



Third Annual Monitoring Report to the Board of Directors

on the

Implementation of Remedial Actions

for the

Visayas Base-Load Power Development Project
in the Republic of the Philippines
(ADB Loan 2612-PHI)

14 August 2015

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.

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- the staff of the Private Sector Operations Department, ADB;
- Freedom from Debt Coalition-Cebu and the requesting parties, who have asked that their identities be kept confidential;
- the project sponsor, KEPCO-SPC Power Corporation; and
- the Government of the Republic of the Philippines.

ABBREVIATIONS

ADB	– Asian Development Bank
CRP	– Compliance Review Panel
DENR	– Department of Environment and Natural Resources
EMB	– Environmental Management Bureau
EMP	– environment management plan
GTCI	– Geo-Transport and Construction Incorporated
KSPC	– KEPCO-SPC Power Corporation
MMT	– multipartite monitoring team
MW	– megawatt
NGO	– nongovernment organization
PSOD	– Private Sector Operations Department, ADB
TA	– technical assistance

Note

In this report, “\$” refers to US dollars.

Chair	Dingding Tang, Compliance Review Panel
Member	Lalanath De Silva, Compliance Review Panel
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In preparing any country program or strategy, in financing any project, or in making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

I. INTRODUCTION

1. In May 2011, the Compliance Review Panel (CRP) received a request for compliance review of the Visayas Base-Load Power Development Project in the Philippines (Loan 2612-PHI) from people affected by the project. As provided in the Asian Development Bank (ADB) Accountability Mechanism Policy (2003), the CRP conducted the compliance review and submitted its report to the ADB Board of Directors (Board) in March 2012.¹ The report detailed instances of noncompliance by ADB with its operational policies and procedures on environment, public communications, and energy. The Board approved the recommendations in the CRP report, and Management later submitted a remedial action plan to the ADB President (reproduced in Appendix 2 of this report). As mandated under the Accountability Mechanism Policy (2003), the CRP is monitoring the implementation of the remedial action plan and it submitted its first annual monitoring report to the Board on 12 July 2013 and its second monitoring report on 1 August 2014. This is the CRP's third annual monitoring report to the Board.

2. This monitoring report covers the following:

- (i) a short description of the project;
- (ii) the results of the CRP's compliance review and the CRP's recommendations;
- (iii) the Management's action plan to comply with the CRP's Board-approved recommendations;
- (iv) the findings of the CRP during its third year of monitoring;
- (v) the CRP's conclusions regarding current state of Management's compliance with the Board-approved recommendations; and
- (vi) the CRP's feedback regarding the implementation of Management's remedial actions.

3. This monitoring report is based on a review by the CRP of Management's quarterly reports on the implementation of the action plan and other relevant documents submitted to the CRP by the Private Sector Operations Department (PSOD); interviews with concerned ADB staff; and a site visit to Cebu on 26-27 June 2015. During the site visit, the CRP met with representatives of the project sponsor, KEPCO-SPC Power Corporation (KSPC) and one of the complainants, their representative and two local NGO representatives.² The CRP conducted a visual inspection of the ash disposal pond, coal storage yard and the loading and unloading docks of KSPC. A list of the persons met by the CRP during the compliance review monitoring mission is in Appendix 1 of the present report.

4. The report assesses the progress made by Management in implementing its remedial action plan for complying with the CRP's Board-approved recommendations. This monitoring report contains the CRP's findings and conclusions regarding whether the implementation of its recommendations has resulted in compliance with ADB's operational policies and procedures, on the basis of its review of progress achieved in the third year of the implementation of the Management's action plan. For those recommendations that have not yet been complied with,

¹ ADB. 2012. *Final Report: Compliance Review Panel Request 2011/1 on the Visayas Base-Load Power Development Project in the Republic of the Philippines (ADB Loan 2612-PHI)*. Manila. Available at [http://www.compliance.adb.org/dir0035p.nsf/attachments/PHI%20FINAL%20REPORT%20FINAL%20APPROVED%20BY%20BOD.pdf/\\$FILE/PHI%20FINAL%20REPORT%20FINAL%20APPROVED%20BY%20BOD.pdf](http://www.compliance.adb.org/dir0035p.nsf/attachments/PHI%20FINAL%20REPORT%20FINAL%20APPROVED%20BY%20BOD.pdf/$FILE/PHI%20FINAL%20REPORT%20FINAL%20APPROVED%20BY%20BOD.pdf)

² The site visit to Naga, Cebu was done by CRP members, Lalanath de Silva and Artraud Hartmann with support from Josefina Miranda of the Office of the Compliance Review Panel.

the CRP provides feedback that Management should take into account in continuing to implement the CRP's recommendations to bring the project into full compliance.

5. In accordance with the provisions of the Operations Manual (OM) section L1 on Accountability Mechanism,³ the CRP submitted the draft of this monitoring report to the Board Compliance Review Committee (BCRC) for review and consultation. The BCRC comments have been considered in the final report. This monitoring report has the concurrence of all three members of the CRP.

II. DESCRIPTION OF THE PROJECT

6. The project involved the construction and operation of a 200-megawatt (MW) coal-fired power plant in Naga City, Cebu Province, Philippines, consisting of two nominal 100 MW units in the ash disposal area of the existing 203.8 MW Naga Power Plant, and using circulating fluidized bed combustion boilers that were expected to generate relatively low levels of nitrogen oxides and sulfur dioxide. The project was aimed at addressing the power shortage in the Visayas region and providing base-load power to the grid. It was designed to (i) support economic growth in the Visayas region by increasing the availability of reliable and competitively priced power to meet the growing demand of consumers without adding to the financial burden on the government; (ii) reduce electricity costs by increasing competition and efficiency through private sector investment; and (iii) be a model for future private sector investments in greenfield, environment-friendly, coal-fired power generation under the new regulatory regime for meeting the country's future energy needs.

