

TICO Ghana: ESAP (June, 2011)			
No.	Issue & Task (Description of the requirement to be met by the project proponent)	Indicator of Completion (Objective evidence to be supplied by Project Company to IFC)	Required Completion Date (Calendar date, condition of disbursement)
PS 1: Social and Environmental Assessment and Management Systems			
1	Compile a procedure for inclusion in the Environmental Management System that defines how the actions as detailed in this Environmental and Social Action Plan will be implemented. Appoint an individual responsible for implementing the procedure.	Submission of procedure and confirmation of TICO representative responsible for implementation to IFC.	- Prior to construction. - Condition of commitment.
2	Comply with national legislative requirements including, but not limited to: - Obtaining relevant approvals / permits / permissions prior to construction. - Conditions of approval as related to the environmental permit and Environmental Impact Statements ("EIS") completed for the T2 expansion. - The requirement for submission of the updated Environmental Management Plan ("EMP") to GEPA by 2013.	- Submission of approvals to IFC. - Submission of documentation confirming compliance with conditions of approval to IFC. - Submission of updated EMP / GEPA documentation confirming acceptance.	- Condition of first disbursement / prior to construction (whichever comes first). - Condition of first disbursement / prior to construction (whichever comes first). - December 2012 / Positive covenant.
3	Update the TICO Environmental, Health and Safety Management Systems to reflect activities associated with the T2 expansion including, but not limited to, the procedures related to: - Environmental monitoring instruments; - Control of emissions to air; - Liquid effluent quality monitoring; - Control of environmental noise; - Ambient air quality monitoring; and	Submission of documentation to IFC confirming update of Environmental, Health and Safety Management Systems.	Three months prior to commissioning of T2 expansion / positive covenant.

	Internal and external audits.		
4	- Undertake verification modelling on the outfall design for the once through cooling system to test the final design configuration with the design discharge rate and to determine that at the edge of the mixing zone the temperature is less than the Ghanaian standards of less than 3°C above the ambient temperature. - Based on the findings of the modeling, if necessary amend the design for the once through cooling system.	- Submission of modeling report to IFC for independent verification of compliance with national requirements. - Submission of amended design to IFC if necessary.	- Prior to sign off on final design of once through cooling system / condition of first disbursement. - Prior to sign off on final design / positive covenant.
5	Compile and implement separate Construction Environmental and Social Management Monitoring Plans (CESMMP) for the onshore and offshore works that are acceptable to the Lenders. As applicable, these documents are to include: - An environmental noise monitoring and mitigation plan; - Contact details for a company appointed community liaison officer for the duration of the construction phase; - A community safety plan that incorporates requirements for communication with potentially affected communities; - A site security plan; - The mitigation and monitoring requirements as defined in the two EIS's for the T2 expansion project; - A description of workers accommodation that indicates compliance with the Lenders' requirements for such; - A traffic management plan; and	- Submission of agreed CESMMP's to IFC. - Submission of internal and external monitoring reports to IFC as per the schedule defined in the CESMMP's.	30 days prior to construction mobilization (i.e., prior to pouring of foundations). - Positive covenant.

	The EPC contractors' occupational health and safety plan "OHS).		
6	Compile an audit and compliance plan that defines: - Mechanisms for auditing the EPC contractor to confirm compliance with the OHS plan and national labor legislation; and - Roles and responsibilities, including the requirements and schedule for monitoring of and reporting on the CESSMP's by TICO, and an independent auditor.	Submission of agreed plan.	30 days prior to construction mobilization (i.e., prior to pouring of foundations) / positive covenant.
7	Implement the requirements of the Stakeholder Engagement Plan (SEP) and the Public Consultation and Disclosure Plan as per the applicable timescales.	Submission of copies of the deliverables as stipulated in the SEP.	3. Positive covenant.
PS 3: Pollution Prevention and Abatement			
8	- Commission a once-off independent review of the existing air quality monitoring program by an organization / individual acceptable to both IFC and TICO to assess compliance relative to IFC's General EHS Guidelines and best practice. - Based on the findings of the review, agree with IFC on a program to implement corrective actions identified.	- Submission of Terms of Reference and credentials of proposed Specialist to the IFC, with approval confirmed in writing by IFC. - Submission of independent review and agreed action plan if required. - Submission of amended procedures if required as per the Environmental Management System.	- Six months following construction mobilization as previously defined. - One month following completion of review. - Three months following completion of review.
9	Commission a once-off independent review by an organization / individual acceptable to IFC of the existing environmental noise monitoring program.	Submission of Terms of Reference and credentials of proposed Specialist to the IFC, with approval confirmed in writing by IFC.	Six months following construction mobilization as previously defined.

	2. Based on the findings of the review, agree with IFC on a program to implement corrective actions identified.	2. Submission of independent review and agreed action plan if required. 3. Submission of amended procedures if required as per the Environmental Management System.	2. One month following completion of review. 3. Three months following completion of review.
10	IFC and TICO to agree on a monitoring program to be implemented for the once through cooling system that includes: - Monitoring of physical and chemical parameters of plant outfall; and - Monitoring of waste water in compliance with IFC EHS Guidelines for Thermal Power Plants. (Continuous monitoring of residual chlorine and temperature, regular pH monitoring, monitoring of TSS and oil and grease on a monthly basis, and quarterly monitoring of metals).	Submission of monitoring plan compliant with IFC's EHS Guidelines.	Three months prior to commissioning of T2 expansion / positive covenant.
11	Assess the risk of the off-site waste disposal site based on the sampling of soil and ground water as applicable, and define actions to mitigate potential risks where necessary. Agree with IFC on an implementation plan and time bound schedule for mitigation measures if required.	1. Submission of risk assessment to IFC. 2. Submission of agreed implementation plan and schedule to IFC.	1. Prior to commencement of construction mobilization as previously defined. 2. Three months following completion of risk assessment.
12	Undertake a Phase 1 due diligence of the site, including areas new areas to be leased for the T2 expansion. If necessary, agree with IFC on a time bound schedule to Implement actions as proposed in the due diligence report.	1. Submission of phase 1 due diligence report. 2. Submission of agreed time bound schedule.	1. Prior to signing of lease agreement with VRA for additional land requirements. 2. One month following completion of phase 1 due diligence report.
13	As required for the generating license, develop a decommissioning plan for the site	Submission of decommissioning plan to IFC.	Two years following completion of construction.

	taking into account potential costs as required for generating license.		Positive covenant.
PS4: Community Health, Safety and Security			
14	Update the Emergency Response Plan to incorporate new activities associated with the T2 expansion.	Submission of updated Emergency Response Plan.	Six months prior to completion of construction / positive covenant.