



First 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)

July 2013

CONTENTS

	Page
Acknowledgments	iv
Abbreviations	v
I. INTRODUCTION	1
II. DESCRIPTION OF THE PROJECT	2
III. COMPLIANCE REVIEW AND RECOMMENDATIONS	2
IV. RESULTS OF THE MONITORING OF THE ACTION PLAN	3
V. CONCLUSIONS	13
Appendix	
1. List of Persons Met During the Compliance Review Monitoring Mission	17
2. Management's Action Plan for Implementing the Recommendations of the Compliance Review Panel	18

ACKNOWLEDGMENTS

The Compliance Review Panel acknowledges all those who have contributed to the preparation of this report and thanks the following:

- the Asian Development Bank (ADB) Board of Directors, in particular the members of the Board Compliance Review Committee;
- the staff of the Private Sector Operations Department, ADB;
- the requesting parties, who have asked that their identities be kept confidential, for their trust in the compliance review process;
- the project sponsor, KEPCO-SPC Power Corporation;
- the staff of APO Cement Corporation (main ash recycler); and
- the Government of the Republic of the Philippines, in particular the Department of Environment and Natural Resources office in region 7, and the Naga City Health Office.

ABBREVIATIONS

ADB	– Asian Development Bank
CBO	– community-based organization
CDTA	– capacity development technical assistance
CRP	– Compliance Review Panel
DENR	– Department of Environment and Natural Resources
ECC	– environmental clearance certificate
EMB	– Environmental Management Bureau
EMP	– environmental management plan
GTCI	– Geo-Transport and Construction Incorporated
IEE	– initial environmental examination
KSPC	– KEPCO-SPC Power Corporation
MMT	– multipartite monitoring team
MW	– megawatt
NGO	– nongovernment organization
PSOD	– Private Sector Operations Department, ADB
TA	– technical assistance
tpd	– tons per day

Note

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

Chair	Rusdian Lubis, Compliance Review Panel
Member	Anne Deruyttere, Compliance Review Panel
Member	Lalanath De Silva, Compliance Review Panel

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),¹ the CRP conducted the compliance review and submitted its report to the ADB Board of Directors (Board) in March 2012.² The report detailed instances of noncompliance by ADB with its policies and operational 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 the present report). As mandated under the 2003 Accountability Mechanism Policy, the CRP is monitoring the implementation of the remedial action plan and hereby presents this first 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 first year of monitoring;
- (v) the CRP's conclusions regarding compliance with its 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 4 and 5 June 2013. During the site visit the CRP met with representatives of the project sponsor, KEPCO-SPC Power Corporation (KSPC); APO Cement, which recycles most of the ash generated by the power plant; the requesters and their representatives; the Department of Environment and Natural Resources (DENR) office in region 7; and staff of the Naga City health office. The CRP conducted a visual inspection of the KSPC power plant, the APO Cement plant, and two historical ash disposal sites. A list of the persons met by the CRP during the compliance review mission is found in Appendix 1 of the present report.

4. The focus of this CRP monitoring report is to ascertain 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 policies and operational procedures, on the basis of its review of progress achieved after 1 year. For those recommendations that have not yet been complied with, the

¹ ADB. 2003. *Review of the Inspection Function: Establishment of a New ADB Accountability Mechanism*. Paras. 99 and 107. Manila; ADB. 2008. *Operations Manual*. L1/OP. Paras. 9, 39, and 46. Manila; and ADB. 2003. *Operations Manual*. L1/BP. Paras. 5 and 9. Manila.

² 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: [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)

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

5. In accordance with the provisions of the Operations Manual,³ the CRP has submitted this draft monitoring report to the Board Compliance Review Committee (BCRC) for review and consultation. The BCRC comments have been considered in the final report, which will be distributed to the requesters; ADB's Board, Management, and staff; the staff of the project sponsor (KSPC); and the general public. 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. As of 7 June 2013, ADB had disbursed \$86 million of the \$100 million ADB loan facility. Final drawdown depends on the completion of subsequent actions.

III. COMPLIANCE REVIEW AND RECOMMENDATIONS

8. On 25 May 2011, a request for compliance review was submitted to the CRP by the requesters, who were represented by Aaron Pedrosa Jr., secretary general of the Freedom from Debt Coalition chapter in Cebu, and Vicente Obando. According to the request, the power plant project had or was likely to have adverse effects on the health of the people living near the plant because (i) the emission of carbon dioxide (CO₂), sulfur dioxide, and nitrogen dioxide could cause respiratory illnesses; (ii) the spillage of coal during transport exposed the community to hazardous, toxic metallic elements; and (iii) the seepage of harmful elements from the Balili coal ash dump site 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 emissions

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.