7. This project marked the first collaboration between ADB and the Export-Import Bank of Korea. On 11 December 2009, ADB approved a direct loan of up to \$120 million to KSPC.⁴ The ADB loan was signed and took effect on 4 March 2010. ADB will continue to supervise the implementation and operation of the project until the final loan repayment period ends on 29 May 2021, as currently scheduled. With construction substantially completed, the plant was commissioned on 31 May 2011 and commercial operations started. It was inaugurated on 27 June 2011. The full loan amount of \$100 million has been fully disbursed, with final disbursement on 27 December 2013.

III. COMPLIANCE REVIEW AND RECOMMENDATIONS

8. On 25 May 2011, Aaron Pedrosa Jr., secretary general of the Freedom from Debt Coalition-Cebu and Vicente Obando, acting as representatives of the requesters, submitted a request for compliance review to the CRP. According to the request, the KSPC power plant project had or was likely to have adverse effects on the health of the people living near it because of (i) its emission of carbon dioxide (CO₂), sulfur dioxide, and nitrogen dioxide which could cause respiratory illnesses; (ii) the spillage of coal during transport exposing the community to hazardous, toxic metallic elements; and (iii) the seepage of harmful elements from the Balili coal ash dump site which could contaminate marine life and render it unfit for human consumption.⁵ The request added that the technology used in the plant did not prevent the CO₂

³ ADB. 2008. *Operations Manual*. L1/OP, para.70. Manila.

⁴ KSPC is owned by the Philippine corporations Korea Electric Power Corporation Philippine Holdings (60%) and Salcon Power (SPC, 40%).

⁵ The CRP did not investigate the complaints regarding the Balili site since the inclusion of the site in the ash disposal plan, still being reviewed at the time of the CRP investigation, was uncertain. A decision not to build an ash disposal facility on this site was later made.

emissions responsible for global warming and produced four times more coal combustion waste per megawatt of electricity than conventional coal-burning plants.

9. Based on CRP's recommendation, the Board authorized a compliance review of the project on 11 July 2011. The CRP conducted its review and found that the project did not comply with certain provisions of Environment Policy (2002) and OM Section F1: Environmental Considerations in ADB Operations (2006); OM Section L3: Public Communications (2008) and OM Section C3: Incorporation of Social Dimensions into ADB Operations (2007); and Energy Policy (2009), para. 15 (v).

10. With respect to the Environment Policy, the CRP found the project to be noncompliant with the provisions requiring the updating of the environmental impact assessment, a due diligence review of ash management, an environmental audit of the preexisting Naga power plant, ambient air dispersion modeling, and the preparation of an environmental management plan for the historical ash disposal sites. Regarding the Public Communications policy, the CRP found noncompliance in addressing community concerns about the health implications of the project, in providing adequate and timely information about environmental impact including the dissemination of the environmental impact assessment and subsequent changes in the assessment; and in ensuring an adequate and functioning grievance redress mechanism and an inclusive consultation process. Regarding the Energy Policy, the CRP found that ADB had decided to finance the coal-fired power plant without first ensuring compliance with social and environmental safeguards. Given these conclusions, the CRP came up with four recommendations to bring the project into compliance.

11. On 2 April 2012, the Board discussed the CRP's final report and approved its four recommendations. On 5 June 2012, Management submitted to the ADB President an action plan for the project to implement the Board-approved CRP recommendations and bring the project into compliance. The CRP did not have an opportunity to comment on the action plan before it was submitted to the ADB President and circulated to the Board. Management is expected to submit quarterly reports on the implementation of this action plan.

IV. RESULTS OF THE MONITORING OF THE ACTION PLAN

12. The following paragraphs present the findings and conclusions of this third annual monitoring report of the CRP. Each CRP recommendation is mentioned first, together with the related actions proposed in Management's action plan. The CRP's related findings, conclusions, and feedback follow.

A. CRP Recommendation 1

CRP Recommendation 1: Undertake a comprehensive air dispersion modeling study that includes the key pollution sources in the project's area of influence and validate its predictions with actual air emissions and ambient air quality monitoring data. Develop an action plan based on recommendations from the modeling study and emphasize the potential for continuous monitoring and recording of air emissions and ambient air quality.

Management Remedial Action Plan: A Technical Assistance (TA), with the Asian Development Bank as the Executing Agency (EA) and the office of the Department of Environment and Natural Resources (DENR) in Cebu as the Implementing Agency (IA), will be undertaken. As ADB obtains findings from the air dispersion modeling study during TA implementation, the findings will be discussed with KSPC, the local DENR office, and the Naga City government and an appropriate action plan will be developed and implemented. (For full text, see Appendix 2.)

13. **CRP findings regarding compliance with recommendation 1.** To carry out this recommendation and Management's action plan, ADB prepared and approved capacity development technical assistance (TA) for air quality management for the project.⁶ This TA provided for the analysis and interpretation of the findings of the ambient air quality data and dispersion modeling study against the latest research findings of the World Health Organization and international health research institutes. As explained in its first monitoring report submitted 2 years ago, the CRP noted at that time that the TA project had been delayed by 8 months for reasons set out therein. Thereafter, the TA for air quality management for the project was further delayed on account of a number of reasons which were discussed in the CRP's second monitoring report submitted 1 year ago. Finally, the implementation of the TA began with a kick off meeting that was held on 25 June 2014 at the KSPC office and included the consultant (AECOM), DENR, KSPC, APO Cement, Naga Power Plant and civil society organizations.

14. Since then, several steps have been taken by Management to continue the implementation of the TA. During the monitoring period of this third CRP monitoring report, AECOM has submitted a draft Meteorological Analysis, which has been reviewed by Management. ADB is now awaiting responses from AECOM on observations and comments made. Management is also following up with Department of Environment and Natural Resources, Environmental Management Bureau Region 7 (DENR EMB-7) comments on the study. Based on the analysis, DENR EMB-7 is expected to suggest possible sites for deployment of ambient air quality monitoring equipment. Data from this equipment collected over approximately 6-12 months of operation will then be used to test and adjust the model to make it more accurate for prediction of air pollutant dispersion in the area. This adjusted model will then provide valuable information to all stakeholders to develop an action plan to prevent and mitigate air pollution from the power plant and other industrial establishments in the Naga and nearby areas.

