-3500	-5500	0.01371	24-HR	1ST	14072224
-3000	-5500	0.01437	24-HR	1ST	14072224
-2500	-5500	0.015	24-HR	1ST	14072224
-2000	-5500	0.01556	24-HR	1ST	14072224
-1500	-5500	0.01604	24-HR	1ST	14072224
-1000	-5500	0.01641	24-HR	1ST	14072224
-500	-5500	0.01664	24-HR	1ST	14072224
0	-5500	0.01672	24-HR	1ST	14072224
500	-5500	0.01664	24-HR	1ST	14072224
1000	-5500	0.01641	24-HR	1ST	14072224
1500	-5500	0.01604	24-HR	1ST	14072224
2000	-5500	0.01556	24-HR	1ST	14072224
2500	-5500	0.015	24-HR	1ST	14072224
3000	-5500	0.01437	24-HR	1ST	14072224
3500	-5500	0.01371	24-HR	1ST	14072224
4000	-5500	0.01304	24-HR	1ST	14072224
4500	-5500	0.01237	24-HR	1ST	14072224
5000	-5500	0.01171	24-HR	1ST	14072224
5500	-5500	0.01108	24-HR	1ST	14072224
6000	-5500	0.01048	24-HR	1ST	14072224
6500	-5500	0.00992	24-HR	1ST	14072224
7000	-5500	0.00939	24-HR	1ST	14072224
7500	-5500	0.00889	24-HR	1ST	14072224
-7500	-5000	0.01531	24-HR	1ST	14071424
-7000	-5000	0.01319	24-HR	1ST	14071424
-6500	-5000	0.01134	24-HR	1ST	14071424
-6000	-5000	0.01103	24-HR	1ST	14072224
-5500	-5000	0.01171	24-HR	1ST	14072224
-5000	-5000	0.01244	24-HR	1ST	14072224
-4500	-5000	0.01321	24-HR	1ST	14072224
-4000	-5000	0.01401	24-HR	1ST	14072224
-3500	-5000	0.01482	24-HR	1ST	14072224
-3000	-5000	0.01563	24-HR	1ST	14072224
-2500	-5000	0.01641	24-HR	1ST	14072224
-2000	-5000	0.01713	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-1500	-5000	0.01774	24-HR	1ST	14072224
-1000	-5000	0.01822	24-HR	1ST	14072224
-500	-5000	0.01852	24-HR	1ST	14072224
0	-5000	0.01862	24-HR	1ST	14072224
500	-5000	0.01852	24-HR	1ST	14072224
1000	-5000	0.01822	24-HR	1ST	14072224
1500	-5000	0.01774	24-HR	1ST	14072224
2000	-5000	0.01713	24-HR	1ST	14072224
2500	-5000	0.01641	24-HR	1ST	14072224
3000	-5000	0.01563	24-HR	1ST	14072224
3500	-5000	0.01482	24-HR	1ST	14072224
4000	-5000	0.01401	24-HR	1ST	14072224
4500	-5000	0.01321	24-HR	1ST	14072224
5000	-5000	0.01244	24-HR	1ST	14072224
5500	-5000	0.01171	24-HR	1ST	14072224
6000	-5000	0.01103	24-HR	1ST	14072224
6500	-5000	0.01039	24-HR	1ST	14072224
7000	-5000	0.00979	24-HR	1ST	14072224
7500	-5000	0.00924	24-HR	1ST	14072224
-7500	-4500	0.02245	24-HR	1ST	14071424
-7000	-4500	0.01933	24-HR	1ST	14071424
-6500	-4500	0.01634	24-HR	1ST	14071424
-6000	-4500	0.01367	24-HR	1ST	14071424
-5500	-4500	0.01237	24-HR	1ST	14072224
-5000	-4500	0.01321	24-HR	1ST	14072224
-4500	-4500	0.01411	24-HR	1ST	14072224
-4000	-4500	0.01506	24-HR	1ST	14072224
-3500	-4500	0.01604	24-HR	1ST	14072224
-3000	-4500	0.01704	24-HR	1ST	14072224
-2500	-4500	0.01802	24-HR	1ST	14072224
-2000	-4500	0.01894	24-HR	1ST	14072224
-1500	-4500	0.01974	24-HR	1ST	14072224
-1000	-4500	0.02037	24-HR	1ST	14072224
-500	-4500	0.02077	24-HR	1ST	14072224
0	-4500	0.02091	24-HR	1ST	14072224
500	-4500	0.02077	24-HR	1ST	14072224
1000	-4500	0.02037	24-HR	1ST	14072224
1500	-4500	0.01974	24-HR	1ST	14072224
2000	-4500	0.01894	24-HR	1ST	14072224
2500	-4500	0.01802	24-HR	1ST	14072224
3000	-4500	0.01704	24-HR	1ST	14072224
3500	-4500	0.01604	24-HR	1ST	14072224
4000	-4500	0.01506	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
4500	-4500	0.01411	24-HR	1ST	14072224
5000	-4500	0.01321	24-HR	1ST	14072224
5500	-4500	0.01237	24-HR	1ST	14072224
6000	-4500	0.01159	24-HR	1ST	14072224
6500	-4500	0.01087	24-HR	1ST	14072224
7000	-4500	0.0102	24-HR	1ST	14072224
7500	-4500	0.00959	24-HR	1ST	14072224
-7500	-4000	0.03366	24-HR	1ST	14071424
-7000	-4000	0.02943	24-HR	1ST	14071424
-6500	-4000	0.0251	24-HR	1ST	14071424
-6000	-4000	0.02087	24-HR	1ST	14071424
-5500	-4000	0.017	24-HR	1ST	14071424
-5000	-4000	0.01401	24-HR	1ST	14072224
-4500	-4000	0.01506	24-HR	1ST	14072224
-4000	-4000	0.01619	24-HR	1ST	14072224
-3500	-4000	0.01738	24-HR	1ST	14072224
-3000	-4000	0.01862	24-HR	1ST	14072224
-2500	-4000	0.01986	24-HR	1ST	14072224
-2000	-4000	0.02104	24-HR	1ST	14072224
-1500	-4000	0.02203	24-HR	1ST	14072224
-1000	-4000	0.02279	24-HR	1ST	14072224
-500	-4000	0.02328	24-HR	1ST	14072224
0	-4000	0.02346	24-HR	1ST	14072224
500	-4000	0.02328	24-HR	1ST	14072224
1000	-4000	0.02279	24-HR	1ST	14072224
1500	-4000	0.02203	24-HR	1ST	14072224
2000	-4000	0.02104	24-HR	1ST	14072224
2500	-4000	0.01986	24-HR	1ST	14072224
3000	-4000	0.01862	24-HR	1ST	14072224
3500	-4000	0.01738	24-HR	1ST	14072224
4000	-4000	0.01619	24-HR	1ST	14072224
4500	-4000	0.01506	24-HR	1ST	14072224
5000	-4000	0.01401	24-HR	1ST	14072224
5500	-4000	0.01304	24-HR	1ST	14072224
6000	-4000	0.01215	24-HR	1ST	14072224
6500	-4000	0.01134	24-HR	1ST	14072224
7000	-4000	0.01061	24-HR	1ST	14072224
7500	-4000	0.00994	24-HR	1ST	14072224
-7500	-3500	0.05066	24-HR	1ST	14071424
-7000	-3500	0.0454	24-HR	1ST	14071424
-6500	-3500	0.03974	24-HR	1ST	14071424
-6000	-3500	0.03376	24-HR	1ST	14071424
-5500	-3500	0.02769	24-HR	1ST	14071424

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-5000	-3500	0.02194	24-HR	1ST	14071424
-4500	-3500	0.01703	24-HR	1ST	14071424
-4000	-3500	0.01738	24-HR	1ST	14072224
-3500	-3500	0.01883	24-HR	1ST	14072224
-3000	-3500	0.02037	24-HR	1ST	14072224
-2500	-3500	0.02188	24-HR	1ST	14072224
-2000	-3500	0.02328	24-HR	1ST	14072224
-1500	-3500	0.02459	24-HR	1ST	14072224
-1000	-3500	0.02567	24-HR	1ST	14072224
-500	-3500	0.02639	24-HR	1ST	14072224
0	-3500	0.02665	24-HR	1ST	14072224
500	-3500	0.02639	24-HR	1ST	14072224
1000	-3500	0.02567	24-HR	1ST	14072224
1500	-3500	0.02459	24-HR	1ST	14072224
2000	-3500	0.02328	24-HR	1ST	14072224
2500	-3500	0.02188	24-HR	1ST	14072224
3000	-3500	0.02037	24-HR	1ST	14072224
3500	-3500	0.01883	24-HR	1ST	14072224
4000	-3500	0.01738	24-HR	1ST	14072224
4500	-3500	0.01604	24-HR	1ST	14072224
5000	-3500	0.01482	24-HR	1ST	14072224
5500	-3500	0.01371	24-HR	1ST	14072224
6000	-3500	0.01271	24-HR	1ST	14072224
6500	-3500	0.01181	24-HR	1ST	14072224
7000	-3500	0.011	24-HR	1ST	14072224
7500	-3500	0.01027	24-HR	1ST	14072224
-7500	-3000	0.07613	24-HR	1ST	14071424
-7000	-3000	0.06988	24-HR	1ST	14071424
-6500	-3000	0.06305	24-HR	1ST	14071424
-6000	-3000	0.05548	24-HR	1ST	14071424
-5500	-3000	0.04717	24-HR	1ST	14071424
-5000	-3000	0.03836	24-HR	1ST	14071424
-4500	-3000	0.02964	24-HR	1ST	14071424
-4000	-3000	0.02191	24-HR	1ST	14071424
-3500	-3000	0.02037	24-HR	1ST	14072224
-3000	-3000	0.02217	24-HR	1ST	14072224
-2500	-3000	0.024	24-HR	1ST	14072224
-2000	-3000	0.0259	24-HR	1ST	14072224
-1500	-3000	0.02774	24-HR	1ST	14072224
-1000	-3000	0.0293	24-HR	1ST	14072224
-500	-3000	0.03037	24-HR	1ST	14072224
0	-3000	0.03075	24-HR	1ST	14072224
500	-3000	0.03037	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
1000	-3000	0.0293	24-HR	1ST	14072224
1500	-3000	0.02774	24-HR	1ST	14072224
2000	-3000	0.0259	24-HR	1ST	14072224
2500	-3000	0.024	24-HR	1ST	14072224
3000	-3000	0.02217	24-HR	1ST	14072224
3500	-3000	0.02037	24-HR	1ST	14072224
4000	-3000	0.01862	24-HR	1ST	14072224
4500	-3000	0.01704	24-HR	1ST	14072224
5000	-3000	0.01563	24-HR	1ST	14072224
5500	-3000	0.01437	24-HR	1ST	14072224
6000	-3000	0.01325	24-HR	1ST	14072224
6500	-3000	0.01226	24-HR	1ST	14072224
7000	-3000	0.01137	24-HR	1ST	14072224
7500	-3000	0.01058	24-HR	1ST	14072224
-7500	-2500	0.11514	24-HR	1ST	14071424
-7000	-2500	0.10762	24-HR	1ST	14071424
-6500	-2500	0.09949	24-HR	1ST	14071424
-6000	-2500	0.0905	24-HR	1ST	14071424
-5500	-2500	0.08033	24-HR	1ST	14071424
-5000	-2500	0.06874	24-HR	1ST	14071424
-4500	-2500	0.05581	24-HR	1ST	14071424
-4000	-2500	0.04227	24-HR	1ST	14071424
-3500	-2500	0.02962	24-HR	1ST	14071424
-3000	-2500	0.024	24-HR	1ST	14072224
-2500	-2500	0.02639	24-HR	1ST	14072224
-2000	-2500	0.02897	24-HR	1ST	14072224
-1500	-2500	0.03155	24-HR	1ST	14072224
-1000	-2500	0.03376	24-HR	1ST	14072224
-500	-2500	0.03525	24-HR	1ST	14072224
0	-2500	0.03579	24-HR	1ST	14072224
500	-2500	0.03525	24-HR	1ST	14072224
1000	-2500	0.03376	24-HR	1ST	14072224
1500	-2500	0.03155	24-HR	1ST	14072224
2000	-2500	0.02897	24-HR	1ST	14072224
2500	-2500	0.02639	24-HR	1ST	14072224
3000	-2500	0.024	24-HR	1ST	14072224
3500	-2500	0.02188	24-HR	1ST	14072224
4000	-2500	0.01986	24-HR	1ST	14072224
4500	-2500	0.01802	24-HR	1ST	14072224
5000	-2500	0.01641	24-HR	1ST	14072224
5500	-2500	0.015	24-HR	1ST	14072224
6000	-2500	0.01376	24-HR	1ST	14072224
6500	-2500	0.01267	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
7000	-2500	0.01171	24-HR	1ST	14072224
7500	-2500	0.01087	24-HR	1ST	14072224
-7500	-2000	0.17645	24-HR	1ST	14071424
-7000	-2000	0.16788	24-HR	1ST	14071424
-6500	-2000	0.15826	24-HR	1ST	14071424
-6000	-2000	0.14749	24-HR	1ST	14071424
-5500	-2000	0.13533	24-HR	1ST	14071424
-5000	-2000	0.12135	24-HR	1ST	14071424
-4500	-2000	0.10497	24-HR	1ST	14071424
-4000	-2000	0.08578	24-HR	1ST	14071424
-3500	-2000	0.06427	24-HR	1ST	14071424
-3000	-2000	0.04273	24-HR	1ST	14071424
-2500	-2000	0.02897	24-HR	1ST	14072224
-2000	-2000	0.03242	24-HR	1ST	14072224
-1500	-2000	0.03579	24-HR	1ST	14072224
-1000	-2000	0.03893	24-HR	1ST	14072224
-500	-2000	0.04122	24-HR	1ST	14072224
0	-2000	0.04207	24-HR	1ST	14072224
500	-2000	0.04122	24-HR	1ST	14072224
1000	-2000	0.03893	24-HR	1ST	14072224
1500	-2000	0.03579	24-HR	1ST	14072224
2000	-2000	0.03242	24-HR	1ST	14072224
2500	-2000	0.02897	24-HR	1ST	14072224
3000	-2000	0.0259	24-HR	1ST	14072224
3500	-2000	0.02328	24-HR	1ST	14072224
4000	-2000	0.02104	24-HR	1ST	14072224
4500	-2000	0.01894	24-HR	1ST	14072224
5000	-2000	0.01713	24-HR	1ST	14072224
5500	-2000	0.01556	24-HR	1ST	14072224
6000	-2000	0.01421	24-HR	1ST	14072224
6500	-2000	0.01304	24-HR	1ST	14072224
7000	-2000	0.01201	24-HR	1ST	14072224
7500	-2000	0.01111	24-HR	1ST	14072224
-7500	-1500	0.26882	24-HR	1ST	14071424
-7000	-1500	0.26284	24-HR	1ST	14071424
-6500	-1500	0.25463	24-HR	1ST	14071424
-6000	-1500	0.24394	24-HR	1ST	14071424
-5500	-1500	0.23053	24-HR	1ST	14071424
-5000	-1500	0.21409	24-HR	1ST	14071424
-4500	-1500	0.19413	24-HR	1ST	14071424
-4000	-1500	0.16989	24-HR	1ST	14071424
-3500	-1500	0.14031	24-HR	1ST	14071424
-3000	-1500	0.10509	24-HR	1ST	14071424

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-2500	-1500	0.06413	24-HR	1ST	14071424
-2000	-1500	0.03579	24-HR	1ST	14072224
-1500	-1500	0.04042	24-HR	1ST	14072224
-1000	-1500	0.04488	24-HR	1ST	14072224
-500	-1500	0.04806	24-HR	1ST	14072224
0	-1500	0.04916	24-HR	1ST	14072224
500	-1500	0.04806	24-HR	1ST	14072224
1000	-1500	0.04488	24-HR	1ST	14072224
1500	-1500	0.04042	24-HR	1ST	14072224
2000	-1500	0.03579	24-HR	1ST	14072224
2500	-1500	0.03155	24-HR	1ST	14072224
3000	-1500	0.02774	24-HR	1ST	14072224
3500	-1500	0.02459	24-HR	1ST	14072224
4000	-1500	0.02203	24-HR	1ST	14072224
4500	-1500	0.01974	24-HR	1ST	14072224
5000	-1500	0.01774	24-HR	1ST	14072224
5500	-1500	0.01604	24-HR	1ST	14072224
6000	-1500	0.01459	24-HR	1ST	14072224
6500	-1500	0.01334	24-HR	1ST	14072224
7000	-1500	0.01226	24-HR	1ST	14072224
7500	-1500	0.01131	24-HR	1ST	14072224
-7500	-1000	0.38776	24-HR	1ST	14071424
-7000	-1000	0.39217	24-HR	1ST	14071424
-6500	-1000	0.39449	24-HR	1ST	14071424
-6000	-1000	0.3939	24-HR	1ST	14071424
-5500	-1000	0.38931	24-HR	1ST	14071424
-5000	-1000	0.37939	24-HR	1ST	14071424
-4500	-1000	0.36247	24-HR	1ST	14071424
-4000	-1000	0.33665	24-HR	1ST	14071424
-3500	-1000	0.29894	24-HR	1ST	14071424
-3000	-1000	0.24691	24-HR	1ST	14071424
-2500	-1000	0.17994	24-HR	1ST	14071424
-2000	-1000	0.10373	24-HR	1ST	14071424
-1500	-1000	0.04488	24-HR	1ST	14072224
-1000	-1000	0.05005	24-HR	1ST	14072224
-500	-1000	0.05452	24-HR	1ST	14072124
0	-1000	0.06244	24-HR	1ST	14072124
500	-1000	0.05452	24-HR	1ST	14072124
1000	-1000	0.05005	24-HR	1ST	14072224
1500	-1000	0.04488	24-HR	1ST	14072224
2000	-1000	0.03893	24-HR	1ST	14072224
2500	-1000	0.03376	24-HR	1ST	14072224
3000	-1000	0.0293	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
3500	-1000	0.02567	24-HR	1ST	14072224
4000	-1000	0.02279	24-HR	1ST	14072224
4500	-1000	0.02037	24-HR	1ST	14072224
5000	-1000	0.01822	24-HR	1ST	14072224
5500	-1000	0.01641	24-HR	1ST	14072224
6000	-1000	0.01488	24-HR	1ST	14072224
6500	-1000	0.01357	24-HR	1ST	14072224
7000	-1000	0.01244	24-HR	1ST	14072224
7500	-1000	0.01146	24-HR	1ST	14072224
-7500	-500	0.50244	24-HR	1ST	14071424
-7000	-500	0.52168	24-HR	1ST	14071424
-6500	-500	0.54168	24-HR	1ST	14071424
-6000	-500	0.56206	24-HR	1ST	14071424
-5500	-500	0.58208	24-HR	1ST	14071424
-5000	-500	0.6004	24-HR	1ST	14071424
-4500	-500	0.61467	24-HR	1ST	14071424
-4000	-500	0.62093	24-HR	1ST	14071424
-3500	-500	0.61017	24-HR	1ST	14071424
-3000	-500	0.5598	24-HR	1ST	14071424
-2500	-500	0.47605	24-HR	1ST	14071424
-2000	-500	0.34873	24-HR	1ST	14071424
-1500	-500	0.17825	24-HR	1ST	14071424
-1000	-500	0.05452	24-HR	1ST	14072124
-500	-500	0.08644	24-HR	1ST	14072124
0	-500	0.09325	24-HR	1ST	14072124
500	-500	0.08644	24-HR	1ST	14072124
1000	-500	0.05452	24-HR	1ST	14072124
1500	-500	0.04806	24-HR	1ST	14072224
2000	-500	0.04122	24-HR	1ST	14072224
2500	-500	0.03525	24-HR	1ST	14072224
3000	-500	0.03037	24-HR	1ST	14072224
3500	-500	0.02639	24-HR	1ST	14072224
4000	-500	0.02328	24-HR	1ST	14072224
4500	-500	0.02077	24-HR	1ST	14072224
5000	-500	0.01852	24-HR	1ST	14072224
5500	-500	0.01664	24-HR	1ST	14072224
6000	-500	0.01506	24-HR	1ST	14072224
6500	-500	0.01371	24-HR	1ST	14072224
7000	-500	0.01256	24-HR	1ST	14072224
7500	-500	0.01156	24-HR	1ST	14072224
-7500	0	0.55398	24-HR	1ST	14071424
-7000	0	0.58087	24-HR	1ST	14071424
-6500	0	0.61048	24-HR	1ST	14071424

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-6000	0	0.64313	24-HR	1ST	14071424
-5500	0	0.67901	24-HR	1ST	14071424
-5000	0	0.71807	24-HR	1ST	14071424
-4500	0	0.75971	24-HR	1ST	14071424
-4000	0	0.80222	24-HR	1ST	14071424
-3500	0	0.83953	24-HR	1ST	14071424
-3000	0	0.84649	24-HR	1ST	14071424
-2500	0	0.82026	24-HR	1ST	14071424
-2000	0	0.73213	24-HR	1ST	14071424
-1500	0	0.52943	24-HR	1ST	14071424
-1000	0	0.49433	24-HR	1ST	14071224
-500	0	0.13415	24-HR	1ST	14072124
0	0	0	24-HR	1ST	0
500	0	0.09325	24-HR	1ST	14072124
1000	0	0.06244	24-HR	1ST	14072124
1500	0	0.04916	24-HR	1ST	14072224
2000	0	0.04207	24-HR	1ST	14072224
2500	0	0.03579	24-HR	1ST	14072224
3000	0	0.03075	24-HR	1ST	14072224
3500	0	0.02665	24-HR	1ST	14072224
4000	0	0.02346	24-HR	1ST	14072224
4500	0	0.02091	24-HR	1ST	14072224
5000	0	0.01862	24-HR	1ST	14072224
5500	0	0.01672	24-HR	1ST	14072224
6000	0	0.01512	24-HR	1ST	14072224
6500	0	0.01376	24-HR	1ST	14072224
7000	0	0.01259	24-HR	1ST	14072224
7500	0	0.01159	24-HR	1ST	14072224
-7500	500	0.50244	24-HR	1ST	14071424
-7000	500	0.52168	24-HR	1ST	14071424
-6500	500	0.54168	24-HR	1ST	14071424
-6000	500	0.56206	24-HR	1ST	14071424
-5500	500	0.58208	24-HR	1ST	14071424
-5000	500	0.6004	24-HR	1ST	14071424
-4500	500	0.61467	24-HR	1ST	14071424
-4000	500	0.62093	24-HR	1ST	14071424
-3500	500	0.61017	24-HR	1ST	14071424
-3000	500	0.5598	24-HR	1ST	14071424
-2500	500	0.47605	24-HR	1ST	14071424
-2000	500	0.34873	24-HR	1ST	14071424
-1500	500	0.30442	24-HR	1ST	14072224
-1000	500	0.56646	24-HR	1ST	14072124
-500	500	1.95397	24-HR	1ST	14071624