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

9. At the 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 ADB's Environment Policy (2002), Public Communications Policy (2008), and Energy Policy (2009).

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 information about environmental impact including the dissemination of the environmental impact assessment and subsequent changes in the assessment, and in ensuring an adequate 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 drew up 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 (Appendix 2). 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 its action plan.

IV. RESULTS OF THE MONITORING OF THE ACTION PLAN

12. The following paragraphs present the findings and conclusions of this first 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 The TA project was, however, delayed by 8 months partly because the regional DENR office formally agreed to act as executing agency only in November 2012.

14. The CRP notes that this TA provides 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. In discussions⁷ with Management, the CRP learned that ADB intends to ensure that the findings of the air dispersion modeling study will be used to develop and implement an action plan for monitoring and mitigating the negative impact of air emissions in a coordinated effort between KSPC, the regional DENR office, and the Naga City government. The CRP was also informed of Management's intention to ensure that the monitoring system links ambient air quality data with public health interventions.

15. **CRP conclusions regarding compliance with recommendation 1.** The CRP finds that by developing and approving the TA, Management has partially complied with this recommendation.

16. **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 take the following steps: (i) the TA must be implemented and the modeling study completed by April 2015; (ii) the consultant should be engaged by September 2013; and (iii) the action plan under this TA must be developed in close consultation with all stakeholders, including the Airshed Governing Board, KSPC, APO Cement, other emitters in the study area, the Naga City health office, DENR, the multipartite monitoring team (MMT) formed for the project, communities affected by the emissions, nongovernment organizations (NGOs), and the general public so that input from these consultations can be considered prior to the finalization of the action plan to be prepared under the TA.

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 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. (For full text see Appendix 2.)

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).

⁷ Meetings with PSOD staff were held on 21 May 2013, 7 and 10 June 2013.

17. **CRP findings on compliance with recommendation 2.** The CRP reviewed the environmental assessment report prepared by KSPC consistent with the CRP's recommendation.⁸ KSPC's long-term ash disposal plan is as follows:

- (i) The APO Cement plant will recycle most of the fly ash (100 tons per day [tpd] under normal operations) and all bottom ash (20 tpd) from KSPC's power plant.
- (ii) The ready-mix concrete plant of Geo-Transport and Construction Incorporated (GTCI) will recycle some fly ash (20 tpd) from KSPC's power plant. If GTCI cannot withdraw fly ash, APO Cement's recycling responsibility will increase to 120 tpd.
- (iii) Ash that is undelivered because of recycler (APO or GTCI) constraints will be temporarily stored at backup facilities on KSPC's power plant site.

18. The CRP is of the opinion that KSPC's long-term ash disposal plan is reasonable and adequately addresses the potential impact and mitigation aspects. The CRP has forwarded to PSOD its suggestions for strengthening KSPC's initial environmental examination (IEE) dated March 2013 in a separate report.

1. Ash Recycling

19. The CRP considers appropriate the mitigation measures proposed in the IEE for ash storage in silos, transfer of ash to trucks, and truck washing, and for the use of personal protection equipment by employees.⁹ Suitable mitigation measures are also proposed for ash transportation. On 5 June 2013, the CRP visited KSPC and APO Cement to observe APO Cement's safety procedures in the handling of ash from KSPC. The CRP was told that fly ash is transported in covered trucks from the KSPC plant, and unloaded through flexible hoses directly into APO Cement's recycling facilities. The CRP saw one of these covered trucks and also observed KSPC's and APO Cement's ash loading and unloading operations (Figure 1). Air pollution from dust emitted during the extraction of ash at the KSPC plant and its transportation to and delivery at APO Cement facilities appeared to be minimal or nonexistent.

20. The CRP concerned itself with two main issues during the visit: (i) that APO Cement had adequate capacity to recycle KSPC's ash safely, given their quantity and quality; and (ii) that APO Cement operations complied with the requirements of DENR (region 7 office) and the Environmental Management Bureau (EMB).