15. The CRP observes however, that the recently produced meteorological study has not yet been shared with the complainants or with the affected community. The CRP wishes to stress that the purpose and function of this study is to develop an action plan that ensures the safety and health of the communities living in the neighborhood of the power plant and other

⁶ ADB. 2013. *Technical Assistance to the Republic of the Philippines for Air Quality Management for the Visayas Base-Load Power Development Project*. Manila (CDTA 8338-PHI, \$1 million; approved in March 2013).

industrial establishments such as the APO Cement Plant and the older power plant adjacent to KSPC power plant that is now non-operational. The CRP requests Management to ensure that all studies, including the meteorological study is shared in a transparent and participatory manner with the complainants and the community so as to ensure early buy-in to the action plan and the data on which that plan is based. They should also be adequately consulted in the choice of places to install the air quality monitoring equipment. In essence, the CRP sees the complainants and the communities in and around the power plant and Naga City as an essential and necessary stakeholder in the decision-making process concerning this TA. Adherence to this principle and practice is essential to bring this aspect of the project into full compliance with the relevant ADB policies. Subsequent to the drafting of this report, Management has confirmed with the CRP that it will share the meteorological studies with the complainants and the public before acting on it.

16. Management informed the CRP that it was in the process of seeking approval for variation of the consultancy contract with AECOM and the consequential variation of the consultant's terms of reference (TOR). The CRP was informed that the consultant's revised contract and TOR will be expanded to cover the following tasks: (i) include heavy metals like lead and mercury in the study given the operation of a cement plant in the project area; (ii) develop emission inventory for the new 300 MW coal-fired power plant to be built on the site of the shuttered Naga power plant complex and include it in the air dispersion modeling exercise; and (iii) manage the procurement of the air quality monitoring equipment subject to ADB guidelines. As a result, the procurement by the ADB of air quality monitoring equipment to collect on site data to test the air dispersion modeling has been delayed as Management works out the details of the actual tasks that will be performed by AECOM in consultation with Office of Administrative Services, Operations Services and Financial Management Department and Controller's Department, all of ADB. The CRP is concerned about these ongoing delays and hopes that Management would do its best to minimize them.

17. It would seem that the emission parameters covered in the current TA are limited to NO_x, SO₂ and PM although heavy metals are commonly covered in international guidelines for emission standards. Inclusion of heavy metals such as lead and mercury in the study is consistent with the objective of the TA to determine the impact of the air emissions of industrial plants on the health of Naga City residents, particularly those living near the plants. The CRP is of the view that inclusion of heavy metals will produce a more comprehensive air quality assessment and action plan that will benefit the residents in Naga City. Once the air modelling study is completed and data from the air monitoring equipment installed under the TA is obtained, they should be used to validate the model. The data from the validated model can then be used for planning purposes.

18. This would be a precedent setting study for the Republic of the Philippines, and if done well, can serve as a useful example with many good lessons for others as well. KSPC already has two ambient air quality monitoring stations (one 150m and the other 250m from the power plant), in addition to its stack emission measuring instrument. The TA will establish four to six new ambient air quality monitoring stations strategically placed in the area covered by the TA. It is expected that implementation of the TA will be completed in November 2015.

19. **CRP conclusions regarding compliance with recommendation 1.** The CRP finds that by continuing the implementation of the TA, Management has made progress and partially complied with this recommendation. Full implementation can only be declared when the following actions are completed:

- (i) the meteorological study is shared with the complainants and neighboring communities (perhaps via a MMT meeting) and their views and feedback are taken into account in finalizing the study and they are properly consulted in the selection of locations for the air monitoring equipment that will be installed;
- (ii) subsequent to the preparation of the initial modeling, air monitoring data is collected over an adequate period that covers seasonal variations of weather and wind direction and power production and this data is verified as accurate and again made transparent by sharing the same with all stakeholders including the complainants, communities, and KSPC as well as other industrial establishments concerned such as APO Cement;
- (iii) the air quality monitoring data is then used to verify the air modeling that is done and the model is appropriately adjusted and this data and modeling is also made transparent and feedback obtained from all stakeholders. Such modeling development needs to include a correlation analysis between ambient air quality and the pollution emission from the stack of the plant; and
- (iv) based on this modeling and data, an action plan is developed and approved, through a transparent and participatory process involving all stakeholders and the Naga City government – a plan that addresses the various concerns raised in this case about air pollution, coal dust, and other health impacts from this power plant; the plan must contain adequate guidelines for future management of the airshed on the power plant and Naga City.

20. CRP feedback to Management on actions to bring the project into full compliance with recommendation 1: In order for ADB to bring the project into compliance with this recommendation, Management will need to fully implement the TA by September 2016 and develop an action plan that involves the KSPC power plant, the old power plant adjoining the KSPC power plant and the two other facilities that are subject to this TA by September 2017. The TA implementation as well as the action plan must be developed with the full participation of all stakeholders, including civil society and the complainants in this case, as described above. The draft plan and the process will be reviewed by the CRP and as such, PSOD is requested to send the CRP drafts and accounts of the process as part of its quarterly reporting.

B. CRP Recommendation 2

CRP Recommendation 2: Undertake a comprehensive study on ash utilization at cement plants and the ready-to-mix concrete plant and implement plant-specific recommendations and EMPs. In addition, prepare and implement EMPs for the existing ash ponds and historical ash disposal sites.

