

Environmental Monitoring Report

Quarterly Report
April to June 2014

VIE: Power Transmission Investment Program, Tranche 1 500/220kV Bac Ninh 2 – Pho Noi Transmission Line

Prepared by the Northern Vietnam Power Project Management Board (NPMB) for the National Power Transmission Corporation and the Asian Development Bank.

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NATIONAL POWER TRANSMISSION CORPORATION
SOUTHERN VIETNAM POWER PROJECT MANAGEMENT BOARD

ADB LOAN 2848-VIE

POWER TRANSMISSION INVESTMENT PROGRAM – TRANCHE 1
SUBPROJECT: 500KV/220KV BAC NINH 2 – PHO NOI TRANSMISSION LINE

QUARTERLY REPORT No.1

First Quarterly Report,
Covering April through June, 2014

Submitted to:

Northern Power Projects Management Board

Prepared by:

National Safeguard Specialist for Environment

Hanoi, June 2014

**VIE: MFF POWER TRANSMISSION INVESTMENT PROGRAM
ADB LOAN No. 2848-VIE**

Dear sir/madam,

**Subject: Loan 2848-VIE: POWER TRANSMISSION INVESTMENT PROGRAM – TRANCHE 1
Submission: The First Quarterly Report on Environment
Individual Consultant for Environment**

I am pleased to submit to you the First Quarterly Report on environment, covering April through June 2014.

Yours truly,

Signed

Tang Chi Anh
National Safeguard Specialist for Environment

ABBREVIATION

ADB	Asian Development Bank
CEP	Certification of Environmental Protection
CMC	Construction Monitoring Consultants
CPC	Commune People's Committee
CPPMB	Central Power Project Management Board
DPC	District People's Committee
DONRE	Department of Natural Resources & Environment
EM	Environmental Monitoring
EMF	Electromagnetic Field
EMP	Environment Management Plan
ES	Environmental Staff
ES	Environmental Sanitation
IEE	Initial Environmental Examination
LIC	Local Implementation Consultant
MONRE	Ministry of Natural Resource & Environment
NPPMB	Northern Power Project Management Board
NPT	National Power Transmission Corporation
QCVN	Vietnam Technical Standard
ROWs	Right of Ways
SPS	Safeguard Policy Statement
S/S	Substation
TCVN	Vietnam Standard
T/L	Transmission line

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1. INTRODUCTION

1.1 Project Background

1. The Electricity of Viet Nam (EVN) plans to develop transmission networks and substations that will support economic growth in Viet Nam and ensure access to reliable supply of electricity throughout the country. The Government of Socialist Republic of Viet Nam (GOV) hopes to meet its target of connecting 90% of the population to electricity by 2020 and subsequently 100% coverage by 2025. The building of power transmission and distribution networks will be able to accommodate the required energy of new power plants in the future.
2. A least cost development plan for Viet Nam between 2006 and 2015 was developed under the Master Plan of Power Development of Viet Nam No. VI. A program of transmission lines and substations, provision of meters and rehabilitation of urban and rural low voltage distribution networks or grids were identified in the master plan. Asian Development Bank (ADB) will finance the Power Transmission Investment Program covering the medium-term development plan for power transmission by the multi-tranche financing facility (MFF).
3. There are 4 Projects included in the first loan tranche of the Multi tranche Financing Facility: Power Transmission Investment Program (the Facility) that finances part of the National Power Transmission Corporation's (NPT) medium-term power transmission expansion program. In Viet Nam, The first tranche will finance 4 projects: (i) 500/220 kV Pho Noi substation; (ii) 500 kV/220 kV Pho Noi – Bac Ninh 2 transmission line; (iii) 220 kV Phu My 2 substation; (iv) 220 kV Song May – Uyen Hung transmission line. The Project will also finance nonphysical actions including (i) consulting services for (a) procurement, construction supervision and management, and implementation of social safeguards, (b) on the job-training for preparing and implementing resettlement and ethnic minority development plans, environmental impact assessments and management plans for subsequent financing tranches, (ii) an independent monitoring agency to monitor effective implementation of social safeguards, and (iii) an independent monitoring consultant as a third-party member for the review of draft bidding documents and to participate in the evaluation of bids and thus, guarantee that affiliation of an eligible bidder with Ministry of Industry and Trade (MOIT) / Viet Nam Electricity (EVN) does not affect the integrity and fairness of the competitive bidding process.
4. The 500 kV/220 kV Pho Noi – Bac Ninh 2 transmission line and associated 500/220 kV Pho Noi substation are located in the northern part of Viet Nam. The starting point of the transmission line will be the 500 kV bus bar of the Pho Noi substation that is located in the Hung Yen province and the ending point will be the 220 kV bus bar of the Bac Ninh 2 substation located in the BacNinh province.
5. The project features of 500/220kV Bac Ninh 2 – Pho Noi transmission line is presented in Table 1:
6. Table 1. The project features of 500/220kV Bac Ninh 2 – Pho Noi transmission line