21. With respect to the quantity of fly ash, the CRP was assured that APO Cement's capacity to handle the fly ash and bottom ash from KSPC was sufficient. Regarding the quality and safety of the transported ash, the CRP was informed that mixed samples of fly ash and bottom ash had been tested through toxicity characterization leaching. DENR (region 7) and EMB had subsequently issued permits to APO Cement for the use of some listed wastes (fly ash and bottom ash) as alternative fuel and raw material. In its discussion with PSOD, the CRP expressed concern about the results and of the testing method used for ash received by APO

⁸ KEPCO-SPC Power Corporation. 2013. *Initial Environment Examination: The New Fly Ash and Bed Ash Disposal Scheme for the Visayas Base-Load Power Project*. However, the IEE did not include environmental management planning for the historical ash disposal sites.

⁹ However, the CRP members were not provided with personal protective equipment and were not given a safety briefing when they visited KSPC facilities.

Cement (listed in Annex III of the IEE report).¹⁰ In response, PSOD agreed to (i) see to it that KSPC would have the bottom ash and fly ash tested separately for heavy metal content, using the toxicity characterization leaching procedure; (ii) seek the advice of DENR (region 7 office) and EMB on whether KSPC's bottom ash could be safely used in APO Cement production; and (iii) seek the advice of DENR (region 7 office) and EMB on the need to issue a revised permit to APO Cement with the required specifications. While it did not visit GTCI, the CRP had similar concerns about GTCI's recycling operation.

Figure 1: Covered Truck Unloading KSPC Fly Ash at APO Cement Facilities



2. Ash Storage at the KSPC Power Plant

22. The CRP visited the temporary ash storage facilities at the KSPC power plant (permanent facilities are being constructed). The present environmental clearance certificate (ECC) for the KSPC power plant includes the use of ash pond B and lot 2 as emergency on-site ash ponds. The total capacity of the two ponds—after height increase—is 86,668 cubic meters. The fly ash and bottom ash will be stored in these lots if any of the ash recyclers cannot receive ash from the KSPC power plant. The CRP confirmed the accuracy of the statement made in the IEE that the on-site ash ponds have an ash storage capacity of about 2 years.¹¹ The facility allows for adequate time for making alternate arrangements for ash recycling or disposal should APO or GTCI temporarily or permanently stop receiving ash for recycling. Management,

¹⁰ The DENR (region 7 office) and EMB permit authorizing APO Cement to use some listed wastes as alternative fuel and raw material for cement production requires the use of nonhazardous fly ash. Bottom ash is not mentioned. The permit should be revised to include bottom ash. But before then, the safety of the fly ash and bottom ash from KSPC's power plant and other properties relevant to the operation of the cement plant (such as particle size distribution, specific gravity, heavy metal content, and unburned carbon content or calorific value) should be separately determined.

¹¹ Yearly ash generation rate: 140 tons per day x 311 days per year = 43,540 tons per year. Maximum ash storage time: 86,668 tons / 43,540 tons per year = 1.99 years.

however, should identify alternative solutions if APO and GTCI stop accepting ash for an indefinite period of time.¹²

23. The IEE indicates that the main impact of these activities within the KSPC power plant site is associated with dust, noise, wastewater, and leachate generation, as well as industrial hygiene. The CRP reviewed the IEE and commented on the preventive and control measures identified in the study.¹³ On the control measures, the CRP is concerned about the possibility that the ash ponds could contaminate groundwater and, hence, the Bohol Strait, where it is likely to end up. The PSOD has expressed support for the CRP's suggestion to monitor the quality of groundwater through appropriate test wells.

24. The CRP has learned that Management will require KSPC to implement the necessary changes in the Environmental Management Plan (EMP) for ash pond B, in accordance with the IEE to be revised after the public consultation on 23 May 2013. The same will be done for the lot 2 ash pond when ash pond B reaches nearly 25% utilization. The CRP provided comments on the draft IEE (March 2013 version) directly to PSOD to strengthen the IEE.

3. Historic Ash Disposal at Pangdan and Naalad

25. With regard to the management of the historic ash disposal sites, Management's action plan states that "KSPC will install a concrete cover to permanently prevent soil erosion." (See Appendix 2 of this report for the full text.) During its visit to the Pangdan site, the CRP observed the presence of exposed ash on parts of the site and problems with the sloping and vegetation measures¹⁴ implemented earlier to prevent soil erosion. At the Naalad site, the CRP noted the lack of progress on the protection of the site.¹⁵ The CRP visits to these historic ash disposal sites revealed the absence of concrete cover on the riverbank as permanent protection against soil erosion (Figure 2). The concrete cover should have been completed between July and November 2012, according to the action plan. There were also no signs warning residents about the dangers of exposure to the uncovered ash deposits. The CRP, however, is pleased that, during its monitoring mission, the DENR region 7 office noted the problem and indicated its intention to follow up compliance with the required protection measures.

