

Project Description	Bauxite Mine and Alumina Refinery Project
Sponsors	Ma'aden Alcoa Inc. (through its AWA Saudi Limited subsidiary)
Country	Kingdom of Saudi Arabia
Project Category	A
Canadian Exporter(s)	Various
Description of capital goods and/or services	Sale of various Canadian goods and services
EDC Product	Financing
Date of Publication on EDC's website (dd/mm/yy)	02/06/2011
Date of Signing (dd/mm/yy)	16/10/2011

Project Categorization

This project involves the construction and development of the Al Ba'itha mine, located in the Az Zabirah bauxite deposit in the central-northern area of the Kingdom of Saudi Arabia, and an alumina refinery located at the Ras Al Khair peninsula, on the shore of the Arabian Gulf, approximately 600 kilometres from the mine. The project was classified as Category A. (Category definitions can be found [here](#), see D3 Environmental & Social Reporting).

Summary of EDC's Review

EDC reviewed the project in accordance with the requirements of EDC's *Environmental and Social Review Directive* and the *Equator Principles*, and concluded that the project is designed to meet or exceed internationally recognized good practices, guidelines or standards. In reaching this conclusion, EDC reviewed a project Environmental Impact Assessment and Social Impact Assessment, which were benchmarked against relevant international environmental and social standards, and reviewed for appropriate mitigation measures against the project's potential environmental and social effects. EDC's review also included an assessment of the project's stakeholder engagement activities.

Key environmental and social issues associated with the project, and related mitigation measures reviewed by EDC include, but are not limited to, the following:

Air quality: *Dust generation during construction*

Mitigation measures included: Dust suppression techniques, such as water spraying and dust collection systems on downstream transfer points from the crusher. The crusher feed will use water spray systems, as needed, to control particulate emissions;

Greenhouse gases: *Carbon dioxide emissions from the combustion of heavy fuel oil in its steam plant and natural gas in its calciners.*

Mitigation measures included: Ongoing investments and monitoring of GHG emissions performance in accordance with internationally recognized methodologies;

Water: *Water required for dust suppression and alumina refinery process*

Mitigation measures included: Processing of bauxite at the refinery site, thereby minimizing water use at the mine site; and completion of a groundwater study and water management plan; utilization of wastewater effluent from the integrated project as a source for process water;

Waste Management: *Bauxite residue at the refinery site*

Mitigation measures included: Design of the bauxite residue disposal area in compliance with relevant host-country regulations for hazardous material; inclusion of a double-lined disposal cell; collection and re-use of run-on and run-off water;

Socioeconomic: *Engagement with a small number of families within the mine deposit area, who will be affected by mining activities in five to ten years' time, and may have to be resettled*

Mitigation measures included: Engagement of local social consultant; development of a resettlement framework in accordance with IFC Performance Standards and in collaboration with the government of the Kingdom of Saudi Arabia, the entity responsible for the resettlement.

Documentation Reviewed:

- Aluminum Project Environmental Impact Assessment (2005);
- Mine Environmental Impact Assessment (2005);
- Supplementary EIA Report, Refinery and Smelter (2010);
- Social Impact Assessment (2008);
- Mine Construction Environmental and Social Management Plan (2011);
- Refinery Construction Environmental and Social Management Plan (2010);
- Refinery Health, Safety, Environment and Community Management Plan (2010);
- Air Quality Impact Assessment Study (2011);
- Technical Evaluation Report Environmental Update (2011);
- Common Terms Agreement (2011).

Applicable International Finance Corporation (IFC) Environmental and Social Standards used by EDC (in addition to host country requirements):

- IFC Performance Standard 1: Social and Environmental Assessment and Management System;
- IFC Performance Standard 2: Labor and Working Conditions;
- IFC Performance Standard 3: Pollution Prevention and Abatement*;
- IFC Performance Standard 4: Community Health, Safety and Security; and
- IFC Performance Standard 5: Land Acquisition and Involuntary Resettlement.

* NOTE: IFC Performance Standard 3 references the sector-specific IFC Environmental, Health and Safety (EHS) Guidelines and EDC has considered these guidelines in conducting its review, specifically *Base Metal Smelting and Refining Guideline*, *Mining Guideline*, and the *General EHS Guideline*.