Items	Description/date
Contractor	JV of Song Da 11 & Song Da 11 Thang Long & IEC
Contract Amount	368.668 mil. VND
Invitation for Bids	28 th August 2012
Bid Opening	11st October 2012
Date of submission of BER to EVNNPT	05 th November 2012
Date of submission of BER to ADB/AFD	1 st time: 14th December 2012 Revised: 06 th February 2013, 29 th March 2013, 10 th May 2013, 28 th June 2013.

ADB/AFD Approval of Award	04 th October 2013
EVNNPT Approval of Award	16 th October 2013
Operative L/C	NA
Contract Effectively	30 September 2013
Orig. Contract Expiry	Delivery time: 12 months

7. The project approval dates of 500kV / 220kV Pho Noi substation and connections are as follows:

The Feasibility Study was approved by EVN/ National Power Transmission Corporation on the Decision No. 633/QD-EVNNPT dated 12th July 2010. The Technical Design and Total Estimation were approved by EVNNPT on the Decision No. 1225/QD-EVNNPT on 13th December 2011. The Bidding Plan was approved by EVNNPT on the Decision No. 1017/QD-EVNNPT dated 20th October 2011.

8. In the implementation progress, international and national experts will assist NPPMB and CPPMB in environmental management planning and implementation of resettlement plans.
9. To further assist NPPMB to review safeguards documents to ensure compliance with ADB safeguards policy and to monitor implementation of the safeguards the local implementation consultant (LIC) – environment has been engaged in a lump-sum contract for 36 months, starting from January, 2014.

1.2 Purpose of the Report

10. This Quarterly Internal Monitoring Report for Safeguard Policy will focus on the following issues:
- (i) Subproject construction progress;
 - (ii) Implementation monitoring program;
 - (iii) Application mitigation measures;
 - (iv) Evaluation of applied mitigation measures application;
 - (v) Progress of resolving issues/ problems identified in previous reports;
 - (vi) Key Issues and recommendation.

2. INCORPORATION OF ENVIRONMENTAL REQUIREMENTS INTO PROJECT CONTRACTUAL ARRANGEMENTS

2.1 Policy, legal and administrative framework

2.1.1 ADB's Environmental Policies

11. All ADB financed projects must undergo environmental impact assessment (EIA) process. The environmental safeguards aim to ensure the environmental soundness and sustainability of projects. It also aims to support the integration of environmental considerations in the project decision-making process.
12. The SPS clarifies the rationale, scope and content of an environmental assessment as supported by technical guidelines (Environmental Assessment Guidelines 2003). The environmental assessment process calls for the initial screening of the project to determine, at the early stage, the level of assessment that is required so that appropriate studies are undertaken commensurate with the significance of potential impacts and risks.

13. The SPS contains a number of operational principles that includes the requirement to ensure that the measures identified during the impact assessment are included in the EMP and were implemented in agreement with the borrower. The borrower/client is required to monitor the progress of implementation of the EMP, document the monitoring results, identify necessary corrective actions, and reflect them in a corrective action plan. Periodic monitoring reports on progress of implementation of the EMP and the corrective actions, if any, are submitted to ADB on a semi-annual basis during the construction of projects with significant adverse environmental impacts and quarterly for highly complex and sensitive projects. During operation, reporting to ADB by projects with significant adverse impacts is required on an annual basis at the minimum.
14. Under SPS, the project has been evaluated considering the completion of the Environmental Categorization Form (Appendix 1) and Rapid Environmental Assessment Checklist (Appendix 2). The adverse environmental impacts of the project are considered site-specific and reversible. Therefore, it has been classified as Category B, requiring an IEE.

2.1.2 Viet Nam Environmental Policies

15. The policies on environment protection, power network protection, and land and construction in Viet Nam are presented in this section. Legal documents and approvals required for the project, issued by the national and local governments, are also included. Lastly, a brief discussion on the Environmental Impact Assessment (EIA) process and requirements in Viet Nam is provided.

16. Environmental Protection Law

National laws and regulations for environment protection applicable to the project are presented in Table 1. The Environment Protection Law is the main governing law. This is subsequently followed by implementation guidelines, amendments, and regulations. The related regulations on impact assessments, waste management, sanctions on administrative violations, incentives and support, and national technical regulations on quality of environmental media are also outlined in the table 2.