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
0	500	0.27251	24-HR	1ST	14070324
500	500	0.08644	24-HR	1ST	14072124
1000	500	0.05452	24-HR	1ST	14072124
1500	500	0.04806	24-HR	1ST	14072224
2000	500	0.04122	24-HR	1ST	14072224
2500	500	0.03525	24-HR	1ST	14072224
3000	500	0.03037	24-HR	1ST	14072224
3500	500	0.02639	24-HR	1ST	14072224
4000	500	0.02328	24-HR	1ST	14072224
4500	500	0.02077	24-HR	1ST	14072224
5000	500	0.01852	24-HR	1ST	14072224
5500	500	0.01664	24-HR	1ST	14072224
6000	500	0.01506	24-HR	1ST	14072224
6500	500	0.01371	24-HR	1ST	14072224
7000	500	0.01256	24-HR	1ST	14072224
7500	500	0.01156	24-HR	1ST	14072224
-7500	1000	0.38776	24-HR	1ST	14071424
-7000	1000	0.39217	24-HR	1ST	14071424
-6500	1000	0.39449	24-HR	1ST	14071424
-6000	1000	0.3939	24-HR	1ST	14071424
-5500	1000	0.38931	24-HR	1ST	14071424
-5000	1000	0.37939	24-HR	1ST	14071424
-4500	1000	0.36247	24-HR	1ST	14071424
-4000	1000	0.33665	24-HR	1ST	14071424
-3500	1000	0.29894	24-HR	1ST	14071424
-3000	1000	0.24691	24-HR	1ST	14071424
-2500	1000	0.30466	24-HR	1ST	14072224
-2000	1000	0.47255	24-HR	1ST	14072224
-1500	1000	0.77312	24-HR	1ST	14072224
-1000	1000	1.40466	24-HR	1ST	14071624
-500	1000	0.56646	24-HR	1ST	14072124
0	1000	1.30802	24-HR	1ST	14070524
500	1000	0.05452	24-HR	1ST	14072124
1000	1000	0.05005	24-HR	1ST	14072224
1500	1000	0.04488	24-HR	1ST	14072224
2000	1000	0.03893	24-HR	1ST	14072224
2500	1000	0.03376	24-HR	1ST	14072224
3000	1000	0.0293	24-HR	1ST	14072224
3500	1000	0.02567	24-HR	1ST	14072224
4000	1000	0.02279	24-HR	1ST	14072224
4500	1000	0.02037	24-HR	1ST	14072224
5000	1000	0.01822	24-HR	1ST	14072224
5500	1000	0.01641	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
6000	1000	0.01488	24-HR	1ST	14072224
6500	1000	0.01357	24-HR	1ST	14072224
7000	1000	0.01244	24-HR	1ST	14072224
7500	1000	0.01146	24-HR	1ST	14072224
-7500	1500	0.26882	24-HR	1ST	14071424
-7000	1500	0.26284	24-HR	1ST	14071424
-6500	1500	0.25463	24-HR	1ST	14071424
-6000	1500	0.24394	24-HR	1ST	14071424
-5500	1500	0.23053	24-HR	1ST	14071424
-5000	1500	0.21409	24-HR	1ST	14071424
-4500	1500	0.19413	24-HR	1ST	14071424
-4000	1500	0.1882	24-HR	1ST	14072224
-3500	1500	0.26006	24-HR	1ST	14072224
-3000	1500	0.37125	24-HR	1ST	14072224
-2500	1500	0.54239	24-HR	1ST	14072224
-2000	1500	0.80827	24-HR	1ST	14072024
-1500	1500	1.09874	24-HR	1ST	14071024
-1000	1500	0.77312	24-HR	1ST	14072224
-500	1500	0.30442	24-HR	1ST	14072224
0	1500	1.33842	24-HR	1ST	14070524
500	1500	0.23834	24-HR	1ST	14070524
1000	1500	0.04488	24-HR	1ST	14072224
1500	1500	0.04042	24-HR	1ST	14072224
2000	1500	0.03579	24-HR	1ST	14072224
2500	1500	0.03155	24-HR	1ST	14072224
3000	1500	0.02774	24-HR	1ST	14072224
3500	1500	0.02459	24-HR	1ST	14072224
4000	1500	0.02203	24-HR	1ST	14072224
4500	1500	0.01974	24-HR	1ST	14072224
5000	1500	0.01774	24-HR	1ST	14072224
5500	1500	0.01604	24-HR	1ST	14072224
6000	1500	0.01459	24-HR	1ST	14072224
6500	1500	0.01334	24-HR	1ST	14072224
7000	1500	0.01226	24-HR	1ST	14072224
7500	1500	0.01131	24-HR	1ST	14072224
-7500	2000	0.17645	24-HR	1ST	14071424
-7000	2000	0.16788	24-HR	1ST	14071424
-6500	2000	0.15826	24-HR	1ST	14071424
-6000	2000	0.14749	24-HR	1ST	14071424
-5500	2000	0.13533	24-HR	1ST	14071424
-5000	2000	0.16511	24-HR	1ST	14072224
-4500	2000	0.22099	24-HR	1ST	14072224
-4000	2000	0.29927	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-3500	2000	0.40794	24-HR	1ST	14072224
-3000	2000	0.55611	24-HR	1ST	14072224
-2500	2000	0.77993	24-HR	1ST	14072024
-2000	2000	0.98875	24-HR	1ST	14072024
-1500	2000	0.80827	24-HR	1ST	14072024
-1000	2000	0.47255	24-HR	1ST	14072224
-500	2000	0.39885	24-HR	1ST	14070524
0	2000	1.08656	24-HR	1ST	14070524
500	2000	0.39885	24-HR	1ST	14070524
1000	2000	0.03893	24-HR	1ST	14072224
1500	2000	0.03579	24-HR	1ST	14072224
2000	2000	0.03242	24-HR	1ST	14072224
2500	2000	0.02897	24-HR	1ST	14072224
3000	2000	0.0259	24-HR	1ST	14072224
3500	2000	0.02328	24-HR	1ST	14072224
4000	2000	0.02104	24-HR	1ST	14072224
4500	2000	0.01894	24-HR	1ST	14072224
5000	2000	0.01713	24-HR	1ST	14072224
5500	2000	0.01556	24-HR	1ST	14072224
6000	2000	0.01421	24-HR	1ST	14072224
6500	2000	0.01304	24-HR	1ST	14072224
7000	2000	0.01201	24-HR	1ST	14072224
7500	2000	0.01111	24-HR	1ST	14072224
-7500	2500	0.11514	24-HR	1ST	14071424
-7000	2500	0.10762	24-HR	1ST	14071424
-6500	2500	0.11089	24-HR	1ST	14072224
-6000	2500	0.14121	24-HR	1ST	14072224
-5500	2500	0.18272	24-HR	1ST	14072224
-5000	2500	0.23977	24-HR	1ST	14072224
-4500	2500	0.31758	24-HR	1ST	14072224
-4000	2500	0.42075	24-HR	1ST	14072224
-3500	2500	0.54607	24-HR	1ST	14072224
-3000	2500	0.71991	24-HR	1ST	14072024
-2500	2500	0.87113	24-HR	1ST	14072024
-2000	2500	0.77993	24-HR	1ST	14072024
-1500	2500	0.54239	24-HR	1ST	14072224
-1000	2500	0.30466	24-HR	1ST	14072224
-500	2500	0.44948	24-HR	1ST	14070524
0	2500	0.86553	24-HR	1ST	14070524
500	2500	0.44948	24-HR	1ST	14070524
1000	2500	0.06732	24-HR	1ST	14070524
1500	2500	0.03155	24-HR	1ST	14072224
2000	2500	0.02897	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
2500	2500	0.02639	24-HR	1ST	14072224
3000	2500	0.024	24-HR	1ST	14072224
3500	2500	0.02188	24-HR	1ST	14072224
4000	2500	0.01986	24-HR	1ST	14072224
4500	2500	0.01802	24-HR	1ST	14072224
5000	2500	0.01641	24-HR	1ST	14072224
5500	2500	0.015	24-HR	1ST	14072224
6000	2500	0.01376	24-HR	1ST	14072224
6500	2500	0.01267	24-HR	1ST	14072224
7000	2500	0.01171	24-HR	1ST	14072224
7500	2500	0.01087	24-HR	1ST	14072224
-7500	3000	0.09727	24-HR	1ST	14072224
-7000	3000	0.12107	24-HR	1ST	14072224
-6500	3000	0.15257	24-HR	1ST	14072224
-6000	3000	0.19434	24-HR	1ST	14072224
-5500	3000	0.24946	24-HR	1ST	14072224
-5000	3000	0.32095	24-HR	1ST	14072224
-4500	3000	0.41024	24-HR	1ST	14072224
-4000	3000	0.51385	24-HR	1ST	14072224
-3500	3000	0.64659	24-HR	1ST	14072024
-3000	3000	0.76053	24-HR	1ST	14072024
-2500	3000	0.71991	24-HR	1ST	14072024
-2000	3000	0.55611	24-HR	1ST	14072224
-1500	3000	0.37125	24-HR	1ST	14072224
-1000	3000	0.20906	24-HR	1ST	14072224
-500	3000	0.43916	24-HR	1ST	14070524
0	3000	0.69758	24-HR	1ST	14070524
500	3000	0.43916	24-HR	1ST	14070524
1000	3000	0.11268	24-HR	1ST	14070524
1500	3000	0.02774	24-HR	1ST	14072224
2000	3000	0.0259	24-HR	1ST	14072224
2500	3000	0.024	24-HR	1ST	14072224
3000	3000	0.02217	24-HR	1ST	14072224
3500	3000	0.02037	24-HR	1ST	14072224
4000	3000	0.01862	24-HR	1ST	14072224
4500	3000	0.01704	24-HR	1ST	14072224
5000	3000	0.01563	24-HR	1ST	14072224
5500	3000	0.01437	24-HR	1ST	14072224
6000	3000	0.01325	24-HR	1ST	14072224
6500	3000	0.01226	24-HR	1ST	14072224
7000	3000	0.01137	24-HR	1ST	14072224
7500	3000	0.01058	24-HR	1ST	14072224
-7500	3500	0.12879	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-7000	3500	0.16025	24-HR	1ST	14072224
-6500	3500	0.20071	24-HR	1ST	14072224
-6000	3500	0.25214	24-HR	1ST	14072224
-5500	3500	0.31602	24-HR	1ST	14072224
-5000	3500	0.39211	24-HR	1ST	14072224
-4500	3500	0.47645	24-HR	1ST	14072224
-4000	3500	0.58248	24-HR	1ST	14071024
-3500	3500	0.66556	24-HR	1ST	14071024
-3000	3500	0.64659	24-HR	1ST	14072024
-2500	3500	0.54607	24-HR	1ST	14072224
-2000	3500	0.40794	24-HR	1ST	14072224
-1500	3500	0.26006	24-HR	1ST	14072224
-1000	3500	0.14909	24-HR	1ST	14072224
-500	3500	0.40533	24-HR	1ST	14070524
0	3500	0.57228	24-HR	1ST	14070524
500	3500	0.40533	24-HR	1ST	14070524
1000	3500	0.14609	24-HR	1ST	14070524
1500	3500	0.02892	24-HR	1ST	14070524
2000	3500	0.02328	24-HR	1ST	14072224
2500	3500	0.02188	24-HR	1ST	14072224
3000	3500	0.02037	24-HR	1ST	14072224
3500	3500	0.01883	24-HR	1ST	14072224
4000	3500	0.01738	24-HR	1ST	14072224
4500	3500	0.01604	24-HR	1ST	14072224
5000	3500	0.01482	24-HR	1ST	14072224
5500	3500	0.01371	24-HR	1ST	14072224
6000	3500	0.01271	24-HR	1ST	14072224
6500	3500	0.01181	24-HR	1ST	14072224
7000	3500	0.011	24-HR	1ST	14072224
7500	3500	0.01027	24-HR	1ST	14072224
-7500	4000	0.16471	24-HR	1ST	14072224
-7000	4000	0.20289	24-HR	1ST	14072224
-6500	4000	0.24984	24-HR	1ST	14072224
-6000	4000	0.3061	24-HR	1ST	14072224
-5500	4000	0.37076	24-HR	1ST	14072224
-5000	4000	0.44022	24-HR	1ST	14072224
-4500	4000	0.5349	24-HR	1ST	14071024
-4000	4000	0.5997	24-HR	1ST	14071024
-3500	4000	0.58248	24-HR	1ST	14071024
-3000	4000	0.51385	24-HR	1ST	14072224
-2500	4000	0.42075	24-HR	1ST	14072224
-2000	4000	0.29927	24-HR	1ST	14072224
-1500	4000	0.1882	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-1000	4000	0.16522	24-HR	1ST	14070524
-500	4000	0.36564	24-HR	1ST	14070524
0	4000	0.52213	24-HR	1ST	14070224
500	4000	0.36564	24-HR	1ST	14070524
1000	4000	0.16522	24-HR	1ST	14070524
1500	4000	0.04571	24-HR	1ST	14070524
2000	4000	0.02104	24-HR	1ST	14072224
2500	4000	0.01986	24-HR	1ST	14072224
3000	4000	0.01862	24-HR	1ST	14072224
3500	4000	0.01738	24-HR	1ST	14072224
4000	4000	0.01619	24-HR	1ST	14072224
4500	4000	0.01506	24-HR	1ST	14072224
5000	4000	0.01401	24-HR	1ST	14072224
5500	4000	0.01304	24-HR	1ST	14072224
6000	4000	0.01215	24-HR	1ST	14072224
6500	4000	0.01134	24-HR	1ST	14072224
7000	4000	0.01061	24-HR	1ST	14072224
7500	4000	0.00994	24-HR	1ST	14072224
-7500	4500	0.20192	24-HR	1ST	14072224
-7000	4500	0.24426	24-HR	1ST	14072224
-6500	4500	0.29356	24-HR	1ST	14072224
-6000	4500	0.34878	24-HR	1ST	14072224
-5500	4500	0.41088	24-HR	1ST	14071024
-5000	4500	0.49446	24-HR	1ST	14071024
-4500	4500	0.54597	24-HR	1ST	14071024
-4000	4500	0.5349	24-HR	1ST	14071024
-3500	4500	0.47645	24-HR	1ST	14072224
-3000	4500	0.41024	24-HR	1ST	14072224
-2500	4500	0.31758	24-HR	1ST	14072224
-2000	4500	0.22099	24-HR	1ST	14072224
-1500	4500	0.14059	24-HR	1ST	14072224
-1000	4500	0.17511	24-HR	1ST	14070224
-500	4500	0.3909	24-HR	1ST	14070224
0	4500	0.53	24-HR	1ST	14070224
500	4500	0.3909	24-HR	1ST	14070224
1000	4500	0.17511	24-HR	1ST	14070224
1500	4500	0.06123	24-HR	1ST	14070524
2000	4500	0.01894	24-HR	1ST	14072224
2500	4500	0.01802	24-HR	1ST	14072224
3000	4500	0.01704	24-HR	1ST	14072224
3500	4500	0.01604	24-HR	1ST	14072224
4000	4500	0.01506	24-HR	1ST	14072224
4500	4500	0.01411	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
5000	4500	0.01321	24-HR	1ST	14072224
5500	4500	0.01237	24-HR	1ST	14072224
6000	4500	0.01159	24-HR	1ST	14072224
6500	4500	0.01087	24-HR	1ST	14072224
7000	4500	0.0102	24-HR	1ST	14072224
7500	4500	0.00959	24-HR	1ST	14072224
-7500	5000	0.23669	24-HR	1ST	14072224
-7000	5000	0.27996	24-HR	1ST	14072224
-6500	5000	0.32765	24-HR	1ST	14072224
-6000	5000	0.38708	24-HR	1ST	14071024
-5500	5000	0.45753	24-HR	1ST	14071024
-5000	5000	0.50098	24-HR	1ST	14071024
-4500	5000	0.49446	24-HR	1ST	14071024
-4000	5000	0.44022	24-HR	1ST	14072224
-3500	5000	0.39211	24-HR	1ST	14072224
-3000	5000	0.32095	24-HR	1ST	14072224
-2500	5000	0.23977	24-HR	1ST	14072224
-2000	5000	0.16511	24-HR	1ST	14072224
-1500	5000	0.10738	24-HR	1ST	14072224
-1000	5000	0.20802	24-HR	1ST	14070224
-500	5000	0.41429	24-HR	1ST	14070224
0	5000	0.53591	24-HR	1ST	14070224
500	5000	0.41429	24-HR	1ST	14070224
1000	5000	0.20802	24-HR	1ST	14070224
1500	5000	0.07958	24-HR	1ST	14070224
2000	5000	0.02748	24-HR	1ST	14070224
2500	5000	0.01641	24-HR	1ST	14072224
3000	5000	0.01563	24-HR	1ST	14072224
3500	5000	0.01482	24-HR	1ST	14072224
4000	5000	0.01401	24-HR	1ST	14072224
4500	5000	0.01321	24-HR	1ST	14072224
5000	5000	0.01244	24-HR	1ST	14072224
5500	5000	0.01171	24-HR	1ST	14072224
6000	5000	0.01103	24-HR	1ST	14072224
6500	5000	0.01039	24-HR	1ST	14072224
7000	5000	0.00979	24-HR	1ST	14072224
7500	5000	0.00924	24-HR	1ST	14072224
-7500	5500	0.26635	24-HR	1ST	14072224
-7000	5500	0.30817	24-HR	1ST	14072224
-6500	5500	0.36608	24-HR	1ST	14071024
-6000	5500	0.42564	24-HR	1ST	14071024
-5500	5500	0.46149	24-HR	1ST	14071024
-5000	5500	0.45753	24-HR	1ST	14071024

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-4500	5500	0.41088	24-HR	1ST	14071024
-4000	5500	0.37076	24-HR	1ST	14072224
-3500	5500	0.31602	24-HR	1ST	14072224
-3000	5500	0.24946	24-HR	1ST	14072224
-2500	5500	0.18272	24-HR	1ST	14072224
-2000	5500	0.12606	24-HR	1ST	14072224
-1500	5500	0.10209	24-HR	1ST	14070224
-1000	5500	0.23863	24-HR	1ST	14070224
-500	5500	0.43268	24-HR	1ST	14070224
0	5500	0.53925	24-HR	1ST	14070224
500	5500	0.43268	24-HR	1ST	14070224
1000	5500	0.23863	24-HR	1ST	14070224
1500	5500	0.10209	24-HR	1ST	14070224
2000	5500	0.03848	24-HR	1ST	14070224
2500	5500	0.015	24-HR	1ST	14072224
3000	5500	0.01437	24-HR	1ST	14072224
3500	5500	0.01371	24-HR	1ST	14072224
4000	5500	0.01304	24-HR	1ST	14072224
4500	5500	0.01237	24-HR	1ST	14072224
5000	5500	0.01171	24-HR	1ST	14072224
5500	5500	0.01108	24-HR	1ST	14072224
6000	5500	0.01048	24-HR	1ST	14072224
6500	5500	0.00992	24-HR	1ST	14072224
7000	5500	0.00939	24-HR	1ST	14072224
7500	5500	0.00889	24-HR	1ST	14072224
-7500	6000	0.29068	24-HR	1ST	14072224
-7000	6000	0.34799	24-HR	1ST	14071024
-6500	6000	0.39911	24-HR	1ST	14071024
-6000	6000	0.42907	24-HR	1ST	14071024
-5500	6000	0.42564	24-HR	1ST	14071024
-5000	6000	0.38708	24-HR	1ST	14071024
-4500	6000	0.34878	24-HR	1ST	14072224
-4000	6000	0.3061	24-HR	1ST	14072224
-3500	6000	0.25214	24-HR	1ST	14072224
-3000	6000	0.19434	24-HR	1ST	14072224
-2500	6000	0.14121	24-HR	1ST	14072224
-2000	6000	0.09834	24-HR	1ST	14072224
-1500	6000	0.12409	24-HR	1ST	14070224
-1000	6000	0.26376	24-HR	1ST	14070224
-500	6000	0.44409	24-HR	1ST	14070224
0	6000	0.53778	24-HR	1ST	14070224
500	6000	0.44409	24-HR	1ST	14070224
1000	6000	0.26376	24-HR	1ST	14070224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
1500	6000	0.12409	24-HR	1ST	14070224
2000	6000	0.05091	24-HR	1ST	14070224
2500	6000	0.02015	24-HR	1ST	14070224
3000	6000	0.01325	24-HR	1ST	14072224
3500	6000	0.01271	24-HR	1ST	14072224
4000	6000	0.01215	24-HR	1ST	14072224
4500	6000	0.01159	24-HR	1ST	14072224
5000	6000	0.01103	24-HR	1ST	14072224
5500	6000	0.01048	24-HR	1ST	14072224
6000	6000	0.00996	24-HR	1ST	14072224
6500	6000	0.00946	24-HR	1ST	14072224
7000	6000	0.00899	24-HR	1ST	14072224
7500	6000	0.00854	24-HR	1ST	14072224
-7500	6500	0.33264	24-HR	1ST	14071024
-7000	6500	0.37712	24-HR	1ST	14071024
-6500	6500	0.40246	24-HR	1ST	14071024
-6000	6500	0.39911	24-HR	1ST	14071024
-5500	6500	0.36608	24-HR	1ST	14071024
-5000	6500	0.32765	24-HR	1ST	14072224
-4500	6500	0.29356	24-HR	1ST	14072224
-4000	6500	0.24984	24-HR	1ST	14072224
-3500	6500	0.20071	24-HR	1ST	14072224
-3000	6500	0.15257	24-HR	1ST	14072224
-2500	6500	0.11089	24-HR	1ST	14072224
-2000	6500	0.07827	24-HR	1ST	14072224
-1500	6500	0.14298	24-HR	1ST	14070224
-1000	6500	0.28248	24-HR	1ST	14070224
-500	6500	0.45007	24-HR	1ST	14070224
0	6500	0.5334	24-HR	1ST	14070224
500	6500	0.45007	24-HR	1ST	14070224
1000	6500	0.28248	24-HR	1ST	14070224
1500	6500	0.14298	24-HR	1ST	14070224
2000	6500	0.06308	24-HR	1ST	14070224
2500	6500	0.02641	24-HR	1ST	14070224
3000	6500	0.01226	24-HR	1ST	14072224
3500	6500	0.01181	24-HR	1ST	14072224
4000	6500	0.01134	24-HR	1ST	14072224
4500	6500	0.01087	24-HR	1ST	14072224
5000	6500	0.01039	24-HR	1ST	14072224
5500	6500	0.00992	24-HR	1ST	14072224
6000	6500	0.00946	24-HR	1ST	14072224
6500	6500	0.00902	24-HR	1ST	14072224
7000	6500	0.0086	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
7500	6500	0.0082	24-HR	1ST	14072224
-7500	7000	0.35893	24-HR	1ST	14071024
-7000	7000	0.38059	24-HR	1ST	14071024
-6500	7000	0.37712	24-HR	1ST	14071024
-6000	7000	0.34799	24-HR	1ST	14071024
-5500	7000	0.30817	24-HR	1ST	14072224
-5000	7000	0.27996	24-HR	1ST	14072224
-4500	7000	0.24426	24-HR	1ST	14072224
-4000	7000	0.20289	24-HR	1ST	14072224
-3500	7000	0.16025	24-HR	1ST	14072224
-3000	7000	0.12107	24-HR	1ST	14072224
-2500	7000	0.0885	24-HR	1ST	14072224
-2000	7000	0.0757	24-HR	1ST	14070224
-1500	7000	0.16076	24-HR	1ST	14070224
-1000	7000	0.29821	24-HR	1ST	14070224
-500	7000	0.45346	24-HR	1ST	14070224
0	7000	0.5278	24-HR	1ST	14070224
500	7000	0.45346	24-HR	1ST	14070224
1000	7000	0.29821	24-HR	1ST	14070224
1500	7000	0.16076	24-HR	1ST	14070224
2000	7000	0.0757	24-HR	1ST	14070224
2500	7000	0.03338	24-HR	1ST	14070224
3000	7000	0.01486	24-HR	1ST	14070224
3500	7000	0.011	24-HR	1ST	14072224
4000	7000	0.01061	24-HR	1ST	14072224
4500	7000	0.0102	24-HR	1ST	14072224
5000	7000	0.00979	24-HR	1ST	14072224
5500	7000	0.00939	24-HR	1ST	14072224
6000	7000	0.00899	24-HR	1ST	14072224
6500	7000	0.0086	24-HR	1ST	14072224
7000	7000	0.00823	24-HR	1ST	14072224
7500	7000	0.00787	24-HR	1ST	14072224
-7500	7500	0.36259	24-HR	1ST	14071024
-7000	7500	0.35893	24-HR	1ST	14071024
-6500	7500	0.33264	24-HR	1ST	14071024
-6000	7500	0.29068	24-HR	1ST	14072224
-5500	7500	0.26635	24-HR	1ST	14072224
-5000	7500	0.23669	24-HR	1ST	14072224
-4500	7500	0.20192	24-HR	1ST	14072224
-4000	7500	0.16471	24-HR	1ST	14072224
-3500	7500	0.12879	24-HR	1ST	14072224
-3000	7500	0.09727	24-HR	1ST	14072224
-2500	7500	0.07177	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-2000	7500	0.08774	24-HR	1ST	14070224
-1500	7500	0.17578	24-HR	1ST	14070224
-1000	7500	0.3096	24-HR	1ST	14070224
-500	7500	0.45373	24-HR	1ST	14070224
0	7500	0.5207	24-HR	1ST	14070224
500	7500	0.45373	24-HR	1ST	14070224
1000	7500	0.3096	24-HR	1ST	14070224
1500	7500	0.17578	24-HR	1ST	14070224
2000	7500	0.08774	24-HR	1ST	14070224
2500	7500	0.04075	24-HR	1ST	14070224
3000	7500	0.01877	24-HR	1ST	14070224
3500	7500	0.01027	24-HR	1ST	14072224
4000	7500	0.00994	24-HR	1ST	14072224
4500	7500	0.00959	24-HR	1ST	14072224
5000	7500	0.00924	24-HR	1ST	14072224
5500	7500	0.00889	24-HR	1ST	14072224
6000	7500	0.00854	24-HR	1ST	14072224
6500	7500	0.0082	24-HR	1ST	14072224
7000	7500	0.00787	24-HR	1ST	14072224
7500	7500	0.00754	24-HR	1ST	14072224

Annex 8_Appendix 2

Appendix-2

Table 20: 1st high 8-hr Average Concentration values of CO ($\mu\text{g}/\text{m}^3$) at different receptors for July for 70 m stack height.

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-7500	-7500	0.00583	8-HR	1ST	14070908
-7000	-7500	0.00609	8-HR	1ST	14070908
-6500	-7500	0.00635	8-HR	1ST	14070908
-6000	-7500	0.00662	8-HR	1ST	14070908
-5500	-7500	0.0069	8-HR	1ST	14070908
-5000	-7500	0.00719	8-HR	1ST	14070908
-4500	-7500	0.00747	8-HR	1ST	14070908
-4000	-7500	0.00775	8-HR	1ST	14070908
-3500	-7500	0.00802	8-HR	1ST	14070908
-3000	-7500	0.00827	8-HR	1ST	14070908
-2500	-7500	0.0085	8-HR	1ST	14070908
-2000	-7500	0.0087	8-HR	1ST	14070908
-1500	-7500	0.00886	8-HR	1ST	14070908
-1000	-7500	0.00898	8-HR	1ST	14070908
-500	-7500	0.00906	8-HR	1ST	14070908
0	-7500	0.00908	8-HR	1ST	14070908
500	-7500	0.00906	8-HR	1ST	14070908
1000	-7500	0.00898	8-HR	1ST	14070908
1500	-7500	0.00886	8-HR	1ST	14070908
2000	-7500	0.0087	8-HR	1ST	14070908
2500	-7500	0.0085	8-HR	1ST	14070908
3000	-7500	0.00827	8-HR	1ST	14070908
3500	-7500	0.00802	8-HR	1ST	14070908
4000	-7500	0.00775	8-HR	1ST	14070908
4500	-7500	0.00747	8-HR	1ST	14070908
5000	-7500	0.00719	8-HR	1ST	14070908
5500	-7500	0.0069	8-HR	1ST	14070908
6000	-7500	0.00662	8-HR	1ST	14070908
6500	-7500	0.00635	8-HR	1ST	14070908
7000	-7500	0.00609	8-HR	1ST	14070908
7500	-7500	0.00583	8-HR	1ST	14070908
-7500	-7000	0.00614	8-HR	1ST	14071408
-7000	-7000	0.00637	8-HR	1ST	14070908
-6500	-7000	0.00667	8-HR	1ST	14070908
-6000	-7000	0.00698	8-HR	1ST	14070908
-5500	-7000	0.0073	8-HR	1ST	14070908
-5000	-7000	0.00763	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-4500	-7000	0.00796	8-HR	1ST	14070908
-4000	-7000	0.00829	8-HR	1ST	14070908
-3500	-7000	0.00861	8-HR	1ST	14070908
-3000	-7000	0.00891	8-HR	1ST	14070908
-2500	-7000	0.00919	8-HR	1ST	14070908
-2000	-7000	0.00943	8-HR	1ST	14070908
-1500	-7000	0.00963	8-HR	1ST	14070908
-1000	-7000	0.00978	8-HR	1ST	14070908
-500	-7000	0.00987	8-HR	1ST	14070908
0	-7000	0.0099	8-HR	1ST	14070908
500	-7000	0.00987	8-HR	1ST	14070908
1000	-7000	0.00978	8-HR	1ST	14070908
1500	-7000	0.00963	8-HR	1ST	14070908
2000	-7000	0.00943	8-HR	1ST	14070908
2500	-7000	0.00919	8-HR	1ST	14070908
3000	-7000	0.00891	8-HR	1ST	14070908
3500	-7000	0.00861	8-HR	1ST	14070908
4000	-7000	0.00829	8-HR	1ST	14070908
4500	-7000	0.00796	8-HR	1ST	14070908
5000	-7000	0.00763	8-HR	1ST	14070908
5500	-7000	0.0073	8-HR	1ST	14070908
6000	-7000	0.00698	8-HR	1ST	14070908
6500	-7000	0.00667	8-HR	1ST	14070908
7000	-7000	0.00637	8-HR	1ST	14070908
7500	-7000	0.00609	8-HR	1ST	14070908
-7500	-6500	0.00719	8-HR	1ST	14071408
-7000	-6500	0.00674	8-HR	1ST	14071408
-6500	-6500	0.00701	8-HR	1ST	14070908
-6000	-6500	0.00736	8-HR	1ST	14070908
-5500	-6500	0.00773	8-HR	1ST	14070908
-5000	-6500	0.00811	8-HR	1ST	14070908
-4500	-6500	0.0085	8-HR	1ST	14070908
-4000	-6500	0.00889	8-HR	1ST	14070908
-3500	-6500	0.00927	8-HR	1ST	14070908
-3000	-6500	0.00963	8-HR	1ST	14070908
-2500	-6500	0.00997	8-HR	1ST	14070908
-2000	-6500	0.01026	8-HR	1ST	14070908
-1500	-6500	0.01051	8-HR	1ST	14070908
-1000	-6500	0.01069	8-HR	1ST	14070908
-500	-6500	0.01081	8-HR	1ST	14070908
0	-6500	0.01085	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
500	-6500	0.01081	8-HR	1ST	14070908
1000	-6500	0.01069	8-HR	1ST	14070908
1500	-6500	0.01051	8-HR	1ST	14070908
2000	-6500	0.01026	8-HR	1ST	14070908
2500	-6500	0.00997	8-HR	1ST	14070908
3000	-6500	0.00963	8-HR	1ST	14070908
3500	-6500	0.00927	8-HR	1ST	14070908
4000	-6500	0.00889	8-HR	1ST	14070908
4500	-6500	0.0085	8-HR	1ST	14070908
5000	-6500	0.00811	8-HR	1ST	14070908
5500	-6500	0.00773	8-HR	1ST	14070908
6000	-6500	0.00736	8-HR	1ST	14070908
6500	-6500	0.00701	8-HR	1ST	14070908
7000	-6500	0.00667	8-HR	1ST	14070908
7500	-6500	0.00635	8-HR	1ST	14070908
-7500	-6000	0.00896	8-HR	1ST	14071408
-7000	-6000	0.00808	8-HR	1ST	14071408
-6500	-6000	0.00746	8-HR	1ST	14071408
-6000	-6000	0.00777	8-HR	1ST	14070908
-5500	-6000	0.00819	8-HR	1ST	14070908
-5000	-6000	0.00863	8-HR	1ST	14070908
-4500	-6000	0.00908	8-HR	1ST	14070908
-4000	-6000	0.00954	8-HR	1ST	14070908
-3500	-6000	0.01	8-HR	1ST	14070908
-3000	-6000	0.01044	8-HR	1ST	14070908
-2500	-6000	0.01085	8-HR	1ST	14070908
-2000	-6000	0.01122	8-HR	1ST	14070908
-1500	-6000	0.01152	8-HR	1ST	14070908
-1000	-6000	0.01176	8-HR	1ST	14070908
-500	-6000	0.0119	8-HR	1ST	14070908
0	-6000	0.01195	8-HR	1ST	14070908
500	-6000	0.0119	8-HR	1ST	14070908
1000	-6000	0.01176	8-HR	1ST	14070908
1500	-6000	0.01152	8-HR	1ST	14070908
2000	-6000	0.01122	8-HR	1ST	14070908
2500	-6000	0.01085	8-HR	1ST	14070908
3000	-6000	0.01044	8-HR	1ST	14070908
3500	-6000	0.01	8-HR	1ST	14070908
4000	-6000	0.00954	8-HR	1ST	14070908
4500	-6000	0.00908	8-HR	1ST	14070908
5000	-6000	0.00863	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
5500	-6000	0.00819	8-HR	1ST	14070908
6000	-6000	0.00777	8-HR	1ST	14070908
6500	-6000	0.00736	8-HR	1ST	14070908
7000	-6000	0.00698	8-HR	1ST	14070908
7500	-6000	0.00662	8-HR	1ST	14070908
-7500	-5500	0.01198	8-HR	1ST	14071408
-7000	-5500	0.01043	8-HR	1ST	14071408
-6500	-5500	0.00921	8-HR	1ST	14071408
-6000	-5500	0.00833	8-HR	1ST	14071408
-5500	-5500	0.00868	8-HR	1ST	14070908
-5000	-5500	0.00919	8-HR	1ST	14070908
-4500	-5500	0.00972	8-HR	1ST	14070908
-4000	-5500	0.01026	8-HR	1ST	14070908
-3500	-5500	0.01081	8-HR	1ST	14070908
-3000	-5500	0.01135	8-HR	1ST	14070908
-2500	-5500	0.01185	8-HR	1ST	14070908
-2000	-5500	0.01231	8-HR	1ST	14070908
-1500	-5500	0.0127	8-HR	1ST	14070908
-1000	-5500	0.013	8-HR	1ST	14070908
-500	-5500	0.01318	8-HR	1ST	14070908
0	-5500	0.01324	8-HR	1ST	14070908
500	-5500	0.01318	8-HR	1ST	14070908
1000	-5500	0.013	8-HR	1ST	14070908
1500	-5500	0.0127	8-HR	1ST	14070908
2000	-5500	0.01231	8-HR	1ST	14070908
2500	-5500	0.01185	8-HR	1ST	14070908
3000	-5500	0.01135	8-HR	1ST	14070908
3500	-5500	0.01081	8-HR	1ST	14070908
4000	-5500	0.01026	8-HR	1ST	14070908
4500	-5500	0.00972	8-HR	1ST	14070908
5000	-5500	0.00919	8-HR	1ST	14070908
5500	-5500	0.00868	8-HR	1ST	14070908
6000	-5500	0.00819	8-HR	1ST	14070908
6500	-5500	0.00773	8-HR	1ST	14070908
7000	-5500	0.0073	8-HR	1ST	14070908
7500	-5500	0.0069	8-HR	1ST	14070908
-7500	-5000	0.01703	8-HR	1ST	14071408
-7000	-5000	0.01456	8-HR	1ST	14071408
-6500	-5000	0.01239	8-HR	1ST	14071408
-6000	-5000	0.01062	8-HR	1ST	14071408
-5500	-5000	0.00934	8-HR	1ST	14071408

