



Fourth 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)

16 August 2016

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

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- 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;
- 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
KSPC	– KEPCO-SPC Power Corporation
MMT	– multipartite monitoring team
MW	– megawatt
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
Member	Arntraud Hartmann, Compliance Review Panel

In preparing any country program or strategy, financing any project, or by 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. (See Appendix 2.) 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. The third annual monitoring report was submitted on 14 August 2015. This is the CRP's fourth and penultimate 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 fourth 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 12-13 July 2016. During the site visit, the CRP met with representatives of the project sponsor, KEPCO-SPC Power Corporation (KSPC) and some of the complainants and their representative.² The CRP met with DENR. 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 fourth year of the implementation of the Management's action plan. For those recommendations that have not yet been complied with, 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.

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 Dingding Tang with support from Josefina Miranda, Compliance Review Officer of the Office of the Compliance Review Panel.

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 Although the Board approved \$120 million, ADB only committed \$100 million under the ADB Facility Agreement. 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 2019, 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 emissions responsible for global warming and produced four times more coal combustion waste per megawatt of electricity than conventional coal-burning plants.

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.

9. Based on 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 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 fourth 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 a capacity development technical assistance (TA) for air quality management for the project.⁶

14. There was considerable and worrying delay in the implementation of this TA. There were delays in contracting the air dispersion modeling experts and thereafter in contracting the equipment suppliers of air quality monitoring equipment required for validating the model. The concern was so serious that the matter had to be taken up by the BCRC. Thankfully, the air dispersion modeling is now complete and at long last a contract has been signed between AECOM Asia Company Ltd and Electrobyte Environmental Concerns Corp. (equipment supplier) for the supply of two (2) units of air pollution monitoring system and related services amounting to \$535,675.84. ADB earmarked \$550,000 for the equipment. The CRP mission visited the two sites (i.e., in front of the City Hall of Naga City and inside the Naga City Sports Complex at the vicinity of the track oval) where the air quality monitoring equipment will be installed. The complainants pointed out, and the CRP noted that those sites were both located to the south of the KSPC power plant. On inquiry from Management, CRP was informed that: "the selection of sites is constrained by the availability of space for open path monitors. We will use automatic monitoring stations operated by KSPC to cover northerly direction if warranted after initial analysis with air quality monitoring data. We will ensure that the data collected is adequate for model validation."

Figure 1: Two sites in Front of the City Hall of Naga City (left) and Inside the Naga City Sports Complex at the Vicinity of the Track Oval (right) Where the Air Quality Monitoring Equipment Will be Installed



Source: CRP

15. A Memorandum of Agreement (MOA) for site use was signed between City of Naga & DENR EMB Region 7 for the installation of the ambient air quality monitoring equipment. The equipment is expected to be installed and fully operational by mid or end of August 2016. The City of Naga has approached KSPC to provide the electricity for the equipment as well as the internet connection to enable the equipment to transmit real time data to DENR EMB Region 7. The CRP hopes that the Management will work with KSPC to ensure that these are done so that the model can be validated. DENR also assured the CRP that steps are being taken to install the necessary software on its own computers to receive and process the real-time data from these two sites.

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).

16. On inquiry from the Management, the CRP was assured that there will be adequate data by February or March 2017 to begin validating the model and that by April 2017, airshed management scenario options will be generated for consideration by DENR and the Airshed Management body responsible. Should the model show exceedance of ambient air quality standards during the year for specific areas reasonably attributable to the KSPC power plant, action will be taken to correct the emissions regime to ensure that ambient air quality standards are met by the power plant. On the other hand, the model may show that ambient air quality is being exceeded in certain areas in and around Naga City but reasonably attributable to other sources of pollution. If that be the case, the matter of proper regulation of those sources is a matter for the DENR as it is beyond the purview of ADB operational policies and procedures.

17. Once the airshed management scenario options are developed, Management has agreed to consult with the CRP before further steps are taken and such airshed management scenario options will also be shared with the complainants, airshed management body and the public in a transparent and participatory manner.

18. **CRP conclusions regarding compliance with recommendation 1.** The CRP finds that there have been significant delays in complying with this recommendation. However, progress is now being made with regard to physical measurement of ambient air quality in the area and validation of the air dispersion model. The CRP therefore declares partial compliance with this recommendation.