Table 2. Environment Protection Law and Regulations

Laws and Regulations	Description
Environmental Protection Law No. 52/2005/QH11 Date issued: 29/11/2005	Regulates environmental protection activities; policies, measures and resources for protection of the environment; and the rights and obligations of organizations, family households and individuals with respect to protection of the environment.
Decree No.80/2006/NĐ-CP Date issued: 09/08/2006	Detailing the guidelines in the implementation of a number of articles of the Environmental Protection Law regarding environmental standards; strategic environmental assessment; environmental impact assessment and environmental protection commitments; environmental protection in production, business and services; hazardous waste management; and disclosure of environmental information and data.
Decree No. 21/2008/ NĐ-CP Date issued: 28/02/2008	Amending and supplementing some articles of Decree No. 80/2006/NĐ-CP detailing the guidelines in the implementation of Environment Protection Law.
Decree No. 29/2011/ NĐ-CP Date issued: 18/04/2011	Regulation on the strategic environmental assessment, environmental impact assessment and environmental protection commitment.
Decree No. 117/2009/ND-CP Date issued:31/12/2009	Regulation on sanctioning administrative violations in environmental protection
Decree No. 04/2009/ND-CP Date issued:14/01/2009	Incentives and support for environment protection activities

Decree No. 59/2006/ND-CP Date issued: 09/4/2007	Regulation on solid waste management
MONRE Circular No. 05/2008/TT-BTNMT Date issued: 08/12/2008	Guiding strategic environment assessment, environmental impact assessment, and environment protection commitment.
MONRE Circular No. 12/2011/TT-BTNMT Date issued: 14/14/2011	Regulation on hazardous waste management
MONRE Decision No. 16/2008/QĐ-BTNMT Date issued: 31/12/2008	National Technical Regulation on environment regarding surface water quality (QCVN 08: 2008/BTNMT), underground water quality (QCVN 09: 2008/BTNMT, and domestic wastewater (QCVN 14: 2008/BTNMT) among others
MONRE Circular No. 16/2009/TT-BTNMT Date issued: 07/10/2009	National Technical Regulation on air quality (QCVN 05: 2009/BTNMT) and hazardous substance in ambient air (QCVN 06: 2009/BTNMT)
MONRE Circular No. 25/2009/TT-BTNMT Date issued: 16/11/2009	National Technical Regulation on hazardous waste threshold (QCVN 07: 2009/BTNMT), among others
MONRE Circular No. 39/2010/TT-BTNMT Date issued: 16/12/2010	National Technical Regulation on Noise (QCVN 26:2010/BTNMT) and Vibration (QCVN 27:2010/BTNMT) among others.

17. Other Related Laws and Regulations

Power Network Protection. The electricity law prescribes the detail for the power industry in areas such as development planning and investments, privileges and responsibilities of related organizations and individuals, protection of electric equipment and facilities, and safety, among others (Table 3). Implementation guidelines, amendments, and safety protection were detailed in succeeding government decrees and ministry circulars.

Table 3. Power Network Protection Laws and Regulations

Laws and Regulations	Description
Electricity Law No. 28/2004/QH11 Date issued: 03/12/2004	Prescribing the electricity development planning and investment; electricity saving; electricity markets; rights and obligations of organizations and individuals conducting electricity activities and using electricity; protection of electric equipment and facilities, electricity works and electric safety.
Government Decree No. 105/2005/NĐ-CP Date issued: 17/08/2005	Detailing the regulations and guidelines in the implementation of a number of articles of the Electricity Law.
Government Decree No. 106/2005/NĐ-CP Date issued: 17/08/2005	Detailing the guidelines in the implementation of a number of articles of the Electricity Law regarding the safety protection of high-voltage power grids.
Government Decree No. 81/2009/NĐ-CP Date issued: 12/10/2009	Amending and supplementing a number of articles of Government Decree No. 106/2005/NĐ-CP (Date issued: 17/08/2005) detailing the guidelines in the implementation of Electricity Law on safety protection of high voltage power grid works.
MIT Circular No. 06/2006/TT-BCN Date issued: 26/09/2006	Implementation of a number of provisions of the Government Decree No. 106/2005/NĐ-CP (Date issued: 17/08/2005) detailing the guidelines in the implementation of a number of articles of the Electricity Law regarding the safety protection of high-voltage power grid works.
MIT Circular No. 03/2010/TT-BCT Date issued: 22/01/2010	Providing for a number of contents on safety protection of high-voltage power grid works.

