This Environmental and Social Review Summary (ESRS) is prepared by MIGA staff and disclosed prior to the date on which MIGA’s Board of Directors considers the proposed issuance of a Contract of Guarantee. Its purpose is to enhance the transparency of MIGA’s activities. This document should not be construed as presuming the outcome of the decision by MIGA’s Board of Directors. Board dates are estimates only.

Any documentation that is attached to this ESRS has been prepared by the project sponsor, and authorization has been given for public release. MIGA has reviewed the attached documentation as provided by the applicant, and considers it of adequate quality to be released to the public, but does not endorse the content.

Country: China
Sector: Infrastructure
Guarantee Holder: Standard Chartered Bank and a yet-to-be identified lender
Project Enterprise: Maxrise Water Services
Environmental Category: B
Date ESRS Disclosed: 29 August 2011
Date ESRS Re-disclosed: 22 November 2011
Status: Due Diligence

A. Project Description

This revised ESRS reflects the updates to the project since its original disclosure. The update involves the addition of the upgrading/expansion program for the Tangshan Nanpu WWTP for an additional 60,000 m³/day wastewater treatment capacity, to MIGA’s coverage. Originally, the MIGA guarantee was to only cover the acquisition of Tangshan Nanpu WWTP. This change does not modify the environmental and social impacts already identified and assessed, nor does it change MIGA’s due diligence as the Tangshan Nanpu WWTP as upgrading and expansion plans were reviewed as part of MIGA’s initial due diligence. However, this ESRS was revised to include this update and the disclosure period will not re-start. Additionally, MIGA will request SCB to submit environmental information for approval and disclosure by MIGA in order to convert the amount for expansion/upgrading when moving the guarantee contract from standby to current for the Tangshan Nanpu plant.

The Standard Chartered Bank (“SCB”) Wastewater Treatment Project in China involves the acquisition and expansion and upgrading of three wastewater treatment plants (“WWTP”, the project companies). These plants are held by Maxrise Water Services Ltd (Maxrise) in Hong Kong SAR, China, which is owned by two Singaporean companies.¹ In addition to their own $33 million equity investment, the companies have also asked SCB and another financial institution in Singapore to provide US$60 million of non-shareholder loans to Maxrise and through Maxrise (as an intermediate lender) to the three WWTP companies for implementation of

---

¹ This acquisition is not yet public knowledge. Both companies are listed on the Singapore Stock Exchange.
the project. MIGA has been asked by SCB in Singapore to provide guarantee(s), covering the non-shareholder loans to Maxrise.

The three WWTPs are located in Tangshan and Bazhou cities in Hebei province. The project is part of the local governments’ plan to expand wastewater treatment capacity and improve the quality of treated water. The total investment in acquisition and upgrading and expansion for the project is estimated at US$93 million. The companies have expertise in the environmental sector providing services in the water and wastewater sector, primarily in China. One of the companies specializes in manufacturing and applying hollow fiber membrane and membrane products used in the water treatment sector. The WWTP project consists of three operating plants: 1. Tangshan Nanpu, 2. Bazhou, and 3. Bazhou Shengfang, and further expansion and upgrading. The upgrading and expansion program at the Bazhou plant is expected to start construction in September 2011 and scheduled for completion within 1-2 years. The feasibility studies and the environmental impact assessment for the upgrading/expansion works at Tangshan Nanpu are currently being prepared.

B. Environmental and Social Categorization

This proposed project is a Category B project under MIGA’s Policy on Social Environmental Sustainability because it may create a limited number of environmental and social impacts that can be avoided or mitigated by adhering to generally recognized performance standards, guidelines and design criteria. The key environmental and social issues relate to environmental and social management, emissions to the environment (air/odor, water, noise, solid and hazardous waste and materials management), life and fire safety, community and occupational health and safety, and human resources management.

SCB is an Equator Principle signatory. As part of its lending consideration, an environmental and social assessment based on the requirements of the Equator Principles was conducted. SCB’s assessment reviewed project evaluation and classification, risk assessment and evaluation of the quality of risk identification, mitigation and management in terms of the key environmental and social issues.

C. Applicable Standards

While all Performance Standards apply to this project, MIGA’s due diligence indicates that the investment will have impacts which must be managed in a manner consistent with the following Performance Standards:

- PS1: Social and Environmental Assessment and Management Systems
- PS2: Labor and Working Conditions
- PS3: Pollution Prevention and Abatement
- PS4: Community Health, Safety & Security

Performance Standards 5, 6, 7, and 8 are not expected to be triggered as no land acquisition resulting from involuntary resettlement is expected and no sensitive natural habitats or natural resource use, indigenous peoples, and/or cultural heritage will be directly impacted. An
environmental and social due diligence site visit will be undertaken by MIGA in August/September 2011. The ESRS will be revised based on the mission’s findings and conclusions, if necessary.