¹² In the KSPC IEE (footnote 8), paragraph 3, *Mabuhay FilCement or Taheiy* had expressed their intent to recycle KSPC's ash.

¹³ Preventive measures are for example consideration of soil type, geological, hydrogeological and climatic conditions, and design standard of the construction, operation, site closure and, post-closure phases. To prevent leakage, design standards should include using clay layer with a specified impermeability and a high density polyethylene layer (HDPE). The control measures can be integrated in the design standards by drilling groundwater monitoring wells. This is to check if groundwater is contaminated by any leakage from the landfill.

¹⁴ Part of the Pangdan site, now occupied by a commercial enterprise, has a cement cover and a retaining wall on the slope adjacent to the river.

¹⁵ PSOD's first- and third-quarter progress reports refer to the landowner's resistance to KSPC's plan to install concrete cover. The landowner apparently plans to develop the property. KSPC noted, though, that the sloping and vegetation measures previously established on the lot are still effective in securing the ash in the landfill.

Figure 2: Portion of the Riverbank at a Historical Ash Disposal Site in Barangay Pangdan with No Slope or Riverbank Protection



4. Coal Stockpile Issues

26. In November 2012, the Freedom from Debt Coalition chapter in Cebu complained to ADB of black coal dust from an open coal stockpile within the KSPC plant premises. Strong winds had scattered the coal dust over the surrounding area. The incident prompted the Naga City mayor, on 13 November 2012, to issue a cease-and-desist order, which was lifted on 15 November 2012 after KSPC proposed a short- and long-term plan including the roofing of the coal yard. (See Figure 3.) This occurrence should have been anticipated in the design of the facility, but the CRP is pleased that KSPC has taken the appropriate action.

Figure 3: KSPC Coal Yard, Covered Since the November 2012 Dust Dispersal Incident



27. **CRP conclusions regarding compliance with recommendation 2.** The CRP finds that significant progress has been made with regards to ash disposal, and that Management has partially complied with this recommendation.

28. **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 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; (ii) Management should require KSPC to implement any required changes in the EMP for ash pond B, and for the lot 2 ash pond in due time, and the IEE should be revised on the basis of the results of the public consultation on 23 May 2013 and to integrate, to the extent possible, the comments made by the CRP. This activity has to be completed by the 3rd quarter of 2013; (iii) Management should request KSPC to monitor groundwater contamination from its ash disposal sites through appropriate test wells and report the monitoring results to DENR and these activities have to be started by the 4th quarter of 2013; and (iv) Management should arrange for KSPC (under DENR supervision), to take urgent action to prevent soil erosion at the Pangdan and Naalad historic ash disposal sites. These activities have to be completed by the 4th quarter of 2013.

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.)

29. **CRP findings regarding compliance with recommendation 3.** One emergency MMT meeting and two regular quarterly meetings (instead of four)¹⁶ were held during the first year covered by the monitoring review. ADB staff attended these meetings (as well as the consultation on IEE for the new ash management plan; see above) and reported extensively on the proceedings to Management.¹⁷

¹⁶ Emergency meeting on 28 May 2012; third-quarter 2012 meeting on 30 October and first-quarter 2013 meeting on 2 May 2013.

¹⁷ PSOD back-to-office reports sent by e-mail (e-BTOR), 29–30 October 2012 and 23 May 2013.

30. An important part of Management's action plan was an alternate proposal for the inclusion of NGOs in the ongoing monitoring of the KSPC power plant. If ADB's request to include appropriate NGOs in the MMT meetings (either as members or as observers) was declined at the June 2012 quarterly meeting, the plan called for ADB to request KSPC to hold quarterly complementary meetings with the NGOs to update them on project developments and share with them the minutes of the quarterly MMT meetings.