2.2 Institutional Arrangements and Responsibilities

2.2.1 NPPMB

18. The NPPMB as the IA of the project will have the overall responsibility for the planning, design, construction, and operation of the project. The NPPMB will also be responsible for the implementation of environmental management, mitigation, and monitoring measures outlined in the EMP. During the design phase, the NPPMB commissioned PECC3 to undertake the feasibility study, IEE, and RAP.
19. The NPPMB has a technical monitoring unit which is responsible for the monitoring of performance of contractors which also includes periodic environmental monitoring in the project area. The unit will be involved in the conduct of public consultation meetings to gather feedbacks from local residences on environmental problems arising during the construction phase, the results of which are forwarded to the NPPMB.
- (i) Assign an environment staff to monitor and manage the implementation of the EMP. (ii) Ensure that the project implementation is in accordance to the requirements of the GOV and ADB on environmental management and protection.
- (iii) Manage and monitoring the activities of construction contractors, particularly in the implementation of the EMP. (v) Prepare environmental monitoring reports for submission to NPT and ADB.
20. In addition, a Project Implementation Consultant will assist NPPMB in the overall project management.
21. During the operational phase, the Project Implementation Unit of NPPMB will be in-charge of the implementation of the EMP and will carry out the monitoring and reporting activities

2.2.2 Constructor

22. The construction contractor will be responsible in implementing the mitigation measures which are recommended during the construction phase. The contractor is also required to submit monthly reports on the implementation of the mitigation measures to NPPMB.

3. SUBPROJECT CONSTRUCTION PROGRESS

3.1 500kV/220kV Bac Ninh 2 – Pho Noi transmission line

23. The 500kV/220kV Bac Ninh 2 – Pho Noi transmission line will have a total length of 30.5 km (kilometer), starting from the 500kV/220kV Pho Noi substation and ending at the 220kV/110kV Bac Ninh2 substation. Figure 1 presents the overview of the ROW of the transmission line while Table 5 summarizes the location of the transmission towers by province, district, and commune. The transmission line will traverse two provinces, namely, BacNinh and Hung Yen. In BacNinh province, the length of the ROW is about 29.3 km which will pass through the districts of ThuanThanh, GiaBinh, Que Vo, and Tien Du. In Hung Yen province, the transmission line is about 1.2km and will pass through Van Lam district.

Table 4. Location of alignment and transmission towers by Province, District and Commune

Province	District	Commune	Tower
Bac Ninh	Tien Du	Minh Dao	G13C, G16
		Canh Hung	G17 – G18
		Tan Chi	G13C1

Province	District	Commune	Tower
		Lac Ve	G13B
		Tri Phuong	G19
	ThuanThanh	Nghia Dao	G2A
		Cham Lo	G2A1-G2A2
		An Binh	G2B
		Mao Dien	G2C
	GiaBinh	Lang Ngam	G2D
	Que Vo	Chi Lang	G2E –G2E1, G2F
Hung Yen	Van Lam	Viet Hung	G1A – G1D1, G1D2, G1E-G1F

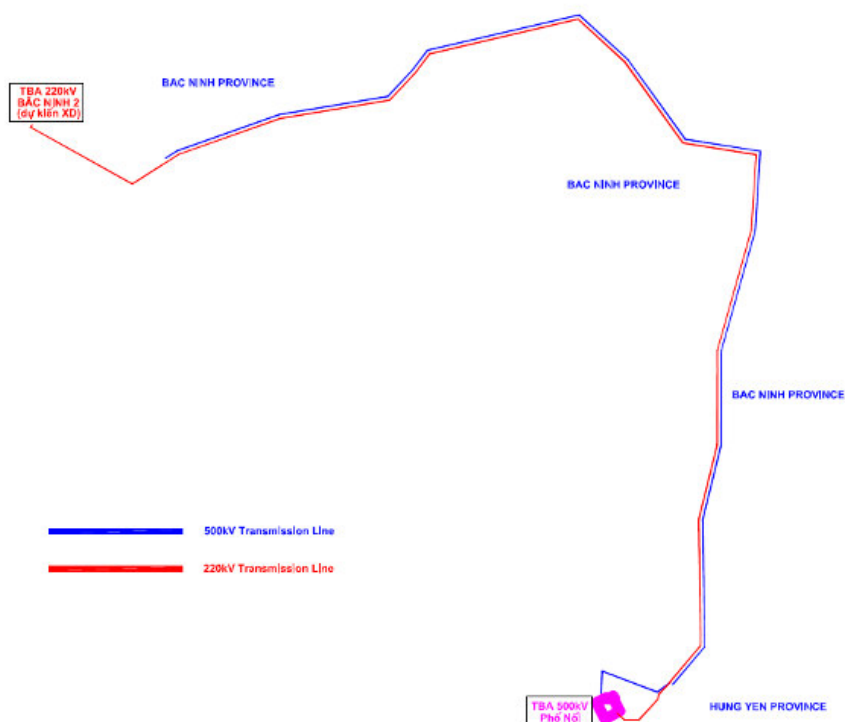


Figure 1. Overview of Transmission Line Right-of-Way

17. The subproject construction activities in this period include excavation of towers' foundation and tower erection. Completion works up to end of June 2014 are as in Table 6:

