

Environmental and Social Action Plan for SEDAS

13 September 2010

ID	Issue	Action	Time Table
EHS Management			
1	EHS Management System	Develop and implement an environmental and health and safety management system at all SEDAS facilities and operations.	Development by Q4 2011 Implementation by Q4 2012
2	Compliance and standards	Ensure all Environmental, Social and Health and Safety (ESHS) aspects are brought into compliance with applicable national law, EU Directives, and EBRD Environmental and Social Policy (2008).	Q4 2012
3	Contractor management	Include in the contracts of the contractors with whom SEDAS has a substantial involvement a requirement to implement the same standards.	Starting with the contracts for 2011 capital investment plan
4	ESHS Monitoring	Develop and implement an ESHS Monitoring Programme.	Q4 2010
5	EHSS Training	Develop and implement an EHSS training programme for SEDAS employees and contractors. Update and consolidate the employee training matrix and records to ensure induction training is implemented.	Q1 2011
6	Appraisal of the capital investment programme	Carry out the E&S appraisal of the investment programme components in accordance with the EBRD PR1 and IFC PS1 once the details of the capital investment programme are defined. Revise the ESAP to include the mitigation measures/corrective actions identified during the appraisal of the investment programme and agree with the EBRD and IFC.	Before start of any construction activity
7	HR policies and procedures	Develop and implement the HR policy and system that will incorporate EBRD PR 2 requirements for human resources; worker organisations; wages, benefits and conditions of work; non-employee workers, workers organisations, retrenchment, non-discrimination,	Q3 2011

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		defined worker grievance process.	
8	Supplier Management	Develop and implement a policy on raw material sourcing including environmental, hygiene, health and safety as well as labour issues.	Q3 2011
9	Risk Management	Implement the recommendations of the BV risk assessment study in accordance with the timeline defined in the study.	Start implementing Q3 2010.
10	Land acquisition	Develop a land acquisition and compensation plan as part of a formalized corporate land acquisition process that shall be in line with Turkish laws and EBRD/IFC policy requirements. The plan will include Company policy and procedures for all land acquisition, reinstatement and compensation to land owners and any other land users who are physically or economically displaced.	Before start of any land acquisition
11	Cultural Heritage	Develop a formal 'chance find' procedure to apply to general construction activities.	Before start of any construction activity
12	Energy Efficiency	Develop and implement a formal management system or procedures to track and reduce energy use and GHG emissions.	Q4 2011
13	Stakeholder Engagement	Develop and implement a stakeholder engagement plan including a grievance mechanism for stakeholders	Q3 2010
14	Grievance Mechanism	Develop a grievance mechanism for workers (and their organisations, where they exist) to raise reasonable workplace concerns. Inform the workers of the grievance mechanism and make it easily accessible to them.	Q3 2010
Permits			
15	Workplace Opening and Operation Permit	The legal department of SEDAS has applied to the Council of State and according to the outcome an action plan should be prepared if the permit is necessary.	1 months after the decision of Council of State

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17	Temporary Hazardous Waste Storage Permit	Ensure that the amount of hazardous waste stored in storage/warehouse facilities do not exceed the limits otherwise SEDAŞ must apply for the Temporary Hazardous Waste Storage Permit.	Throughout the life of the project starting Q3 2010.
18	Certificate of Operation (İşletme Belgesi)	Certificate of Operation has not been taken from the Ministry yet for 5 directorates. Obtain the Certificate of Operation for all directorates.	Q3 2011
Air Emission			
17	GHGs	Unused insulators with SF6 content should be monitored and disposed as necessary. Develop and implement a system for tracking and reducing greenhouse gases (GHG) and other air emissions.	Q4 2010
18	SF6	Insulators with SF6 content should be identified. Unused insulators with SF6 content should be monitored and disposed as necessary	Q1 2011
Wastewater Management			
19	Sanitary Wastewater	Check with the local municipalities whether sewer connection consents exist and required by the municipality.	Q4 2010
Stormwater Management			
20	Stormwater	Clean the existing impact in the open stormwater runoff drains and prevent further impact and surface runoff from areas where transformer oil containing transformers, drums, etc. immediately. If the impact of transformer oil on stormwater runoff drains cannot be prevented then appropriate oil water separators or traps should be installed and maintained if necessary.	Q2 2011 (with the reconstruction of warehouses)
21	Stormwater	Develop and implement a stormwater management procedure for the storage and warehouse facilities.	Q2 2011 (with the reconstruction of warehouses)

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Waste Management			
22	General	Collect and store the hazardous waste, non-hazardous waste, and medical wastes separately. Mark the areas for storage and label the drums/barrels/containers according to the Turkish Hazardous Waste Control Regulation.	Q2 2011 (with the reconstruction of warehouses)
23	General	Requirements of the waste management procedure shall be implemented at all sites.	Q2 2011 (with the reconstruction of warehouses)
	Deleterious Materials		
24	PCBs	Make an inventory of the transformers containing PCBs. This inventory should be based on proofs from the producer's of the transformers that no PCB content or analysis approach.	Q1 2011
25	PCBs	Based on the inventory of the transformers containing PCB (if exists), develop a monitoring plan for all equipment that might contain PCB to find out if there is any leakage or not. Record control results, observations and the relevant time in the control logbook.	Q3 2011
26	Fire fighting	Provide foam fire fighting systems and water tank cooling systems in the immediate vicinity of equipment containing PCBs and PCB- storage areas.	Q2 2011 (with the reconstruction of warehouses)
27	ODSs	Make an inventory of the gases used in its facilities and the restrictions stated in Regulation on Reduction in Ozone Depleting Substances should be conformed in terms of ozone depleting substances.	Q2 2011
	Chemicals and Material Management		

