

Environmental & Social Action Plan

Trakya VI – Turkey and Bulgaria

Issue	Actions	Date
Environmental, Health and Safety Management System	Complete ISO 14001 and OHSAS 18001 EHS management systems certifications for Yenisehir, Turkey and ISO14001 for Bulgaria. Provide IFC with the copies of certificates.	End 2009
	Review existing EHS management systems and ensure that IFC requirements are incorporated into the management systems at each Trakya Cam plant in Turkey and in Bulgaria.	End 2009
	Establish for Trakya Cam plants environmental key performance indicators (KPIs), eg. for air emissions, process effluents, resource conservation, energy efficiency, hazardous materials and waste minimization.	End 2009
	Ensure that environmental, health and safety performance indicators are communicated to the staff, tracked and reported to the corporate management at each Trakya Cam plant.	End 2010
Air Emissions	Install secondary NOx and dust controls using ESP/SCR and bag filters equipment at Trakya Cam -and Pasabahce- in Bulgaria, and the Trakya Cam Mersin Solar Glass line in Turkey, which will bring emissions of particulate matter and NOx from furnaces within IFC guideline levels and meeting Best Practice levels.	End 2011 (Bulgaria) End 2012 (Mersin)
	Extend air emissions monitoring plan in line with the IFC guidelines to the new production lines and ensure continuous monitoring devices are installed at each plant in conjunction with the furnace capacity for the required parameters.	End 2009
	Review ambient air monitoring programs conducted locally for each plant and ensure that the monitoring points are appropriately located, samplings are taken in adequate number and duration.	End 2009
	Implement a step by step reduction program for air emissions (NOx and particulate matter in priority) from existing plants through primary control measures. First step to be to control NOx to less than 1,400 mg/Nm³ and particulate matter to less than 100 mg/Nm³ until the end of 2010 unless more stringent requirements are imposed by regulatory authorities earlier and/or the receiving capacity has decreased.	End 2010
Resource Conservation/Energy Efficiency/ GHG	Install a waste heat recovery boiler and steam-turbine based electricity generation system at Yenişehir plant.	End 2010
	Provide within AMRs the energy use, efficiency and greenhouse gas emissions control information (status and planned actions) for each plant.	At AMRs submission date
	Conduct a feasibility study at each site for the implementation of further water conservation measures.	Mid 2010

Issue	Actions	Date
Permits	Undertake a review of permits required for both the existing and the new production lines and update permits as necessary	End 2010
Occupational Health & Safety (OHS)	- Undertake reviews of workplace safety on the areas including machine guarding, physical separation of workers from machinery and vehicles, segregation and marking of pedestrian ways, safe storage principles. - Review work permit procedures and ensure that all dangerous works (eg: work at height, confined space entry, work at energized and/or chemical lines etc.) are included and effectively applied both for contractors and own employees.	End 2009 End 2009
Internal Air Quality	Review workplace air quality assessments and make sure that monitoring locations are adequate in number at each site and cover all applicable parameters (eg. VOCs) in addition to particulate matter.	Mid 2010
Fire Safety / Emergency Preparedness and Response	- Provide an independent expert view on ATEX assessment for the areas where flammable materials are used (eg. Mirror processing). - Review fire safety and other emergency preparedness programs and ensure that drills and maintenance of relevant installations are adequately conducted at each site (priority for Yenisehir where OHS management system establishment is going-on).	End 2010 End 2009
Wastewater Management	- Implement advanced wastewater treatment in Bulgaria plant as planned to meet IPPC limits. - Undertake a review of wastewater treatment and monitoring procedures at all plants, and extend process and sanitary wastewater monitoring to cover all parameters required by local regulations and by WBG/IFC EHS Guidelines and plan for mitigation measures as if required (ie: TSS and heavy metals, temperature increase for process wastewater; Total Nitrogen and Phosphorus, oil and grease, Total Coliform for biological wastewater). - Extend good practices on water and wastewater management (ie: Tertiary treatment of biological wastewater before discharge to the surface streams, planned reuse of cooling waters for irrigation in Mersin) to all plants where applicable.	End 2009 End 2009 End 2010
Hazardous Materials Management	Provide IFC with the evaluation and feasibility studies for elimination or replacement of hazardous chemicals with non or less hazardous compounds and relevant working program	Mid 2010
Ambient Noise Monitoring	Complete ambient noise monitoring study at Yenisehir plant as planned.	End 2009