Table 5. Project progress of 220kV Bac Ninh – Pho Noi 2 transmission line

18. Mobilization. Upon mobilization of the contractor, the construction works will initiate with the construction of temporary access roads from the main roads to the site of the tower foundation. Construction materials such as cement, sand, stone and equipment parts of the tower lattices, insulators and conductors will be transported to the site of the towers using trucks and unloaded along road sides near the sites of each tower. Consent of the local authorities shall be secured during the construction of the towers. The materials and equipment will then be transported using small vehicles or manually transported along the paths to avoid significant disturbance of land.
19. Construction of Tower Foundation. After verification of the location of the tower foundation, construction will begin with the excavation of the tower foundations and then casting of concrete. All excavated soil will be retained and used for back filling of the tower foundations.
20. Tower Erection. The electrical materials such as conductors, lightning wire, and optical cables will be transported to a temporary storage facility in the project area and at road sides near the construction sites. These are also brought manually to the site of each tower. The transmission towers are then assembled manually on site through bolts and nuts and raised in sections.
21. Tree Clearing and Trimming along ROW. Clearing of tall trees and vegetation at the

tower sites in the ROW will be conducted using hand tools prior to stringing works. The clearing activities will not use heavy machinery or herbicides.

22. Stringing of Cables. The conductor and lightning wire are then stretched at each anchor in a mechanical and tension stringing operation to prevent damage to the wires and conductors caused by scrubbing on the ground or vegetation. Workers will be provided with radio communications equipment to ensure safety and smooth operation.

Item	Activities	Tower code	Number of towers
1	6 Foundation excavation	G13C-4÷G19B; G2D÷G1A; G2D÷G13C-3	7 35
2	8 Foundation concreton	G13C-4÷G19B; G2D÷G1A; G2D÷G13C-3	9 35
3	10 Earth filling	G13C-4÷G19B; G2D÷G1A; G2D÷G13C-3	11 35
4	12 Earthing electrode	G13C-4÷G19B; G2D÷G1A; G2D÷G13C-3	13 30
5	14 Tower erection	G13C-4÷G19B; G2D÷G1A; G2D÷G13C-3	15 35
	% completed		38

4. IMPLEMENTAION MONITORING PROGRAM

4.1 500kV/220kV Bac Ninh 2 – Pho Noi transmission line

4.1.1 Environment compliance at construction site

24. Monitoring program undertaken by the NPPMB and Contractor during the executing phase is as the below presented in Table 6.

Table 6. Monitoring program

Environmental issues	Monitoring Location	Activities	Monitoring Frequency	
			Contractor	NPPMB
Clearing of vegetation	ROW and transportation routes	Monitor tree cutting	Daily	Monthly
Erosion and sedimentation	Tower foundation area	Inspection of excavation works, silt arising from exposed soil surface, condition of erosion control measures	Daily	Monthly
Dust	Local road, Surrounding residential area, Construction site.	Monitor and inspect dust condition around construction area and transportation routes, Consult with local people on dust problem during construction.	Daily	Monthly

Environmental	Monitoring	Activities	Monitoring Frequency	
Noise	Surrounding residential area	Monitor noise during materials delivery and operation of construction equipments, Consult with local people on noise caused by construction activities	Daily	Monthly
Waste management	Workers' camp sites	Inspection of worker camp site condition, Check proper solid waste disposal	Daily	Monthly
Health and safety	Transmission line construction	Review contractor/ construction worker health and safety plan and training activities on health and safety	Daily	Monthly
Damage/nuisance	ROW and around the project area, Public road	Monitor and inspect impact on community's infrastructure, river, irrigation and drainage system, Monitoring and inspect public road condition	Daily	Monthly

25. NPPMB Monitoring

The NPPMB's staff for environmental and technical supervision regularly presents on visit the construction site and monitor the safeguard compliance of the constructors. The safeguards undertaken compliance as following:

- Supervise the Contractors in their performance of safety methods and safety regulations on the site.
- Examine, request, and supervise the Contractor in its implementation of traffic organization methods within the site and at the locations crossing the existing roads.
- Instruct and supervise the Contractors to carry out the environmental and social management programs during the work execution;
- Examine and supervise the environment protection methods in favor of the workers on the site and the surrounding environment proposed by the Contractor, including: anti-dust, anti-n dust and noise mitigation measures noise, waste treatment and site clearing methods.