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-5000	-5000	0.00978	8-HR	1ST	14070908
-4500	-5000	0.0104	8-HR	1ST	14070908
-4000	-5000	0.01105	8-HR	1ST	14070908
-3500	-5000	0.01171	8-HR	1ST	14070908
-3000	-5000	0.01237	8-HR	1ST	14070908
-2500	-5000	0.013	8-HR	1ST	14070908
-2000	-5000	0.01357	8-HR	1ST	14070908
-1500	-5000	0.01407	8-HR	1ST	14070908
-1000	-5000	0.01445	8-HR	1ST	14070908
-500	-5000	0.01469	8-HR	1ST	14070908
0	-5000	0.01477	8-HR	1ST	14070908
500	-5000	0.01469	8-HR	1ST	14070908
1000	-5000	0.01445	8-HR	1ST	14070908
1500	-5000	0.01407	8-HR	1ST	14070908
2000	-5000	0.01357	8-HR	1ST	14070908
2500	-5000	0.013	8-HR	1ST	14070908
3000	-5000	0.01237	8-HR	1ST	14070908
3500	-5000	0.01171	8-HR	1ST	14070908
4000	-5000	0.01105	8-HR	1ST	14070908
4500	-5000	0.0104	8-HR	1ST	14070908
5000	-5000	0.00978	8-HR	1ST	14070908
5500	-5000	0.00919	8-HR	1ST	14070908
6000	-5000	0.00863	8-HR	1ST	14070908
6500	-5000	0.00811	8-HR	1ST	14070908
7000	-5000	0.00763	8-HR	1ST	14070908
7500	-5000	0.00719	8-HR	1ST	14070908
-7500	-4500	0.02526	8-HR	1ST	14071408
-7000	-4500	0.02163	8-HR	1ST	14071408
-6500	-4500	0.01814	8-HR	1ST	14071408
-6000	-4500	0.01503	8-HR	1ST	14071408
-5500	-4500	0.01247	8-HR	1ST	14071408
-5000	-4500	0.01063	8-HR	1ST	14071408
-4500	-4500	0.01113	8-HR	1ST	14070908
-4000	-4500	0.0119	8-HR	1ST	14070908
-3500	-4500	0.0127	8-HR	1ST	14070908
-3000	-4500	0.01351	8-HR	1ST	14070908
-2500	-4500	0.01429	8-HR	1ST	14070908
-2000	-4500	0.01502	8-HR	1ST	14070908
-1500	-4500	0.01566	8-HR	1ST	14070908
-1000	-4500	0.01615	8-HR	1ST	14070908
-500	-4500	0.01647	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
0	-4500	0.01658	8-HR	1ST	14070908
500	-4500	0.01647	8-HR	1ST	14070908
1000	-4500	0.01615	8-HR	1ST	14070908
1500	-4500	0.01566	8-HR	1ST	14070908
2000	-4500	0.01502	8-HR	1ST	14070908
2500	-4500	0.01429	8-HR	1ST	14070908
3000	-4500	0.01351	8-HR	1ST	14070908
3500	-4500	0.0127	8-HR	1ST	14070908
4000	-4500	0.0119	8-HR	1ST	14070908
4500	-4500	0.01113	8-HR	1ST	14070908
5000	-4500	0.0104	8-HR	1ST	14070908
5500	-4500	0.00972	8-HR	1ST	14070908
6000	-4500	0.00908	8-HR	1ST	14070908
6500	-4500	0.0085	8-HR	1ST	14070908
7000	-4500	0.00796	8-HR	1ST	14070908
7500	-4500	0.00747	8-HR	1ST	14070908
-7500	-4000	0.03809	8-HR	1ST	14071408
-7000	-4000	0.03325	8-HR	1ST	14071408
-6500	-4000	0.02824	8-HR	1ST	14071408
-6000	-4000	0.02332	8-HR	1ST	14071408
-5500	-4000	0.01881	8-HR	1ST	14071408
-5000	-4000	0.01504	8-HR	1ST	14071408
-4500	-4000	0.0123	8-HR	1ST	14071408
-4000	-4000	0.01282	8-HR	1ST	14070908
-3500	-4000	0.01378	8-HR	1ST	14070908
-3000	-4000	0.01477	8-HR	1ST	14070908
-2500	-4000	0.01576	8-HR	1ST	14070908
-2000	-4000	0.01669	8-HR	1ST	14070908
-1500	-4000	0.01752	8-HR	1ST	14070908
-1000	-4000	0.01817	8-HR	1ST	14070908
-500	-4000	0.01859	8-HR	1ST	14070908
0	-4000	0.01874	8-HR	1ST	14070908
500	-4000	0.01859	8-HR	1ST	14070908
1000	-4000	0.01817	8-HR	1ST	14070908
1500	-4000	0.01752	8-HR	1ST	14070908
2000	-4000	0.01669	8-HR	1ST	14070908
2500	-4000	0.01576	8-HR	1ST	14070908
3000	-4000	0.01477	8-HR	1ST	14070908
3500	-4000	0.01378	8-HR	1ST	14070908
4000	-4000	0.01282	8-HR	1ST	14070908
4500	-4000	0.0119	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
5000	-4000	0.01105	8-HR	1ST	14070908
5500	-4000	0.01026	8-HR	1ST	14070908
6000	-4000	0.00954	8-HR	1ST	14070908
6500	-4000	0.00889	8-HR	1ST	14070908
7000	-4000	0.00829	8-HR	1ST	14070908
7500	-4000	0.00775	8-HR	1ST	14070908
-7500	-3500	0.05719	8-HR	1ST	14071408
-7000	-3500	0.0514	8-HR	1ST	14071408
-6500	-3500	0.04501	8-HR	1ST	14071408
-6000	-3500	0.03814	8-HR	1ST	14071408
-5500	-3500	0.03112	8-HR	1ST	14071408
-5000	-3500	0.02445	8-HR	1ST	14071408
-4500	-3500	0.01872	8-HR	1ST	14071408
-4000	-3500	0.01452	8-HR	1ST	14071408
-3500	-3500	0.01494	8-HR	1ST	14070908
-3000	-3500	0.01615	8-HR	1ST	14070908
-2500	-3500	0.01739	8-HR	1ST	14070908
-2000	-3500	0.01859	8-HR	1ST	14070908
-1500	-3500	0.01967	8-HR	1ST	14070908
-1000	-3500	0.02054	8-HR	1ST	14070908
-500	-3500	0.02111	8-HR	1ST	14070908
0	-3500	0.0213	8-HR	1ST	14070908
500	-3500	0.02111	8-HR	1ST	14070908
1000	-3500	0.02054	8-HR	1ST	14070908
1500	-3500	0.01967	8-HR	1ST	14070908
2000	-3500	0.01859	8-HR	1ST	14070908
2500	-3500	0.01739	8-HR	1ST	14070908
3000	-3500	0.01615	8-HR	1ST	14070908
3500	-3500	0.01494	8-HR	1ST	14070908
4000	-3500	0.01378	8-HR	1ST	14070908
4500	-3500	0.0127	8-HR	1ST	14070908
5000	-3500	0.01171	8-HR	1ST	14070908
5500	-3500	0.01081	8-HR	1ST	14070908
6000	-3500	0.01	8-HR	1ST	14070908
6500	-3500	0.00927	8-HR	1ST	14070908
7000	-3500	0.00861	8-HR	1ST	14070908
7500	-3500	0.00802	8-HR	1ST	14070908
-7500	-3000	0.08427	8-HR	1ST	14071408
-7000	-3000	0.0782	8-HR	1ST	14071408
-6500	-3000	0.0711	8-HR	1ST	14071408
-6000	-3000	0.06283	8-HR	1ST	14071408

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-5500	-3000	0.05346	8-HR	1ST	14071408
-5000	-3000	0.04335	8-HR	1ST	14071408
-4500	-3000	0.03325	8-HR	1ST	14071408
-4000	-3000	0.02426	8-HR	1ST	14071408
-3500	-3000	0.01753	8-HR	1ST	14071408
-3000	-3000	0.01764	8-HR	1ST	14070908
-2500	-3000	0.01919	8-HR	1ST	14070908
-2000	-3000	0.02072	8-HR	1ST	14070908
-1500	-3000	0.02214	8-HR	1ST	14070908
-1000	-3000	0.0233	8-HR	1ST	14070908
-500	-3000	0.02406	8-HR	1ST	14070908
0	-3000	0.02433	8-HR	1ST	14070908
500	-3000	0.02406	8-HR	1ST	14070908
1000	-3000	0.0233	8-HR	1ST	14070908
1500	-3000	0.02214	8-HR	1ST	14070908
2000	-3000	0.02072	8-HR	1ST	14070908
2500	-3000	0.01919	8-HR	1ST	14070908
3000	-3000	0.01764	8-HR	1ST	14070908
3500	-3000	0.01615	8-HR	1ST	14070908
4000	-3000	0.01477	8-HR	1ST	14070908
4500	-3000	0.01351	8-HR	1ST	14070908
5000	-3000	0.01237	8-HR	1ST	14070908
5500	-3000	0.01135	8-HR	1ST	14070908
6000	-3000	0.01044	8-HR	1ST	14070908
6500	-3000	0.00963	8-HR	1ST	14070908
7000	-3000	0.00891	8-HR	1ST	14070908
7500	-3000	0.00827	8-HR	1ST	14070908
-7500	-2500	0.12107	8-HR	1ST	14071408
-7000	-2500	0.1156	8-HR	1ST	14071408
-6500	-2500	0.10895	8-HR	1ST	14071408
-6000	-2500	0.10069	8-HR	1ST	14071408
-5500	-2500	0.09041	8-HR	1ST	14071408
-5000	-2500	0.07786	8-HR	1ST	14071408
-4500	-2500	0.06329	8-HR	1ST	14071408
-4000	-2500	0.04772	8-HR	1ST	14071408
-3500	-2500	0.03307	8-HR	1ST	14071408
-3000	-2500	0.02178	8-HR	1ST	14071408
-2500	-2500	0.02111	8-HR	1ST	14070908
-2000	-2500	0.02305	8-HR	1ST	14070908
-1500	-2500	0.02488	8-HR	1ST	14070908
-1000	-2500	0.02658	8-HR	1ST	14072216

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-500	-2500	0.02777	8-HR	1ST	14072216
0	-2500	0.02821	8-HR	1ST	14072216
500	-2500	0.02777	8-HR	1ST	14072216
1000	-2500	0.02658	8-HR	1ST	14072216
1500	-2500	0.02488	8-HR	1ST	14070908
2000	-2500	0.02305	8-HR	1ST	14070908
2500	-2500	0.02111	8-HR	1ST	14070908
3000	-2500	0.01919	8-HR	1ST	14070908
3500	-2500	0.01739	8-HR	1ST	14070908
4000	-2500	0.01576	8-HR	1ST	14070908
4500	-2500	0.01429	8-HR	1ST	14070908
5000	-2500	0.013	8-HR	1ST	14070908
5500	-2500	0.01185	8-HR	1ST	14070908
6000	-2500	0.01085	8-HR	1ST	14070908
6500	-2500	0.00997	8-HR	1ST	14070908
7000	-2500	0.00919	8-HR	1ST	14070908
7500	-2500	0.0085	8-HR	1ST	14070908
-7500	-2000	0.16876	8-HR	1ST	14071408
-7000	-2000	0.1651	8-HR	1ST	14071408
-6500	-2000	0.16036	8-HR	1ST	14071408
-6000	-2000	0.15406	8-HR	1ST	14071408
-5500	-2000	0.14548	8-HR	1ST	14071408
-5000	-2000	0.13368	8-HR	1ST	14071408
-4500	-2000	0.11772	8-HR	1ST	14071408
-4000	-2000	0.09716	8-HR	1ST	14071408
-3500	-2000	0.07292	8-HR	1ST	14071408
-3000	-2000	0.04812	8-HR	1ST	14071408
-2500	-2000	0.02747	8-HR	1ST	14071408
-2000	-2000	0.0255	8-HR	1ST	14072216
-1500	-2000	0.02821	8-HR	1ST	14072216
-1000	-2000	0.03081	8-HR	1ST	14072216
-500	-2000	0.03276	8-HR	1ST	14072216
0	-2000	0.0335	8-HR	1ST	14072216
500	-2000	0.03276	8-HR	1ST	14072216
1000	-2000	0.03081	8-HR	1ST	14072216
1500	-2000	0.02821	8-HR	1ST	14072216
2000	-2000	0.0255	8-HR	1ST	14072216
2500	-2000	0.02305	8-HR	1ST	14070908
3000	-2000	0.02072	8-HR	1ST	14070908
3500	-2000	0.01859	8-HR	1ST	14070908
4000	-2000	0.01669	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
4500	-2000	0.01502	8-HR	1ST	14070908
5000	-2000	0.01357	8-HR	1ST	14070908
5500	-2000	0.01231	8-HR	1ST	14070908
6000	-2000	0.01122	8-HR	1ST	14070908
6500	-2000	0.01026	8-HR	1ST	14070908
7000	-2000	0.00943	8-HR	1ST	14070908
7500	-2000	0.0087	8-HR	1ST	14070908
-7500	-1500	0.22605	8-HR	1ST	14071408
-7000	-1500	0.22607	8-HR	1ST	14071408
-6500	-1500	0.22521	8-HR	1ST	14071408
-6000	-1500	0.22316	8-HR	1ST	14071408
-5500	-1500	0.21931	8-HR	1ST	14071408
-5000	-1500	0.21263	8-HR	1ST	14071408
-4500	-1500	0.20145	8-HR	1ST	14071408
-4000	-1500	0.18348	8-HR	1ST	14071408
-3500	-1500	0.15632	8-HR	1ST	14071408
-3000	-1500	0.11917	8-HR	1ST	14071408
-2500	-1500	0.07285	8-HR	1ST	14071408
-2000	-1500	0.03527	8-HR	1ST	14071408
-1500	-1500	0.03207	8-HR	1ST	14072216
-1000	-1500	0.03602	8-HR	1ST	14072216
-500	-1500	0.03908	8-HR	1ST	14072216
0	-1500	0.04209	8-HR	1ST	14072116
500	-1500	0.03908	8-HR	1ST	14072216
1000	-1500	0.03602	8-HR	1ST	14072216
1500	-1500	0.03207	8-HR	1ST	14072216
2000	-1500	0.02821	8-HR	1ST	14072216
2500	-1500	0.02488	8-HR	1ST	14070908
3000	-1500	0.02214	8-HR	1ST	14070908
3500	-1500	0.01967	8-HR	1ST	14070908
4000	-1500	0.01752	8-HR	1ST	14070908
4500	-1500	0.01566	8-HR	1ST	14070908
5000	-1500	0.01407	8-HR	1ST	14070908
5500	-1500	0.0127	8-HR	1ST	14070908
6000	-1500	0.01152	8-HR	1ST	14070908
6500	-1500	0.01051	8-HR	1ST	14070908
7000	-1500	0.00963	8-HR	1ST	14070908
7500	-1500	0.00886	8-HR	1ST	14070908
-7500	-1000	0.28564	8-HR	1ST	14071408
-7000	-1000	0.29153	8-HR	1ST	14071408
-6500	-1000	0.297	8-HR	1ST	14071408

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-6000	-1000	0.30193	8-HR	1ST	14071408
-5500	-1000	0.30603	8-HR	1ST	14071408
-5000	-1000	0.30866	8-HR	1ST	14071408
-4500	-1000	0.30855	8-HR	1ST	14071408
-4000	-1000	0.30329	8-HR	1ST	14071408
-3500	-1000	0.28868	8-HR	1ST	14071408
-3000	-1000	0.25845	8-HR	1ST	14071408
-2500	-1000	0.19811	8-HR	1ST	14071408
-2000	-1000	0.11746	8-HR	1ST	14071408
-1500	-1000	0.04406	8-HR	1ST	14071408
-1000	-1000	0.04583	8-HR	1ST	14072116
-500	-1000	0.06301	8-HR	1ST	14072116
0	-1000	0.07217	8-HR	1ST	14072116
500	-1000	0.06301	8-HR	1ST	14072116
1000	-1000	0.04583	8-HR	1ST	14072116
1500	-1000	0.03602	8-HR	1ST	14072216
2000	-1000	0.03081	8-HR	1ST	14072216
2500	-1000	0.02658	8-HR	1ST	14072216
3000	-1000	0.0233	8-HR	1ST	14070908
3500	-1000	0.02054	8-HR	1ST	14070908
4000	-1000	0.01817	8-HR	1ST	14070908
4500	-1000	0.01615	8-HR	1ST	14070908
5000	-1000	0.01445	8-HR	1ST	14070908
5500	-1000	0.013	8-HR	1ST	14070908
6000	-1000	0.01176	8-HR	1ST	14070908
6500	-1000	0.01069	8-HR	1ST	14070908
7000	-1000	0.00978	8-HR	1ST	14070908
7500	-1000	0.00898	8-HR	1ST	14070908
-7500	-500	0.37272	8-HR	1ST	14071208
-7000	-500	0.3782	8-HR	1ST	14071208
-6500	-500	0.38194	8-HR	1ST	14071208
-6000	-500	0.37896	8-HR	1ST	14071208
-5500	-500	0.38411	8-HR	1ST	14071408
-5000	-500	0.39813	8-HR	1ST	14071408
-4500	-500	0.41216	8-HR	1ST	14071408
-4000	-500	0.42499	8-HR	1ST	14071408
-3500	-500	0.43379	8-HR	1ST	14071408
-3000	-500	0.43262	8-HR	1ST	14071408
-2500	-500	0.40201	8-HR	1ST	14071408
-2000	-500	0.32224	8-HR	1ST	14071408
-1500	-500	0.19098	8-HR	1ST	14071408

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-1000	-500	0.06301	8-HR	1ST	14072116
-500	-500	0.09992	8-HR	1ST	14072116
0	-500	0.1078	8-HR	1ST	14072116
500	-500	0.09992	8-HR	1ST	14072116
1000	-500	0.06301	8-HR	1ST	14072116
1500	-500	0.03908	8-HR	1ST	14072216
2000	-500	0.03276	8-HR	1ST	14072216
2500	-500	0.02777	8-HR	1ST	14072216
3000	-500	0.02406	8-HR	1ST	14070908
3500	-500	0.02111	8-HR	1ST	14070908
4000	-500	0.01859	8-HR	1ST	14070908
4500	-500	0.01647	8-HR	1ST	14070908
5000	-500	0.01469	8-HR	1ST	14070908
5500	-500	0.01318	8-HR	1ST	14070908
6000	-500	0.0119	8-HR	1ST	14070908
6500	-500	0.01081	8-HR	1ST	14070908
7000	-500	0.00987	8-HR	1ST	14070908
7500	-500	0.00906	8-HR	1ST	14070908
-7500	0	0.41513	8-HR	1ST	14071208
-7000	0	0.4251	8-HR	1ST	14071208
-6500	0	0.43422	8-HR	1ST	14071208
-6000	0	0.43828	8-HR	1ST	14071208
-5500	0	0.43884	8-HR	1ST	14071208
-5000	0	0.43676	8-HR	1ST	14071408
-4500	0	0.45819	8-HR	1ST	14071408
-4000	0	0.48083	8-HR	1ST	14071408
-3500	0	0.50315	8-HR	1ST	14071408
-3000	0	0.52118	8-HR	1ST	14071408
-2500	0	0.52018	8-HR	1ST	14071408
-2000	0	0.47392	8-HR	1ST	14071408
-1500	0	0.42896	8-HR	1ST	14071216
-1000	0	0.5601	8-HR	1ST	14071216
-500	0	0.15507	8-HR	1ST	14072116
0	0	0	8-HR	1ST	0
500	0	0.1078	8-HR	1ST	14072116
1000	0	0.07217	8-HR	1ST	14072116
1500	0	0.04209	8-HR	1ST	14072116
2000	0	0.0335	8-HR	1ST	14072216
2500	0	0.02821	8-HR	1ST	14072216
3000	0	0.02433	8-HR	1ST	14070908
3500	0	0.0213	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
4000	0	0.01874	8-HR	1ST	14070908
4500	0	0.01658	8-HR	1ST	14070908
5000	0	0.01477	8-HR	1ST	14070908
5500	0	0.01324	8-HR	1ST	14070908
6000	0	0.01195	8-HR	1ST	14070908
6500	0	0.01085	8-HR	1ST	14070908
7000	0	0.0099	8-HR	1ST	14070908
7500	0	0.00908	8-HR	1ST	14070908
-7500	500	0.37272	8-HR	1ST	14071208
-7000	500	0.3782	8-HR	1ST	14071208
-6500	500	0.38194	8-HR	1ST	14071208
-6000	500	0.37896	8-HR	1ST	14071208
-5500	500	0.38411	8-HR	1ST	14071408
-5000	500	0.39813	8-HR	1ST	14071408
-4500	500	0.41216	8-HR	1ST	14071408
-4000	500	0.42499	8-HR	1ST	14071408
-3500	500	0.43379	8-HR	1ST	14071408
-3000	500	0.43262	8-HR	1ST	14071408
-2500	500	0.40201	8-HR	1ST	14071408
-2000	500	0.32224	8-HR	1ST	14071408
-1500	500	0.29795	8-HR	1ST	14072116
-1000	500	0.65455	8-HR	1ST	14072116
-500	500	2.25871	8-HR	1ST	14071616
0	500	0.31468	8-HR	1ST	14070316
500	500	0.09992	8-HR	1ST	14072116
1000	500	0.06301	8-HR	1ST	14072116
1500	500	0.03908	8-HR	1ST	14072216
2000	500	0.03276	8-HR	1ST	14072216
2500	500	0.02777	8-HR	1ST	14072216
3000	500	0.02406	8-HR	1ST	14070908
3500	500	0.02111	8-HR	1ST	14070908
4000	500	0.01859	8-HR	1ST	14070908
4500	500	0.01647	8-HR	1ST	14070908
5000	500	0.01469	8-HR	1ST	14070908
5500	500	0.01318	8-HR	1ST	14070908
6000	500	0.0119	8-HR	1ST	14070908
6500	500	0.01081	8-HR	1ST	14070908
7000	500	0.00987	8-HR	1ST	14070908
7500	500	0.00906	8-HR	1ST	14070908
-7500	1000	0.28564	8-HR	1ST	14071408
-7000	1000	0.29153	8-HR	1ST	14071408

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-6500	1000	0.297	8-HR	1ST	14071408
-6000	1000	0.30193	8-HR	1ST	14071408
-5500	1000	0.30603	8-HR	1ST	14071408
-5000	1000	0.30866	8-HR	1ST	14071408
-4500	1000	0.30855	8-HR	1ST	14071408
-4000	1000	0.30329	8-HR	1ST	14071408
-3500	1000	0.28868	8-HR	1ST	14071408
-3000	1000	0.25845	8-HR	1ST	14071408
-2500	1000	0.25408	8-HR	1ST	14070908
-2000	1000	0.35991	8-HR	1ST	14070908
-1500	1000	0.73331	8-HR	1ST	14071616
-1000	1000	1.62311	8-HR	1ST	14071616
-500	1000	0.65455	8-HR	1ST	14072116
0	1000	1.512	8-HR	1ST	14070516
500	1000	0.06301	8-HR	1ST	14072116
1000	1000	0.04583	8-HR	1ST	14072116
1500	1000	0.03602	8-HR	1ST	14072216
2000	1000	0.03081	8-HR	1ST	14072216
2500	1000	0.02658	8-HR	1ST	14072216
3000	1000	0.0233	8-HR	1ST	14070908
3500	1000	0.02054	8-HR	1ST	14070908
4000	1000	0.01817	8-HR	1ST	14070908
4500	1000	0.01615	8-HR	1ST	14070908
5000	1000	0.01445	8-HR	1ST	14070908
5500	1000	0.013	8-HR	1ST	14070908
6000	1000	0.01176	8-HR	1ST	14070908
6500	1000	0.01069	8-HR	1ST	14070908
7000	1000	0.00978	8-HR	1ST	14070908
7500	1000	0.00898	8-HR	1ST	14070908
-7500	1500	0.22605	8-HR	1ST	14071408
-7000	1500	0.22607	8-HR	1ST	14071408
-6500	1500	0.22521	8-HR	1ST	14071408
-6000	1500	0.22316	8-HR	1ST	14071408
-5500	1500	0.21931	8-HR	1ST	14071408
-5000	1500	0.21263	8-HR	1ST	14071408
-4500	1500	0.20145	8-HR	1ST	14071408
-4000	1500	0.18348	8-HR	1ST	14071408
-3500	1500	0.21981	8-HR	1ST	14070908
-3000	1500	0.29888	8-HR	1ST	14070908
-2500	1500	0.40366	8-HR	1ST	14070908
-2000	1500	0.5851	8-HR	1ST	14071616

