

Environmental Monitoring Report

Bi-annual Report
Covering the period of July – December 2015

PAK: Jamshoro Power Generation Project

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Prepared by the Jamshoro Power Company Limited (JPCL), with the assistance of Mott MacDonald Limited (United Kingdom) in joint venture with MM Pakistan (Pvt) Ltd (Pakistan), for the Islamic Republic of Pakistan and the Asian Development Bank (ADB).

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1 Introduction

The Government of Pakistan aims to increase the share of coal-based generation from almost none in the current year (2016) to 15% over the next few years. In support of this initiative Jamshoro Power Company Limited (JPCL) and Genco Holding Company (GENCO), supported by the Asian Development Bank, is planning a brownfield extension of the Jamshoro Power Station in order to improve the total plant efficiency and increase the power output from the Plant. The project is known as the Jamshoro Power Generation Project (JPGP).

The project site is approximately 20km northwest of Hyderabad, and about 150km northeast of Karachi in the Sindh Province of Pakistan. The Indus River is about 3.5km east of the power plant site. Currently there are four fossil fuel-fired electricity generating units installed and operating at the site (Unit 1 is oil fired and Units 2 – 4 are dual fuel-fired (oil/gas)).

JPGP is proposed to initially comprise of 1x660MW (net) supercritical power plant with facilities to expand to 2x660MW plants. The project aims to decrease the existing power shortfall, and address environmental concerns from the existing oil-fired power units. The boiler(s) will be designed to utilise imported sub-bituminous coal blended at 80/20 with local lignite as its fuel.

Currently (January 2016) JPGP is in the early implementation stage with tender packages being developed for: (i) construction and operation of the 2x660MW supercritical power plants; and (ii) rehabilitation and remediation of some aspect of the existing oil fired plant.

This report is the second bi-annual environmental monitoring report for the project covering the period from July 2015 to December 2015. Subsequent bi-annual reports will be reconfigured as necessary to reflect activities and available information as the project develops.

2 Environmental Monitoring and Management

2.1 Environmental monitoring

At the time of compiling this report (January 2016) no construction, rehabilitation or remediation activities had commenced on site and none is envisaged to commence until Q1 2017. As a result an environmental monitoring programme has not been developed. The monitoring programme will be developed in conjunction with the successful bidder(s) and approved by the project implementation consultant (PIC) (Mott MacDonald) and JPCL project management unit (PMU).

As part of the feasibility study for the project and as required by the ADB an environmental audit was undertaken of the existing plant. The audit was included as part of the environmental and social impact assessment (ESIA) for the 2x660MW supercritical power plant (Environmental Impact Assessment; Jamshoro Power Generation Project; October 29, 2013 (the ESIA Report)). Several items related to the existing plant were reported as requiring remediation or rehabilitation in Section 6 - Issues Related to Existing Plant and Corrective Actions.

The items that were identified are subject to a loan condition applied by ADB that requires remediation works to have a signed contract in place prior to commencement of works on the site associated with the new facility (660MW supercritical power plant).

In line with this requirement preparation of site remediation works contract bidding documents was progressed during the first reporting period (February to June 2015) and has continued through the second reporting period. Practical issues on site have delayed finalisation of the remediation works contract bidding documents. The documents are expected to be issued to potential bidders during the forthcoming reporting period.

2.2 Environmental management

The ESIA study and subsequent ESIA report for the proposed 2x660MW power plant were developed for the Asian Development Bank and include reference to Pakistan national standards and regulatory requirements and international guidelines including ADBs Safeguard Policy Statement (2009) and the World Bank/International Finance Corporation Environment, Health and Safety Guidelines for Thermal Power Plants (2008) (IFC EHS guidelines). International treaties that Pakistan are signatory to are also considered.

The EIA report correctly identifies that both Pakistan national environmental quality standards (NEQS) and IFC EHS guidelines will have to be complied with. In operation this means that the most stringent of the NEQA and IFC EHS guideline environmental limits/standards will have to be complied with (with the exception of ambient air quality standards where national standards take precedence where they exist).

Environmental requirements will be clearly and specifically identified and specified in the all tender documentation where required and relevant.

A gap analysis with respect to draft bidding documents and technical specifications was prepared by the PIC and a number items were identified that need to be included in the technical requirements for the 2x660MW supercritical power plant when the tender documents are issued with the invitation to bid.

3 Actions during the Next Reporting Period

The next biannual environmental monitoring report will cover the period from January 2016 to June 2016 and will be made available by the end of July 2016.

During the forthcoming period the following actions will be undertaken:

- Final bid documents will be issued to potential bidders for the new plant packages
- Final bid documents will be issued to potential bidders for five of the six remediation/rehabilitation packages as a minimum (awaiting client decision on oil unloading and transfer plant rehabilitation prior to soil remediation)
- Bids will be reviewed and assessed
- Preferred bidders selected
- Contracts for work packages awarded

PIC environmental specialists will:

- Respond to queries relating environmental aspects of the issued bid document
- Review received bids for technical packages for compliance with environmental requirements
- Review received bids for remediation/rehabilitation packages
- Assist with selection of the preferred bidders
- Work with preferred bidders/awarded bidders to establish environmental management and monitoring plans and programmes