26. Contractors Monitoring

- o Contractors mobilize enough human, technical resources to timely prevent or mitigate possible advert environmental impacts caused by construction works or recovery works at site. Contractors daily implement mitigation measures and undertake internal monitoring safeguards compliance including conducts detailed inventory of the identified environmental and social impacts that will be caused by executing the works.
- o Contractors Timely timely prevent or mitigate possible advert environmental and social impacts caused by construction works and recovery works.

The result of environmental compliance monitoring during the second quarter is presented in Table 7

Table 7. Summary of environmental compliance activities for Bac Ninh 2 – Pho Noi 500/220kV Transmission Line

Environmental issues	Location	Mitigation measures	Compliant	Remarks	Follow-Up action
			Yes/No		Needed
Dust and exhaust fumes	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> • Cover the material transported trucks to prevent falls. • Water the roads and construction sites in dry weather. • The machines should possess appropriate certificates. 	Yes	No	<ul style="list-style-type: none"> -Keep spraying water for dust control - Truck washing frequently

Environmental issues	Location	Mitigation measures	Compliant	Remarks	Follow-Up action
			Yes/No		Needed
Noise and vibration	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> The construction work should be performed at day time, not at night time or in the resting hours. 	Yes	No	It is required to inform the local resident beforehand if construction taken place at night time.
Construction waste water	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> Arrange waste water collection ditches around the foundation pit and retention pit to reduce turbidity before discharge to the local canals. Avoid spillage oil at the construction site Cover and protect construction material 	N/A	No construction activity, excavation and casting of foundation completed	<ul style="list-style-type: none"> -It is required better management of material -Material should be covered to avoid runoff and water pollution

Environmental issues	Location	Mitigation measures	Compliant	Remarks	Follow-Up action
			Yes/No		Needed
Soil pollution, soil erosion	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> • Conduct the construction work properly to ensure the construction progress. • The excavated soil should be used for backfilling the foundations. • Grow grass, build stone embankment around foundations on large slopes or places with weak geology. • The restoration work should be conducted for all borrowed areas 	Yes	Therehabilitationofthetemporaryacquisitionlandinthericefieldforcultivationisdone.Incontrast,therehabilitationofthelandonthehillshasnotbeendone yet	Grass should be grown for slope stabilization preventing the soil erosion in the rainy season.
Solid waste	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> • The excavated soil should be used for backfilling the excavations. • Collect all superabundant material 	Yes	Contractorcollectedclearlytheconstructionwasteatthetowerfoundationcompleted	The contractor should sign contract with URENCO to properly manage the waste

Environmental issues	Location	Mitigation measures	Compliant	Remarks	Follow-Up action
			Yes/No		Needed
Traffic obstruction and damages	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> • Use trucks with loads appropriate to roads. • Install signs near roads. • Repair segments of roads and other public properties damaged by the material transport. • Make access roads and carry out site restoration for borrowed land. 	Yes	No impact due to no construction activity	The contractor should install more sign board in the site
Impacts on people' health	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> • Manage the construction sites, collect waste and dispose it in designate places. • Propagandize and raise workers' awareness of social evils. • Conduct health examination for workers periodically. • Register for workers' residences with the authorities. • Equip workers with personal safety equipment and require them to use it at work. • Provide workers with all medical facilities and medicines. • Keep workers' camps clean; provide wastebaskets for waste collection. 	Yes	The erection of towers will be continued as soon as accessories supplied sufficiently, so up the monitoring time, workers assigned to other work and not lived at the project site anymore, no observation is reported	Worker should be reminded to wear the PPE during construction time

4.1.2 Community Health and safety (CHS) aspects

The result of community health and safety monitoring during the second quarter is presented in Table 8

Table 8. The result of community health and safety monitoring during the second quarter

Environmental issues	Location	Mitigation measures	Compliant	Remarks	Follow-Up action Needed
			Yes/No		
Impact on daily living activities of local people	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> Provision of signs, barriers, and gates/posts surrounding transmission towers particularly in built-up areas Signboards (Danger Warning Signs) need to be put on every tower as well as on the conductors where crossing community centers, roads and rivers. Grounding of conducting objects such as fences or other metallic structures near power lines. Conduct orientation seminar on community health and safety programs 	Yes		Signboards (Danger Warning Signs) need to be put on every tower as well as on the conductors where crossing community centers, roads and rivers.