Management Remedial Action Plan: KSPC produces about 135 tons/day of ash. KSPC has been temporarily disposing of its ash at the Naga Power Plant's ash pond and KSPC's existing onsite emergency ash pond (Ash Pond B). As the long term solution, since 2011, KSPC, with ADB's guidance, has been developing a new ash management plan, consisting of (i) recycling of ash by a cement plant and a ready-mixed concrete batching plant, (ii) landfilling of un-recycled ash at secured ash ponds to be constructed within KSPC's plant site, and (iii) as a backup measure, landfilling at a secured landfill facility located in a municipal waste management facility. (For full text see Appendix 2.)

21. **CRP findings on compliance with recommendation 2.** In the CRP's first annual monitoring report dated 12 July 2013, the CRP stated:

In order for ADB to bring the project into full compliance with this recommendation, (i) **Management should seek confirmation** and advice from DENR (region 7 office) and EMB on the suitability of using KSPC's bottom ash and fly ash in APO Cement production and the need to issue a revised permit with the required specifications, and Management should seek confirmation from DENR that APO Cement and GTCI are operating in compliance with their respective environmental compliance certificates (ECCs). **All of these tasks have to be completed by the 4th quarter of 2013.** (emphasis added)

22. In its second annual monitoring report dated 1 August 2014, the CRP again emphasized this aspect stating:

In order for ADB to bring the project into full compliance with this recommendation, (i) **Management should urgently obtain written confirmation** (in addition to the verbal confirmation already received) and advice from DENR (region 7 office) and EMB on the suitability of using KSPC's bottom ash and fly ash in APO Cement production and the need to issue a revised permit with the required specifications, and Management should seek confirmation from DENR that APO Cement and GTCI are operating in compliance with their respective environmental compliance certificates. **All of these tasks have to be completed by the 3rd quarter of 2014.** (emphasis added)

23. By August 2014, (DENR EMB-7) had confirmed that both APO Cement and Geo-Transport and Construction Incorporated (GTCI) are in compliance with their respective environmental clearance certificates and that the multipartite monitoring team (MMT) for APO Cement had also been meeting on a quarterly basis and no issues have been raised with respect to the suitability of using KSPC's ash in APO Cement production. The CRP also reported that DENR had confirmed that KSPC ash is suitable for use in the APO and GTCI plants. However, when the CRP visited the KSPC power plant in 2014, staff were not able to produce a document confirming these facts. Apparently, the confirmations had been given verbally. It is for this reason that the CRP requested that they be affirmed by DENR in writing, for the record. In its second monitoring report of 2014, the CRP informed Management to obtain confirmation from DENR that no further revisions to the permits are required since the ash disposal method now in operation is covered by the existing permits.

24. In 2014, PSOD informed the CRP that it has requested APO Cement and DENR EMB-7 for written confirmation on (i) the suitability of using bottom ash and fly ash in APO's cement production and (ii) the respective environmental compliance certificates of APO Cement and GTCI cover the use of ash in their production. Disappointingly, however, PSOD has not been able to obtain these written confirmations from DENR even after the lapse of 2 years since the CRP made this request as part of its monitoring function. The CRP gave PSOD until 15 July 2015 as part of the third monitoring report phase to obtain these written confirmations, but the same has not been forthcoming. The CRP is therefore constrained to report this matter to the Board as an issue that may now require its attention to ensure PSOD complies with the CRP's requests. Unless these confirmations are obtained in writing, the CRP will not be able to confirm this item of the remedial action plan as complete and accordingly declare that the project is compliant in this regard.

Figure: Emergency Ash Pond B at KSPC Compound with ash and showing damage to surface membrane



25. As of the date of the second CRP monitoring report, KSPC had completed the construction of the emergency ash pond B lined with three impermeable membranes to prevent seepage of waste water. When the CRP visited the power plant on 26 June 2015, the pond was partially filled with coal ash and the CRP also observed that the surface membrane of the ash pond had been damaged and torn in several places (See Figure above). The CRP was informed by KSPC staff that the ash pond has a storage capacity of one year. KSPC personnel explained that the ash that had been stored in the ash pond was largely due to a slowdown of work at the APO Cement Plant due to plant repairs; repairs at the KSPC plant; and the high ash content of a batch of coal used in the power plant. The CRP was informed that about 4,000 MT of coal ash had been stored but that KSPC was confident it would all be recycled in the next few months by APO Cement Plant. This is about 10% of the capacity of the ash pond. KSPC staff informed the CRP that as soon as the pond is emptied of ash, plans had been made to reline the damaged surface membrane of the pond. Ground water testing for heavy metals has been continued regularly and the test results have been shared with stakeholders at MMT meetings and with the CRP via quarterly Management monitoring reports. Samples were taken from ground water test wells, one sample each from upstream and downstream of the pond. PSOD has informed the CRP that KSPC has confirmed that the groundwater monitoring will be done on a quarterly basis and reported accordingly. As indicated in the test result certificates, heavy metal content was tested for each sample. Both results indicate that there is no contamination from the ash

pond leachate to the nearby community well and that all the heavy metal contents in both samples are within tolerable levels.

26. However, when the CRP met with the complainants and some community members on 26 June 2015, they expressed concern that the test samples are drawn by KSPC without any supervision from DENR or observation by the complainants or community members. CRP has not confirmed with Management or KSPC whether DENR is present or not. The CRP requests management to ensure that DENR, complainants and nearby community barangay captains are notified 2 weeks in advance of the collection of test samples. The test samples should be taken in the presence of stakeholders and the samples must be properly sealed and made tamper proof with appropriate seals and signatures by DENR and KSPC staff (in the presence of complainants and community members) before they are sent to the laboratory for testing. A publicly available record must be maintained of the transmission of the sealed sample from KSPC to the laboratory with proper handover and take over signatures and certifications to ensure that the sample remains within a safe and secure chain of custody from KSPC to the laboratory. This is essential if the credibility of these test results are to be improved from the point of view of the complainants and communities. Subsequent to the drafting of this report, Management informed the CRP that KSPC had agreed to raise this matter at the next MMT meeting, invite the complainants to future sampling events, and ensure that the above procedures are complied with.