31. The quarterly MMT meeting planned for June 2012 did not take place until 30 October 2012, and the inclusion of NGOs was not discussed at the meeting.¹⁸ According to information informally obtained by the CRP, the MMT (including the DENR) appears to be reluctant to open up its meetings to interested NGOs, either as members or as observers. DENR (region 7 office) has taken the position that the NGOs already participate in the Airshed Governing Board, which has a wider reach and monitors the operations and environmental compliance of all industrial plants in Metro Cebu (including the KSPC plant). However, the CRP understands that the forum for raising issues particular to the KSPC power plant would not be the Airshed Governing Board but rather the MMT or the alternative consultations to be conducted by KSPC. Despite ADB's efforts, the MMT has not yet invited interested NGOs to the MMT meetings.¹⁹ The meetings have limited participation from barangay organizations and community-based organizations (CBOs).²⁰ While the CRP acknowledges that the participation of these CBOs is extremely important in ensuring community involvement in monitoring, it does not achieve the objective of including all relevant stakeholders. These CBOs are unlikely to have the capacity to analyze technical data and information presented to the MMT, raise appropriate issues arising out of such data and information, and represent interests beyond the immediate concerns of the community. On the other hand, the requesters and NGOs representing their interests and concerns may have greater access to international and national networks of experts, and hence to analyses of technical data and information that could be useful in assessing compliance.

32. During the first monitoring year, the only venue for broader stakeholder participation was the consultation meeting on the draft IEE for the ash management plan, held on 23 May 2013. Several NGOs, including the Freedom from Debt Coalition, were invited to and participated in that meeting.²¹ In these circumstances, the CRP finds that the conditions are timely for ADB and KSPC to activate the alternate proposal. The KSPC should organize these consultations as a matter of urgency. Broader inclusion of civil society and proactive dissemination of information about plant improvements, unexpected events or accidents, compliance, and measures addressing stakeholder concerns should be their hallmark. The CRP hopes that in time the MMT and DENR will also see the benefit of broader inclusion of civil society, at which point ADB and KSPC would be able to consider at that point whether or not to discontinue KSPC's own complementary consultations.

33. Management's action plan also proposes that the MMT disclose to the public the minutes of its quarterly meetings and that, if the MMT disagrees, Management should ask

¹⁸Minutes of the third-quarter meeting of 30 October 2012; and PSOD e-BTOR, 29–30 October 2012.

¹⁹ADB's continued insistence on opening up membership of MMT is recorded in the e-BTORs of October 2012 and May 2013 and reported in the MMT minutes of 28 May 2012.

²⁰Emergency meeting, 28 May 2012; third-quarter meeting, 30 October 2012 (Attachment A), attended by 19 participants (3 ADB staff, about 10 KSPC and DENR staff, and only about 6 barangay and CBO representatives); first-quarter meeting, 2 May 2013, attended by 15 participants (1 ADB staff, and the rest of the participants about equally divided between KSPC and DENR staff and representatives of barangay organizations and CBOs.

²¹The consultation meeting was attended by 28 participants and included representatives from three NGOs, including the Freedom from Debt Coalition.

KSPC to ensure that information on project developments and environmental and social impact mitigation measures is disseminated to the affected communities in an appropriate form and in the local language. Copies of the minutes of the two MMT meetings have been provided to barangay captains to be posted in the barangay halls and other public places. These minutes have not yet been posted on the KSPC website or made available in the local language. The CRP notes that, as part of Management's action plan referred to in the previous paragraph, Management should ensure that KSPC will make the MMT minutes available at its own consultations so that these minutes will have wider dissemination.

34. Additionally, KSPC reported that draft brochures and other communication materials are being prepared and are awaiting feedback from the MMT and others. Consistent with the spirit of ADB's Public Communications Policy, making information available in a user-friendly format and in local languages is likely to improve local community relations and ensure community participation in meaningful decision making. Regarding grievance redress, the CRP notes that KSPC has intensified its response to complaints from the affected barangays (even providing some community members with prepaid phone cards for reporting concerns and impact), and has agreed to maintain and publicly share a record of the complaints and actions taken to resolve them.

35. **CRP conclusions regarding compliance with recommendation 3.** While recognizing the progress made in this regard, the CRP concludes that recommendation 3 has not yet been complied with.