Environmental issues	Location	Mitigation measures	Compliant	Remarks	Follow-Up action Needed
			Yes/No		
Working safety	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> • Conduct training and orientation of workers on construction health and safety management. • Require the wearing of PPEs by workers within the project site. • Strictly require the contractor and its workers to follow construction health and safety program. • Provide first-aid facilities for workers. • All site workers will be accommodated in the provided construction camps unless they are recruited from nearby communes. • The construction camp site and surrounding areas will be kept clean. Inspections of the camp sites will be carried out weekly. Adequate number of rubbish bins will be provided. • Portable water supply and/or water tank will be provided for workers. All potable water supply sources and storage facilities will be secured. • Regular collection of waste/rubbish at the camp to be taken to a managed waste disposal facility. • Conduct seminar/workshop for community on health and safety during construction. 	Yes	The erection of towers will be continued as soon as accessories supplied sufficiently, so up the monitoring time, workers assigned to other work and not lived at the project site anymore, no observation is reported	Regular collection of waste/rubbish at the camp to be taken to a managed waste disposal facility.

Environmental issues	Location	Mitigation measures	Compliant	Remarks	Follow-Up action Needed
			Yes/No		
Worker Camps	Minh Dao, Canh Hung, Tan Chi commune; Tien Du District, Bac Ninh province (G13C-4÷G19B); Viet Hung commune; Van Lam District, Bac Ninh province (G2D÷G1A); Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3)	<ul style="list-style-type: none"> • Provide temporary toilet facilities with septic tanks at the construction camp. • Implement appropriate solid waste and construction waste collection and disposal system. 	Yes		Provide temporary toilet facilities with septic tanks at the construction camp.

5 SUMMARY OF KEY ISSUES

5.1 Achievements

27. The ambient areas of construction site were quite clean. Residents said that there were no incidents or grievance redress on environmental pollution which is caused by construction activities.
28. Construction machineries are met environmental requirement.
29. The fence was set around construction site, temporary roads were created for traffic vehicles.
30. The measures to reduce flooding such as pumping water out, dredging ditches etc. were implemented
31. Construction site is quite clean, machines are neatly arranged.
32. The material transport trucks were covered by canvas.

5.2 Outstanding matters

33. Excavated soil is temporarily gathered at construction site (Lang Ngam commune; Thuan Thanh District, Hung Yen province (G2D÷G13C-3), preventing the flow during construction and causing standing water. Pumping water is also slowly implemented. The Contractor should pay attention to this matter in rainy season.
34. There are a few warning signs at construction areas;
35. Some camps and latrines are provisionally.
36. Working safety devices of workers are not satisfied.

5.3 Additional Action Required

37. Increase water pump to meet demands in the rainy season.
38. Workers' camps should be equipped with latrines and bath room.
39. Strictly manage site, arrange more warning signs, regulation boards and reflective instruction system for residents travelling on temporary road at night. Any site entry of residents will be forbidden. Workers are required to wear sufficient working safety devices and clothes. Strictly manage dumping domestic wastes.

6 CONCLUSION AND RECOMMENDATION

6.1 Conclusion

40. NPPMB, CMC and the Contractor have good awareness and active actions on environmental safety.
41. NPPMB implemented well their coordination works and cooperated with CMC and the Contractor in operating the environmental management system.
42. CMC shall strictly implement monitoring and matters related to environmental safety and sanitation on site.

43. Regarding safety and environmental sanitation matters, there has not any serious environmental problems in past 03 months. Generally, mitigation measures were implemented well.
44. In coming time, attention should be paid to drainage in rainy season.

ANNEXES

Annex No.1.Constructor Environmental compliance monitoring report

Project: VIE-2848: POWER TRANSMISSION INVESTMENT PROGRAM – TRANCHE 1 Subproject: BacNinh 2 – Pho Noi 500/220kV Transmission Line
 Monitor name: CMC/LIC Contractor: JV of Song Da 11 & Song Da 11 Thang Long & IEC
 Monitoring timing: Morning Weather condition: Sunny, breeze
 Monitoring date: 14/5/2014 Monitoring location: Bac Ninh, Hung Yen province

1. Contractor:

Contractor(s) environmental awareness	Yes/No	Actions Required	Contractor response/comment
Does the contractor aware of the mitigation measure should be applied?	Yes	N/A	N/A
Does the contractor have a copy of Environmental Management Plan (EMP)?	Yes	N/A	N/A