27. In a communication addressed to the CRP on 15 July 2014, Management conveyed an assurance given by KSPC that the above protocol relating to the chain of custody of the samples is being followed. KSPC has also informed Management that it will raise the issue of the participation of NGOs at the next MMT meeting and seek to convince the MMT to invite the NGOs to attend and witness the sampling. Management is requested to confirm in its next quarterly monitoring report that this protocol with NGO participation is being adhered to.

28. The CRP did not inspect the Pangdan and Naalad historic ash disposal sites as actions needed to bring those sites into compliance had been completed as at the date of the second CRP monitoring report.

29. **CRP conclusions regarding compliance with recommendation 2.** In the light of the above facts, the CRP concludes that this item of the action plan has been partially complied with.

30. **CRP feedback to Management on actions to bring the project into full compliance with recommendation 2.** In order for ADB to bring the project into full compliance with this recommendation, (i) Management should urgently obtain written confirmation from DENR (Region 7 office) and EMB on the suitability of using KSPC's bottom ash and fly ash in APO Cement production and the need to issue a revised permit with the required specifications, and Management should seek confirmation from DENR that APO Cement and GTCI are operating in compliance with their respective environmental compliance certificates. All of these tasks have to be completed by the 3rd quarter of 2014; (ii) Management should request KSPC and DENR Region 7 to invite NGOs to be present during the taking of groundwater monitoring samples from the ash disposal sites through the established test wells and to witness the sealing of samples. Once these steps are completed, the CRP will be able to declare this aspect of the recommendation as fully compliant. The first of these actions has now been delayed for more than 2 years and the CRP is constrained to bring this matter to the attention of the Board.

C. CRP Recommendation 3

CRP Recommendation 3: Expand or complement the existing MMT to ensure representation of all communities directly affected and all appropriate NGOs and to facilitate transparent and inclusive communication and grievance redress.

Management Remedial Action Plan: Representatives of the project team will attend the quarterly multi-partite monitoring team (MMT) meetings.

In a meeting with the local DENR office and Chairman of the MMT on 28 May 2012, ADB reiterated its request to include appropriate NGOs as members of the MMT or at least invite them to the quarterly meetings. The MMT Chairman will discuss ADB's request with other MMT members in the next MMT quarterly meeting to be scheduled in June 2012.

In case the MMT declines ADB's proposal to include the NGOs or at least invite them to the quarterly meetings, ADB will ask KSPC to hold complementary meetings with the NGOs on a quarterly basis to update them on project developments and share minutes of the MMT quarterly meetings. (For full text, see Appendix 2.)

31. **CRP findings regarding compliance with recommendation 3.** Three (3) MMT meetings (27 October 2014, 14 January 2015, and 29 April 2015) and an annual stakeholder's consultation (13 February 2015) were held during this monitoring period. Cebu-based NGOs, particularly Freedom from Debt Coalition (FDC), were invited as observers to all MMT meetings and invited as a full attendee to the stakeholders' consultation meeting. However, they were only able to attend the MMT meetings but could not attend the stakeholders' consultation meeting.

32. Despite requests from Management, the MMT has not decided to admit Cebu-based NGOs as members. However, they have invited them to attend meetings as observers. The CRP was informed by the complainants that in the first two meetings, documents distributed at the meeting for the information of participants were taken back at the end of the meeting. However, here again the practice has changed and documents distributed were now allowed to be taken away. The complainants and community members informed the CRP that they have been freely able to raise issues and questions and make submissions, even though they only have observer status. So long as this remains the case, the CRP is content with the current status quo. Any restrictions in the future on the ability of civil society organizations whether from the neighborhood or elsewhere in Cebu, to access documents or information of the MMT or have their voice heard by the MMT would constitute a withdrawal of these privileges and therefore short of compliance with ADB's policies.

33. KSPC management has not yet made the MMT minutes and information materials available on the web. Translation of the MMT minutes to the vernacular was thought to be unnecessary by some MMT members since they felt that residents are adequately knowledgeable in the English language. However, KSPC is now making arrangements to produce summaries of the minutes to be translated in the local language for the benefit of the community. Management was able to obtain an assurance from KSPC (conveyed to CRP on 15 July 2015) that by 22 July 2015 translated minutes will be available and that arrangements are being made with KEPCO Philippines to upload the MMT minutes and translations to its website. Apparently, KSPC does not have its own website to do so. If KEPCO Philippines is not able to upload these documents to its website, the CRP requests Management to upload them to the

ADB's project webpage on a regular basis. Subsequent to the drafting of this report, Management informed the CRP that KEPCO was still translating the MMT minutes for possible posting on its parent company website and that it had had been making the minutes of MMT meetings (in English) available on Barangay bulletin boards previously. Additionally, KSPC has agreed to continue to hold the stakeholder consultations twice each year. The next one is planned for August 2015.

34. KSPC's Complaints Management System continues to be implemented. KSPC Environmental Department has been mandated to ensure that all implementing departments will fulfill their roles. To date, several complaints have been received and processed. Many of them have to do with coal dust in residential homes. Each complaint is logged in a register, investigated, and notes of solutions offered are recorded. Remedial action taken includes cleaning of complainant's household premises by KSPC and taking of photos and samples to immediate shut down of operations that might be causing the problem.

35. The CRP examined a copy of the Complaints Management System and an example of a complaint registered in the system and showing how it was dealt with.

36. **CRP conclusions regarding compliance with recommendation 3.** Recommendation 3 of the CRP and the corresponding management action plan has been partially complied with.

37. **CRP feedback to Management on actions to bring the project into full compliance with recommendation 3.** In order for the CRP to declare this aspect of the action plan as complied with, Management should complete the actions specified in paragraph 33 above by the 3rd Quarter of 2015.

D. CRP Recommendation 4

CRP Recommendation 4: Implement a community outreach program focusing on preventing negative health impacts from air, water, and noise pollution and potentially negative impacts from exposure to unprotected coal ash deposits.

