

**Jiangxi Chenming Paper Company
Environmental and Social Action Plan
Jiangxi Chenming LWC Project**

March 19, 2004

<u>Issues</u>	<u>Tasks</u>	<u>Responsible Party</u>	<u>Implementation Party</u>	<u>Date for completion</u>
Environmental Actions				
Emissions to water	Install and operate two-stage anaerobic and aerobic waste water treatment plant to ensure that project effluent has BOD < 30 mg/l, COD < 300 mg/l and TSS < 40 mg/l.	Jiangxi Chenming	Jiangxi Chenming	Before start of production.
Emissions to water	Install sewage reception facility capable of storing 12 hours' factory effluent, to provide safeguard in the event of failure of the WWTP.	Jiangxi Chenming	Jiangxi Chenming	Before start of production.
Boiler Flue Gas emissions	Adopt CFB technology with limestone addition to control SO ₂ emissions	Jiangxi Chenming	Jiangxi Chenming	Before project operation
Boiler Flue Gas emissions	Install 99.9% efficient electrostatic precipitator to reduce particulate emissions in flue gases below 25 mg/Nm ³	Jiangxi Chenming	Jiangxi Chenming	Before project operation
Dust from coal storage	Install water spray system to minimize dust from coal store	Jiangxi Chenming	Jiangxi Chenming	Before first coal delivery
Dust from coal storage	Install wall at the south side of the coal storage area	Jiangxi Chenming	Jiangxi Chenming	Before first coal delivery
Dust from coal handling	Use closed coal conveyors, with filtration of extract air	Jiangxi Chenming	Jiangxi Chenming	Before first coal delivery
Noise	Add silencers to reduce noise from boiler steam vents by 30 dB(A)	Jiangxi Chenming	Jiangxi Chenming	Before first boiler firing
Noise	Adopt anti-vibration mounts, sound deadening casings and silencers for noisy machinery	Jiangxi Chenming	Jiangxi Chenming	Before project operation
Noise	Prohibit use of train whistle within factory area	Jiangxi Chenming	Jiangxi Chenming	Before project operation
Ash Management	Construct plant to manufacture building blocks from ash	Jiangxi Chenming	Jiangxi Chenming	Before first boiler firing
LPG storage	Construct LPG storage tanks with high quality welds, high tensile bolts, impervious fire screens and on sloping ground. Provide sprinklers, fire hose, foam quenching system, and emergency isolating valve and automatic shut-off valves. Provide automatic pressure monitoring, alarms and control, leakage detection and	Jiangxi Chenming	Jiangxi Chenming	Before first LPG loading.

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	alarm and CCTV monitoring.			
Hazardous Materials Management	Develop a hazardous materials management program, incorporating a hazardous materials risk management plan, meeting the requirements of appropriate Chinese regulations and IFC guidelines	Jiangxi Chenming	Jiangxi Chenming	Before first delivery of hazardous materials
Forest Certification	Undertake scoping audit to determine actions necessary to gain certification that the project's wood supply is sustainable.	Jiangxi Chenming	Jiangxi Chenming	September 2004
Forest Certification	Implement actions defined in the audit and obtain independent certification of sustainable forestry practices in suppliers	Jiangxi Chenming	Jiangxi Chenming	September 2007
Safety	Develop emergency response plan, incorporating guidance for communication with external agencies as required	Jiangxi Chenming	Jiangxi Chenming	Before factory operation
Environmental Management	Establish environmental management unit at Jiangxi Chenming	Jiangxi Chenming	Jiangxi Chenming	March 2004
Environmental management	Develop environmental management system certified to ISO 14001 or equivalent	Jiangxi Chenming	Jiangxi Chenming	March 2007
Social Management	Establish an office to be responsible for implementing Chenming's commitments to the RAP.	Jiangxi Chenming	Jiangxi Chenming	March 2004
Environmental Monitoring	Install continuous monitoring of pH, volume and COD of effluent discharged from the site.	Jiangxi Chenming	Jiangxi Chenming	Before start of production.
Environmental monitoring	Install continuous monitoring of particulates, smoke, NOx and sulfur dioxide discharged from the boilers.	Jiangxi Chenming	Jiangxi Chenming	Before start of production.
Environmental monitoring	Undertake weekly monitoring of TSS, COD & BOD of effluent entering and leaving the WWTP	Jiangxi Chenming	Jiangxi Chenming	At start of production
Environmental monitoring	Undertake twice annual monitoring of noise produced by the factory.	Jiangxi Chenming	Jiangxi Chenming	July 2005
Environmental monitoring	Provide annual monitoring report of environmental, safety and social matters to IFC, in a format to be defined.	Jiangxi Chenming	Jiangxi Chenming	January 2005
Environmental Assessment	Undertake environmental assessment on any planned production expansion and install emissions mitigation measures as required to ensure that the combined environmental and social impacts of the existing and	Jiangxi Chenming	Jiangxi Chenming	Before capacity expansion

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	expansion project meet IFC and Chinese requirements.			
Social Actions				
Social Management	Establish an office to be responsible for implementing Chenming's commitments to the RAP.	Jiangxi Chenming	Jiangxi Chenming	April 2004
Training program	Identify skill needed for Chenming project (including all phases and subcontractors) and communicate to Zone authorities	Chenming LWC	Chenming LWC, Zone Personnel & Labor Bureau,	May 2004
	Identify training needs for SME development in Chenming supply chain and communicate to Zone authorities and Village Council	Chenming LWC	Chenming LWC, IFC SME team, Zone Personnel & Labor Bureau, Village Council	June 2004
Employment	Estimation of direct hire low skill and unskilled labor	Chenming LWC	Chenming LWC	April 2003
	Estimation of contractors' hire low skill and unskilled labor.		Chenming LWC, Sub Contractors	June 2004
	Document and implement preferential hiring of PAPs based on resettlement action plan.		Chenming, Village Council	February 2005
	Establishment of a tracking system for employment of PAPs		Chenming LWC	May 2004
Executive Assistance Program	Identify skills and support needed by Gang Kou village council and develop support program using Chenming managers	Chenming LWC, IFC SME Team	Chenming LWC, Village Council	August 2004
Facilitating grievance channel	Establishment of a coordinating office for grievances	Chenming LWC	Zone, Chenming LWC, Village Council	May 2004
	List of hardships and putting up corrective actions			Ongoing
SME Development	Identify possible subcontractors or companies in the supply chain who locate on Gang Kou village industrial land.	Chenming	Chenming, Village Council	May 2004
	Identify SME opportunities in Chenming supply chain	Chenming, IFC SME team	Chenming, Village Council, Zone	April 2004