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-1500	1500	0.96197	8-HR	1ST	14071616
-1000	1500	0.73331	8-HR	1ST	14071616
-500	1500	0.29795	8-HR	1ST	14072116
0	1500	1.54715	8-HR	1ST	14070516
500	1500	0.27552	8-HR	1ST	14070516
1000	1500	0.03602	8-HR	1ST	14072216
1500	1500	0.03207	8-HR	1ST	14072216
2000	1500	0.02821	8-HR	1ST	14072216
2500	1500	0.02488	8-HR	1ST	14070908
3000	1500	0.02214	8-HR	1ST	14070908
3500	1500	0.01967	8-HR	1ST	14070908
4000	1500	0.01752	8-HR	1ST	14070908
4500	1500	0.01566	8-HR	1ST	14070908
5000	1500	0.01407	8-HR	1ST	14070908
5500	1500	0.0127	8-HR	1ST	14070908
6000	1500	0.01152	8-HR	1ST	14070908
6500	1500	0.01051	8-HR	1ST	14070908
7000	1500	0.00963	8-HR	1ST	14070908
7500	1500	0.00886	8-HR	1ST	14070908
-7500	2000	0.16876	8-HR	1ST	14071408
-7000	2000	0.1651	8-HR	1ST	14071408
-6500	2000	0.16036	8-HR	1ST	14071408
-6000	2000	0.15406	8-HR	1ST	14071408
-5500	2000	0.14548	8-HR	1ST	14071408
-5000	2000	0.13882	8-HR	1ST	14070908
-4500	2000	0.17893	8-HR	1ST	14070908
-4000	2000	0.23241	8-HR	1ST	14070908
-3500	2000	0.30202	8-HR	1ST	14070908
-3000	2000	0.38737	8-HR	1ST	14070908
-2500	2000	0.49828	8-HR	1ST	14071716
-2000	2000	0.66932	8-HR	1ST	14071016
-1500	2000	0.5851	8-HR	1ST	14071616
-1000	2000	0.35991	8-HR	1ST	14070908
-500	2000	0.46107	8-HR	1ST	14070516
0	2000	1.25601	8-HR	1ST	14070516
500	2000	0.46107	8-HR	1ST	14070516
1000	2000	0.03081	8-HR	1ST	14072216
1500	2000	0.02821	8-HR	1ST	14072216
2000	2000	0.0255	8-HR	1ST	14072216
2500	2000	0.02305	8-HR	1ST	14070908
3000	2000	0.02072	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
3500	2000	0.01859	8-HR	1ST	14070908
4000	2000	0.01669	8-HR	1ST	14070908
4500	2000	0.01502	8-HR	1ST	14070908
5000	2000	0.01357	8-HR	1ST	14070908
5500	2000	0.01231	8-HR	1ST	14070908
6000	2000	0.01122	8-HR	1ST	14070908
6500	2000	0.01026	8-HR	1ST	14070908
7000	2000	0.00943	8-HR	1ST	14070908
7500	2000	0.0087	8-HR	1ST	14070908
-7500	2500	0.12107	8-HR	1ST	14071408
-7000	2500	0.1156	8-HR	1ST	14071408
-6500	2500	0.10895	8-HR	1ST	14071408
-6000	2500	0.11681	8-HR	1ST	14070908
-5500	2500	0.14566	8-HR	1ST	14070908
-5000	2500	0.1827	8-HR	1ST	14070908
-4500	2500	0.22961	8-HR	1ST	14070908
-4000	2500	0.28731	8-HR	1ST	14070908
-3500	2500	0.35416	8-HR	1ST	14070908
-3000	2500	0.45113	8-HR	1ST	14071716
-2500	2500	0.54147	8-HR	1ST	14071716
-2000	2500	0.49828	8-HR	1ST	14071716
-1500	2500	0.40366	8-HR	1ST	14070908
-1000	2500	0.25408	8-HR	1ST	14070908
-500	2500	0.5196	8-HR	1ST	14070516
0	2500	1.00051	8-HR	1ST	14070516
500	2500	0.5196	8-HR	1ST	14070516
1000	2500	0.07783	8-HR	1ST	14070516
1500	2500	0.02488	8-HR	1ST	14070908
2000	2500	0.02305	8-HR	1ST	14070908
2500	2500	0.02111	8-HR	1ST	14070908
3000	2500	0.01919	8-HR	1ST	14070908
3500	2500	0.01739	8-HR	1ST	14070908
4000	2500	0.01576	8-HR	1ST	14070908
4500	2500	0.01429	8-HR	1ST	14070908
5000	2500	0.013	8-HR	1ST	14070908
5500	2500	0.01185	8-HR	1ST	14070908
6000	2500	0.01085	8-HR	1ST	14070908
6500	2500	0.00997	8-HR	1ST	14070908
7000	2500	0.00919	8-HR	1ST	14070908
7500	2500	0.0085	8-HR	1ST	14070908
-7500	3000	0.08427	8-HR	1ST	14071408

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-7000	3000	0.09868	8-HR	1ST	14070908
-6500	3000	0.11996	8-HR	1ST	14070908
-6000	3000	0.14649	8-HR	1ST	14070908
-5500	3000	0.17929	8-HR	1ST	14070908
-5000	3000	0.21916	8-HR	1ST	14070908
-4500	3000	0.26864	8-HR	1ST	14072216
-4000	3000	0.32822	8-HR	1ST	14072216
-3500	3000	0.40936	8-HR	1ST	14071716
-3000	3000	0.48563	8-HR	1ST	14072008
-2500	3000	0.45113	8-HR	1ST	14071716
-2000	3000	0.38737	8-HR	1ST	14070908
-1500	3000	0.29888	8-HR	1ST	14070908
-1000	3000	0.1814	8-HR	1ST	14070908
-500	3000	0.50766	8-HR	1ST	14070516
0	3000	0.80636	8-HR	1ST	14070516
500	3000	0.50766	8-HR	1ST	14070516
1000	3000	0.13026	8-HR	1ST	14070516
1500	3000	0.02214	8-HR	1ST	14070908
2000	3000	0.02072	8-HR	1ST	14070908
2500	3000	0.01919	8-HR	1ST	14070908
3000	3000	0.01764	8-HR	1ST	14070908
3500	3000	0.01615	8-HR	1ST	14070908
4000	3000	0.01477	8-HR	1ST	14070908
4500	3000	0.01351	8-HR	1ST	14070908
5000	3000	0.01237	8-HR	1ST	14070908
5500	3000	0.01135	8-HR	1ST	14070908
6000	3000	0.01044	8-HR	1ST	14070908
6500	3000	0.00963	8-HR	1ST	14070908
7000	3000	0.00891	8-HR	1ST	14070908
7500	3000	0.00827	8-HR	1ST	14070908
-7500	3500	0.10018	8-HR	1ST	14070908
-7000	3500	0.11981	8-HR	1ST	14070908
-6500	3500	0.14359	8-HR	1ST	14070908
-6000	3500	0.17209	8-HR	1ST	14070908
-5500	3500	0.21031	8-HR	1ST	14072216
-5000	3500	0.25583	8-HR	1ST	14072216
-4500	3500	0.31178	8-HR	1ST	14071716
-4000	3500	0.37815	8-HR	1ST	14071716
-3500	3500	0.43469	8-HR	1ST	14072008
-3000	3500	0.40936	8-HR	1ST	14071716
-2500	3500	0.35416	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-2000	3500	0.30202	8-HR	1ST	14070908
-1500	3500	0.21981	8-HR	1ST	14070908
-1000	3500	0.16888	8-HR	1ST	14070516
-500	3500	0.46855	8-HR	1ST	14070516
0	3500	0.66151	8-HR	1ST	14070516
500	3500	0.46855	8-HR	1ST	14070516
1000	3500	0.16888	8-HR	1ST	14070516
1500	3500	0.03343	8-HR	1ST	14070516
2000	3500	0.01859	8-HR	1ST	14070908
2500	3500	0.01739	8-HR	1ST	14070908
3000	3500	0.01615	8-HR	1ST	14070908
3500	3500	0.01494	8-HR	1ST	14070908
4000	3500	0.01378	8-HR	1ST	14070908
4500	3500	0.0127	8-HR	1ST	14070908
5000	3500	0.01171	8-HR	1ST	14070908
5500	3500	0.01081	8-HR	1ST	14070908
6000	3500	0.01	8-HR	1ST	14070908
6500	3500	0.00927	8-HR	1ST	14070908
7000	3500	0.00861	8-HR	1ST	14070908
7500	3500	0.00802	8-HR	1ST	14070908
-7500	4000	0.11753	8-HR	1ST	14070908
-7000	4000	0.13864	8-HR	1ST	14072216
-6500	4000	0.16804	8-HR	1ST	14072216
-6000	4000	0.20469	8-HR	1ST	14070808
-5500	4000	0.24641	8-HR	1ST	14071716
-5000	4000	0.30259	8-HR	1ST	14071716
-4500	4000	0.35404	8-HR	1ST	14071716
-4000	4000	0.3983	8-HR	1ST	14072516
-3500	4000	0.37815	8-HR	1ST	14071716
-3000	4000	0.32822	8-HR	1ST	14072216
-2500	4000	0.28731	8-HR	1ST	14070908
-2000	4000	0.23241	8-HR	1ST	14070908
-1500	4000	0.16326	8-HR	1ST	14070908
-1000	4000	0.19099	8-HR	1ST	14070516
-500	4000	0.42267	8-HR	1ST	14070516
0	4000	0.55229	8-HR	1ST	14070516
500	4000	0.42267	8-HR	1ST	14070516
1000	4000	0.19099	8-HR	1ST	14070516
1500	4000	0.05284	8-HR	1ST	14070516
2000	4000	0.01669	8-HR	1ST	14070908
2500	4000	0.01576	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
3000	4000	0.01477	8-HR	1ST	14070908
3500	4000	0.01378	8-HR	1ST	14070908
4000	4000	0.01282	8-HR	1ST	14070908
4500	4000	0.0119	8-HR	1ST	14070908
5000	4000	0.01105	8-HR	1ST	14070908
5500	4000	0.01026	8-HR	1ST	14070908
6000	4000	0.00954	8-HR	1ST	14070908
6500	4000	0.00889	8-HR	1ST	14070908
7000	4000	0.00829	8-HR	1ST	14070908
7500	4000	0.00775	8-HR	1ST	14070908
-7500	4500	0.13763	8-HR	1ST	14070808
-7000	4500	0.1662	8-HR	1ST	14070808
-6500	4500	0.20084	8-HR	1ST	14071716
-6000	4500	0.24632	8-HR	1ST	14071716
-5500	4500	0.29333	8-HR	1ST	14071716
-5000	4500	0.3373	8-HR	1ST	14072516
-4500	4500	0.3777	8-HR	1ST	14072516
-4000	4500	0.35404	8-HR	1ST	14071716
-3500	4500	0.31178	8-HR	1ST	14071716
-3000	4500	0.26864	8-HR	1ST	14072216
-2500	4500	0.22961	8-HR	1ST	14070908
-2000	4500	0.17893	8-HR	1ST	14070908
-1500	4500	0.12332	8-HR	1ST	14070908
-1000	4500	0.20011	8-HR	1ST	14070516
-500	4500	0.37824	8-HR	1ST	14070516
0	4500	0.46845	8-HR	1ST	14070516
500	4500	0.37824	8-HR	1ST	14070516
1000	4500	0.20011	8-HR	1ST	14070516
1500	4500	0.07078	8-HR	1ST	14070516
2000	4500	0.01799	8-HR	1ST	14070516
2500	4500	0.01429	8-HR	1ST	14070908
3000	4500	0.01351	8-HR	1ST	14070908
3500	4500	0.0127	8-HR	1ST	14070908
4000	4500	0.0119	8-HR	1ST	14070908
4500	4500	0.01113	8-HR	1ST	14070908
5000	4500	0.0104	8-HR	1ST	14070908
5500	4500	0.00972	8-HR	1ST	14070908
6000	4500	0.00908	8-HR	1ST	14070908
6500	4500	0.0085	8-HR	1ST	14070908
7000	4500	0.00796	8-HR	1ST	14070908
7500	4500	0.00747	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-7500	5000	0.16707	8-HR	1ST	14071716
-7000	5000	0.20412	8-HR	1ST	14071716
-6500	5000	0.24418	8-HR	1ST	14071716
-6000	5000	0.28406	8-HR	1ST	14071716
-5500	5000	0.31968	8-HR	1ST	14072516
-5000	5000	0.3556	8-HR	1ST	14072516
-4500	5000	0.3373	8-HR	1ST	14072516
-4000	5000	0.30259	8-HR	1ST	14071716
-3500	5000	0.25583	8-HR	1ST	14072216
-3000	5000	0.21916	8-HR	1ST	14070908
-2500	5000	0.1827	8-HR	1ST	14070908
-2000	5000	0.13882	8-HR	1ST	14070908
-1500	5000	0.09495	8-HR	1ST	14070908
-1000	5000	0.20055	8-HR	1ST	14070516
-500	5000	0.33812	8-HR	1ST	14070516
0	5000	0.40287	8-HR	1ST	14070516
500	5000	0.33812	8-HR	1ST	14070516
1000	5000	0.20055	8-HR	1ST	14070516
1500	5000	0.0851	8-HR	1ST	14070516
2000	5000	0.0268	8-HR	1ST	14070516
2500	5000	0.013	8-HR	1ST	14070908
3000	5000	0.01237	8-HR	1ST	14070908
3500	5000	0.01171	8-HR	1ST	14070908
4000	5000	0.01105	8-HR	1ST	14070908
4500	5000	0.0104	8-HR	1ST	14070908
5000	5000	0.00978	8-HR	1ST	14070908
5500	5000	0.00919	8-HR	1ST	14070908
6000	5000	0.00863	8-HR	1ST	14070908
6500	5000	0.00811	8-HR	1ST	14070908
7000	5000	0.00763	8-HR	1ST	14070908
7500	5000	0.00719	8-HR	1ST	14070908
-7500	5500	0.20337	8-HR	1ST	14071716
-7000	5500	0.24142	8-HR	1ST	14072308
-6500	5500	0.28039	8-HR	1ST	14072308
-6000	5500	0.31124	8-HR	1ST	14072308
-5500	5500	0.33145	8-HR	1ST	14072516
-5000	5500	0.31968	8-HR	1ST	14072516
-4500	5500	0.29333	8-HR	1ST	14071716
-4000	5500	0.24641	8-HR	1ST	14071716
-3500	5500	0.21031	8-HR	1ST	14072216
-3000	5500	0.17929	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-2500	5500	0.14566	8-HR	1ST	14070908
-2000	5500	0.10891	8-HR	1ST	14070908
-1500	5500	0.09533	8-HR	1ST	14070516
-1000	5500	0.1957	8-HR	1ST	14070516
-500	5500	0.31325	8-HR	1ST	14070208
0	5500	0.39052	8-HR	1ST	14070208
500	5500	0.31325	8-HR	1ST	14070208
1000	5500	0.1957	8-HR	1ST	14070516
1500	5500	0.09533	8-HR	1ST	14070516
2000	5500	0.03576	8-HR	1ST	14070516
2500	5500	0.01349	8-HR	1ST	14070208
3000	5500	0.01135	8-HR	1ST	14070908
3500	5500	0.01081	8-HR	1ST	14070908
4000	5500	0.01026	8-HR	1ST	14070908
4500	5500	0.00972	8-HR	1ST	14070908
5000	5500	0.00919	8-HR	1ST	14070908
5500	5500	0.00868	8-HR	1ST	14070908
6000	5500	0.00819	8-HR	1ST	14070908
6500	5500	0.00773	8-HR	1ST	14070908
7000	5500	0.0073	8-HR	1ST	14070908
7500	5500	0.0069	8-HR	1ST	14070908
-7500	6000	0.23865	8-HR	1ST	14072308
-7000	6000	0.27377	8-HR	1ST	14072308
-6500	6000	0.30179	8-HR	1ST	14072308
-6000	6000	0.31634	8-HR	1ST	14072308
-5500	6000	0.31124	8-HR	1ST	14072308
-5000	6000	0.28406	8-HR	1ST	14071716
-4500	6000	0.24632	8-HR	1ST	14071716
-4000	6000	0.20469	8-HR	1ST	14070808
-3500	6000	0.17209	8-HR	1ST	14070908
-3000	6000	0.14649	8-HR	1ST	14070908
-2500	6000	0.11681	8-HR	1ST	14070908
-2000	6000	0.08656	8-HR	1ST	14070908
-1500	6000	0.10184	8-HR	1ST	14070516
-1000	6000	0.20007	8-HR	1ST	14070208
-500	6000	0.331	8-HR	1ST	14070208
0	6000	0.40083	8-HR	1ST	14070208
500	6000	0.331	8-HR	1ST	14070208
1000	6000	0.20007	8-HR	1ST	14070208
1500	6000	0.10184	8-HR	1ST	14070516
2000	6000	0.04394	8-HR	1ST	14070516

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
2500	6000	0.01855	8-HR	1ST	14070208
3000	6000	0.01044	8-HR	1ST	14070908
3500	6000	0.01	8-HR	1ST	14070908
4000	6000	0.00954	8-HR	1ST	14070908
4500	6000	0.00908	8-HR	1ST	14070908
5000	6000	0.00863	8-HR	1ST	14070908
5500	6000	0.00819	8-HR	1ST	14070908
6000	6000	0.00777	8-HR	1ST	14070908
6500	6000	0.00736	8-HR	1ST	14070908
7000	6000	0.00698	8-HR	1ST	14070908
7500	6000	0.00662	8-HR	1ST	14070908
-7500	6500	0.26623	8-HR	1ST	14072308
-7000	6500	0.29134	8-HR	1ST	14072308
-6500	6500	0.30472	8-HR	1ST	14072308
-6000	6500	0.30179	8-HR	1ST	14072308
-5500	6500	0.28039	8-HR	1ST	14072308
-5000	6500	0.24418	8-HR	1ST	14071716
-4500	6500	0.20084	8-HR	1ST	14071716
-4000	6500	0.16804	8-HR	1ST	14072216
-3500	6500	0.14359	8-HR	1ST	14070908
-3000	6500	0.11996	8-HR	1ST	14070908
-2500	6500	0.09442	8-HR	1ST	14070908
-2000	6500	0.06971	8-HR	1ST	14070908
-1500	6500	0.11446	8-HR	1ST	14070208
-1000	6500	0.2173	8-HR	1ST	14070208
-500	6500	0.34184	8-HR	1ST	14070208
0	6500	0.40535	8-HR	1ST	14070208
500	6500	0.34184	8-HR	1ST	14070208
1000	6500	0.2173	8-HR	1ST	14070208
1500	6500	0.11446	8-HR	1ST	14070208
2000	6500	0.0536	8-HR	1ST	14070208
2500	6500	0.02395	8-HR	1ST	14070208
3000	6500	0.01092	8-HR	1ST	14070208
3500	6500	0.00927	8-HR	1ST	14070908
4000	6500	0.00889	8-HR	1ST	14070908
4500	6500	0.0085	8-HR	1ST	14070908
5000	6500	0.00811	8-HR	1ST	14070908
5500	6500	0.00773	8-HR	1ST	14070908
6000	6500	0.00736	8-HR	1ST	14070908
6500	6500	0.00701	8-HR	1ST	14070908
7000	6500	0.00667	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
7500	6500	0.00635	8-HR	1ST	14070908
-7500	7000	0.28069	8-HR	1ST	14072308
-7000	7000	0.29301	8-HR	1ST	14072308
-6500	7000	0.29134	8-HR	1ST	14072308
-6000	7000	0.27377	8-HR	1ST	14072308
-5500	7000	0.24142	8-HR	1ST	14072308
-5000	7000	0.20412	8-HR	1ST	14071716
-4500	7000	0.1662	8-HR	1ST	14070808
-4000	7000	0.13864	8-HR	1ST	14072216
-3500	7000	0.11981	8-HR	1ST	14070908
-3000	7000	0.09868	8-HR	1ST	14070908
-2500	7000	0.07702	8-HR	1ST	14070908
-2000	7000	0.06401	8-HR	1ST	14070208
-1500	7000	0.12916	8-HR	1ST	14070208
-1000	7000	0.23175	8-HR	1ST	14070208
-500	7000	0.34899	8-HR	1ST	14070208
0	7000	0.40648	8-HR	1ST	14070208
500	7000	0.34899	8-HR	1ST	14070208
1000	7000	0.23175	8-HR	1ST	14070208
1500	7000	0.12916	8-HR	1ST	14070208
2000	7000	0.06401	8-HR	1ST	14070208
2500	7000	0.02991	8-HR	1ST	14070208
3000	7000	0.01403	8-HR	1ST	14070208
3500	7000	0.00861	8-HR	1ST	14070908
4000	7000	0.00829	8-HR	1ST	14070908
4500	7000	0.00796	8-HR	1ST	14070908
5000	7000	0.00763	8-HR	1ST	14070908
5500	7000	0.0073	8-HR	1ST	14070908
6000	7000	0.00698	8-HR	1ST	14070908
6500	7000	0.00667	8-HR	1ST	14070908
7000	7000	0.00637	8-HR	1ST	14070908
7500	7000	0.00609	8-HR	1ST	14070908
-7500	7500	0.28255	8-HR	1ST	14071508
-7000	7500	0.28069	8-HR	1ST	14072308
-6500	7500	0.26623	8-HR	1ST	14072308
-6000	7500	0.23865	8-HR	1ST	14072308
-5500	7500	0.20337	8-HR	1ST	14071716
-5000	7500	0.16707	8-HR	1ST	14071716
-4500	7500	0.13763	8-HR	1ST	14070808
-4000	7500	0.11753	8-HR	1ST	14070908
-3500	7500	0.10018	8-HR	1ST	14070908

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-3000	7500	0.08166	8-HR	1ST	14070908
-2500	7500	0.06343	8-HR	1ST	14070908
-2000	7500	0.0737	8-HR	1ST	14070208
-1500	7500	0.14104	8-HR	1ST	14070208
-1000	7500	0.24165	8-HR	1ST	14070208
-500	7500	0.35187	8-HR	1ST	14070208
0	7500	0.40431	8-HR	1ST	14070208
500	7500	0.35187	8-HR	1ST	14070208
1000	7500	0.24165	8-HR	1ST	14070208
1500	7500	0.14104	8-HR	1ST	14070208
2000	7500	0.0737	8-HR	1ST	14070208
2500	7500	0.0361	8-HR	1ST	14070208
3000	7500	0.01749	8-HR	1ST	14070208
3500	7500	0.00881	8-HR	1ST	14070208
4000	7500	0.00775	8-HR	1ST	14070908
4500	7500	0.00747	8-HR	1ST	14070908
5000	7500	0.00719	8-HR	1ST	14070908
5500	7500	0.0069	8-HR	1ST	14070908
6000	7500	0.00662	8-HR	1ST	14070908
6500	7500	0.00635	8-HR	1ST	14070908
7000	7500	0.00609	8-HR	1ST	14070908
7500	7500	0.00583	8-HR	1ST	14070908

Annex 8_Appendix 3

Appendix-3

Table 21: 1st high 24-hr Average Concentration values of NO_x (µg/m³) at different receptors for July for stack height 50 m