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28	Chemical management procedure	Implement the requirements of the chemical management procedure at all sites.	Q4 2010
29	MSDS	Prepare an inventory and provide MSDS of all chemicals used at SEDAŞ facilities. The inventory should illustrate the name and characteristics of the chemical, usage areas, and potential environmental and health & safety hazards.	Q4 2010
	Land / Soil / Groundwater Contamination		
30	Oil Spills from Step Down Transformer Stations	There is a concrete base under the step-down transformers; however the integrity of this base is questionable. Adequate secondary containment should be provided for the Step Down Transformer Stations.	Q2 2011
31	Soil contamination	The soil investigation study carried out in June 2010 should be complemented with a more detailed investigation based on a scope to be agreed between SEDAS and the Lenders. The scope will be defined based on: ▪ site accessibility (black-out hours and fines, etc.), ▪ conceptual site characterization, ▪ sensitive locations observed at the sites, ▪ findings of Golder's recent soil investigation.	Q4 2010 before the reconstruction of the warehouses
32	Hazardous material and waste storage areas	Areas for storage of transformers, hazardous waste, chemical containers such as barrels, drums and cans storage areas should be properly maintained, covered, paved, protected from the weather and protected from any fire risk. Secondary containment should be in place to contain any leaks or spills.	Q4 2011
33	Spill response	Make adequate quantity of absorbents or spill kits available at all plants in order to avoid	Q1 2011

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		spreading of spillages and leakages and absorbents shall be stored as such they can be easily accessed in plants. Used absorbents shall be regarded as hazardous waste.	
	Noise Management		
34	Environmental Noise	Determine the step-down transformers that have the risk of generating noise above the Regulation and EU Directive limits. Monitor the noise levels at these step-down transformer centres and nearest sensitive receptors (i.e. residential areas). Take necessary actions in case the limits in the Regulation and relevant EU Directives are exceeded.	Q4 2010(monitoring) Q1 2011(actions)
35	Asbestos	Carry out an asbestos survey and develop a procedure for asbestos handling and replacement of worn out roofs. Worn asbestos roofs and other material need to be replaced in accordance with that procedure.	Q4 2010 (survey and procedure) Replacement of the worn out asbestos roofs as needed.
Occupational Health and Safety			
36	Machine Guarding	The machines should have a machine guard and emergency stop button.	Q1 2011
37	Flammables & Explosives	The oxygen cylinders and flammable materials should be separately stored. In addition, the oxygen cylinder should be fixed on the ground.	Q4 2010
38	Odours in the Building	The material of the prefabricated building should be identified and determined whether it is suitable for permanent use.	Q4 2010
39	Electro Magnetic Fields	Potential exposure levels should be identified at SEDAŞ facilities and the workers should be trained on EMF levels and hazards.	Q3 2010(done) Q1 2011(training)

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40	Open Cabins	All types of deficiencies in cabinets shall be checked for hazards and proper precautions shall be taken.	Q1 2011
41	Working at height	Develop and implement a fall protection program and implement the fall protection procedure. The program may include fall protection measures; inspection, maintenance, and replacement of fall protection equipment; and rescue of fall-arrested workers.	Q1 2011
42	Lifting vehicles	The personnel who use lifting vehicles (hydraulic platforms, cranes, forklifts) should have special driving license. Those who do not have a special driving license should not use these vehicles.	Q1 2011
43	Medical care	Thus, SEDAŞ should employ a doctor and health and safety specialist where necessary and establish a medical unit in its facilities where 50 or more workers work. SEDAŞ should comply with the requirements of the Regulation on Workplace Health and Safety Units and Common Health and Safety Units.	Execution of this regulation has been stopped by Council of State. 3 months after the decision of Council of State
44	Near-miss Reporting	Record and investigate all near-misses. Lessons learned information should be shared between all the facilities after the accidents and near-misses.	Q1 2011
45	Accidents	The personnel responsible from the accident reporting and investigation shall get root-cause analysis trainings.	Q1 2011
46	Fire Drills	Develop an emergency response plan. Drills should be conducted routinely in order to provide efficient implementation of plans in case of an emergency. Emergency training and drill records should be kept and documented in the facilities.	Q4 2010
47	Personal Protective Equipment	Ensure that proper personnel protective equipment are provided for all workers including contractors and give training on use of personnel protective equipment. PPEs should be standardised for all locations.	Q1 2011

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48	Public Safety	Necessary safety precautions should be taken during construction activities to ensure public safety (e.g., safety cones, warning signs). All the subcontractor activities shall have a supervisor at the sites, and also SEDAS technical personnel shall also make audits at site regularly.	Q4 2010
49	Fire safety	The fire extinguishers should be regularly checked and control cards should be placed on fire extinguishers. A written guideline and/or procedure should include the used of dry dust, CO2 or halon fire extinguishers.	Q4 2010
50	Fire safety	All the buildings and cabinets shall be checked for fire extinguishers and check if it is ready for use in emergency cases and also check the type of the fire extinguishers if it is appropriate for the facility or not.	Q4 2010
51	Safety signage	Provide adequate safety signage at all work places.	Q1 2011
52	Lightning Rods	Lightening rod should be provided for distribution centres under special cases (such as if the distribution centre is the highest point). The grounding levels for each cabinet shall be regularly checked as part of the maintenance program.	Q1 2011
53	Vegetation	The trees and plantations in the transformer centre should be cut down and growth of them should be prevented	Q4 2010