Management Remedial Action Plan: During the public consultation on KSPC's ash disposal plan last 27 April 2012, KSPC agreed to enhance its information outreach and awareness programs/activities to inform the affected or potentially affected people on the project including its ash management plan and on precautionary measures to avoid any potentially negative impacts from air, water and noise pollution and exposure to coal ash deposits.

ADB held an initial consultation with public health officials in Naga City on 26 April 2012. For a period of 1 year, ADB will hold quarterly meetings with the Naga City rural health units to continue and improve monitoring of the leading causes of morbidity in the project area, collect information and use the data in providing inputs to KSPC's medical missions. (For full text, see Appendix 2.)

38. **CRP findings regarding compliance with recommendation 4.** There is very little stated on this action plan item in the four quarterly reports submitted during this monitoring period by PSOD. The only matter that is new is set out as follows:

ADB will ask the Freedom from Debt Coalition representatives to provide the names of local residents who they identified as suffering from health problems due to KSPC plant's operation. ADB will ask KSPC medical missions to help these patients.

KSPC will install a concrete cover to permanently eliminate the risk of exposure due to deposits of 'unprotected' coal ash at sites of historical ash disposal at Naalad and Pangdan. ADB will further ask KSPC to conduct semi-annual medical mission to monitor skin/health related impacts due to such exposure in these neighborhoods and provide appropriate medical care. (from the Management's 12th Quarterly Report)

39. Apart from this, the matrix provided has a comment "No outstanding issues". When the CRP discussed this action item with the complainant, they did confirm that the medical clinics were being continued by KSPC. However, it is not clear to the CRP what medical records are being maintained for these visits and what data is being collected, analyzed and relayed to the relevant authorities. The CRP would like to see more detailed feedback in future quarterly reports on the precise nature of medical clinics conducted, where they are held, and summary results for the illnesses noted by the doctors, and the nature and extent of the data being collected by medical personnel. The CRP believes that this information, as baseline data should be collected, stored and regularly analyzed and relayed to DENR, the Naga City Health authorities and should also be used in the air modeling study that the ADB is conducting under its above mentioned TA. The CRP has already recognized that the health clinics are a sign of good progress by KSPC and the ADB staff, and encourages them to continue these efforts. Of course, a fully effective public information system is partially dependent on the implementation of the TA relating to the cumulative impacts on the airshed which is underway.

40. **CRP conclusions regarding compliance with recommendation 4.** The CRP finds that ADB has partially complied with this recommendation. PSOD staff confirmed that public health impacts, if any, will be carefully evaluated as part of the study and plan development. The CRP wishes to stress the importance of including the complainants and other NGOs at critical points in the consultation on the air modeling study, full disclosure of study results, data and analysis to them and their involvement in the development of an action plan. Having stakeholder buy-in to the action plan is essential to ensuring that it is relevant and has community support for its full implementation.

41. **CRP feedback to Management on actions to bring the project into full compliance with recommendation 4.** In order for ADB to bring the project into compliance with this recommendation, (i) Management should request KSPC that information on pollution-related risks and preventive action is systematically disseminated to communities near the plant on a continuing basis through disclosure of test results and emissions data on the KSPC website and at MMT and barangay as well as KSPC-convened stakeholder meetings; (ii) Management should ensure that the action plan under the TA for air quality management, to be completed by September 2017, will include recommendations specifically leading to targeted public health interventions as appropriate; and that ADB and KSPC should report to the CRP in their regular reports on the nature of the medical clinics (with location, name of doctor and places visited with dates) and a summary of the nature and extent of the data collected (the type of illnesses diagnosed, potential causes, medication/treatment given, date of visit, authorities to whom the data was reported and when).

V. CONCLUSIONS

42. The CRP observed continuing improvements over the past year, both in the attitude of KSPC plant staff to environmental and social concerns and in the management of such concerns. These improvements are to be encouraged as they augur well for the future of the project itself, the good relations with and well-being of the local community, and compliance with ADB environmental and social safeguard policies as well as its communications policy. The CRP also observed that the complainants and community members were able to present their grievances to the MMT as they are now invited to meetings, *albeit* as observers and are allowed to have access to the documentation of the meetings. The CRP hopes that the MMT will now use this new found opportunity to forge a truly collaborative effort between all stakeholders in making the critical decisions that will be needed once the air modeling study is done to bring the project into final and full compliance with ADB policies. The CRP hopes that efforts to fully implement the Management's action plan will be accelerated with the full cooperation of KSPC. Based on the Accountability Mechanism Policy (2003), the CRP will continue to monitor the implementation of the Board-approved recommendations and report to the Board annually unless the Board specifies a different timetable.

43. Of the four recommendations in the CRP's compliance review report approved by the Board, ADB has partly complied with all four recommendations. Full compliance with recommendations 2 and 3 can only be declared once the actions identified in paragraphs 32 and 39 are completed and so reported by Management to the CRP. The CRP wishes to bring to the Board's attention the inordinate delay of over 2 years in completing some of these tasks. Full compliance with recommendations 1 and 4, however, will have to await the results of the air modeling study and the use of health data in developing an action plan.

44. Below is a summary of the actions identified by the CRP as a result of its third year of monitoring, to bring the project into compliance with the Board-approved recommendations:

CRP Recommendations	Feedback to Management on Actions to Bring the Project into Full Compliance
<p><i>1. Undertake a comprehensive air dispersion modeling study that includes the key pollution sources in the project area of influence and validate the predictions with actual air emissions and ambient air quality monitoring data. Develop an action plan based on recommendations from the modeling study and emphasize the potential for continuous monitoring and recording of air emissions and ambient air quality.</i></p>	<p>Status of compliance: Partially complied with.</p> <p>For full compliance, the following actions must be taken by ADB Management:</p> <ul style="list-style-type: none"> (i) the meteorological study is shared with the complainants and neighboring communities (perhaps via a MMT meeting) and their views and feedback are taken into account in finalizing the study and they are properly consulted in the selection of locations for the air monitoring equipment that will be installed; (ii) subsequent to the preparation of the initial modeling, air monitoring data is collected over an adequate period that covers seasonal variations of weather and wind direction and power production and this data is verified as accurate and again made transparent by sharing the same with all stakeholders including the complainants, communities and KSPC as well as other industrial establishments concerned such as APO Cement.