36. **CRP feedback to Management on actions to bring the project into full compliance with recommendation 3.** In the view of the CRP, Management should take the following steps to comply with this recommendation: (i) Management should continue to use its leverage with MMT and DENR to broaden the membership of the MMT and include NGOs and to effect this, Management should contact DENR within one month after public disclosure of this report, ; (ii) Management should request KSPC, for a plan and timeline to convene complementary multi-stakeholder consultation meetings, including NGOs and other civil society, private sector, and government stakeholders, at least three times a year (or ideally quarterly and instead of the annual multi-stakeholder forum). This plan has to be completed by the 3rd quarter of 2013; (iii) Management should request KSPC to make available to the local population in an appropriate user-friendly format and in the local language, the MMT minutes and information dissemination materials now being prepared (including the results of KSPC monitoring). These activities must be initiated by the 3rd quarter of 2013; and (iv) Management should request KSPC to start keeping proper records of complaints and grievances and their resolution, and post the records on its website. This system should be in place by the 3rd quarter of 2013.

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.)

37. **CRP findings regarding compliance with recommendation 4.** Despite the provision in the Management's action plan, it appears that so far there has been insufficient systematic outreach to affected people on measures to avoid or address the adverse health impacts of pollution in the project area. According to KSPC officials, the public information materials now being prepared will address public health issues related to the effects of air emissions and other pollutants.

38. Management's action plan states that "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 input to KSPC's medical missions." (See Appendix 2 for the full text.) On 19 November 2012, ADB met with the Naga City public health officials who had compiled annual morbidity data in the project area. While the list of leading causes of morbidity for each of the last 4 years consistently ranks upper respiratory tract infections as by far the most prevalent category of disease, the usefulness of the data in identifying causation is limited.²² The CRP notes that the TA for air quality management (footnote 6) does include the preparation of an action plan based on the data generated by the ambient air monitoring system with the potential for greatly improving morbidity data collection and targeted public health interventions, including the medical outreach activities sponsored by KSPC.

39. Management's action plan calls for "ADB [to] ask the Freedom from Debt Coalition representatives to provide the names of local residents whom they identified as suffering from health problems due to KSPC plant's operation. ADB will ask KSPC medical missions to help

²² Data provided by the Office of the City Health Officer, show that among the 10 leading causes of morbidity in the City of Naga, Upper Respiratory Tract Infections accounted for 57% of reported cases in 2009; 60% in 2010; 69% in 2011 and 67% in 2012. However the significance of these data is limited, as they are based on the number of consultations and not on the number of patients, are likely to reflect the increase in medical personnel, and do not discriminate between different types of upper respiratory tract infections, such as infections of viral origin, lifestyle-related, or resulting from ambient air pollution. Furthermore, the City of Naga experienced an almost 10% increase in its population between 2009 and 2012, therefore, without disaggregation between gender and age group and controlling for other factors, the interpretation of these morbidity data is further limited.

these patients.” (See Appendix 2 for the full text.) The CRP suggests that the Management make available to FDC information about the medical services that KSPC is providing local residents who may want to avail of such services.

40. Management’s action plan also states that “ADB will further ask KSPC to conduct semiannual medical missions to monitor skin/health-related impact due to such exposure in these neighborhoods and provide appropriate medical care.”

41. KSPC’s social development plan has increased its medical outreach activities, from monthly to biweekly health visits in six barangays, twice-a-year medical missions, provision of medicines, and other health-related activities, in coordination with the local health units. These activities encompass a wide range of health interventions and are not specifically focused on pollution-related matters. The budget for these activities has increased from the equivalent of \$12,000 in 2011 to \$31,000 in 2013. KSPC has also provided contact persons in the two barangays where KSPC facilities are located with mobile phone cards to allow them to immediately alert the company to health and pollution concerns so adjustments can be made in coal unloading management, as well as to other concerns.

42. **CRP conclusions regarding compliance with recommendation 4.** The CRP finds that ADB has partially complied with this recommendation.

43. **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 by the 3rd quarter of 2013; and (ii) Management should ensure that the action plan under the TA for air quality management to be completed by April 2015 will include recommendations specifically leading to targeted public health interventions.

V. CONCLUSIONS

44. Of the four recommendations in the CRP’s compliance review report approved by the Board, ADB has partly complied with recommendations 1, 2, and 4 and is noncompliant with recommendation 3. The CRP observed a marked improvement 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. 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 2003 Accountability Mechanism Policy, the CRP will continue to monitor the implementation of the Board-approved recommendations unless the Board specifies a different timetable.