19. **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, Management needs to ensure that:

- (i) the ambient air quality monitoring equipment is installed and operational in the Naga City area before the end of August 2016;
- (ii) data on ambient air quality are transmitted to DENR, KSPC, the PSOD project team leader and the public (via the ADB or DENR or KSPC website) on a regular basis;
- (iii) data collected up to February or March 2017 will be used, together with other data from KSPC monitoring sites and other available data to validate, and where needed, to adjust the air dispersion model by April 2017;
- (iv) based on a validated and adjusted model, airshed management scenario options will be generated taking into consideration ambient air quality standards applicable, as well as, public health considerations;
- (v) these airshed management scenario options will be discussed with the CRP and expeditiously placed before the airshed management body responsible and also shared with the complainants, other stakeholders (such as the Barangay Captains) and the public in the form of the original report as well as a simplified, easily understandable summary in English and the local language. The sharing must be done in a timely manner by placing hard copies at key locations in the local area for inspection by the public as well as placing the report and summaries on the ADB website together with written notifications to the complainants and stakeholders of the availability of such data at such sites and on the web; and

- (vi) if the selected airshed management scenario requires KSPC to adjust its air emissions regime to comply with ambient air quality standards, then Management will ensure that these regime changes are made without delay and within a technically and commercially feasible time (in coordination with the CRP).

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.)

20. **CRP findings on compliance with recommendation 2.** The third monitoring report of CRP stated: "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 was 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."

21. The CRP in its third monitoring report also requested that the representatives of the complainants be invited to be present when samples are drawn from the two ground water test wells. In its quarterly reports, Management conformed that this has been done and the CRP confirmed this fact from the complainants and their representatives when it met them on mission for the preparation of this monitoring report.

22. Thus, the only matter outstanding to declare this recommendation is fully compliant was the written confirmation from the DENR of the matters referred to above. Unfortunately, DENR was not prepared to issue such a confirmation in writing. Alternatively, in November 2015, Management was able to obtain documentation through KSPC confirming that APO Cement was authorized to use KSPC ash in its production process. After deliberation with Management, the CRP decided that this was adequate proof that the ash from the KSPC power plant was suitable for use in the cement plant.

23. **CRP conclusions regarding compliance with recommendation 2.** In the light of the above facts, the CRP concludes that Management is now in compliance with this recommendation. The CRP requests that the agreed procedures for sample collection in the presence of the complainants and other stakeholders be continued and that Management

regularly ensures that the ash from the KSPC power plant continues to be suitable for use by the APO Cement plant.

24. **CRP feedback to Management on actions to bring the project into full compliance with recommendation 2.** None.

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.)

25. **CRP findings regarding compliance with recommendation 3.** Three (3) multipartite monitoring team (MMT) meetings (16 July 2015, 20 October 2015, and 28 March 2016) and two (2) semi-annual stakeholder's forum (18 September 2015 and 19 February 2016) were held during this monitoring period. The complainants' representatives were invited and participated in some of these meetings.

26. The MMT minutes in the local language are now at the project website in adb.org (<http://www.adb.org/projects/43906-014/main>).

27. The Freedom from Debt Coalition-Cebu had been invited as an observer during MMT meetings but was able to attend only once as notice was not served to allow them sufficient time to re-schedule their activities and attend the MMT meeting. On inquiry from Management, it has been agreed that DENR will be requested to give at least a week's notice to all parties on MMT meetings since shorter notice than this would be inadequate and unfair to all parties concerned. Additionally, it has already been agreed that whatever documentation is distributed at the MMT will also be made available to the representatives of the complainants and other stakeholders so that they can participate in the proceedings in a meaningful fashion.

28. **CRP conclusions regarding compliance with recommendation 3.** Subject to at least a week's notice of MMT meetings being given to the complainants' representatives and other participating stakeholders, the CRP declares this recommendation to be in compliance.

29. **CRP feedback to Management on actions to bring the project into full compliance with recommendation 3.** None.

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.)

30. **CRP findings regarding compliance with recommendation 4.** With regard to this recommendation, the CRP is of the view that there has been partial compliance.

31. There was evidence (in the form of brochures and leaflets) that KSPC provided information on pollution-related risks and preventive action to communities near the plant and test results and emissions data were disclosed on the ADB project website. There was also clear evidence that the MMT and barangay stakeholder meetings were convened. Other tasks associated with this recommendation and remedial action can only be evaluated after the air dispersion modeling study is complete and airshed management scenarios are developed under recommendation 1.

32. The complainants requested that a doctor visit the upper part of Barangay Colon situated on the hill immediately behind the KSPC power plant once a week. The CRP visited this hill during its third monitoring mission and it is possible that air emissions may impact residents in this area. While a doctor and clinic are held in Barangay Colon, it would seem that residents on the hill are either unaware of it or find it difficult to attend it as it is conducted at the bottom of the hill. The CRP suggests that a clinic be conducted on the hill, as well. Management was consulted on this matter and agreed to pursue the same with KSPC as this appears to be an eminently fair request.