CRP Recommendations	Feedback to Management on Actions to Bring the Project into Full Compliance
	<p>(iii) the air quality monitoring data is then used to verify the air modeling that is done and the model is appropriately adjusted and this data and modeling is also made transparent and feedback obtained from all stakeholders. Such modeling development needs to include a correlation analysis between ambient air quality and the pollution emission from the stack of the plant; and</p> <p>(iv) based on this modeling and data, an action plan is developed and approved, through a transparent and participatory process involving all stakeholders and the Naga City government – a plan that addresses the various concerns raised in this case about air pollution, coal dust, and other health impacts from this power plant; the plan must contain adequate guidelines for future management of the airshed on the power plant and Naga City.</p>
<p><i>2. Undertake a comprehensive study on ash utilization at cement plants and the ready-mixed concrete plant and implement plant-specific recommendations and EMPs. In addition, prepare and implement EMPs for the existing ash ponds and historical ash disposal sites.</i></p>	<p>Status of compliance: Partially complied with.</p> <p>For full compliance the following actions must be taken by the ADB Management:</p> <p>(i) Management should urgently obtain written confirmation from DENR (Region 7 office) and EMB on the suitability of using KSPC's bottom ash and fly ash in APO Cement production and the need to issue a revised permit with the required specifications, and Management should seek confirmation from DENR that APO Cement and GTCI are operating in compliance with their respective environmental compliance certificates. All of these tasks have to be completed by the 3rd quarter of 2014;</p> <p>(ii) Management should request KSPC and DENR Region 7 to invite NGOs to be present during the taking of groundwater monitoring samples from the ash disposal sites through the established test wells and to witness the sealing of samples.</p> <p>The first of these actions has now been delayed for more than 2 years and the CRP is bringing this matter to the attention of the Board.</p>
<p><i>3. Expand or complement the existing MMT to ensure representation of all communities directly affected and all</i></p>	<p>Status of compliance: Partially complied with.</p> <p>For full compliance the following actions must be taken by the ADB Management:</p>

CRP Recommendations	Feedback to Management on Actions to Bring the Project into Full Compliance
<i>appropriate NGOs and to facilitate transparent and inclusive communication and grievance redress.</i>	KSPC management should make the MMT minutes and information materials available on the web. KSPC is making arrangements to produce summaries of the minutes for the benefit of the community. Management should ensure that by 22 July 2015 translated minutes will be available by KSPC and that arrangements are being made with KEPCO Philippines to upload the MMT minutes and translations to its website. If KEPCO Philippines is not able to upload these documents to its website, Management should upload them to the ADB's project webpage on a regular basis. Additionally, KSPC has agreed to continue to hold the stakeholder consultations twice each year. The next one is planned for August 2015. Management should ensure these are held in a timely and regular fashion.
<p><i>4. Implement a community outreach program focusing on preventing negative health impact from air, water, and noise pollution and potentially negative impact from exposure to unprotected coal ash deposits.</i></p>	<p>Status of compliance: Partially complied with.</p> <p>In order for ADB to bring the project into compliance with this recommendation:</p> <ul style="list-style-type: none"> (i) Management should request KSPC that information on pollution-related risks and preventive action is systematically disseminated to communities near the plant on a continuing basis through disclosure of test results and emissions data on the KSPC website and at MMT and barangay as well as KSPC-convened stakeholder meetings; (ii) Management should ensure that the action plan under the TA for air quality management, to be completed by September 2017, will include recommendations specifically leading to targeted public health interventions as appropriate; and that ADB and KSPC should report to the CRP in their regular reports on the nature of the medical clinics (with location, name of doctor and places visited with dates) and a summary of the nature and extent of the data collected (the type of illnesses diagnosed, potential causes, medication/treatment given, date of visit, authorities to whom the data was reported and when).
<p>DENR = Department of Environment and Natural Resources EMB = Environmental Management Bureau GTCI = Geo-Transport and Construction Incorporated KSPC = KEPCO SPC Power Corporation MMT = multipartite monitoring team NGO = nongovernment organization TA = technical assistance</p>	

45. Management should report on the progress achieved on each of the recommendations in its quarterly reports to the CRP, which will assess progress in its fourth annual monitoring report of July 2016.

/S/ Dingding Tang, Chair, Compliance Review Panel

/S/ Lalanath de Silva, Member, Compliance Review Panel

/S/ Arntraud Hartmann, Member, Compliance Review Panel

14 August 2015

LIST OF PERSONS MET DURING THE COMPLIANCE REVIEW MONITORING**Asian Development Bank (ADB)**

Jose Manuel Limjap
Investment Specialist, Private Sector Operations Group

KEPCO-SPC Power Corporation (KSPC)

1. Victorio Naval
General Manager, Community and Public Relations Department (C & PR)
2. Neil Lawrence Miral
Environmental Assistant Manager, Environmental & Chemical Department
3. Jasmin Suma-Oy
Community Relations Officer, C & PR
4. Carlo Emmanuel Salva
Assistant Manager, Legal Department
5. Klayd del Carmen
Office Staff, C & PR