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

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>(i) The TA must be implemented and the modeling study completed by April 2015. The consultant should be engaged by September 2013.</p> <p>(ii) The action plan under this TA must be developed in close consultation with all stakeholders, including the Airshed Governing Board, KSPC, APO Cement, other emitters in the study area, the Naga City health office, DENR, MMT, communities affected by the emissions, NGOs, and the general public so that input from these consultations can be considered prior to the finalization of the action plan to be prepared under the TA.</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>(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 ECCs. All of these tasks have to be completed by 4th quarter of 2013;</p> <p>(ii) Management should require KSPC to implement any necessary changes in the EMP for ash pond B, and for the lot 2 ash pond in due time, and the IEE should be revised on the basis of the results of the public consultation on 23 May 2013 and to integrate, to the extent possible, the comments made by the CRP. This activity has to be completed by 3rd quarter of 2013;</p> <p>(iii) Management should request KSPC to monitor groundwater contamination from its ash disposal sites through appropriate test wells and report the monitoring results to DENR. These activities have to be started by the 4th quarter of 2013; and</p> <p>(iv) Management should arrange for KSPC (under DENR supervision), to take urgent action to prevent soil erosion at the Pangdan and Naalad historical ash disposal sites. These activities have to be completed by the 4th quarter of 2013.</p>

CRP Recommendations	Feedback to Management on Actions to Bring the Project into Full Compliance
<p><i>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.</i></p>	<p>Status of compliance: Not yet complied with.</p> <p>(i) Management should continue to use its leverage with MMT and DENR to broaden the membership of the MMT and include NGOs and to this effect Management should contact DENR within one month after public disclosure of this report;</p> <p>(ii) Management should request KSPC for a plan and timeline to convene complementary multistakeholder consultation meetings, including NGOs and other civil society, private sector, and government stakeholders, at least three times a year (or ideally quarterly and instead of the annual multistakeholder forum). This plan has to be completed by the 3rd quarter of 2013;</p> <p>(iii) Management should request KSPC to make available to the local population in an appropriate user-friendly format and in the local language, the MMT minutes and information dissemination materials now being prepared (including the results of KSPC monitoring). These activities must be initiated by the 3rd quarter of 2013; and</p> <p>(iv) Management should request KSPC to start keeping proper records of complaints and grievances and their resolution, and post the records on its website. This system should be in place by the 3rd quarter of 2013.</p>
<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>(i) Management should request KSPC that information on pollution-related risks and preventive action is systematically disseminated to communities near the plant by the 3rd quarter of 2013; and</p> <p>(ii) Management should ensure that the action plan under the TA for air quality management, to be completed by April 2015, will include recommendations specifically leading to targeted public health interventions.</p>
<p>CDTA = capacity development technical assistance DENR = Department of Environment and Natural Resources ECC = environmental compliance certificate EMB = Environmental Management Bureau EMP = environmental management plan GTCl = Geo-Transport and Construction Incorporated IEE = initial environmental examination KSPC = KEPCO SPC Power Corporation MMT = multi-partite monitoring team NGO = nongovernment organization TA = technical assistance</p>	

46. 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 second annual monitoring report of June 2014.

/S/ Rusdian Lubis, Chair, Compliance Review Panel

/S/ Anne Deruyttere, Member, Compliance Review Panel

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

28 June 2013

LIST OF PERSONS MET DURING THE COMPLIANCE REVIEW MONITORING MISSION

Private Sector Operations Department, Asian Development Bank (ADB)

1. Kurumi Fukaya, Lead Investment Specialist
2. Jose Manuel Limjap, Investment Specialist
3. Helen Cruda, Senior Safeguards Specialist

KEPCO SPC Power Corp (KSPC)

1. Bong Joo Choi, President and Chief Executive Officer
2. Jinhyung Jung, Manager, Planning and Finance Department
3. Neil Lawrence Miral, Environmental Clearance Certificate and Environmental Compliance Officer
4. Jasmin Ginete Suma-Oy, Community Relations Officer
5. Victorio Naval, General Manager for Community and Public Relations/Environment
6. Corleone Fontane Montallana, Assistant Manager/Contract Management/Legal

Department of Environment and Natural Resources, Regional Office 7

1. William Cuñado, Officer-in-Charge and Environmental Impact Assessment Chief
2. Amel Gillera, Environment Management Specialist
3. Roie Lee, Environment Management Specialist
4. Annabeth Roble, Environment Management Specialist

Naga City Health Office

1. Mae Fatima Buenavista, Registered Nurse
2. Eden Cruda, Registered Nurse

Ash recycler: APO cement staff

Requesters and their representatives

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

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>