Receptor		Average Concentration (µg/m ³)	Avg. Period	High	YYMMDDHH
X	Y				
-7500	-7500	0.00832	24-HR	1ST	14072224
-7000	-7500	0.00869	24-HR	1ST	14072224
-6500	-7500	0.00907	24-HR	1ST	14072224
-6000	-7500	0.00946	24-HR	1ST	14072224
-5500	-7500	0.00987	24-HR	1ST	14072224
-5000	-7500	0.01027	24-HR	1ST	14072224
-4500	-7500	0.01068	24-HR	1ST	14072224
-4000	-7500	0.01108	24-HR	1ST	14072224
-3500	-7500	0.01147	24-HR	1ST	14072224
-3000	-7500	0.01184	24-HR	1ST	14072224
-2500	-7500	0.01217	24-HR	1ST	14072224
-2000	-7500	0.01246	24-HR	1ST	14072224
-1500	-7500	0.0127	24-HR	1ST	14072224
-1000	-7500	0.01287	24-HR	1ST	14072224
-500	-7500	0.01298	24-HR	1ST	14072224
0	-7500	0.01302	24-HR	1ST	14072224
500	-7500	0.01298	24-HR	1ST	14072224
1000	-7500	0.01287	24-HR	1ST	14072224
1500	-7500	0.0127	24-HR	1ST	14072224
2000	-7500	0.01246	24-HR	1ST	14072224
2500	-7500	0.01217	24-HR	1ST	14072224
3000	-7500	0.01184	24-HR	1ST	14072224
3500	-7500	0.01147	24-HR	1ST	14072224
4000	-7500	0.01108	24-HR	1ST	14072224
4500	-7500	0.01068	24-HR	1ST	14072224
5000	-7500	0.01027	24-HR	1ST	14072224
5500	-7500	0.00987	24-HR	1ST	14072224
6000	-7500	0.00946	24-HR	1ST	14072224
6500	-7500	0.00907	24-HR	1ST	14072224
7000	-7500	0.00869	24-HR	1ST	14072224
7500	-7500	0.00832	24-HR	1ST	14072224
-7500	-7000	0.00869	24-HR	1ST	14072224
-7000	-7000	0.0091	24-HR	1ST	14072224
-6500	-7000	0.00953	24-HR	1ST	14072224
-6000	-7000	0.00998	24-HR	1ST	14072224
-5500	-7000	0.01044	24-HR	1ST	14072224
-5000	-7000	0.01091	24-HR	1ST	14072224
-4500	-7000	0.01139	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-4000	-7000	0.01187	24-HR	1ST	14072224
-3500	-7000	0.01233	24-HR	1ST	14072224
-3000	-7000	0.01277	24-HR	1ST	14072224
-2500	-7000	0.01317	24-HR	1ST	14072224
-2000	-7000	0.01352	24-HR	1ST	14072224
-1500	-7000	0.01382	24-HR	1ST	14072224
-1000	-7000	0.01404	24-HR	1ST	14072224
-500	-7000	0.01417	24-HR	1ST	14072224
0	-7000	0.01422	24-HR	1ST	14072224
500	-7000	0.01417	24-HR	1ST	14072224
1000	-7000	0.01404	24-HR	1ST	14072224
1500	-7000	0.01382	24-HR	1ST	14072224
2000	-7000	0.01352	24-HR	1ST	14072224
2500	-7000	0.01317	24-HR	1ST	14072224
3000	-7000	0.01277	24-HR	1ST	14072224
3500	-7000	0.01233	24-HR	1ST	14072224
4000	-7000	0.01187	24-HR	1ST	14072224
4500	-7000	0.01139	24-HR	1ST	14072224
5000	-7000	0.01091	24-HR	1ST	14072224
5500	-7000	0.01044	24-HR	1ST	14072224
6000	-7000	0.00998	24-HR	1ST	14072224
6500	-7000	0.00953	24-HR	1ST	14072224
7000	-7000	0.0091	24-HR	1ST	14072224
7500	-7000	0.00869	24-HR	1ST	14072224
-7500	-6500	0.00907	24-HR	1ST	14072224
-7000	-6500	0.00953	24-HR	1ST	14072224
-6500	-6500	0.01002	24-HR	1ST	14072224
-6000	-6500	0.01053	24-HR	1ST	14072224
-5500	-6500	0.01106	24-HR	1ST	14072224
-5000	-6500	0.01161	24-HR	1ST	14072224
-4500	-6500	0.01217	24-HR	1ST	14072224
-4000	-6500	0.01273	24-HR	1ST	14072224
-3500	-6500	0.01329	24-HR	1ST	14072224
-3000	-6500	0.01382	24-HR	1ST	14072224
-2500	-6500	0.01431	24-HR	1ST	14072224
-2000	-6500	0.01475	24-HR	1ST	14072224
-1500	-6500	0.01511	24-HR	1ST	14072224
-1000	-6500	0.01539	24-HR	1ST	14072224
-500	-6500	0.01556	24-HR	1ST	14072224
0	-6500	0.01561	24-HR	1ST	14072224
500	-6500	0.01556	24-HR	1ST	14072224
1000	-6500	0.01539	24-HR	1ST	14072224
1500	-6500	0.01511	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
2000	-6500	0.01475	24-HR	1ST	14072224
2500	-6500	0.01431	24-HR	1ST	14072224
3000	-6500	0.01382	24-HR	1ST	14072224
3500	-6500	0.01329	24-HR	1ST	14072224
4000	-6500	0.01273	24-HR	1ST	14072224
4500	-6500	0.01217	24-HR	1ST	14072224
5000	-6500	0.01161	24-HR	1ST	14072224
5500	-6500	0.01106	24-HR	1ST	14072224
6000	-6500	0.01053	24-HR	1ST	14072224
6500	-6500	0.01002	24-HR	1ST	14072224
7000	-6500	0.00953	24-HR	1ST	14072224
7500	-6500	0.00907	24-HR	1ST	14072224
-7500	-6000	0.00963	24-HR	1ST	14071424
-7000	-6000	0.00998	24-HR	1ST	14072224
-6500	-6000	0.01053	24-HR	1ST	14072224
-6000	-6000	0.01111	24-HR	1ST	14072224
-5500	-6000	0.01172	24-HR	1ST	14072224
-5000	-6000	0.01236	24-HR	1ST	14072224
-4500	-6000	0.01302	24-HR	1ST	14072224
-4000	-6000	0.01369	24-HR	1ST	14072224
-3500	-6000	0.01436	24-HR	1ST	14072224
-3000	-6000	0.01501	24-HR	1ST	14072224
-2500	-6000	0.01561	24-HR	1ST	14072224
-2000	-6000	0.01616	24-HR	1ST	14072224
-1500	-6000	0.01662	24-HR	1ST	14072224
-1000	-6000	0.01696	24-HR	1ST	14072224
-500	-6000	0.01718	24-HR	1ST	14072224
0	-6000	0.01726	24-HR	1ST	14072224
500	-6000	0.01718	24-HR	1ST	14072224
1000	-6000	0.01696	24-HR	1ST	14072224
1500	-6000	0.01662	24-HR	1ST	14072224
2000	-6000	0.01616	24-HR	1ST	14072224
2500	-6000	0.01561	24-HR	1ST	14072224
3000	-6000	0.01501	24-HR	1ST	14072224
3500	-6000	0.01436	24-HR	1ST	14072224
4000	-6000	0.01369	24-HR	1ST	14072224
4500	-6000	0.01302	24-HR	1ST	14072224
5000	-6000	0.01236	24-HR	1ST	14072224
5500	-6000	0.01172	24-HR	1ST	14072224
6000	-6000	0.01111	24-HR	1ST	14072224
6500	-6000	0.01053	24-HR	1ST	14072224
7000	-6000	0.00998	24-HR	1ST	14072224
7500	-6000	0.00946	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-7500	-5500	0.01267	24-HR	1ST	14071424
-7000	-5500	0.01123	24-HR	1ST	14071424
-6500	-5500	0.01106	24-HR	1ST	14072224
-6000	-5500	0.01172	24-HR	1ST	14072224
-5500	-5500	0.01243	24-HR	1ST	14072224
-5000	-5500	0.01317	24-HR	1ST	14072224
-4500	-5500	0.01395	24-HR	1ST	14072224
-4000	-5500	0.01475	24-HR	1ST	14072224
-3500	-5500	0.01556	24-HR	1ST	14072224
-3000	-5500	0.01635	24-HR	1ST	14072224
-2500	-5500	0.01711	24-HR	1ST	14072224
-2000	-5500	0.0178	24-HR	1ST	14072224
-1500	-5500	0.01838	24-HR	1ST	14072224
-1000	-5500	0.01883	24-HR	1ST	14072224
-500	-5500	0.01911	24-HR	1ST	14072224
0	-5500	0.01921	24-HR	1ST	14072224
500	-5500	0.01911	24-HR	1ST	14072224
1000	-5500	0.01883	24-HR	1ST	14072224
1500	-5500	0.01838	24-HR	1ST	14072224
2000	-5500	0.0178	24-HR	1ST	14072224
2500	-5500	0.01711	24-HR	1ST	14072224
3000	-5500	0.01635	24-HR	1ST	14072224
3500	-5500	0.01556	24-HR	1ST	14072224
4000	-5500	0.01475	24-HR	1ST	14072224
4500	-5500	0.01395	24-HR	1ST	14072224
5000	-5500	0.01317	24-HR	1ST	14072224
5500	-5500	0.01243	24-HR	1ST	14072224
6000	-5500	0.01172	24-HR	1ST	14072224
6500	-5500	0.01106	24-HR	1ST	14072224
7000	-5500	0.01044	24-HR	1ST	14072224
7500	-5500	0.00987	24-HR	1ST	14072224
-7500	-5000	0.01768	24-HR	1ST	14071424
-7000	-5000	0.0154	24-HR	1ST	14071424
-6500	-5000	0.01337	24-HR	1ST	14071424
-6000	-5000	0.01236	24-HR	1ST	14072224
-5500	-5000	0.01317	24-HR	1ST	14072224
-5000	-5000	0.01404	24-HR	1ST	14072224
-4500	-5000	0.01495	24-HR	1ST	14072224
-4000	-5000	0.01591	24-HR	1ST	14072224
-3500	-5000	0.01689	24-HR	1ST	14072224
-3000	-5000	0.01788	24-HR	1ST	14072224
-2500	-5000	0.01883	24-HR	1ST	14072224
-2000	-5000	0.01971	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-1500	-5000	0.02047	24-HR	1ST	14072224
-1000	-5000	0.02105	24-HR	1ST	14072224
-500	-5000	0.02143	24-HR	1ST	14072224
0	-5000	0.02155	24-HR	1ST	14072224
500	-5000	0.02143	24-HR	1ST	14072224
1000	-5000	0.02105	24-HR	1ST	14072224
1500	-5000	0.02047	24-HR	1ST	14072224
2000	-5000	0.01971	24-HR	1ST	14072224
2500	-5000	0.01883	24-HR	1ST	14072224
3000	-5000	0.01788	24-HR	1ST	14072224
3500	-5000	0.01689	24-HR	1ST	14072224
4000	-5000	0.01591	24-HR	1ST	14072224
4500	-5000	0.01495	24-HR	1ST	14072224
5000	-5000	0.01404	24-HR	1ST	14072224
5500	-5000	0.01317	24-HR	1ST	14072224
6000	-5000	0.01236	24-HR	1ST	14072224
6500	-5000	0.01161	24-HR	1ST	14072224
7000	-5000	0.01091	24-HR	1ST	14072224
7500	-5000	0.01027	24-HR	1ST	14072224
-7500	-4500	0.02571	24-HR	1ST	14071424
-7000	-4500	0.02242	24-HR	1ST	14071424
-6500	-4500	0.01924	24-HR	1ST	14071424
-6000	-4500	0.01633	24-HR	1ST	14071424
-5500	-4500	0.01395	24-HR	1ST	14072224
-5000	-4500	0.01495	24-HR	1ST	14072224
-4500	-4500	0.01603	24-HR	1ST	14072224
-4000	-4500	0.01718	24-HR	1ST	14072224
-3500	-4500	0.01838	24-HR	1ST	14072224
-3000	-4500	0.01961	24-HR	1ST	14072224
-2500	-4500	0.02081	24-HR	1ST	14072224
-2000	-4500	0.02195	24-HR	1ST	14072224
-1500	-4500	0.02295	24-HR	1ST	14072224
-1000	-4500	0.02373	24-HR	1ST	14072224
-500	-4500	0.02424	24-HR	1ST	14072224
0	-4500	0.02441	24-HR	1ST	14072224
500	-4500	0.02424	24-HR	1ST	14072224
1000	-4500	0.02373	24-HR	1ST	14072224
1500	-4500	0.02295	24-HR	1ST	14072224
2000	-4500	0.02195	24-HR	1ST	14072224
2500	-4500	0.02081	24-HR	1ST	14072224
3000	-4500	0.01961	24-HR	1ST	14072224
3500	-4500	0.01838	24-HR	1ST	14072224
4000	-4500	0.01718	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
4500	-4500	0.01603	24-HR	1ST	14072224
5000	-4500	0.01495	24-HR	1ST	14072224
5500	-4500	0.01395	24-HR	1ST	14072224
6000	-4500	0.01302	24-HR	1ST	14072224
6500	-4500	0.01217	24-HR	1ST	14072224
7000	-4500	0.01139	24-HR	1ST	14072224
7500	-4500	0.01068	24-HR	1ST	14072224
-7500	-4000	0.03817	24-HR	1ST	14071424
-7000	-4000	0.03384	24-HR	1ST	14071424
-6500	-4000	0.02933	24-HR	1ST	14071424
-6000	-4000	0.02481	24-HR	1ST	14071424
-5500	-4000	0.02056	24-HR	1ST	14071424
-5000	-4000	0.01691	24-HR	1ST	14071424
-4500	-4000	0.01718	24-HR	1ST	14072224
-4000	-4000	0.01856	24-HR	1ST	14072224
-3500	-4000	0.02002	24-HR	1ST	14072224
-3000	-4000	0.02155	24-HR	1ST	14072224
-2500	-4000	0.0231	24-HR	1ST	14072224
-2000	-4000	0.02459	24-HR	1ST	14072224
-1500	-4000	0.02593	24-HR	1ST	14072224
-1000	-4000	0.027	24-HR	1ST	14072224
-500	-4000	0.0277	24-HR	1ST	14072224
0	-4000	0.02794	24-HR	1ST	14072224
500	-4000	0.0277	24-HR	1ST	14072224
1000	-4000	0.027	24-HR	1ST	14072224
1500	-4000	0.02593	24-HR	1ST	14072224
2000	-4000	0.02459	24-HR	1ST	14072224
2500	-4000	0.0231	24-HR	1ST	14072224
3000	-4000	0.02155	24-HR	1ST	14072224
3500	-4000	0.02002	24-HR	1ST	14072224
4000	-4000	0.01856	24-HR	1ST	14072224
4500	-4000	0.01718	24-HR	1ST	14072224
5000	-4000	0.01591	24-HR	1ST	14072224
5500	-4000	0.01475	24-HR	1ST	14072224
6000	-4000	0.01369	24-HR	1ST	14072224
6500	-4000	0.01273	24-HR	1ST	14072224
7000	-4000	0.01187	24-HR	1ST	14072224
7500	-4000	0.01108	24-HR	1ST	14072224
-7500	-3500	0.05704	24-HR	1ST	14071424
-7000	-3500	0.05177	24-HR	1ST	14071424
-6500	-3500	0.04597	24-HR	1ST	14071424
-6000	-3500	0.03971	24-HR	1ST	14071424
-5500	-3500	0.03321	24-HR	1ST	14071424

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-5000	-3500	0.02688	24-HR	1ST	14071424
-4500	-3500	0.02122	24-HR	1ST	14071424
-4000	-3500	0.02002	24-HR	1ST	14072224
-3500	-3500	0.02182	24-HR	1ST	14072224
-3000	-3500	0.02373	24-HR	1ST	14072224
-2500	-3500	0.02572	24-HR	1ST	14072224
-2000	-3500	0.0277	24-HR	1ST	14072224
-1500	-3500	0.02952	24-HR	1ST	14072224
-1000	-3500	0.03103	24-HR	1ST	14072224
-500	-3500	0.03203	24-HR	1ST	14072224
0	-3500	0.03238	24-HR	1ST	14072224
500	-3500	0.03203	24-HR	1ST	14072224
1000	-3500	0.03103	24-HR	1ST	14072224
1500	-3500	0.02952	24-HR	1ST	14072224
2000	-3500	0.0277	24-HR	1ST	14072224
2500	-3500	0.02572	24-HR	1ST	14072224
3000	-3500	0.02373	24-HR	1ST	14072224
3500	-3500	0.02182	24-HR	1ST	14072224
4000	-3500	0.02002	24-HR	1ST	14072224
4500	-3500	0.01838	24-HR	1ST	14072224
5000	-3500	0.01689	24-HR	1ST	14072224
5500	-3500	0.01556	24-HR	1ST	14072224
6000	-3500	0.01436	24-HR	1ST	14072224
6500	-3500	0.01329	24-HR	1ST	14072224
7000	-3500	0.01233	24-HR	1ST	14072224
7500	-3500	0.01147	24-HR	1ST	14072224
-7500	-3000	0.0855	24-HR	1ST	14071424
-7000	-3000	0.07936	24-HR	1ST	14071424
-6500	-3000	0.07244	24-HR	1ST	14071424
-6000	-3000	0.06463	24-HR	1ST	14071424
-5500	-3000	0.05584	24-HR	1ST	14071424
-5000	-3000	0.0464	24-HR	1ST	14071424
-4500	-3000	0.03671	24-HR	1ST	14071424
-4000	-3000	0.02774	24-HR	1ST	14071424
-3500	-3000	0.02373	24-HR	1ST	14072224
-3000	-3000	0.02613	24-HR	1ST	14072224
-2500	-3000	0.02871	24-HR	1ST	14072224
-2000	-3000	0.03135	24-HR	1ST	14072224
-1500	-3000	0.03389	24-HR	1ST	14072224
-1000	-3000	0.03586	24-HR	1ST	14072224
-500	-3000	0.03719	24-HR	1ST	14072224
0	-3000	0.03767	24-HR	1ST	14072224
500	-3000	0.03719	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
1000	-3000	0.03586	24-HR	1ST	14072224
1500	-3000	0.03389	24-HR	1ST	14072224
2000	-3000	0.03135	24-HR	1ST	14072224
2500	-3000	0.02871	24-HR	1ST	14072224
3000	-3000	0.02613	24-HR	1ST	14072224
3500	-3000	0.02373	24-HR	1ST	14072224
4000	-3000	0.02155	24-HR	1ST	14072224
4500	-3000	0.01961	24-HR	1ST	14072224
5000	-3000	0.01788	24-HR	1ST	14072224
5500	-3000	0.01635	24-HR	1ST	14072224
6000	-3000	0.01501	24-HR	1ST	14072224
6500	-3000	0.01382	24-HR	1ST	14072224
7000	-3000	0.01277	24-HR	1ST	14072224
7500	-3000	0.01184	24-HR	1ST	14072224
-7500	-2500	0.12944	24-HR	1ST	14071424
-7000	-2500	0.12239	24-HR	1ST	14071424
-6500	-2500	0.11434	24-HR	1ST	14071424
-6000	-2500	0.10513	24-HR	1ST	14071424
-5500	-2500	0.09412	24-HR	1ST	14071424
-5000	-2500	0.08186	24-HR	1ST	14071424
-4500	-2500	0.06809	24-HR	1ST	14071424
-4000	-2500	0.05311	24-HR	1ST	14071424
-3500	-2500	0.03837	24-HR	1ST	14071424
-3000	-2500	0.02871	24-HR	1ST	14072224
-2500	-2500	0.03203	24-HR	1ST	14072224
-2000	-2500	0.03545	24-HR	1ST	14072224
-1500	-2500	0.03869	24-HR	1ST	14072224
-1000	-2500	0.04165	24-HR	1ST	14072224
-500	-2500	0.04377	24-HR	1ST	14072224
0	-2500	0.04455	24-HR	1ST	14072224
500	-2500	0.04377	24-HR	1ST	14072224
1000	-2500	0.04165	24-HR	1ST	14072224
1500	-2500	0.03869	24-HR	1ST	14072224
2000	-2500	0.03545	24-HR	1ST	14072224
2500	-2500	0.03203	24-HR	1ST	14072224
3000	-2500	0.02871	24-HR	1ST	14072224
3500	-2500	0.02572	24-HR	1ST	14072224
4000	-2500	0.0231	24-HR	1ST	14072224
4500	-2500	0.02081	24-HR	1ST	14072224
5000	-2500	0.01883	24-HR	1ST	14072224
5500	-2500	0.01711	24-HR	1ST	14072224
6000	-2500	0.01561	24-HR	1ST	14072224
6500	-2500	0.01431	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
7000	-2500	0.01317	24-HR	1ST	14072224
7500	-2500	0.01217	24-HR	1ST	14072224
-7500	-2000	0.19834	24-HR	1ST	14071424
-7000	-2000	0.19129	24-HR	1ST	14071424
-6500	-2000	0.18256	24-HR	1ST	14071424
-6000	-2000	0.17204	24-HR	1ST	14071424
-5500	-2000	0.15827	24-HR	1ST	14071424
-5000	-2000	0.14311	24-HR	1ST	14071424
-4500	-2000	0.126	24-HR	1ST	14071424
-4000	-2000	0.10588	24-HR	1ST	14071424
-3500	-2000	0.08235	24-HR	1ST	14071424
-3000	-2000	0.05713	24-HR	1ST	14071424
-2500	-2000	0.03545	24-HR	1ST	14072224
-2000	-2000	0.0398	24-HR	1ST	14072224
-1500	-2000	0.04455	24-HR	1ST	14072224
-1000	-2000	0.04913	24-HR	1ST	14072224
-500	-2000	0.05243	24-HR	1ST	14072224
0	-2000	0.05363	24-HR	1ST	14072224
500	-2000	0.05243	24-HR	1ST	14072224
1000	-2000	0.04913	24-HR	1ST	14072224
1500	-2000	0.04455	24-HR	1ST	14072224
2000	-2000	0.0398	24-HR	1ST	14072224
2500	-2000	0.03545	24-HR	1ST	14072224
3000	-2000	0.03135	24-HR	1ST	14072224
3500	-2000	0.0277	24-HR	1ST	14072224
4000	-2000	0.02459	24-HR	1ST	14072224
4500	-2000	0.02195	24-HR	1ST	14072224
5000	-2000	0.01971	24-HR	1ST	14072224
5500	-2000	0.0178	24-HR	1ST	14072224
6000	-2000	0.01616	24-HR	1ST	14072224
6500	-2000	0.01475	24-HR	1ST	14072224
7000	-2000	0.01352	24-HR	1ST	14072224
7500	-2000	0.01246	24-HR	1ST	14072224
-7500	-1500	0.30086	24-HR	1ST	14071424
-7000	-1500	0.29827	24-HR	1ST	14071424
-6500	-1500	0.29303	24-HR	1ST	14071424
-6000	-1500	0.28459	24-HR	1ST	14071424
-5500	-1500	0.26977	24-HR	1ST	14071424
-5000	-1500	0.25168	24-HR	1ST	14071424
-4500	-1500	0.23063	24-HR	1ST	14071424
-4000	-1500	0.20598	24-HR	1ST	14071424
-3500	-1500	0.17596	24-HR	1ST	14071424
-3000	-1500	0.13821	24-HR	1ST	14071424

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-2500	-1500	0.09331	24-HR	1ST	14071424
-2000	-1500	0.04907	24-HR	1ST	14071424
-1500	-1500	0.05132	24-HR	1ST	14072224
-1000	-1500	0.05778	24-HR	1ST	14072224
-500	-1500	0.06296	24-HR	1ST	14072224
0	-1500	0.06494	24-HR	1ST	14072224
500	-1500	0.06296	24-HR	1ST	14072224
1000	-1500	0.05778	24-HR	1ST	14072224
1500	-1500	0.05132	24-HR	1ST	14072224
2000	-1500	0.04455	24-HR	1ST	14072224
2500	-1500	0.03869	24-HR	1ST	14072224
3000	-1500	0.03389	24-HR	1ST	14072224
3500	-1500	0.02952	24-HR	1ST	14072224
4000	-1500	0.02593	24-HR	1ST	14072224
4500	-1500	0.02295	24-HR	1ST	14072224
5000	-1500	0.02047	24-HR	1ST	14072224
5500	-1500	0.01838	24-HR	1ST	14072224
6000	-1500	0.01662	24-HR	1ST	14072224
6500	-1500	0.01511	24-HR	1ST	14072224
7000	-1500	0.01382	24-HR	1ST	14072224
7500	-1500	0.0127	24-HR	1ST	14072224
-7500	-1000	0.43287	24-HR	1ST	14071424
-7000	-1000	0.44224	24-HR	1ST	14071424
-6500	-1000	0.44998	24-HR	1ST	14071424
-6000	-1000	0.45495	24-HR	1ST	14071424
-5500	-1000	0.45194	24-HR	1ST	14071424
-5000	-1000	0.44251	24-HR	1ST	14071424
-4500	-1000	0.42596	24-HR	1ST	14071424
-4000	-1000	0.401	24-HR	1ST	14071424
-3500	-1000	0.36584	24-HR	1ST	14071424
-3000	-1000	0.31553	24-HR	1ST	14071424
-2500	-1000	0.25397	24-HR	1ST	14071424
-2000	-1000	0.1665	24-HR	1ST	14071424
-1500	-1000	0.07112	24-HR	1ST	14071424
-1000	-1000	0.06706	24-HR	1ST	14072224
-500	-1000	0.073	24-HR	1ST	14072224
0	-1000	0.0735	24-HR	1ST	14072224
500	-1000	0.073	24-HR	1ST	14072224
1000	-1000	0.06706	24-HR	1ST	14072224
1500	-1000	0.05778	24-HR	1ST	14072224
2000	-1000	0.04913	24-HR	1ST	14072224
2500	-1000	0.04165	24-HR	1ST	14072224
3000	-1000	0.03586	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
3500	-1000	0.03103	24-HR	1ST	14072224
4000	-1000	0.027	24-HR	1ST	14072224
4500	-1000	0.02373	24-HR	1ST	14072224
5000	-1000	0.02105	24-HR	1ST	14072224
5500	-1000	0.01883	24-HR	1ST	14072224
6000	-1000	0.01696	24-HR	1ST	14072224
6500	-1000	0.01539	24-HR	1ST	14072224
7000	-1000	0.01404	24-HR	1ST	14072224
7500	-1000	0.01287	24-HR	1ST	14072224
-7500	-500	0.56499	24-HR	1ST	14071424
-7000	-500	0.58975	24-HR	1ST	14071424
-6500	-500	0.61644	24-HR	1ST	14071424
-6000	-500	0.64465	24-HR	1ST	14071424
-5500	-500	0.67002	24-HR	1ST	14071424
-5000	-500	0.69295	24-HR	1ST	14071424
-4500	-500	0.71223	24-HR	1ST	14071424
-4000	-500	0.72454	24-HR	1ST	14071424
-3500	-500	0.72371	24-HR	1ST	14071424
-3000	-500	0.6848	24-HR	1ST	14071424
-2500	-500	0.62243	24-HR	1ST	14071424
-2000	-500	0.51425	24-HR	1ST	14071424
-1500	-500	0.31785	24-HR	1ST	14071424
-1000	-500	0.09849	24-HR	1ST	14071424
-500	-500	0.1063	24-HR	1ST	14072124
0	-500	0.13228	24-HR	1ST	14072124
500	-500	0.1063	24-HR	1ST	14072124
1000	-500	0.073	24-HR	1ST	14072224
1500	-500	0.06296	24-HR	1ST	14072224
2000	-500	0.05243	24-HR	1ST	14072224
2500	-500	0.04377	24-HR	1ST	14072224
3000	-500	0.03719	24-HR	1ST	14072224
3500	-500	0.03203	24-HR	1ST	14072224
4000	-500	0.0277	24-HR	1ST	14072224
4500	-500	0.02424	24-HR	1ST	14072224
5000	-500	0.02143	24-HR	1ST	14072224
5500	-500	0.01911	24-HR	1ST	14072224
6000	-500	0.01718	24-HR	1ST	14072224
6500	-500	0.01556	24-HR	1ST	14072224
7000	-500	0.01417	24-HR	1ST	14072224
7500	-500	0.01298	24-HR	1ST	14072224
-7500	0	0.62699	24-HR	1ST	14071424
-7000	0	0.65987	24-HR	1ST	14071424
-6500	0	0.69687	24-HR	1ST	14071424

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-6000	0	0.73836	24-HR	1ST	14071424
-5500	0	0.78151	24-HR	1ST	14071424
-5000	0	0.82744	24-HR	1ST	14071424
-4500	0	0.87694	24-HR	1ST	14071424
-4000	0	0.92924	24-HR	1ST	14071424
-3500	0	0.98144	24-HR	1ST	14071424
-3000	0	1.00913	24-HR	1ST	14071424
-2500	0	1.01866	24-HR	1ST	14071424
-2000	0	0.98519	24-HR	1ST	14071424
-1500	0	0.82101	24-HR	1ST	14071424
-1000	0	0.58725	24-HR	1ST	14071224
-500	0	0.20855	24-HR	1ST	14072124
0	0	0	24-HR	1ST	0
500	0	0.13228	24-HR	1ST	14072124
1000	0	0.0735	24-HR	1ST	14072224
1500	0	0.06494	24-HR	1ST	14072224
2000	0	0.05363	24-HR	1ST	14072224
2500	0	0.04455	24-HR	1ST	14072224
3000	0	0.03767	24-HR	1ST	14072224
3500	0	0.03238	24-HR	1ST	14072224
4000	0	0.02794	24-HR	1ST	14072224
4500	0	0.02441	24-HR	1ST	14072224
5000	0	0.02155	24-HR	1ST	14072224
5500	0	0.01921	24-HR	1ST	14072224
6000	0	0.01726	24-HR	1ST	14072224
6500	0	0.01561	24-HR	1ST	14072224
7000	0	0.01422	24-HR	1ST	14072224
7500	0	0.01302	24-HR	1ST	14072224
-7500	500	0.56499	24-HR	1ST	14071424
-7000	500	0.58975	24-HR	1ST	14071424
-6500	500	0.61644	24-HR	1ST	14071424
-6000	500	0.64465	24-HR	1ST	14071424
-5500	500	0.67002	24-HR	1ST	14071424
-5000	500	0.69295	24-HR	1ST	14071424
-4500	500	0.71223	24-HR	1ST	14071424
-4000	500	0.72454	24-HR	1ST	14071424
-3500	500	0.72371	24-HR	1ST	14071424
-3000	500	0.6848	24-HR	1ST	14071424
-2500	500	0.62243	24-HR	1ST	14071424
-2000	500	0.51425	24-HR	1ST	14071424
-1500	500	0.40445	24-HR	1ST	14072224
-1000	500	0.72989	24-HR	1ST	14072224
-500	500	2.32393	24-HR	1ST	14071624

