

Antea, Environmental and Social Action Plan (ESAP)

	Environmental Issue/Plant Feature	Corrective Actions Required	Timetable Milestones/Events
	Management Systems		
1	Establish and continuously improve an Environmental Management System (ESMS).	Establish the EMS, and certify the formalised system according to ISO 14001. - Step 1: Build the EMS using an external consultant. - Step 2: ISO 14001 certification	Step 1: Operational at commissioning. Step 2: ISO 14001 (EMS certification) within two years from project commissioning.
2	Establish and continuously improve a Health and Safety Management System (H&SMS).	Implement a formalized system consistent with OHSAS 18001. - Step 1: Step 1: Build the H&S System using an external consultant. - Step 2: OHSAS 18001certification	Step 1: Operational at commissioning. Step 2: OHSAS 18001 (H&S System certification), within two years from project commissioning.
3	Establish and manage a system addressing social aspects of operations.	- Step 1: Complete and start implementation of SCP according to agreed framework - Step 2a: Present HR policies - Step 2b: Present HR procedures - Step 3: Review program implementation and comment. - Step 4: Report outcomes of the internal social audit and incorporate corrective actions identified in action plan for follow up during Annual Monitoring Review.	- Step 1: September 2008 - Step 2a: July 2008 - Step 2b: Dec 2008 - Step 3: March 2009 - Step 4: December 2009
4	Management of social performance.	Organise appropriately qualified and experienced internal professional for the management and implementation of SCP	April 2008
5	Monitoring of ILO standard compliance for labor, construction camp and working conditions of contracted labor to be implemented. Initially for plant construction contractors, and later for general	Step 1: Develop and implement monitoring plan for contractors and migrant workers. Step 2: Labor audit to be conducted by IFC/EBRD or qualified	Step 1: Before workers arrive on site. Step 2: 6 months after main contractor mobilization to project site.

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	contractors in accordance with item 15 below.	and experienced labor auditor. If auditor is external present to IFC and EBRD audit terms of reference and report for review and comment. Step 3: Corrective actions presented in the report to be implemented in an agreed timeline.	Step 3: Timeline to be agreed depending on findings of the audit.
6	A quarry management plan is required.	Management plans are prepared for the flysch and limestone quarries, and submitted to IFC and EBRD for review and comment. These plans should at all times include a broad total quarry utilization plans (existing), a five years oversight plan and a detailed utilization plan for the upcoming 12 months of operation.	First plan to be presented by December 2009. Annual updates thereafter.
7	Ensure operation according to Best Available Techniques (BAT) within 1 year of commissioning the plant	Group Engineering and Technology Department of Titan will Undertake a BAT assessment of the plant operations. The audit will confirm the plant has been designed and is operating to the specifications (namely IFC EHS Guidelines for Cement Sectors). The assessment will also identify any additional environmental and social actions that could improve operations. Any necessary actions will be included in this ESAP and implemented accordingly.	Assessment due 1 year after the commissioning of the operation. Based on the BAT Assessment outcome an update to the ESAP might be needed.
	Plant operations		
8	The clinker manufacturing operation to be equipped with continuously monitoring for particulate, nitrogen oxides, and sulphur dioxide to ensure optimal operation and continuous compliance with the emission requirements.	Install continuous monitoring for particulate, nitrogen oxides, and sulphur dioxide on the main stacks.	Before commissioning and to be verified at project completion.
9	The plant will be operated in line with the designed specification of the ESIA.	The plant will ensure that emission limits of:	Confirmation of meeting the set environmental performance criteria as

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		Dust 30 mg/Nm³ NOX – 600 mg/Nm³ SO₂ – 400 mg/Nm³ are met. Necessary corrective actions will be implemented to meet these emission limits. An implementation plan will be developed and send to IFC and EBRD for review and agreement.	part of the BAT Assessment. Non-compliance and corrective action to obtain compliance to be reported to IFC and EBRD.
10	Quarry Management.	Implement the quarry management plan described in Item 6 above.	Ensure the first (top) bench of the quarries are being rehabilitated when they become ready, and progressively ensure ready benches are rehabilitated thereafter.
11	Ensure the implementation of quarry rehabilitation plans to ensure progressive landscaping and reclamation for mined out areas	The re-vegetation plan according to which the seedling collection and vegetation preparation is carried out to include locally-occurring floral species of conservation concern, and these species are to be actively promoted in the rehabilitation vegetation.	Continuously. Seedling collection ahead of quarry clearing for operation. and nursery to be established one year after commencement of operations
12	The project includes the need for a waste water treatment facility designed to comply with European Union standards and IFC and EBRD EHS guidelines. This included treatment of sanitary effluent arising from (i) construction camp; (ii) operational workers; and (iii) transport worker facilities (truckers); and process water used for dust control.	Design and implement a waste water treatment facility to comply with IFC and EBRD guidelines.	To be operational before wastewater in excess of what can be treated locally are generated, and no later than at plant commissioning
	Energy Efficiency		
13	It is proposed to install waste-heat-to-power generating equipment on the kiln. It is not clear if	Antea will do a cost/benefit analysis to determine feasibility of	Criteria to be reported in the Annual Monitoring Reports until triggered for

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	the option is financially feasible at this time.	the proposed alternative. Cost/benefit criteria will be reviewed, updated and reported in the Annual Monitoring Reports.	implementation.
	Labor and working conditions		
14	Grievance mechanism to manage workers' complaints and concerns.	Develop and implement a grievance mechanism.	COD
15	Management of ILO standard compliance for labor, construction camp and working conditions for contractors, including migrant workers.	Develop and include in contracts a code of conduct which will provide contractors with clear guidelines on terms of employment, living and working conditions.	COD
	Social Compensation Plan		
16	Public consultation on Social Compensation Plan Framework.	Organize public consultation meetings in the towns of Bret, Picrarge, Burizana and Thumana. IFC social specialist will be present at all meetings during that week.	Week of March 31, 2008 Before IFC Board
17	Final Social Compensation Plan to be presented	After the final stages of the consultation process, and the agreement on the compensation terms with affected stakeholders, Titan will present the Social Compensation Plan to IFC and EBRD. All monitoring and reporting requirements on success of the SCP will be part of the SCP.	June 2008
	Community Health and Safety		
18	Antea engagement with local health authorities to monitor any increase in traffic accidents or health problems related to dust and/or vibration.	Antea to present to IFC and EBRD with coordinated monitoring plan.	Ongoing and till one year after commissioning and full operation.

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	Land acquisition		
19	Document and follow up land acquisition process.	Develop and implement a land acquisition procedure. Present procedure to IFC and EBRD	COD
	Community Engagement		
20	Antea has engaged in communications and discussions with local affected stakeholders as part of the ESIA preparation and disclosure, and can in the future benefit from structured community engagement and development plan.	ANTEA has already supported a series of local actions (e.g. Providing local school with computers, construction of a water Facility network to village houses etc).	This is an ongoing process part of CSR Relations.