D. Key Documents and Scope of MIGA Review

The following documents were reviewed by MIGA:

Environmental Impact Assessment (EIA) Summary Tangshan Recycle Water Plant (post-construction environmental review) – 30 December 2008

Environmental Impact Assessment (EIA) Summary Bazhou Plant (post-construction environmental review) – December 19, 2002


MIGA will meet with staff at the three plants, the local Environmental Protection Bureau, and consult with World Bank and IFC colleagues as part of the due diligence site visit.

E. Key Issues and Mitigation

PS1: Social and Environmental Assessment and Management Systems
Local governments select sites for locating water/wastewater treatment plants, and obtain documented approval from the impacted communities for location of the facility. Consistent with Chinese laws and requirements, EIA forms (also called EIA table) were prepared for the three projects at Tangshan Nanpu, Bazhou, and Bazhou Shengfang at the time of construction and were approved by the government. The environmental work for the expansion/upgrading is expected to be completed at a later stage. Through the impact assessment process the government ensures that potential impacts of the projects are identified and addressed during the project planning stage and are used to prepare specific environmental control plans containing identified mitigation measures. The project company has the overall responsibility for obtaining appropriate permits and approvals from various government agencies, and ensuring all operations are consistent with the terms of the concession agreement.

The previous plant operators did not have a formal management system in place, however with this acquisition, the companies will apply their own corporate standards to these plants. One of the companies has a Quality Health Safety and Environmental (QHSE) management system that is held by its subsidiary companies, as part of their ISO 14001 and OSHAS 18001 certification. This QHSE management system is relatively broad. Among the items, the relevant policies include (i) legal compliance management system, (ii) harm and environmental impact management system, (iii) corrective action management system, and (iv) emergency management system. It has policies and procedures in place that would provide some information on environmental, health and safety management. The new project company will be seeking ISO 14001 and OHSHAS 18001 certification of the management systems of these plants within a year from the acquisition.
The EIAs for the existing operations made limited requests on improvements or recommendations. The recommendations found in the EIAs are: (i) the plants are to ensure all facilities are well managed, (ii) the greenbelt is to be well managed, (iii) local environment bureau shall monitor the water output, making sure it satisfies the standards, (iv) the local environment bureau shall control the quality of water discharged from local enterprises, and (v) the local environment bureau shall control the underground water. No specific actions were required, hence no environmental management plans were required. The post-construction environmental review of the three plants indicated that were no material environmental non-compliances with local requirements. Environmental information for the proposed Bazhou and Tangshan upgrade/expansion activities will be prepared as part of the approval process and will be submitted to both SCB and MIGA. The company confirms that policies and procedures comply with applicable local regulatory requirements.

**PS2: Labor and Working Conditions**

The project employs approximately 20-50 workers at each plant, while the number of subcontracted employees can vary depending on construction activities. Labor and working standards will be applied to all plant employees. These standards comply with local and Chinese regulatory requirements, and are applied consistently to all direct employees. As required by law, the standards include working conditions and terms of employment, including occupational health and safety conditions (fire and life safety), recruitment standards, performance evaluation, training, etc.

Under one of the companies occupational health safety and environmental protection management system, the issues covered include (i) setting annual targets and cascading to the relevant departments, (ii) managing the workplace’s wastewater, emissions, noise, solid waste to the minimum, (iii) Human Resources (HR) to provide employees with the necessary protective gear and record any incidence, (iv) HR to organize pre-employment and annual health review for employees, (v) HR to procure the necessary insurance, according to the employee management handbook, (vi) HR to instill proper driving habits for the drivers, (vii) manage the rest-work scheduling for its employees, and (viii) take precaution for specific work roles that involve height, temporary power, etc. If there is an incident, the relevant management shall act according to the emergency management system.

The HR management system covers the following items: employment contracts, probation, training, and performance evaluation, resignation. At signing of employment contract, the probation period is between 3-6 months. An evaluation form is to be completed post probation. During probation, the employees will be covered under the required social insurance. At the end of each fiscal, each department shall evaluate training needs and seek approval for the training required for the following year. HR shall formulate a training schedule based on the information provided above. The senior management and HR shall gather a annual performance review team. Employee docket includes all relevant information on the employee. At resignation, an outbound process will be completed, which includes exit form to be completed.

**PS3: Pollution Prevention and Abatement**

The plants are critical to treat the wastewater generated by the industries and the general population in the concession areas, prior to being discharged into the waterways. It is part of the plan to undertake plant upgrading so as to produce higher grade of treated water. As part of the expansion plan, the project companies will be building water recycling plants to recycle some of
the treated water for industrial and general re-use. The plants produce effluents, process residuals and waste streams that are managed in compliance with local/Chinese regulatory standards.