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
0	500	0.39906	24-HR	1ST	14070324
500	500	0.1063	24-HR	1ST	14072124
1000	500	0.073	24-HR	1ST	14072224
1500	500	0.06296	24-HR	1ST	14072224
2000	500	0.05243	24-HR	1ST	14072224
2500	500	0.04377	24-HR	1ST	14072224
3000	500	0.03719	24-HR	1ST	14072224
3500	500	0.03203	24-HR	1ST	14072224
4000	500	0.0277	24-HR	1ST	14072224
4500	500	0.02424	24-HR	1ST	14072224
5000	500	0.02143	24-HR	1ST	14072224
5500	500	0.01911	24-HR	1ST	14072224
6000	500	0.01718	24-HR	1ST	14072224
6500	500	0.01556	24-HR	1ST	14072224
7000	500	0.01417	24-HR	1ST	14072224
7500	500	0.01298	24-HR	1ST	14072224
-7500	1000	0.43287	24-HR	1ST	14071424
-7000	1000	0.44224	24-HR	1ST	14071424
-6500	1000	0.44998	24-HR	1ST	14071424
-6000	1000	0.45495	24-HR	1ST	14071424
-5500	1000	0.45194	24-HR	1ST	14071424
-5000	1000	0.44251	24-HR	1ST	14071424
-4500	1000	0.42596	24-HR	1ST	14071424
-4000	1000	0.401	24-HR	1ST	14071424
-3500	1000	0.36584	24-HR	1ST	14071424
-3000	1000	0.31553	24-HR	1ST	14071424
-2500	1000	0.37908	24-HR	1ST	14072224
-2000	1000	0.60455	24-HR	1ST	14072224
-1500	1000	0.9956	24-HR	1ST	14072224
-1000	1000	1.45917	24-HR	1ST	14071624
-500	1000	0.72989	24-HR	1ST	14072224
0	1000	1.56408	24-HR	1ST	14070524
500	1000	0.073	24-HR	1ST	14072224
1000	1000	0.06706	24-HR	1ST	14072224
1500	1000	0.05778	24-HR	1ST	14072224
2000	1000	0.04913	24-HR	1ST	14072224
2500	1000	0.04165	24-HR	1ST	14072224
3000	1000	0.03586	24-HR	1ST	14072224
3500	1000	0.03103	24-HR	1ST	14072224
4000	1000	0.027	24-HR	1ST	14072224
4500	1000	0.02373	24-HR	1ST	14072224
5000	1000	0.02105	24-HR	1ST	14072224
5500	1000	0.01883	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
6000	1000	0.01696	24-HR	1ST	14072224
6500	1000	0.01539	24-HR	1ST	14072224
7000	1000	0.01404	24-HR	1ST	14072224
7500	1000	0.01287	24-HR	1ST	14072224
-7500	1500	0.30086	24-HR	1ST	14071424
-7000	1500	0.29827	24-HR	1ST	14071424
-6500	1500	0.29303	24-HR	1ST	14071424
-6000	1500	0.28459	24-HR	1ST	14071424
-5500	1500	0.26977	24-HR	1ST	14071424
-5000	1500	0.25168	24-HR	1ST	14071424
-4500	1500	0.23063	24-HR	1ST	14071424
-4000	1500	0.22305	24-HR	1ST	14072224
-3500	1500	0.31754	24-HR	1ST	14072224
-3000	1500	0.4627	24-HR	1ST	14072224
-2500	1500	0.68091	24-HR	1ST	14072224
-2000	1500	0.98301	24-HR	1ST	14072224
-1500	1500	1.31187	24-HR	1ST	14071024
-1000	1500	0.9956	24-HR	1ST	14072224
-500	1500	0.40445	24-HR	1ST	14072224
0	1500	1.44885	24-HR	1ST	14070524
500	1500	0.27003	24-HR	1ST	14070524
1000	1500	0.05778	24-HR	1ST	14072224
1500	1500	0.05132	24-HR	1ST	14072224
2000	1500	0.04455	24-HR	1ST	14072224
2500	1500	0.03869	24-HR	1ST	14072224
3000	1500	0.03389	24-HR	1ST	14072224
3500	1500	0.02952	24-HR	1ST	14072224
4000	1500	0.02593	24-HR	1ST	14072224
4500	1500	0.02295	24-HR	1ST	14072224
5000	1500	0.02047	24-HR	1ST	14072224
5500	1500	0.01838	24-HR	1ST	14072224
6000	1500	0.01662	24-HR	1ST	14072224
6500	1500	0.01511	24-HR	1ST	14072224
7000	1500	0.01382	24-HR	1ST	14072224
7500	1500	0.0127	24-HR	1ST	14072224
-7500	2000	0.19834	24-HR	1ST	14071424
-7000	2000	0.19129	24-HR	1ST	14071424
-6500	2000	0.18256	24-HR	1ST	14071424
-6000	2000	0.17204	24-HR	1ST	14071424
-5500	2000	0.15827	24-HR	1ST	14071424
-5000	2000	0.18773	24-HR	1ST	14072224
-4500	2000	0.25426	24-HR	1ST	14072224
-4000	2000	0.35137	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-3500	2000	0.49152	24-HR	1ST	14072224
-3000	2000	0.68361	24-HR	1ST	14072224
-2500	2000	0.9082	24-HR	1ST	14072224
-2000	2000	1.12563	24-HR	1ST	14071024
-1500	2000	0.98301	24-HR	1ST	14072224
-1000	2000	0.60455	24-HR	1ST	14072224
-500	2000	0.42974	24-HR	1ST	14070524
0	2000	1.14006	24-HR	1ST	14070524
500	2000	0.42974	24-HR	1ST	14070524
1000	2000	0.04913	24-HR	1ST	14072224
1500	2000	0.04455	24-HR	1ST	14072224
2000	2000	0.0398	24-HR	1ST	14072224
2500	2000	0.03545	24-HR	1ST	14072224
3000	2000	0.03135	24-HR	1ST	14072224
3500	2000	0.0277	24-HR	1ST	14072224
4000	2000	0.02459	24-HR	1ST	14072224
4500	2000	0.02195	24-HR	1ST	14072224
5000	2000	0.01971	24-HR	1ST	14072224
5500	2000	0.0178	24-HR	1ST	14072224
6000	2000	0.01616	24-HR	1ST	14072224
6500	2000	0.01475	24-HR	1ST	14072224
7000	2000	0.01352	24-HR	1ST	14072224
7500	2000	0.01246	24-HR	1ST	14072224
-7500	2500	0.12944	24-HR	1ST	14071424
-7000	2500	0.12239	24-HR	1ST	14071424
-6500	2500	0.12283	24-HR	1ST	14072224
-6000	2500	0.15764	24-HR	1ST	14072224
-5500	2500	0.20568	24-HR	1ST	14072224
-5000	2500	0.27223	24-HR	1ST	14072224
-4500	2500	0.36375	24-HR	1ST	14072224
-4000	2500	0.48622	24-HR	1ST	14072224
-3500	2500	0.63975	24-HR	1ST	14072224
-3000	2500	0.80651	24-HR	1ST	14072224
-2500	2500	0.96493	24-HR	1ST	14071024
-2000	2500	0.9082	24-HR	1ST	14072224
-1500	2500	0.68091	24-HR	1ST	14072224
-1000	2500	0.37908	24-HR	1ST	14072224
-500	2500	0.47174	24-HR	1ST	14070524
0	2500	0.89292	24-HR	1ST	14070524
500	2500	0.47174	24-HR	1ST	14070524
1000	2500	0.07423	24-HR	1ST	14070524
1500	2500	0.03869	24-HR	1ST	14072224
2000	2500	0.03545	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
2500	2500	0.03203	24-HR	1ST	14072224
3000	2500	0.02871	24-HR	1ST	14072224
3500	2500	0.02572	24-HR	1ST	14072224
4000	2500	0.0231	24-HR	1ST	14072224
4500	2500	0.02081	24-HR	1ST	14072224
5000	2500	0.01883	24-HR	1ST	14072224
5500	2500	0.01711	24-HR	1ST	14072224
6000	2500	0.01561	24-HR	1ST	14072224
6500	2500	0.01431	24-HR	1ST	14072224
7000	2500	0.01317	24-HR	1ST	14072224
7500	2500	0.01217	24-HR	1ST	14072224
-7500	3000	0.10635	24-HR	1ST	14072224
-7000	3000	0.13314	24-HR	1ST	14072224
-6500	3000	0.16878	24-HR	1ST	14072224
-6000	3000	0.21629	24-HR	1ST	14072224
-5500	3000	0.27932	24-HR	1ST	14072224
-5000	3000	0.36157	24-HR	1ST	14072224
-4500	3000	0.46515	24-HR	1ST	14072224
-4000	3000	0.58713	24-HR	1ST	14072224
-3500	3000	0.71521	24-HR	1ST	14071024
-3000	3000	0.84195	24-HR	1ST	14071024
-2500	3000	0.80651	24-HR	1ST	14072224
-2000	3000	0.68361	24-HR	1ST	14072224
-1500	3000	0.4627	24-HR	1ST	14072224
-1000	3000	0.25261	24-HR	1ST	14072224
-500	3000	0.45378	24-HR	1ST	14070524
0	3000	0.71226	24-HR	1ST	14070524
500	3000	0.45378	24-HR	1ST	14070524
1000	3000	0.12064	24-HR	1ST	14070524
1500	3000	0.03389	24-HR	1ST	14072224
2000	3000	0.03135	24-HR	1ST	14072224
2500	3000	0.02871	24-HR	1ST	14072224
3000	3000	0.02613	24-HR	1ST	14072224
3500	3000	0.02373	24-HR	1ST	14072224
4000	3000	0.02155	24-HR	1ST	14072224
4500	3000	0.01961	24-HR	1ST	14072224
5000	3000	0.01788	24-HR	1ST	14072224
5500	3000	0.01635	24-HR	1ST	14072224
6000	3000	0.01501	24-HR	1ST	14072224
6500	3000	0.01382	24-HR	1ST	14072224
7000	3000	0.01277	24-HR	1ST	14072224
7500	3000	0.01184	24-HR	1ST	14072224
-7500	3500	0.1405	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-7000	3500	0.17558	24-HR	1ST	14072224
-6500	3500	0.22083	24-HR	1ST	14072224
-6000	3500	0.27859	24-HR	1ST	14072224
-5500	3500	0.35071	24-HR	1ST	14072224
-5000	3500	0.43746	24-HR	1ST	14072224
-4500	3500	0.53553	24-HR	1ST	14072224
-4000	3500	0.65379	24-HR	1ST	14071024
-3500	3500	0.74921	24-HR	1ST	14071024
-3000	3500	0.71521	24-HR	1ST	14071024
-2500	3500	0.63975	24-HR	1ST	14072224
-2000	3500	0.49152	24-HR	1ST	14072224
-1500	3500	0.31754	24-HR	1ST	14072224
-1000	3500	0.17774	24-HR	1ST	14072224
-500	3500	0.43315	24-HR	1ST	14070224
0	3500	0.6804	24-HR	1ST	14070224
500	3500	0.43315	24-HR	1ST	14070224
1000	3500	0.15342	24-HR	1ST	14070524
1500	3500	0.03513	24-HR	1ST	14070224
2000	3500	0.0277	24-HR	1ST	14072224
2500	3500	0.02572	24-HR	1ST	14072224
3000	3500	0.02373	24-HR	1ST	14072224
3500	3500	0.02182	24-HR	1ST	14072224
4000	3500	0.02002	24-HR	1ST	14072224
4500	3500	0.01838	24-HR	1ST	14072224
5000	3500	0.01689	24-HR	1ST	14072224
5500	3500	0.01556	24-HR	1ST	14072224
6000	3500	0.01436	24-HR	1ST	14072224
6500	3500	0.01329	24-HR	1ST	14072224
7000	3500	0.01233	24-HR	1ST	14072224
7500	3500	0.01147	24-HR	1ST	14072224
-7500	4000	0.17875	24-HR	1ST	14072224
-7000	4000	0.22082	24-HR	1ST	14072224
-6500	4000	0.27274	24-HR	1ST	14072224
-6000	4000	0.33536	24-HR	1ST	14072224
-5500	4000	0.40833	24-HR	1ST	14072224
-5000	4000	0.48892	24-HR	1ST	14072224
-4500	4000	0.60494	24-HR	1ST	14071024
-4000	4000	0.67879	24-HR	1ST	14071024
-3500	4000	0.65379	24-HR	1ST	14071024
-3000	4000	0.58713	24-HR	1ST	14072224
-2500	4000	0.48622	24-HR	1ST	14072224
-2000	4000	0.35137	24-HR	1ST	14072224
-1500	4000	0.22305	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-1000	4000	0.18931	24-HR	1ST	14070224
-500	4000	0.4845	24-HR	1ST	14070224
0	4000	0.69868	24-HR	1ST	14070224
500	4000	0.4845	24-HR	1ST	14070224
1000	4000	0.18931	24-HR	1ST	14070224
1500	4000	0.05566	24-HR	1ST	14070224
2000	4000	0.02459	24-HR	1ST	14072224
2500	4000	0.0231	24-HR	1ST	14072224
3000	4000	0.02155	24-HR	1ST	14072224
3500	4000	0.02002	24-HR	1ST	14072224
4000	4000	0.01856	24-HR	1ST	14072224
4500	4000	0.01718	24-HR	1ST	14072224
5000	4000	0.01591	24-HR	1ST	14072224
5500	4000	0.01475	24-HR	1ST	14072224
6000	4000	0.01369	24-HR	1ST	14072224
6500	4000	0.01273	24-HR	1ST	14072224
7000	4000	0.01187	24-HR	1ST	14072224
7500	4000	0.01108	24-HR	1ST	14072224
-7500	4500	0.21761	24-HR	1ST	14072224
-7000	4500	0.26388	24-HR	1ST	14072224
-6500	4500	0.31829	24-HR	1ST	14072224
-6000	4500	0.38419	24-HR	1ST	14070824
-5500	4500	0.46027	24-HR	1ST	14071024
-5000	4500	0.56218	24-HR	1ST	14071024
-4500	4500	0.62313	24-HR	1ST	14071024
-4000	4500	0.60494	24-HR	1ST	14071024
-3500	4500	0.53553	24-HR	1ST	14072224
-3000	4500	0.46515	24-HR	1ST	14072224
-2500	4500	0.36375	24-HR	1ST	14072224
-2000	4500	0.25426	24-HR	1ST	14072224
-1500	4500	0.16206	24-HR	1ST	14072224
-1000	4500	0.23818	24-HR	1ST	14070224
-500	4500	0.52485	24-HR	1ST	14070224
0	4500	0.70995	24-HR	1ST	14070224
500	4500	0.52485	24-HR	1ST	14070224
1000	4500	0.23818	24-HR	1ST	14070224
1500	4500	0.08143	24-HR	1ST	14070224
2000	4500	0.02565	24-HR	1ST	14070224
2500	4500	0.02081	24-HR	1ST	14072224
3000	4500	0.01961	24-HR	1ST	14072224
3500	4500	0.01838	24-HR	1ST	14072224
4000	4500	0.01718	24-HR	1ST	14072224
4500	4500	0.01603	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
5000	4500	0.01495	24-HR	1ST	14072224
5500	4500	0.01395	24-HR	1ST	14072224
6000	4500	0.01302	24-HR	1ST	14072224
6500	4500	0.01217	24-HR	1ST	14072224
7000	4500	0.01139	24-HR	1ST	14072224
7500	4500	0.01068	24-HR	1ST	14072224
-7500	5000	0.25679	24-HR	1ST	14070824
-7000	5000	0.31483	24-HR	1ST	14070824
-6500	5000	0.38068	24-HR	1ST	14070824
-6000	5000	0.44815	24-HR	1ST	14070824
-5500	5000	0.52851	24-HR	1ST	14071024
-5000	5000	0.5782	24-HR	1ST	14071024
-4500	5000	0.56218	24-HR	1ST	14071024
-4000	5000	0.48892	24-HR	1ST	14072224
-3500	5000	0.43746	24-HR	1ST	14072224
-3000	5000	0.36157	24-HR	1ST	14072224
-2500	5000	0.27223	24-HR	1ST	14072224
-2000	5000	0.18773	24-HR	1ST	14072224
-1500	5000	0.12157	24-HR	1ST	14072224
-1000	5000	0.27746	24-HR	1ST	14070224
-500	5000	0.54939	24-HR	1ST	14070224
0	5000	0.71072	24-HR	1ST	14070224
500	5000	0.54939	24-HR	1ST	14070224
1000	5000	0.27746	24-HR	1ST	14070224
1500	5000	0.10717	24-HR	1ST	14070224
2000	5000	0.03708	24-HR	1ST	14070224
2500	5000	0.01883	24-HR	1ST	14072224
3000	5000	0.01788	24-HR	1ST	14072224
3500	5000	0.01689	24-HR	1ST	14072224
4000	5000	0.01591	24-HR	1ST	14072224
4500	5000	0.01495	24-HR	1ST	14072224
5000	5000	0.01404	24-HR	1ST	14072224
5500	5000	0.01317	24-HR	1ST	14072224
6000	5000	0.01236	24-HR	1ST	14072224
6500	5000	0.01161	24-HR	1ST	14072224
7000	5000	0.01091	24-HR	1ST	14072224
7500	5000	0.01027	24-HR	1ST	14072224
-7500	5500	0.31719	24-HR	1ST	14070824
-7000	5500	0.37957	24-HR	1ST	14070824
-6500	5500	0.44188	24-HR	1ST	14070824
-6000	5500	0.50264	24-HR	1ST	14071024
-5500	5500	0.54394	24-HR	1ST	14071024
-5000	5500	0.52851	24-HR	1ST	14071024

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-4500	5500	0.46027	24-HR	1ST	14071024
-4000	5500	0.40833	24-HR	1ST	14072224
-3500	5500	0.35071	24-HR	1ST	14072224
-3000	5500	0.27932	24-HR	1ST	14072224
-2500	5500	0.20568	24-HR	1ST	14072224
-2000	5500	0.1418	24-HR	1ST	14072224
-1500	5500	0.13268	24-HR	1ST	14070224
-1000	5500	0.31082	24-HR	1ST	14070224
-500	5500	0.5662	24-HR	1ST	14070224
0	5500	0.70781	24-HR	1ST	14070224
500	5500	0.5662	24-HR	1ST	14070224
1000	5500	0.31082	24-HR	1ST	14070224
1500	5500	0.13268	24-HR	1ST	14070224
2000	5500	0.04996	24-HR	1ST	14070224
2500	5500	0.01889	24-HR	1ST	14070224
3000	5500	0.01635	24-HR	1ST	14072224
3500	5500	0.01556	24-HR	1ST	14072224
4000	5500	0.01475	24-HR	1ST	14072224
4500	5500	0.01395	24-HR	1ST	14072224
5000	5500	0.01317	24-HR	1ST	14072224
5500	5500	0.01243	24-HR	1ST	14072224
6000	5500	0.01172	24-HR	1ST	14072224
6500	5500	0.01106	24-HR	1ST	14072224
7000	5500	0.01044	24-HR	1ST	14072224
7500	5500	0.00987	24-HR	1ST	14072224
-7500	6000	0.38059	24-HR	1ST	14070824
-7000	6000	0.43894	24-HR	1ST	14070824
-6500	6000	0.48482	24-HR	1ST	14070824
-6000	6000	0.51779	24-HR	1ST	14071024
-5500	6000	0.50264	24-HR	1ST	14071024
-5000	6000	0.44815	24-HR	1ST	14070824
-4500	6000	0.38419	24-HR	1ST	14070824
-4000	6000	0.33536	24-HR	1ST	14072224
-3500	6000	0.27859	24-HR	1ST	14072224
-3000	6000	0.21629	24-HR	1ST	14072224
-2500	6000	0.15764	24-HR	1ST	14072224
-2000	6000	0.10958	24-HR	1ST	14072224
-1500	6000	0.15762	24-HR	1ST	14070224
-1000	6000	0.33889	24-HR	1ST	14070224
-500	6000	0.57673	24-HR	1ST	14070224
0	6000	0.70153	24-HR	1ST	14070224
500	6000	0.57673	24-HR	1ST	14070224
1000	6000	0.33889	24-HR	1ST	14070224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
1500	6000	0.15762	24-HR	1ST	14070224
2000	6000	0.06412	24-HR	1ST	14070224
2500	6000	0.02545	24-HR	1ST	14070224
3000	6000	0.01501	24-HR	1ST	14072224
3500	6000	0.01436	24-HR	1ST	14072224
4000	6000	0.01369	24-HR	1ST	14072224
4500	6000	0.01302	24-HR	1ST	14072224
5000	6000	0.01236	24-HR	1ST	14072224
5500	6000	0.01172	24-HR	1ST	14072224
6000	6000	0.01111	24-HR	1ST	14072224
6500	6000	0.01053	24-HR	1ST	14072224
7000	6000	0.00998	24-HR	1ST	14072224
7500	6000	0.00946	24-HR	1ST	14072224
-7500	6500	0.43855	24-HR	1ST	14070824
-7000	6500	0.4808	24-HR	1ST	14070824
-6500	6500	0.49858	24-HR	1ST	14070824
-6000	6500	0.48482	24-HR	1ST	14070824
-5500	6500	0.44188	24-HR	1ST	14070824
-5000	6500	0.38068	24-HR	1ST	14070824
-4500	6500	0.31829	24-HR	1ST	14072224
-4000	6500	0.27274	24-HR	1ST	14072224
-3500	6500	0.22083	24-HR	1ST	14072224
-3000	6500	0.16878	24-HR	1ST	14072224
-2500	6500	0.12283	24-HR	1ST	14072224
-2000	6500	0.08652	24-HR	1ST	14072224
-1500	6500	0.18037	24-HR	1ST	14070224
-1000	6500	0.36096	24-HR	1ST	14070224
-500	6500	0.5819	24-HR	1ST	14070224
0	6500	0.6928	24-HR	1ST	14070224
500	6500	0.5819	24-HR	1ST	14070224
1000	6500	0.36096	24-HR	1ST	14070224
1500	6500	0.18037	24-HR	1ST	14070224
2000	6500	0.0788	24-HR	1ST	14070224
2500	6500	0.03292	24-HR	1ST	14070224
3000	6500	0.01441	24-HR	1ST	14070224
3500	6500	0.01329	24-HR	1ST	14072224
4000	6500	0.01273	24-HR	1ST	14072224
4500	6500	0.01217	24-HR	1ST	14072224
5000	6500	0.01161	24-HR	1ST	14072224
5500	6500	0.01106	24-HR	1ST	14072224
6000	6500	0.01053	24-HR	1ST	14072224
6500	6500	0.01002	24-HR	1ST	14072224
7000	6500	0.00953	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
7500	6500	0.00907	24-HR	1ST	14072224
-7500	7000	0.47928	24-HR	1ST	14070824
-7000	7000	0.49498	24-HR	1ST	14070824
-6500	7000	0.4808	24-HR	1ST	14070824
-6000	7000	0.43894	24-HR	1ST	14070824
-5500	7000	0.37957	24-HR	1ST	14070824
-5000	7000	0.31483	24-HR	1ST	14070824
-4500	7000	0.26388	24-HR	1ST	14072224
-4000	7000	0.22082	24-HR	1ST	14072224
-3500	7000	0.17558	24-HR	1ST	14072224
-3000	7000	0.13314	24-HR	1ST	14072224
-2500	7000	0.09734	24-HR	1ST	14072224
-2000	7000	0.09381	24-HR	1ST	14070224
-1500	7000	0.2015	24-HR	1ST	14070224
-1000	7000	0.37941	24-HR	1ST	14070224
-500	7000	0.58432	24-HR	1ST	14070224
0	7000	0.68328	24-HR	1ST	14070224
500	7000	0.58432	24-HR	1ST	14070224
1000	7000	0.37941	24-HR	1ST	14070224
1500	7000	0.2015	24-HR	1ST	14070224
2000	7000	0.09381	24-HR	1ST	14070224
2500	7000	0.04119	24-HR	1ST	14070224
3000	7000	0.01847	24-HR	1ST	14070224
3500	7000	0.01233	24-HR	1ST	14072224
4000	7000	0.01187	24-HR	1ST	14072224
4500	7000	0.01139	24-HR	1ST	14072224
5000	7000	0.01091	24-HR	1ST	14072224
5500	7000	0.01044	24-HR	1ST	14072224
6000	7000	0.00998	24-HR	1ST	14072224
6500	7000	0.00953	24-HR	1ST	14072224
7000	7000	0.0091	24-HR	1ST	14072224
7500	7000	0.00869	24-HR	1ST	14072224
-7500	7500	0.49351	24-HR	1ST	14070824
-7000	7500	0.47928	24-HR	1ST	14070824
-6500	7500	0.43855	24-HR	1ST	14070824
-6000	7500	0.38059	24-HR	1ST	14070824
-5500	7500	0.31719	24-HR	1ST	14070824
-5000	7500	0.25679	24-HR	1ST	14070824
-4500	7500	0.21761	24-HR	1ST	14072224
-4000	7500	0.17875	24-HR	1ST	14072224
-3500	7500	0.1405	24-HR	1ST	14072224
-3000	7500	0.10635	24-HR	1ST	14072224
-2500	7500	0.07843	24-HR	1ST	14072224

Receptor		Average Concentration ($\mu\text{g}/\text{m}^3$)	Avg. Period	High	YYMMDDHH
X	Y				
-2000	7500	0.10884	24-HR	1ST	14070224
-1500	7500	0.22094	24-HR	1ST	14070224
-1000	7500	0.39472	24-HR	1ST	14070224
-500	7500	0.5845	24-HR	1ST	14070224
0	7500	0.67308	24-HR	1ST	14070224
500	7500	0.5845	24-HR	1ST	14070224
1000	7500	0.39472	24-HR	1ST	14070224
1500	7500	0.22094	24-HR	1ST	14070224
2000	7500	0.10884	24-HR	1ST	14070224
2500	7500	0.05012	24-HR	1ST	14070224
3000	7500	0.02311	24-HR	1ST	14070224
3500	7500	0.01147	24-HR	1ST	14072224
4000	7500	0.01108	24-HR	1ST	14072224
4500	7500	0.01068	24-HR	1ST	14072224
5000	7500	0.01027	24-HR	1ST	14072224
5500	7500	0.00987	24-HR	1ST	14072224
6000	7500	0.00946	24-HR	1ST	14072224
6500	7500	0.00907	24-HR	1ST	14072224
7000	7500	0.00869	24-HR	1ST	14072224
7500	7500	0.00832	24-HR	1ST	14072224

Annex 8_Appendix 4

Appendix-4

Table 22: 1st high 8-hr Average Concentration values of CO ($\mu\text{g}/\text{m}^3$) at different receptors for July for 50 m stack height.