33. Mobile load to monitor the dispersal of fugitive coal dust during unloading of coal from ship/barge to KSPC and report other KSPC operation-related matters to KSPC continues. The CRP heard reports that the ship/barge unloading of coal sometimes causes fugitive dust to impact the nearby shoreline community. KSPC informed the CRP that plans to anchor the ships farther out to sea are being considered together with further covering of the barge to conveyor unloading bay area. The CRP hopes that these steps will be considered and implemented in a timely fashion.

34. **CRP conclusions regarding compliance with recommendation 4.** Accordingly, the CRP finds that ADB has partially complied with this recommendation.

35. **CRP feedback to Management on actions to bring the project into full compliance with recommendation 4.** For ADB to bring the project into compliance with this recommendation, (a) the air dispersion modeling study must complete the tasks under recommendation 1 (b) ensure a medical clinic is held on the hill behind the KSPC power plant in Barangay Colon and continue with the other tasks that have already been undertaken.

V. CONCLUSIONS

36. 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's environmental and social safeguard policies as well as its communications policy. The CRP also observed that the representatives of 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 and airshed management body 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 dispersion modeling study is done to bring the project into final and full compliance with ADB's operational policies and procedures. 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 one final year (2017) unless the Board specifies a different timetable. The CRP also notes that the airshed study and development of airshed management scenario options is a good practice precedent for the Philippines. In this regard, credit goes first to the complainants for having raised this issue, and second to the ADB staff, DENR and KSPC for having used the opportunity to establish a precedent setting good practice that can be a beacon to the rest of the Philippines and indeed to other developing countries.

37. Of the four recommendations in the CRP's compliance review report approved by the Board, ADB has partly complied with recommendations 1 and 4. ADB has also fully complied with recommendations 2 and 3. Full compliance with recommendations 1 and 4, however, will have to await the results of the air dispersion modeling study and the use of health data in developing an action plan.

38. Below is a summary of the actions identified by the CRP as a result of its fourth 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 ambient air quality monitoring equipment is installed and operational in the Naga City area by the end of August 2016; (ii) data on ambient air quality are transmitted to DENR, KSPC, PSOD project team leaders and the public (via the ADB or KSPC or DENR websites) on a regular basis; (iii) data collected up to February or March 2017 will be used, together with other data from KSPC monitoring sites and other available data to validate, and where needed, to adjust the air dispersion model by April 2017; (iv) based on a validated and adjusted model, airshed management scenario options will be generated taking into consideration ambient air quality standards applicable, as well as, public health considerations; (v) these airshed management scenario options will be discussed with the CRP and eventually placed before the airshed management body responsible and also shared with the complainants and other stakeholders such as the Barangay Captains; and (vi) if the scenario requires KSPC to adjust its air emissions regime to comply with ambient air quality standards, then Management will ensure that these regime changes are made without delay at the very latest by August 2017.
<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</i></p>	<p>Status of compliance: Complied with.</p>

CRP Recommendations	Feedback to Management on Actions to Bring the Project into Full Compliance
<i>disposal sites.</i>	
3. <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>	Status of compliance: Complied with.
4. <i>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>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 air dispersion modeling study must complete the tasks under recommendation 1; and (ii) ensure a medical clinic is held on the hill behind the KSPC power plant in Barangay Colon and continue with the other tasks that have already been undertaken.
<p>DENR = Department of Environment and Natural Resources EMB = Environmental Management Bureau KSPC = KEPCO SPC Power Corporation MMT = multipartite monitoring team TA = technical assistance</p>	

39. 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 fifth and last monitoring report of July 2017.

/S/ Dingding Tang, Chair, Compliance Review Panel
 /S/ Lalanath de Silva, Member, Compliance Review Panel
 /S/ Arntraud Hartmann, Member, Compliance Review Panel

16 August 2016

LIST OF PERSONS MET DURING THE COMPLIANCE REVIEW MONITORING

Asian Development Bank (ADB)

Private Sector Operations Department (PSOD)

1. Craig Roberts
Director, Portfolio Management Division
2. Kurumi Fukaya
Lead Investment Specialist, Infrastructure Finance Division 2, PSOD
3. Vijay Joshi
Principal Safeguards Specialist, Private Sector Transaction Support Division
4. Jose Manuel Limjap
Investment Specialist, Portfolio Management Division

KEPCO-SPC Power Corporation (KSPC)

1. Ill Hwa Jeong
Electrical Manager
2. Neil Lawrence Miral
Environmental Assistant Manager
3. Jasmin Suma-Oy
Community Relations Officer

Department of Environment and Natural Resources - Environmental Management Bureau-Region 7

1. William Cuñado
Regional Director
2. Luis Antonio Monisit
Environmental Management Specialist

Requesters' representative

Jose Aaron Pedrosa Jr.

Representatives from Freedom from Debt Coalition-Cebu

1. Teodorico Navea
2. Ester Novo

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>

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	<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>

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	<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>