The Bazhou Shengfang WWTP has been in operation since 2009 treating 20,000 m$^3$/day of wastewater. In 2010, an expansion consisting of an additional 30,000 m$^3$/day for treatment was completed. The Tangshan Nanpu WWTP has been in operation since 2001 with current capacity at 80,000 m$^3$/day wastewater treatment plant and 40,000 m$^3$/day water recycling plant. Expansion/upgrading plans consist of an additional 60,000 m$^3$/day wastewater treatment capacity, which will now be covered by MIGA at the renewal of the current contract of guarantee and once environmental information has been submitted, approved and disclosed by MIGA. The Bazhou WWTP has been in operation since 2008 with current capacity at 40,000 m$^3$/day. The upgrading works consist of improvement to the quality of wastewater treatment, which will also be covered by MIGA’s guarantee. These WWTPs primarily use conventional technology (screening, primary sedimentation, secondary biological treatment, etc.)

During operations emissions to the environment (air, water, noise, solid and hazardous waste and materials management) are managed adequately by the project operators; however no management system is currently in place to report and document environmental and social performance. As part of the concession agreement, an operations and maintenance manual will be developed.

Water quality is being monitored regularly, as the project operators are required to keep records of treated water compliance. If there are any significant deviations from the required standards, the project companies are required to take the necessary steps to cure the problems, to the extent it is within their control. If the root of the problem is due to non-compliant influent standards, the projects are expected to treat to the best of their ability.

The project companies are to submit to local EPAs monthly reporting of the wastewater discharge quality. In the monthly report, any non-compliance with the required standards would be highlighted and the root cause explained. If the problem persists, the authorities and the project companies will refer to the concession agreement for resolution. MIGA will need to confirm that these reviews demonstrate that the existing plants comply with local laws and better understand the impacts to waterways, if any. While no other reviews are conducted for occupational health, safety etc., the project companies will work to integrate these issues into the overall environmental management system.

Construction related impacts associated with expansion and upgrading works will be addressed through contract clauses to minimize/avoid potential impacts. Based on the site visit findings, management plans for construction activities may be required by MIGA.

PS4: Community Health, Safety & Security
The communities around the three facilities are generally not affected by operations. Noise is primarily generated by plant equipments, which is managed through the use of low-noise machinery, appropriate sound insulation, and application of silencer and soft connections between machines. Additionally, there is a 300m–400m green belt buffer zone around the plants.

The nearest community in Bazhou and Shengfang is about 800 - 1000m. Tangshan is located in an industrial area where there is sparse residential community. No significant increase in traffic is anticipated, as the wastewater is piped to the plants, instead of tanker transport. The only transport required is to transport the sludge out of the plants, and this typically requires about two
trucks per day. Odor is generated by the sludge, bio-pool, and filtering pool. The odor concentration is managed by maintaining the appropriate green belt. The odorous materials are not stored permanently at site, but transferred to the necessary disposal sites (responsibility of the government). No hazardous chemicals are involved (as per the technical consultant). Ferric salt and polymer are not considered hazardous. Emergency control plans are in place. There is no formal community relations office for people to go and complain, but as per policy, the project company is required to engage the community actively. Currently the operating results are disclosed to governments. Subject to local government’s approval, the plants will prepare a notice board to disclose the plant’s information to the community. A mailbox to receive community’s suggestions will also be provided. A supervision team will look into the information disclosed as well as the communication with local community; this process is subject to local government approval. The perimeter of the plants will be fenced and unarmed security guards are posted at the plant entrances.

F. Environmental Permitting Process and Community Engagement

There have been no significant adverse impacts to local communities from on-going operations at the three plants. Negative impacts include those typically associated with the operation of wastewater treatment facilities such as site specific impacts from odor, noise and traffic, etc. all of which have been managed by the project companies.

G. Availability of Documentation

Attached to this ESRS are Post Construction Environmental Reviews for each of the three plants:

EIA Shengfang (1), EIA Shengfang (2)
EIA Bazhou
EIA Summary Tangshan Water Recycling

A Chinese-language copy of the Environmental and Social Review Summary (ESRS) and associated documents will be made available at the corporate offices as well as at the facilities listed below:

Locations of Facilities:

Maxrise Water Services Holdings Ltd, Tangshan, Hebei Province;

Bazhou Maxrise Water Services Science Co. Ltd, Bazhou, Hebei Province;

Bazhou Maxrise Shengfang Branch Office, Bazhou Shengfang, Hebei Province.