2. Mitigation compliance inspection

Impact / Mitigation measures (From EMP)	Mitigations implemented (Yes/No)	Mitigations effective? (1 to 5)*	Impact observed/ Location	Action required	Contractor response/ comment	Endorsed by	
						Implementing agency	Monitoring agency
<ul style="list-style-type: none"> Dust and exhaust fumes - Cover the trucks in charge of material transport to prevent falls. - Water the transport roads and construction sites in dry weather. - The machines should possess appropriate certificates 	N/A	4	Material has not been properly covered Dust could be seen at the site	Material will be properly covered More water spraying will be conducted	Agreed	Agreed	Agreed
<ul style="list-style-type: none"> Noise and vibration - The construction work should be performed on day, not at night or in resting hours. 	N/A	2	Noise is sometime noticed during the construction	Noise control should be taken care	Agreed	Agreed	Agreed
<ul style="list-style-type: none"> Construction waste water - Arrange waste water collection ditches around the foundation pit and retention pit to reduce turbidity before discharge to local canals. - Avoid spillage oil at the construction site - Cover and protect construction material 	N/A	3	No wastewater, Material is covered	Material should be more properly covered	Agreed	Agreed	Agreed
<ul style="list-style-type: none"> Soil pollution, soil erosion Conduct the construction work properly to ensure the construction progress. 	Yes	1	Borrow land has not been	Will be returned after construction	Agreed	Agreed	Agreed

Impact / Mitigation measures (From EMP)	Mitigations implemented (Yes/No)	Mitigations effective? (1 to 5)*	Impact observed/ Location	Action required	Contractor response/ comment	Endorsed by	
						Implementing agency	Monitoring agency
The excavated soil should be used for backfilling the foundations. Grow grass, build stone embankment around foundations on large slopes or places with weak geology. The restoration work should be conducted for all borrowed areas			returned	completion			
<ul style="list-style-type: none"> Solid waste <ul style="list-style-type: none"> The excavated soil should be used for backfilling the excavations. Collect all superabundant material 	Yes	2	Cement cover has not been collected	Collect the cement cover after use	Agreed	Agreed	Agreed
<ul style="list-style-type: none"> Traffic obstruction and damages <ul style="list-style-type: none"> Use trucks with loads appropriate to roads. Install signs near roads. Repair segments of roads and other public properties damaged by the material transport. Make access roads and carry out site restoration for borrowed land 	Yes	4	Access road has not been repaired	Will be repaired after the construction completion	Agreed	Agreed	Agreed
<ul style="list-style-type: none"> Impacts on people' health Manage the construction sites, collect waste and dispose it in designate place. Propagandize and raise workers' awareness of social evils. Conduct health examination for workers periodically. Register for workers' residences with the authorities. Equip workers with personal safety equipment and require them to use it at work. Provide workers with all medical facilities and medicines. Keep workers' camps clean; provide wastebaskets for waste collection 	Yes	3	No waste bin found in camps	PPE should be worn Waste bin should be adequately supplied	Agreed	Agreed	Agreed
<p>Mitigation effective rating criteria (indicative examples)</p> <p>1 Very good (all required mitigation implemented)</p> <p>2 Good (the majority of required mitigation implemented)</p> <p>3 Fair (some mitigations implemented)</p> <p>4 Poor (few mitigations implemented)/ Very poor (very few mitigations implemented)</p> <p>5 Very poor (few mitigations implemented)</p>							
3. Environmental incidents during reporting period (if relevant)							
Environmental incidents (accidents, spills, complaint)	Date/ Location	Reported by	Description/ Location	Action taken	Further action required	Endorsed by	
						Implementing agency	Monitoring agency

N/A

4. Summary of Actions required and follow-up (if relevant)

Action required	Timeframe	Responsible parties	Follow-up (to be completed if inspection/ monitoring indicates actions are required)
To be safety during tower erection, rehabilitating the temporary land, to ensure traffic safety during erection	Next month	Contractor	Action required: Environmental compliance inspection in the next monitoring
Provision of awareness signs and barriers at construction sites	Next month	Contractor	Effective: Yes

Inspection completed by: CMC/LIC

Date: 14/5/2014

Signature: TANG CHI ANH

Annex No.2.Attachment: (notes, photographs)

		
<p>Photos 1: Worker is covering the material</p>	<p>Photos 2: Consolidation by excavation</p>	<p>Photos 3: Temporary camps</p>
		
<p>Photos 4: temporary road embankments</p>	<p>Photos 5: There is little warning signs at construction areas</p>	