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-7500	-7500	0.00659	8-HR	1ST	14070908
-7000	-7500	0.00686	8-HR	1ST	14070908
-6500	-7500	0.00714	8-HR	1ST	14070908
-6000	-7500	0.00744	8-HR	1ST	14070908
-5500	-7500	0.00774	8-HR	1ST	14070908
-5000	-7500	0.00805	8-HR	1ST	14070908
-4500	-7500	0.00836	8-HR	1ST	14070908
-4000	-7500	0.00867	8-HR	1ST	14070908
-3500	-7500	0.00896	8-HR	1ST	14070908
-3000	-7500	0.00924	8-HR	1ST	14070908
-2500	-7500	0.0095	8-HR	1ST	14070908
-2000	-7500	0.00973	8-HR	1ST	14070908
-1500	-7500	0.00991	8-HR	1ST	14070908
-1000	-7500	0.01005	8-HR	1ST	14070908
-500	-7500	0.01013	8-HR	1ST	14070908
0	-7500	0.01016	8-HR	1ST	14070908
500	-7500	0.01013	8-HR	1ST	14070908
1000	-7500	0.01005	8-HR	1ST	14070908
1500	-7500	0.00991	8-HR	1ST	14070908
2000	-7500	0.00973	8-HR	1ST	14070908
2500	-7500	0.0095	8-HR	1ST	14070908
3000	-7500	0.00924	8-HR	1ST	14070908
3500	-7500	0.00896	8-HR	1ST	14070908
4000	-7500	0.00867	8-HR	1ST	14070908
4500	-7500	0.00836	8-HR	1ST	14070908
5000	-7500	0.00805	8-HR	1ST	14070908
5500	-7500	0.00774	8-HR	1ST	14070908
6000	-7500	0.00744	8-HR	1ST	14070908
6500	-7500	0.00714	8-HR	1ST	14070908
7000	-7500	0.00686	8-HR	1ST	14070908
7500	-7500	0.00659	8-HR	1ST	14070908
-7500	-7000	0.00715	8-HR	1ST	14071408
-7000	-7000	0.00717	8-HR	1ST	14070908
-6500	-7000	0.00749	8-HR	1ST	14070908
-6000	-7000	0.00783	8-HR	1ST	14070908
-5500	-7000	0.00818	8-HR	1ST	14070908
-5000	-7000	0.00854	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-4500	-7000	0.0089	8-HR	1ST	14070908
-4000	-7000	0.00927	8-HR	1ST	14070908
-3500	-7000	0.00962	8-HR	1ST	14070908
-3000	-7000	0.00997	8-HR	1ST	14070908
-2500	-7000	0.01028	8-HR	1ST	14070908
-2000	-7000	0.01056	8-HR	1ST	14070908
-1500	-7000	0.01079	8-HR	1ST	14070908
-1000	-7000	0.01096	8-HR	1ST	14070908
-500	-7000	0.01106	8-HR	1ST	14070908
0	-7000	0.0111	8-HR	1ST	14070908
500	-7000	0.01106	8-HR	1ST	14070908
1000	-7000	0.01096	8-HR	1ST	14070908
1500	-7000	0.01079	8-HR	1ST	14070908
2000	-7000	0.01056	8-HR	1ST	14070908
2500	-7000	0.01028	8-HR	1ST	14070908
3000	-7000	0.00997	8-HR	1ST	14070908
3500	-7000	0.00962	8-HR	1ST	14070908
4000	-7000	0.00927	8-HR	1ST	14070908
4500	-7000	0.0089	8-HR	1ST	14070908
5000	-7000	0.00854	8-HR	1ST	14070908
5500	-7000	0.00818	8-HR	1ST	14070908
6000	-7000	0.00783	8-HR	1ST	14070908
6500	-7000	0.00749	8-HR	1ST	14070908
7000	-7000	0.00717	8-HR	1ST	14070908
7500	-7000	0.00686	8-HR	1ST	14070908
-7500	-6500	0.0084	8-HR	1ST	14071408
-7000	-6500	0.0079	8-HR	1ST	14071408
-6500	-6500	0.00785	8-HR	1ST	14070908
-6000	-6500	0.00824	8-HR	1ST	14070908
-5500	-6500	0.00865	8-HR	1ST	14070908
-5000	-6500	0.00907	8-HR	1ST	14070908
-4500	-6500	0.0095	8-HR	1ST	14070908
-4000	-6500	0.00994	8-HR	1ST	14070908
-3500	-6500	0.01037	8-HR	1ST	14070908
-3000	-6500	0.01079	8-HR	1ST	14070908
-2500	-6500	0.01117	8-HR	1ST	14070908
-2000	-6500	0.01152	8-HR	1ST	14070908
-1500	-6500	0.0118	8-HR	1ST	14070908
-1000	-6500	0.01202	8-HR	1ST	14070908
-500	-6500	0.01215	8-HR	1ST	14070908
0	-6500	0.0122	8-HR	1ST	14070908
500	-6500	0.01215	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
1000	-6500	0.01202	8-HR	1ST	14070908
1500	-6500	0.0118	8-HR	1ST	14070908
2000	-6500	0.01152	8-HR	1ST	14070908
2500	-6500	0.01117	8-HR	1ST	14070908
3000	-6500	0.01079	8-HR	1ST	14070908
3500	-6500	0.01037	8-HR	1ST	14070908
4000	-6500	0.00994	8-HR	1ST	14070908
4500	-6500	0.0095	8-HR	1ST	14070908
5000	-6500	0.00907	8-HR	1ST	14070908
5500	-6500	0.00865	8-HR	1ST	14070908
6000	-6500	0.00824	8-HR	1ST	14070908
6500	-6500	0.00785	8-HR	1ST	14070908
7000	-6500	0.00749	8-HR	1ST	14070908
7500	-6500	0.00714	8-HR	1ST	14070908
-7500	-6000	0.01048	8-HR	1ST	14071408
-7000	-6000	0.00951	8-HR	1ST	14071408
-6500	-6000	0.00882	8-HR	1ST	14071408
-6000	-6000	0.00868	8-HR	1ST	14070908
-5500	-6000	0.00916	8-HR	1ST	14070908
-5000	-6000	0.00965	8-HR	1ST	14070908
-4500	-6000	0.01016	8-HR	1ST	14070908
-4000	-6000	0.01069	8-HR	1ST	14070908
-3500	-6000	0.01121	8-HR	1ST	14070908
-3000	-6000	0.01172	8-HR	1ST	14070908
-2500	-6000	0.0122	8-HR	1ST	14070908
-2000	-6000	0.01263	8-HR	1ST	14070908
-1500	-6000	0.013	8-HR	1ST	14070908
-1000	-6000	0.01327	8-HR	1ST	14070908
-500	-6000	0.01344	8-HR	1ST	14070908
0	-6000	0.0135	8-HR	1ST	14070908
500	-6000	0.01344	8-HR	1ST	14070908
1000	-6000	0.01327	8-HR	1ST	14070908
1500	-6000	0.013	8-HR	1ST	14070908
2000	-6000	0.01263	8-HR	1ST	14070908
2500	-6000	0.0122	8-HR	1ST	14070908
3000	-6000	0.01172	8-HR	1ST	14070908
3500	-6000	0.01121	8-HR	1ST	14070908
4000	-6000	0.01069	8-HR	1ST	14070908
4500	-6000	0.01016	8-HR	1ST	14070908
5000	-6000	0.00965	8-HR	1ST	14070908
5500	-6000	0.00916	8-HR	1ST	14070908
6000	-6000	0.00868	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
6500	-6000	0.00824	8-HR	1ST	14070908
7000	-6000	0.00783	8-HR	1ST	14070908
7500	-6000	0.00744	8-HR	1ST	14070908
-7500	-5500	0.01398	8-HR	1ST	14071408
-7000	-5500	0.01229	8-HR	1ST	14071408
-6500	-5500	0.01092	8-HR	1ST	14071408
-6000	-5500	0.00994	8-HR	1ST	14071408
-5500	-5500	0.0097	8-HR	1ST	14070908
-5000	-5500	0.01028	8-HR	1ST	14070908
-4500	-5500	0.01089	8-HR	1ST	14070908
-4000	-5500	0.01152	8-HR	1ST	14070908
-3500	-5500	0.01215	8-HR	1ST	14070908
-3000	-5500	0.01279	8-HR	1ST	14070908
-2500	-5500	0.01339	8-HR	1ST	14070908
-2000	-5500	0.01393	8-HR	1ST	14070908
-1500	-5500	0.0144	8-HR	1ST	14070908
-1000	-5500	0.01476	8-HR	1ST	14070908
-500	-5500	0.01498	8-HR	1ST	14070908
0	-5500	0.01506	8-HR	1ST	14070908
500	-5500	0.01498	8-HR	1ST	14070908
1000	-5500	0.01476	8-HR	1ST	14070908
1500	-5500	0.0144	8-HR	1ST	14070908
2000	-5500	0.01393	8-HR	1ST	14070908
2500	-5500	0.01339	8-HR	1ST	14070908
3000	-5500	0.01279	8-HR	1ST	14070908
3500	-5500	0.01215	8-HR	1ST	14070908
4000	-5500	0.01152	8-HR	1ST	14070908
4500	-5500	0.01089	8-HR	1ST	14070908
5000	-5500	0.01028	8-HR	1ST	14070908
5500	-5500	0.0097	8-HR	1ST	14070908
6000	-5500	0.00916	8-HR	1ST	14070908
6500	-5500	0.00865	8-HR	1ST	14070908
7000	-5500	0.00818	8-HR	1ST	14070908
7500	-5500	0.00774	8-HR	1ST	14070908
-7500	-5000	0.01975	8-HR	1ST	14071408
-7000	-5000	0.01709	8-HR	1ST	14071408
-6500	-5000	0.01472	8-HR	1ST	14071408
-6000	-5000	0.01276	8-HR	1ST	14071408
-5500	-5000	0.01134	8-HR	1ST	14071408
-5000	-5000	0.01096	8-HR	1ST	14070908
-4500	-5000	0.01168	8-HR	1ST	14070908
-4000	-5000	0.01244	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-3500	-5000	0.01322	8-HR	1ST	14070908
-3000	-5000	0.014	8-HR	1ST	14070908
-2500	-5000	0.01476	8-HR	1ST	14070908
-2000	-5000	0.01546	8-HR	1ST	14070908
-1500	-5000	0.01606	8-HR	1ST	14070908
-1000	-5000	0.01653	8-HR	1ST	14070908
-500	-5000	0.01683	8-HR	1ST	14070908
0	-5000	0.01693	8-HR	1ST	14070908
500	-5000	0.01683	8-HR	1ST	14070908
1000	-5000	0.01653	8-HR	1ST	14070908
1500	-5000	0.01606	8-HR	1ST	14070908
2000	-5000	0.01546	8-HR	1ST	14070908
2500	-5000	0.01476	8-HR	1ST	14070908
3000	-5000	0.014	8-HR	1ST	14070908
3500	-5000	0.01322	8-HR	1ST	14070908
4000	-5000	0.01244	8-HR	1ST	14070908
4500	-5000	0.01168	8-HR	1ST	14070908
5000	-5000	0.01096	8-HR	1ST	14070908
5500	-5000	0.01028	8-HR	1ST	14070908
6000	-5000	0.00965	8-HR	1ST	14070908
6500	-5000	0.00907	8-HR	1ST	14070908
7000	-5000	0.00854	8-HR	1ST	14070908
7500	-5000	0.00805	8-HR	1ST	14070908
-7500	-4500	0.02899	8-HR	1ST	14071408
-7000	-4500	0.02518	8-HR	1ST	14071408
-6500	-4500	0.02147	8-HR	1ST	14071408
-6000	-4500	0.01808	8-HR	1ST	14071408
-5500	-4500	0.01523	8-HR	1ST	14071408
-5000	-4500	0.01312	8-HR	1ST	14071408
-4500	-4500	0.01253	8-HR	1ST	14070908
-4000	-4500	0.01344	8-HR	1ST	14070908
-3500	-4500	0.0144	8-HR	1ST	14070908
-3000	-4500	0.01538	8-HR	1ST	14070908
-2500	-4500	0.01634	8-HR	1ST	14070908
-2000	-4500	0.01725	8-HR	1ST	14070908
-1500	-4500	0.01804	8-HR	1ST	14070908
-1000	-4500	0.01867	8-HR	1ST	14070908
-500	-4500	0.01907	8-HR	1ST	14070908
0	-4500	0.01921	8-HR	1ST	14070908
500	-4500	0.01907	8-HR	1ST	14070908
1000	-4500	0.01867	8-HR	1ST	14070908
1500	-4500	0.01804	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
2000	-4500	0.01725	8-HR	1ST	14070908
2500	-4500	0.01634	8-HR	1ST	14070908
3000	-4500	0.01538	8-HR	1ST	14070908
3500	-4500	0.0144	8-HR	1ST	14070908
4000	-4500	0.01344	8-HR	1ST	14070908
4500	-4500	0.01253	8-HR	1ST	14070908
5000	-4500	0.01168	8-HR	1ST	14070908
5500	-4500	0.01089	8-HR	1ST	14070908
6000	-4500	0.01016	8-HR	1ST	14070908
6500	-4500	0.0095	8-HR	1ST	14070908
7000	-4500	0.0089	8-HR	1ST	14070908
7500	-4500	0.00836	8-HR	1ST	14070908
-7500	-4000	0.04327	8-HR	1ST	14071408
-7000	-4000	0.03831	8-HR	1ST	14071408
-6500	-4000	0.0331	8-HR	1ST	14071408
-6000	-4000	0.02785	8-HR	1ST	14071408
-5500	-4000	0.0229	8-HR	1ST	14071408
-5000	-4000	0.01865	8-HR	1ST	14071408
-4500	-4000	0.01545	8-HR	1ST	14071408
-4000	-4000	0.01454	8-HR	1ST	14070908
-3500	-4000	0.01571	8-HR	1ST	14070908
-3000	-4000	0.01693	8-HR	1ST	14070908
-2500	-4000	0.01817	8-HR	1ST	14070908
-2000	-4000	0.01935	8-HR	1ST	14070908
-1500	-4000	0.02041	8-HR	1ST	14070908
-1000	-4000	0.02126	8-HR	1ST	14070908
-500	-4000	0.02181	8-HR	1ST	14070908
0	-4000	0.02201	8-HR	1ST	14070908
500	-4000	0.02181	8-HR	1ST	14070908
1000	-4000	0.02126	8-HR	1ST	14070908
1500	-4000	0.02041	8-HR	1ST	14070908
2000	-4000	0.01935	8-HR	1ST	14070908
2500	-4000	0.01817	8-HR	1ST	14070908
3000	-4000	0.01693	8-HR	1ST	14070908
3500	-4000	0.01571	8-HR	1ST	14070908
4000	-4000	0.01454	8-HR	1ST	14070908
4500	-4000	0.01344	8-HR	1ST	14070908
5000	-4000	0.01244	8-HR	1ST	14070908
5500	-4000	0.01152	8-HR	1ST	14070908
6000	-4000	0.01069	8-HR	1ST	14070908
6500	-4000	0.00994	8-HR	1ST	14070908
7000	-4000	0.00927	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
7500	-4000	0.00867	8-HR	1ST	14070908
-7500	-3500	0.06448	8-HR	1ST	14071408
-7000	-3500	0.0587	8-HR	1ST	14071408
-6500	-3500	0.05217	8-HR	1ST	14071408
-6000	-3500	0.045	8-HR	1ST	14071408
-5500	-3500	0.03748	8-HR	1ST	14071408
-5000	-3500	0.03013	8-HR	1ST	14071408
-4500	-3500	0.02355	8-HR	1ST	14071408
-4000	-3500	0.01848	8-HR	1ST	14071408
-3500	-3500	0.01714	8-HR	1ST	14070908
-3000	-3500	0.01867	8-HR	1ST	14070908
-2500	-3500	0.02025	8-HR	1ST	14070908
-2000	-3500	0.02181	8-HR	1ST	14070908
-1500	-3500	0.02325	8-HR	1ST	14070908
-1000	-3500	0.02442	8-HR	1ST	14070908
-500	-3500	0.02519	8-HR	1ST	14070908
0	-3500	0.02546	8-HR	1ST	14070908
500	-3500	0.02519	8-HR	1ST	14070908
1000	-3500	0.02442	8-HR	1ST	14070908
1500	-3500	0.02325	8-HR	1ST	14070908
2000	-3500	0.02181	8-HR	1ST	14070908
2500	-3500	0.02025	8-HR	1ST	14070908
3000	-3500	0.01867	8-HR	1ST	14070908
3500	-3500	0.01714	8-HR	1ST	14070908
4000	-3500	0.01571	8-HR	1ST	14070908
4500	-3500	0.0144	8-HR	1ST	14070908
5000	-3500	0.01322	8-HR	1ST	14070908
5500	-3500	0.01215	8-HR	1ST	14070908
6000	-3500	0.01121	8-HR	1ST	14070908
6500	-3500	0.01037	8-HR	1ST	14070908
7000	-3500	0.00962	8-HR	1ST	14070908
7500	-3500	0.00896	8-HR	1ST	14070908
-7500	-3000	0.09492	8-HR	1ST	14071408
-7000	-3000	0.08901	8-HR	1ST	14071408
-6500	-3000	0.08184	8-HR	1ST	14071408
-6000	-3000	0.07334	8-HR	1ST	14071408
-5500	-3000	0.06343	8-HR	1ST	14071408
-5000	-3000	0.05261	8-HR	1ST	14071408
-4500	-3000	0.0414	8-HR	1ST	14071408
-4000	-3000	0.03097	8-HR	1ST	14071408
-3500	-3000	0.02278	8-HR	1ST	14071408
-3000	-3000	0.02058	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-2500	-3000	0.02261	8-HR	1ST	14070908
-2000	-3000	0.02467	8-HR	1ST	14070908
-1500	-3000	0.02662	8-HR	1ST	14070908
-1000	-3000	0.02826	8-HR	1ST	14070908
-500	-3000	0.02936	8-HR	1ST	14070908
0	-3000	0.02975	8-HR	1ST	14070908
500	-3000	0.02936	8-HR	1ST	14070908
1000	-3000	0.02826	8-HR	1ST	14070908
1500	-3000	0.02662	8-HR	1ST	14070908
2000	-3000	0.02467	8-HR	1ST	14070908
2500	-3000	0.02261	8-HR	1ST	14070908
3000	-3000	0.02058	8-HR	1ST	14070908
3500	-3000	0.01867	8-HR	1ST	14070908
4000	-3000	0.01693	8-HR	1ST	14070908
4500	-3000	0.01538	8-HR	1ST	14070908
5000	-3000	0.014	8-HR	1ST	14070908
5500	-3000	0.01279	8-HR	1ST	14070908
6000	-3000	0.01172	8-HR	1ST	14070908
6500	-3000	0.01079	8-HR	1ST	14070908
7000	-3000	0.00997	8-HR	1ST	14070908
7500	-3000	0.00924	8-HR	1ST	14070908
-7500	-2500	0.13728	8-HR	1ST	14071408
-7000	-2500	0.13237	8-HR	1ST	14071408
-6500	-2500	0.12584	8-HR	1ST	14071408
-6000	-2500	0.11738	8-HR	1ST	14071408
-5500	-2500	0.10618	8-HR	1ST	14071408
-5000	-2500	0.09293	8-HR	1ST	14071408
-4500	-2500	0.07742	8-HR	1ST	14071408
-4000	-2500	0.06022	8-HR	1ST	14071408
-3500	-2500	0.04315	8-HR	1ST	14071408
-3000	-2500	0.02918	8-HR	1ST	14071408
-2500	-2500	0.02519	8-HR	1ST	14070908
-2000	-2500	0.02791	8-HR	1ST	14070908
-1500	-2500	0.03057	8-HR	1ST	14070908
-1000	-2500	0.03287	8-HR	1ST	14070908
-500	-2500	0.03445	8-HR	1ST	14070908
0	-2500	0.0351	8-HR	1ST	14072216
500	-2500	0.03445	8-HR	1ST	14070908
1000	-2500	0.03287	8-HR	1ST	14070908
1500	-2500	0.03057	8-HR	1ST	14070908
2000	-2500	0.02791	8-HR	1ST	14070908
2500	-2500	0.02519	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
3000	-2500	0.02261	8-HR	1ST	14070908
3500	-2500	0.02025	8-HR	1ST	14070908
4000	-2500	0.01817	8-HR	1ST	14070908
4500	-2500	0.01634	8-HR	1ST	14070908
5000	-2500	0.01476	8-HR	1ST	14070908
5500	-2500	0.01339	8-HR	1ST	14070908
6000	-2500	0.0122	8-HR	1ST	14070908
6500	-2500	0.01117	8-HR	1ST	14070908
7000	-2500	0.01028	8-HR	1ST	14070908
7500	-2500	0.0095	8-HR	1ST	14070908
-7500	-2000	0.19363	8-HR	1ST	14071408
-7000	-2000	0.19167	8-HR	1ST	14071408
-6500	-2000	0.18793	8-HR	1ST	14071408
-6000	-2000	0.18192	8-HR	1ST	14071408
-5500	-2000	0.1715	8-HR	1ST	14071408
-5000	-2000	0.15843	8-HR	1ST	14071408
-4500	-2000	0.14175	8-HR	1ST	14071408
-4000	-2000	0.12024	8-HR	1ST	14071408
-3500	-2000	0.09373	8-HR	1ST	14071408
-3000	-2000	0.0647	8-HR	1ST	14071408
-2500	-2000	0.03931	8-HR	1ST	14071408
-2000	-2000	0.03145	8-HR	1ST	14070908
-1500	-2000	0.0351	8-HR	1ST	14072216
-1000	-2000	0.03892	8-HR	1ST	14072216
-500	-2000	0.04166	8-HR	1ST	14072216
0	-2000	0.04265	8-HR	1ST	14072216
500	-2000	0.04166	8-HR	1ST	14072216
1000	-2000	0.03892	8-HR	1ST	14072216
1500	-2000	0.0351	8-HR	1ST	14072216
2000	-2000	0.03145	8-HR	1ST	14070908
2500	-2000	0.02791	8-HR	1ST	14070908
3000	-2000	0.02467	8-HR	1ST	14070908
3500	-2000	0.02181	8-HR	1ST	14070908
4000	-2000	0.01935	8-HR	1ST	14070908
4500	-2000	0.01725	8-HR	1ST	14070908
5000	-2000	0.01546	8-HR	1ST	14070908
5500	-2000	0.01393	8-HR	1ST	14070908
6000	-2000	0.01263	8-HR	1ST	14070908
6500	-2000	0.01152	8-HR	1ST	14070908
7000	-2000	0.01056	8-HR	1ST	14070908
7500	-2000	0.00973	8-HR	1ST	14070908
-7500	-1500	0.2625	8-HR	1ST	14071408

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-7000	-1500	0.26644	8-HR	1ST	14071408
-6500	-1500	0.26892	8-HR	1ST	14071408
-6000	-1500	0.26933	8-HR	1ST	14071408
-5500	-1500	0.26372	8-HR	1ST	14071408
-5000	-1500	0.25506	8-HR	1ST	14071408
-4500	-1500	0.24265	8-HR	1ST	14071408
-4000	-1500	0.22434	8-HR	1ST	14071408
-3500	-1500	0.19689	8-HR	1ST	14071408
-3000	-1500	0.15717	8-HR	1ST	14071408
-2500	-1500	0.10645	8-HR	1ST	14071408
-2000	-1500	0.05549	8-HR	1ST	14071408
-1500	-1500	0.04075	8-HR	1ST	14072216
-1000	-1500	0.04617	8-HR	1ST	14072216
-500	-1500	0.05075	8-HR	1ST	14072216
0	-1500	0.05259	8-HR	1ST	14072216
500	-1500	0.05075	8-HR	1ST	14072216
1000	-1500	0.04617	8-HR	1ST	14072216
1500	-1500	0.04075	8-HR	1ST	14072216
2000	-1500	0.0351	8-HR	1ST	14072216
2500	-1500	0.03057	8-HR	1ST	14070908
3000	-1500	0.02662	8-HR	1ST	14070908
3500	-1500	0.02325	8-HR	1ST	14070908
4000	-1500	0.02041	8-HR	1ST	14070908
4500	-1500	0.01804	8-HR	1ST	14070908
5000	-1500	0.01606	8-HR	1ST	14070908
5500	-1500	0.0144	8-HR	1ST	14070908
6000	-1500	0.013	8-HR	1ST	14070908
6500	-1500	0.0118	8-HR	1ST	14070908
7000	-1500	0.01079	8-HR	1ST	14070908
7500	-1500	0.00991	8-HR	1ST	14070908
-7500	-1000	0.33503	8-HR	1ST	14071408
-7000	-1000	0.34746	8-HR	1ST	14071408
-6500	-1000	0.35972	8-HR	1ST	14071408
-6000	-1000	0.3713	8-HR	1ST	14071408
-5500	-1000	0.37715	8-HR	1ST	14071408
-5000	-1000	0.38005	8-HR	1ST	14071408
-4500	-1000	0.37992	8-HR	1ST	14071408
-4000	-1000	0.3752	8-HR	1ST	14071408
-3500	-1000	0.36248	8-HR	1ST	14071408
-3000	-1000	0.33504	8-HR	1ST	14071408
-2500	-1000	0.2821	8-HR	1ST	14071408
-2000	-1000	0.1895	8-HR	1ST	14071408

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-1500	-1000	0.08106	8-HR	1ST	14071408
-1000	-1000	0.05461	8-HR	1ST	14072216
-500	-1000	0.07098	8-HR	1ST	14072116
0	-1000	0.0826	8-HR	1ST	14072116
500	-1000	0.07098	8-HR	1ST	14072116
1000	-1000	0.05461	8-HR	1ST	14072216
1500	-1000	0.04617	8-HR	1ST	14072216
2000	-1000	0.03892	8-HR	1ST	14072216
2500	-1000	0.03287	8-HR	1ST	14070908
3000	-1000	0.02826	8-HR	1ST	14070908
3500	-1000	0.02442	8-HR	1ST	14070908
4000	-1000	0.02126	8-HR	1ST	14070908
4500	-1000	0.01867	8-HR	1ST	14070908
5000	-1000	0.01653	8-HR	1ST	14070908
5500	-1000	0.01476	8-HR	1ST	14070908
6000	-1000	0.01327	8-HR	1ST	14070908
6500	-1000	0.01202	8-HR	1ST	14070908
7000	-1000	0.01096	8-HR	1ST	14070908
7500	-1000	0.01005	8-HR	1ST	14070908
-7500	-500	0.43881	8-HR	1ST	14071208
-7000	-500	0.45061	8-HR	1ST	14071208
-6500	-500	0.46204	8-HR	1ST	14071208
-6000	-500	0.47233	8-HR	1ST	14071208
-5500	-500	0.48137	8-HR	1ST	14071408
-5000	-500	0.50148	8-HR	1ST	14071408
-4500	-500	0.52136	8-HR	1ST	14071408
-4000	-500	0.54044	8-HR	1ST	14071408
-3500	-500	0.55706	8-HR	1ST	14071408
-3000	-500	0.56685	8-HR	1ST	14071408
-2500	-500	0.55895	8-HR	1ST	14071408
-2000	-500	0.50208	8-HR	1ST	14071408
-1500	-500	0.3446	8-HR	1ST	14071408
-1000	-500	0.11332	8-HR	1ST	14071408
-500	-500	0.12287	8-HR	1ST	14072116
0	-500	0.1529	8-HR	1ST	14072116
500	-500	0.12287	8-HR	1ST	14072116
1000	-500	0.07098	8-HR	1ST	14072116
1500	-500	0.05075	8-HR	1ST	14072216
2000	-500	0.04166	8-HR	1ST	14072216
2500	-500	0.03445	8-HR	1ST	14070908
3000	-500	0.02936	8-HR	1ST	14070908
3500	-500	0.02519	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
4000	-500	0.02181	8-HR	1ST	14070908
4500	-500	0.01907	8-HR	1ST	14070908
5000	-500	0.01683	8-HR	1ST	14070908
5500	-500	0.01498	8-HR	1ST	14070908
6000	-500	0.01344	8-HR	1ST	14070908
6500	-500	0.01215	8-HR	1ST	14070908
7000	-500	0.01106	8-HR	1ST	14070908
7500	-500	0.01013	8-HR	1ST	14070908
-7500	0	0.49091	8-HR	1ST	14071208
-7000	0	0.50806	8-HR	1ST	14071208
-6500	0	0.52597	8-HR	1ST	14071208
-6000	0	0.54419	8-HR	1ST	14071208
-5500	0	0.55815	8-HR	1ST	14071208
-5000	0	0.56923	8-HR	1ST	14071208
-4500	0	0.58621	8-HR	1ST	14071408
-4000	0	0.62003	8-HR	1ST	14071408
-3500	0	0.65618	8-HR	1ST	14071408
-3000	0	0.69306	8-HR	1ST	14071408
-2500	0	0.72465	8-HR	1ST	14071408
-2000	0	0.72929	8-HR	1ST	14071408
-1500	0	0.64026	8-HR	1ST	14071408
-1000	0	0.61983	8-HR	1ST	14071216
-500	0	0.24106	8-HR	1ST	14072116
0	0	0	8-HR	1ST	0
500	0	0.1529	8-HR	1ST	14072116
1000	0	0.0826	8-HR	1ST	14072116
1500	0	0.05259	8-HR	1ST	14072216
2000	0	0.04265	8-HR	1ST	14072216
2500	0	0.0351	8-HR	1ST	14072216
3000	0	0.02975	8-HR	1ST	14070908
3500	0	0.02546	8-HR	1ST	14070908
4000	0	0.02201	8-HR	1ST	14070908
4500	0	0.01921	8-HR	1ST	14070908
5000	0	0.01693	8-HR	1ST	14070908
5500	0	0.01506	8-HR	1ST	14070908
6000	0	0.0135	8-HR	1ST	14070908
6500	0	0.0122	8-HR	1ST	14070908
7000	0	0.0111	8-HR	1ST	14070908
7500	0	0.01016	8-HR	1ST	14070908
-7500	500	0.43881	8-HR	1ST	14071208
-7000	500	0.45061	8-HR	1ST	14071208
-6500	500	0.46204	8-HR	1ST	14071208