Requesters' representative

Jose Aaron Pedrosa Jr.
Secretary General, Freedom from Debt Coalition-Cebu

Representatives from Cebu-based NGOs

Teody Navea
Bukluran Ng Manggagawang Pilipino (BMP)-Sanlakas-Cebu

Auxilium "Inday" Olayer
Freedom from Debt Coalition-Cebu

AECOM

Kidman Kong
Associate, Environment

Jenny Barclay
Air Quality Specialist

MANAGEMENT’S ACTION PLAN FOR IMPLEMENTING THE RECOMMENDATIONS OF THE COMPLIANCE REVIEW PANEL

CRP Recommendations	Action Plan
<p><i>Undertake a comprehensive air dispersion modeling study that includes the key pollution sources in the project area of influence and validate the predictions with actual air emissions and ambient air quality monitoring data. Develop an action plan based on recommendations from the modeling study and emphasize the potential for continuous monitoring and recording of air emissions and ambient air quality.</i></p>	<p>A Technical Assistance (TA), with the Asian Development Bank as the Executing Agency (EA) and the office of the Department of Environment and Natural Resources (DENR) in Cebu as the Implementing Agency (IA), will be undertaken. The TA will cover air quality monitoring, meteorological data collection and air dispersion modeling study, which will include the key pollution sources in the project’s area of influence and validate the predictions with actual air emissions and ambient air quality monitoring data to be generated from continuous monitoring and recording systems. The target date for TA approval is August 2012 and is expected to be completed by June 2014. In a meeting on 28 May 2012, the local DENR office has agreed to the concept of the TA.</p> <p>As ADB obtains findings from the air dispersion modeling study during TA implementation, the findings will be discussed with KSPC, the local DENR office, and the Naga City government and an appropriate action plan will be developed and implemented.</p>
<p><i>Undertake a comprehensive study on ash utilization at cement plants and the ready-to-mix concrete plant and implement plant-specific recommendations and EMPs. In addition, prepare and implement EMPs for the existing ash ponds and historic ash disposal sites.</i></p>	<p>KSPC produces about 135 tons/day of ash. KSPC has been temporarily disposing of its ash at the Naga Power Plant’s ash pond and KSPC’s existing onsite emergency ash pond (Ash Pond B). As the long term solution, since 2011, KSPC, with ADB’s guidance, has been developing a new ash management plan, consisting of (i) recycling of ash by a cement plant and a ready-mixed concrete batching plant, (ii) landfilling of unrecycled ash at secured ash ponds to be constructed within KSPC’s plant site, and (iii) as a backup measure, landfilling at a secured landfill facility located in a municipal waste management facility.</p> <p>KSPC is preparing the environmental impact assessment report and an environment management plan (EMP) for this new ash management arrangement. As part of this process, KSPC held a public consultation on 27 April 2012 and sought comments from the affected communities, government agencies, and civil society organizations, including Freedom from Debt Coalition, the requestor for the Compliance Review of this Project. While questions were raised particularly on the environmental impact, KSPC explained how its EMP will prevent and mitigate the impacts and no objections were raised to the proposal.</p> <p>ADB requested KSPC to submit the new ash management plan by end June 2012, together with environmental impact assessment report and other documentation. Upon ADB’s approval, KSPC will gradually transition to the new ash management arrangement from July to December 2012. During this transition period, KSPC will expand Ash Pond B and continue to dispose of its ash in this ash pond.</p>

CRP Recommendations	Action Plan
	<p>KSPC will be required to implement the EMP for its ash disposal activities, in addition to its existing EMP for the power plant. KSPC will continue to submit environment monitoring reports to ADB semi-annually and these reports will include information on ash disposal.</p> <p>With respect to the historical ash disposal sites, KSPC will install a concrete cover on the river bank to permanently prevent soil erosion, to be completed from July to November 2012.</p> <p>ADB will monitor KSPC's implementation of this plan.</p>
<p><i>Expand or complement the existing MMT to ensure representation of all communities directly affected and all appropriate NGOs and to facilitate transparent and inclusive communication and grievance redress.</i></p>	<p>Representatives of the project team will attend the quarterly multi-partite monitoring team (MMT) meetings.</p> <p>In a meeting with the local DENR office and Chairman of the MMT on 28 May 2012, ADB reiterated its request to include appropriate NGOs as members of the MMT or at least invite them to the quarterly meetings. The MMT Chairman will discuss ADB's request with other MMT members in the next MMT quarterly meeting to be scheduled in June 2012.</p> <p>In case the MMT declines ADB's proposal to include the NGOs or at least invite them to the quarterly meetings, ADB will ask KSPC to hold complementary meetings with the NGOs on a quarterly basis to update them on project developments and share minutes of the MMT quarterly meetings.</p> <p>ADB will also propose that MMT disclose to the public the minutes of its quarterly meetings to ensure transparency, effective and inclusive communication. If MMT disagrees, we shall ask KSPC to ensure that information on project developments and environmental and social impact mitigation measures are disseminated to the affected communities in an appropriate form and in the local language.</p>
<p><i>Implement a community outreach program focusing on preventing negative health impacts from air, water and noise pollution and potentially negative impacts from exposure to unprotected coal ash deposits.</i></p>	<p>During the public consultation on KSPC's ash disposal plan last 27 April 2012, KSPC agreed to enhance its information outreach and awareness programs/activities to inform the affected or potentially affected people on the project including its ash management plan and on precautionary measures to avoid any potentially negative impacts from air, water and noise pollution and exposure to coal ash deposits.</p> <p>ADB held an initial consultation with public health officials in Naga City on 26 April 2012. For a period of 1 year, ADB will hold quarterly meetings with the Naga City rural health units to continue and improve monitoring of the leading causes of morbidity in the project area, collect information and use</p>

CRP Recommendations	Action Plan
	<p>the data in providing inputs to KSPC's medical missions.</p> <p>ADB will ask the Freedom from Debt Coalition representatives to provide the names of local residents who they identified as suffering from health problems due to KSPC plant's operation. ADB will ask KSPC medical missions to help these patients.</p> <p>KSPC will install a concrete cover to permanently eliminate the risk of exposure due to deposits of 'unprotected' coal ash at sites of historical ash disposal at Naalad and Pangdan. ADB will further ask KSPC to conduct semi-annual medical mission to monitor skin/health related impacts due to such exposure in these neighborhoods and provide appropriate medical care.</p>