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-6000	500	0.47233	8-HR	1ST	14071208
-5500	500	0.48137	8-HR	1ST	14071408
-5000	500	0.50148	8-HR	1ST	14071408
-4500	500	0.52136	8-HR	1ST	14071408
-4000	500	0.54044	8-HR	1ST	14071408
-3500	500	0.55706	8-HR	1ST	14071408
-3000	500	0.56685	8-HR	1ST	14071408
-2500	500	0.55895	8-HR	1ST	14071408
-2000	500	0.50208	8-HR	1ST	14071408
-1500	500	0.3446	8-HR	1ST	14071408
-1000	500	0.70628	8-HR	1ST	14072116
-500	500	2.68577	8-HR	1ST	14071616
0	500	0.45832	8-HR	1ST	14070316
500	500	0.12287	8-HR	1ST	14072116
1000	500	0.07098	8-HR	1ST	14072116
1500	500	0.05075	8-HR	1ST	14072216
2000	500	0.04166	8-HR	1ST	14072216
2500	500	0.03445	8-HR	1ST	14070908
3000	500	0.02936	8-HR	1ST	14070908
3500	500	0.02519	8-HR	1ST	14070908
4000	500	0.02181	8-HR	1ST	14070908
4500	500	0.01907	8-HR	1ST	14070908
5000	500	0.01683	8-HR	1ST	14070908
5500	500	0.01498	8-HR	1ST	14070908
6000	500	0.01344	8-HR	1ST	14070908
6500	500	0.01215	8-HR	1ST	14070908
7000	500	0.01106	8-HR	1ST	14070908
7500	500	0.01013	8-HR	1ST	14070908
-7500	1000	0.33503	8-HR	1ST	14071408
-7000	1000	0.34746	8-HR	1ST	14071408
-6500	1000	0.35972	8-HR	1ST	14071408
-6000	1000	0.3713	8-HR	1ST	14071408
-5500	1000	0.37715	8-HR	1ST	14071408
-5000	1000	0.38005	8-HR	1ST	14071408
-4500	1000	0.37992	8-HR	1ST	14071408
-4000	1000	0.3752	8-HR	1ST	14071408
-3500	1000	0.36248	8-HR	1ST	14071408
-3000	1000	0.33504	8-HR	1ST	14071408
-2500	1000	0.31896	8-HR	1ST	14070908
-2000	1000	0.4719	8-HR	1ST	14070908
-1500	1000	0.75942	8-HR	1ST	14071616
-1000	1000	1.68249	8-HR	1ST	14071616

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-500	1000	0.70628	8-HR	1ST	14072116
0	1000	1.80759	8-HR	1ST	14070516
500	1000	0.07098	8-HR	1ST	14072116
1000	1000	0.05461	8-HR	1ST	14072216
1500	1000	0.04617	8-HR	1ST	14072216
2000	1000	0.03892	8-HR	1ST	14072216
2500	1000	0.03287	8-HR	1ST	14070908
3000	1000	0.02826	8-HR	1ST	14070908
3500	1000	0.02442	8-HR	1ST	14070908
4000	1000	0.02126	8-HR	1ST	14070908
4500	1000	0.01867	8-HR	1ST	14070908
5000	1000	0.01653	8-HR	1ST	14070908
5500	1000	0.01476	8-HR	1ST	14070908
6000	1000	0.01327	8-HR	1ST	14070908
6500	1000	0.01202	8-HR	1ST	14070908
7000	1000	0.01096	8-HR	1ST	14070908
7500	1000	0.01005	8-HR	1ST	14070908
-7500	1500	0.2625	8-HR	1ST	14071408
-7000	1500	0.26644	8-HR	1ST	14071408
-6500	1500	0.26892	8-HR	1ST	14071408
-6000	1500	0.26933	8-HR	1ST	14071408
-5500	1500	0.26372	8-HR	1ST	14071408
-5000	1500	0.25506	8-HR	1ST	14071408
-4500	1500	0.24265	8-HR	1ST	14071408
-4000	1500	0.22434	8-HR	1ST	14071408
-3500	1500	0.25406	8-HR	1ST	14070908
-3000	1500	0.35033	8-HR	1ST	14070908
-2500	1500	0.48228	8-HR	1ST	14070908
-2000	1500	0.65517	8-HR	1ST	14071716
-1500	1500	0.97355	8-HR	1ST	14071716
-1000	1500	0.75942	8-HR	1ST	14071616
-500	1500	0.31445	8-HR	1ST	14072116
0	1500	1.67448	8-HR	1ST	14070516
500	1500	0.31215	8-HR	1ST	14070516
1000	1500	0.04617	8-HR	1ST	14072216
1500	1500	0.04075	8-HR	1ST	14072216
2000	1500	0.0351	8-HR	1ST	14072216
2500	1500	0.03057	8-HR	1ST	14070908
3000	1500	0.02662	8-HR	1ST	14070908
3500	1500	0.02325	8-HR	1ST	14070908
4000	1500	0.02041	8-HR	1ST	14070908
4500	1500	0.01804	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
5000	1500	0.01606	8-HR	1ST	14070908
5500	1500	0.0144	8-HR	1ST	14070908
6000	1500	0.013	8-HR	1ST	14070908
6500	1500	0.0118	8-HR	1ST	14070908
7000	1500	0.01079	8-HR	1ST	14070908
7500	1500	0.00991	8-HR	1ST	14070908
-7500	2000	0.19363	8-HR	1ST	14071408
-7000	2000	0.19167	8-HR	1ST	14071408
-6500	2000	0.18793	8-HR	1ST	14071408
-6000	2000	0.18192	8-HR	1ST	14071408
-5500	2000	0.1715	8-HR	1ST	14071408
-5000	2000	0.15843	8-HR	1ST	14071408
-4500	2000	0.19872	8-HR	1ST	14070908
-4000	2000	0.25988	8-HR	1ST	14070908
-3500	2000	0.34087	8-HR	1ST	14070908
-3000	2000	0.443	8-HR	1ST	14070908
-2500	2000	0.60459	8-HR	1ST	14071716
-2000	2000	0.77154	8-HR	1ST	14071716
-1500	2000	0.65517	8-HR	1ST	14071716
-1000	2000	0.4719	8-HR	1ST	14070908
-500	2000	0.49677	8-HR	1ST	14070516
0	2000	1.31757	8-HR	1ST	14070516
500	2000	0.49677	8-HR	1ST	14070516
1000	2000	0.03892	8-HR	1ST	14072216
1500	2000	0.0351	8-HR	1ST	14072216
2000	2000	0.03145	8-HR	1ST	14070908
2500	2000	0.02791	8-HR	1ST	14070908
3000	2000	0.02467	8-HR	1ST	14070908
3500	2000	0.02181	8-HR	1ST	14070908
4000	2000	0.01935	8-HR	1ST	14070908
4500	2000	0.01725	8-HR	1ST	14070908
5000	2000	0.01546	8-HR	1ST	14070908
5500	2000	0.01393	8-HR	1ST	14070908
6000	2000	0.01263	8-HR	1ST	14070908
6500	2000	0.01152	8-HR	1ST	14070908
7000	2000	0.01056	8-HR	1ST	14070908
7500	2000	0.00973	8-HR	1ST	14070908
-7500	2500	0.13728	8-HR	1ST	14071408
-7000	2500	0.13237	8-HR	1ST	14071408
-6500	2500	0.12584	8-HR	1ST	14071408
-6000	2500	0.12616	8-HR	1ST	14070908
-5500	2500	0.15773	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-5000	2500	0.19855	8-HR	1ST	14070908
-4500	2500	0.25089	8-HR	1ST	14070908
-4000	2500	0.32158	8-HR	1ST	14072216
-3500	2500	0.41116	8-HR	1ST	14072216
-3000	2500	0.55289	8-HR	1ST	14071716
-2500	2500	0.65588	8-HR	1ST	14071716
-2000	2500	0.60459	8-HR	1ST	14071716
-1500	2500	0.48228	8-HR	1ST	14070908
-1000	2500	0.31896	8-HR	1ST	14070908
-500	2500	0.54531	8-HR	1ST	14070516
0	2500	1.03191	8-HR	1ST	14070516
500	2500	0.54531	8-HR	1ST	14070516
1000	2500	0.08581	8-HR	1ST	14070516
1500	2500	0.03057	8-HR	1ST	14070908
2000	2500	0.02791	8-HR	1ST	14070908
2500	2500	0.02519	8-HR	1ST	14070908
3000	2500	0.02261	8-HR	1ST	14070908
3500	2500	0.02025	8-HR	1ST	14070908
4000	2500	0.01817	8-HR	1ST	14070908
4500	2500	0.01634	8-HR	1ST	14070908
5000	2500	0.01476	8-HR	1ST	14070908
5500	2500	0.01339	8-HR	1ST	14070908
6000	2500	0.0122	8-HR	1ST	14070908
6500	2500	0.01117	8-HR	1ST	14070908
7000	2500	0.01028	8-HR	1ST	14070908
7500	2500	0.0095	8-HR	1ST	14070908
-7500	3000	0.09492	8-HR	1ST	14071408
-7000	3000	0.10493	8-HR	1ST	14070908
-6500	3000	0.12772	8-HR	1ST	14070908
-6000	3000	0.15632	8-HR	1ST	14070908
-5500	3000	0.19205	8-HR	1ST	14070908
-5000	3000	0.24249	8-HR	1ST	14072216
-4500	3000	0.30656	8-HR	1ST	14070808
-4000	3000	0.4065	8-HR	1ST	14071716
-3500	3000	0.51272	8-HR	1ST	14071716
-3000	3000	0.58157	8-HR	1ST	14071716
-2500	3000	0.55289	8-HR	1ST	14071716
-2000	3000	0.443	8-HR	1ST	14070908
-1500	3000	0.35033	8-HR	1ST	14070908
-1000	3000	0.21927	8-HR	1ST	14070908
-500	3000	0.52454	8-HR	1ST	14070516
0	3000	0.82309	8-HR	1ST	14070516

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
500	3000	0.52454	8-HR	1ST	14070516
1000	3000	0.13946	8-HR	1ST	14070516
1500	3000	0.02662	8-HR	1ST	14070908
2000	3000	0.02467	8-HR	1ST	14070908
2500	3000	0.02261	8-HR	1ST	14070908
3000	3000	0.02058	8-HR	1ST	14070908
3500	3000	0.01867	8-HR	1ST	14070908
4000	3000	0.01693	8-HR	1ST	14070908
4500	3000	0.01538	8-HR	1ST	14070908
5000	3000	0.014	8-HR	1ST	14070908
5500	3000	0.01279	8-HR	1ST	14070908
6000	3000	0.01172	8-HR	1ST	14070908
6500	3000	0.01079	8-HR	1ST	14070908
7000	3000	0.00997	8-HR	1ST	14070908
7500	3000	0.00924	8-HR	1ST	14070908
-7500	3500	0.10544	8-HR	1ST	14070908
-7000	3500	0.12631	8-HR	1ST	14070908
-6500	3500	0.15196	8-HR	1ST	14072216
-6000	3500	0.18877	8-HR	1ST	14070808
-5500	3500	0.23937	8-HR	1ST	14071716
-5000	3500	0.314	8-HR	1ST	14071716
-4500	3500	0.39886	8-HR	1ST	14071716
-4000	3500	0.48004	8-HR	1ST	14071716
-3500	3500	0.52998	8-HR	1ST	14071716
-3000	3500	0.51272	8-HR	1ST	14071716
-2500	3500	0.41116	8-HR	1ST	14072216
-2000	3500	0.34087	8-HR	1ST	14070908
-1500	3500	0.25406	8-HR	1ST	14070908
-1000	3500	0.17736	8-HR	1ST	14070516
-500	3500	0.47927	8-HR	1ST	14070516
0	3500	0.6706	8-HR	1ST	14070516
500	3500	0.47927	8-HR	1ST	14070516
1000	3500	0.17736	8-HR	1ST	14070516
1500	3500	0.03654	8-HR	1ST	14070516
2000	3500	0.02181	8-HR	1ST	14070908
2500	3500	0.02025	8-HR	1ST	14070908
3000	3500	0.01867	8-HR	1ST	14070908
3500	3500	0.01714	8-HR	1ST	14070908
4000	3500	0.01571	8-HR	1ST	14070908
4500	3500	0.0144	8-HR	1ST	14070908
5000	3500	0.01322	8-HR	1ST	14070908
5500	3500	0.01215	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
6000	3500	0.01121	8-HR	1ST	14070908
6500	3500	0.01037	8-HR	1ST	14070908
7000	3500	0.00962	8-HR	1ST	14070908
7500	3500	0.00896	8-HR	1ST	14070908
-7500	4000	0.12348	8-HR	1ST	14072216
-7000	4000	0.1518	8-HR	1ST	14070808
-6500	4000	0.19007	8-HR	1ST	14071716
-6000	4000	0.24681	8-HR	1ST	14071716
-5500	4000	0.31403	8-HR	1ST	14071716
-5000	4000	0.38774	8-HR	1ST	14072308
-4500	4000	0.45541	8-HR	1ST	14072308
-4000	4000	0.49024	8-HR	1ST	14071716
-3500	4000	0.48004	8-HR	1ST	14071716
-3000	4000	0.4065	8-HR	1ST	14071716
-2500	4000	0.32158	8-HR	1ST	14072216
-2000	4000	0.25988	8-HR	1ST	14070908
-1500	4000	0.18669	8-HR	1ST	14070908
-1000	4000	0.19798	8-HR	1ST	14070516
-500	4000	0.42935	8-HR	1ST	14070516
0	4000	0.55719	8-HR	1ST	14070516
500	4000	0.42935	8-HR	1ST	14070516
1000	4000	0.19798	8-HR	1ST	14070516
1500	4000	0.05656	8-HR	1ST	14070516
2000	4000	0.01935	8-HR	1ST	14070908
2500	4000	0.01817	8-HR	1ST	14070908
3000	4000	0.01693	8-HR	1ST	14070908
3500	4000	0.01571	8-HR	1ST	14070908
4000	4000	0.01454	8-HR	1ST	14070908
4500	4000	0.01344	8-HR	1ST	14070908
5000	4000	0.01244	8-HR	1ST	14070908
5500	4000	0.01152	8-HR	1ST	14070908
6000	4000	0.01069	8-HR	1ST	14070908
6500	4000	0.00994	8-HR	1ST	14070908
7000	4000	0.00927	8-HR	1ST	14070908
7500	4000	0.00867	8-HR	1ST	14070908
-7500	4500	0.15422	8-HR	1ST	14071716
-7000	4500	0.19716	8-HR	1ST	14071716
-6500	4500	0.24877	8-HR	1ST	14071716
-6000	4500	0.31109	8-HR	1ST	14072308
-5500	4500	0.37855	8-HR	1ST	14072308
-5000	4500	0.43687	8-HR	1ST	14072308
-4500	4500	0.46831	8-HR	1ST	14072308

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-4000	4500	0.45541	8-HR	1ST	14072308
-3500	4500	0.39886	8-HR	1ST	14071716
-3000	4500	0.30656	8-HR	1ST	14070808
-2500	4500	0.25089	8-HR	1ST	14070908
-2000	4500	0.19872	8-HR	1ST	14070908
-1500	4500	0.13981	8-HR	1ST	14070908
-1000	4500	0.20553	8-HR	1ST	14070516
-500	4500	0.3844	8-HR	1ST	14070208
0	4500	0.51425	8-HR	1ST	14070208
500	4500	0.3844	8-HR	1ST	14070208
1000	4500	0.20553	8-HR	1ST	14070516
1500	4500	0.0746	8-HR	1ST	14070516
2000	4500	0.02404	8-HR	1ST	14070208
2500	4500	0.01634	8-HR	1ST	14070908
3000	4500	0.01538	8-HR	1ST	14070908
3500	4500	0.0144	8-HR	1ST	14070908
4000	4500	0.01344	8-HR	1ST	14070908
4500	4500	0.01253	8-HR	1ST	14070908
5000	4500	0.01168	8-HR	1ST	14070908
5500	4500	0.01089	8-HR	1ST	14070908
6000	4500	0.01016	8-HR	1ST	14070908
6500	4500	0.0095	8-HR	1ST	14070908
7000	4500	0.0089	8-HR	1ST	14070908
7500	4500	0.00836	8-HR	1ST	14070908
-7500	5000	0.20043	8-HR	1ST	14071716
-7000	5000	0.24876	8-HR	1ST	14072308
-6500	5000	0.30711	8-HR	1ST	14072308
-6000	5000	0.36652	8-HR	1ST	14072308
-5500	5000	0.41696	8-HR	1ST	14072308
-5000	5000	0.4448	8-HR	1ST	14072308
-4500	5000	0.43687	8-HR	1ST	14072308
-4000	5000	0.38774	8-HR	1ST	14072308
-3500	5000	0.314	8-HR	1ST	14071716
-3000	5000	0.24249	8-HR	1ST	14072216
-2500	5000	0.19855	8-HR	1ST	14070908
-2000	5000	0.15337	8-HR	1ST	14070908
-1500	5000	0.10689	8-HR	1ST	14070908
-1000	5000	0.21649	8-HR	1ST	14070208
-500	5000	0.40928	8-HR	1ST	14070208
0	5000	0.52491	8-HR	1ST	14070208
500	5000	0.40928	8-HR	1ST	14070208
1000	5000	0.21649	8-HR	1ST	14070208

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
1500	5000	0.09068	8-HR	1ST	14070208
2000	5000	0.03412	8-HR	1ST	14070208
2500	5000	0.01476	8-HR	1ST	14070908
3000	5000	0.014	8-HR	1ST	14070908
3500	5000	0.01322	8-HR	1ST	14070908
4000	5000	0.01244	8-HR	1ST	14070908
4500	5000	0.01168	8-HR	1ST	14070908
5000	5000	0.01096	8-HR	1ST	14070908
5500	5000	0.01028	8-HR	1ST	14070908
6000	5000	0.00965	8-HR	1ST	14070908
6500	5000	0.00907	8-HR	1ST	14070908
7000	5000	0.00854	8-HR	1ST	14070908
7500	5000	0.00805	8-HR	1ST	14070908
-7500	5500	0.24799	8-HR	1ST	14072308
-7000	5500	0.30063	8-HR	1ST	14072308
-6500	5500	0.35297	8-HR	1ST	14072308
-6000	5500	0.39682	8-HR	1ST	14072308
-5500	5500	0.4215	8-HR	1ST	14072308
-5000	5500	0.41696	8-HR	1ST	14072308
-4500	5500	0.37855	8-HR	1ST	14072308
-4000	5500	0.31403	8-HR	1ST	14071716
-3500	5500	0.23937	8-HR	1ST	14071716
-3000	5500	0.19205	8-HR	1ST	14070908
-2500	5500	0.15773	8-HR	1ST	14070908
-2000	5500	0.11983	8-HR	1ST	14070908
-1500	5500	0.11108	8-HR	1ST	14070208
-1000	5500	0.24249	8-HR	1ST	14070208
-500	5500	0.42556	8-HR	1ST	14070208
0	5500	0.52851	8-HR	1ST	14070208
500	5500	0.42556	8-HR	1ST	14070208
1000	5500	0.24249	8-HR	1ST	14070208
1500	5500	0.11108	8-HR	1ST	14070208
2000	5500	0.04518	8-HR	1ST	14070208
2500	5500	0.01815	8-HR	1ST	14070208
3000	5500	0.01279	8-HR	1ST	14070908
3500	5500	0.01215	8-HR	1ST	14070908
4000	5500	0.01152	8-HR	1ST	14070908
4500	5500	0.01089	8-HR	1ST	14070908
5000	5500	0.01028	8-HR	1ST	14070908
5500	5500	0.0097	8-HR	1ST	14070908
6000	5500	0.00916	8-HR	1ST	14070908
6500	5500	0.00865	8-HR	1ST	14070908

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
7000	5500	0.00818	8-HR	1ST	14070908
7500	5500	0.00774	8-HR	1ST	14070908
-7500	6000	0.29256	8-HR	1ST	14072308
-7000	6000	0.33882	8-HR	1ST	14072308
-6500	6000	0.37714	8-HR	1ST	14072308
-6000	6000	0.39908	8-HR	1ST	14072308
-5500	6000	0.39682	8-HR	1ST	14072308
-5000	6000	0.36652	8-HR	1ST	14072308
-4500	6000	0.31109	8-HR	1ST	14072308
-4000	6000	0.24681	8-HR	1ST	14071716
-3500	6000	0.18877	8-HR	1ST	14070808
-3000	6000	0.15632	8-HR	1ST	14070908
-2500	6000	0.12616	8-HR	1ST	14070908
-2000	6000	0.09491	8-HR	1ST	14070908
-1500	6000	0.1304	8-HR	1ST	14070208
-1000	6000	0.26335	8-HR	1ST	14070208
-500	6000	0.43479	8-HR	1ST	14070208
0	6000	0.52625	8-HR	1ST	14070208
500	6000	0.43479	8-HR	1ST	14070208
1000	6000	0.26335	8-HR	1ST	14070208
1500	6000	0.1304	8-HR	1ST	14070208
2000	6000	0.05704	8-HR	1ST	14070208
2500	6000	0.02407	8-HR	1ST	14070208
3000	6000	0.01172	8-HR	1ST	14070908
3500	6000	0.01121	8-HR	1ST	14070908
4000	6000	0.01069	8-HR	1ST	14070908
4500	6000	0.01016	8-HR	1ST	14070908
5000	6000	0.00965	8-HR	1ST	14070908
5500	6000	0.00916	8-HR	1ST	14070908
6000	6000	0.00868	8-HR	1ST	14070908
6500	6000	0.00824	8-HR	1ST	14070908
7000	6000	0.00783	8-HR	1ST	14070908
7500	6000	0.00744	8-HR	1ST	14070908
-7500	6500	0.32464	8-HR	1ST	14072308
-7000	6500	0.35835	8-HR	1ST	14072308
-6500	6500	0.3779	8-HR	1ST	14072308
-6000	6500	0.37714	8-HR	1ST	14072308
-5500	6500	0.35297	8-HR	1ST	14072308
-5000	6500	0.30711	8-HR	1ST	14072308
-4500	6500	0.24877	8-HR	1ST	14071716
-4000	6500	0.19007	8-HR	1ST	14071716
-3500	6500	0.15196	8-HR	1ST	14072216

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
-3000	6500	0.12772	8-HR	1ST	14070908
-2500	6500	0.10179	8-HR	1ST	14070908
-2000	6500	0.07623	8-HR	1ST	14070908
-1500	6500	0.14688	8-HR	1ST	14070208
-1000	6500	0.27819	8-HR	1ST	14070208
-500	6500	0.43808	8-HR	1ST	14070208
0	6500	0.51989	8-HR	1ST	14070208
500	6500	0.43808	8-HR	1ST	14070208
1000	6500	0.27819	8-HR	1ST	14070208
1500	6500	0.14688	8-HR	1ST	14070208
2000	6500	0.06882	8-HR	1ST	14070208
2500	6500	0.03061	8-HR	1ST	14070208
3000	6500	0.01395	8-HR	1ST	14070208
3500	6500	0.01037	8-HR	1ST	14070908
4000	6500	0.00994	8-HR	1ST	14070908
4500	6500	0.0095	8-HR	1ST	14070908
5000	6500	0.00907	8-HR	1ST	14070908
5500	6500	0.00865	8-HR	1ST	14070908
6000	6500	0.00824	8-HR	1ST	14070908
6500	6500	0.00785	8-HR	1ST	14070908
7000	6500	0.00749	8-HR	1ST	14070908
7500	6500	0.00714	8-HR	1ST	14070908
-7500	7000	0.34066	8-HR	1ST	14072308
-7000	7000	0.35813	8-HR	1ST	14072308
-6500	7000	0.35835	8-HR	1ST	14072308
-6000	7000	0.33882	8-HR	1ST	14072308
-5500	7000	0.30063	8-HR	1ST	14072308
-5000	7000	0.24876	8-HR	1ST	14072308
-4500	7000	0.19716	8-HR	1ST	14071716
-4000	7000	0.1518	8-HR	1ST	14070808
-3500	7000	0.12631	8-HR	1ST	14070908
-3000	7000	0.10493	8-HR	1ST	14070908
-2500	7000	0.08291	8-HR	1ST	14070908
-2000	7000	0.08031	8-HR	1ST	14070208
-1500	7000	0.16138	8-HR	1ST	14070208
-1000	7000	0.2898	8-HR	1ST	14070208
-500	7000	0.43854	8-HR	1ST	14070208
0	7000	0.51183	8-HR	1ST	14070208
500	7000	0.43854	8-HR	1ST	14070208
1000	7000	0.2898	8-HR	1ST	14070208
1500	7000	0.16138	8-HR	1ST	14070208
2000	7000	0.08031	8-HR	1ST	14070208

Receptor		Avg. Period	Avg. Period	High	YYMMDDHH
X	Y				
2500	7000	0.03761	8-HR	1ST	14070208
3000	7000	0.01765	8-HR	1ST	14070208
3500	7000	0.00962	8-HR	1ST	14070908
4000	7000	0.00927	8-HR	1ST	14070908
4500	7000	0.0089	8-HR	1ST	14070908
5000	7000	0.00854	8-HR	1ST	14070908
5500	7000	0.00818	8-HR	1ST	14070908
6000	7000	0.00783	8-HR	1ST	14070908
6500	7000	0.00749	8-HR	1ST	14070908
7000	7000	0.00717	8-HR	1ST	14070908
7500	7000	0.00686	8-HR	1ST	14070908
-7500	7500	0.34604	8-HR	1ST	14071508
-7000	7500	0.34066	8-HR	1ST	14072308
-6500	7500	0.32464	8-HR	1ST	14072308
-6000	7500	0.29256	8-HR	1ST	14072308
-5500	7500	0.24799	8-HR	1ST	14072308
-5000	7500	0.20043	8-HR	1ST	14071716
-4500	7500	0.15422	8-HR	1ST	14071716
-4000	7500	0.12348	8-HR	1ST	14072216
-3500	7500	0.10544	8-HR	1ST	14070908
-3000	7500	0.08677	8-HR	1ST	14070908
-2500	7500	0.06821	8-HR	1ST	14070908
-2000	7500	0.09121	8-HR	1ST	14070208
-1500	7500	0.17398	8-HR	1ST	14070208
-1000	7500	0.29876	8-HR	1ST	14070208
-500	7500	0.43684	8-HR	1ST	14070208
0	7500	0.50259	8-HR	1ST	14070208
500	7500	0.43684	8-HR	1ST	14070208
1000	7500	0.29876	8-HR	1ST	14070208
1500	7500	0.17398	8-HR	1ST	14070208
2000	7500	0.09121	8-HR	1ST	14070208
2500	7500	0.04484	8-HR	1ST	14070208
3000	7500	0.02176	8-HR	1ST	14070208
3500	7500	0.011	8-HR	1ST	14070208
4000	7500	0.00867	8-HR	1ST	14070908
4500	7500	0.00836	8-HR	1ST	14070908
5000	7500	0.00805	8-HR	1ST	14070908
5500	7500	0.00774	8-HR	1ST	14070908
6000	7500	0.00744	8-HR	1ST	14070908
6500	7500	0.00714	8-HR	1ST	14070908
7000	7500	0.00686	8-HR	1ST	14070908
7500	7500	0.00659	8-HR	1ST	14070908

Annex 9

Photographs

Annex 9 Photographs



SBIPCL Plant View



SBIPCL Plant View: Construction almost finished



Inside SBIPCL Plant (Direction & Fire Fighting)



SBIPCL Plant: Ongoing Construction Work



Visiting a landowner's house



Cattle Rearing at a Landowner's House



Improvement of Residence done with Land Compensation



A Landowner has Constructed a Shop Utilizing the Land Compensation



Meeting with Abdul Aziz, who lost 100% land. He has opened up a shop with the special allowance of Taka 200,000.



A Typical Poor Sharecropper PAH Standing in front of Their Residence



Skill Development Training on Farming/Fisheries and Poultry/Livestock and Provision of SED Loan will Definitely Improve Their Livelihood



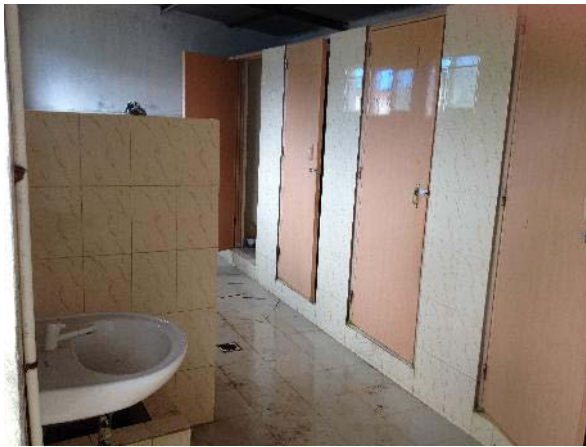
Sewing Training is now Under Operation



View of the Labor Camp



Labor Camp: Inside View



Labor Camp Toilet



Emergency Exit for the Labor Camp