Terms of Reference

For the Project Management Consulting Service of Zhuzhou Brownfield Remediation Project

(Contract No. HN-ZX-QST-01)

I. Background

Zhuzhou Qingshuitang Industrial Zone is a key and old industrial base invested and built by the state in the 1960s, with leading industries of lead-zinc smelting and heavy chemical industry. Over 60 years' development of metallurgical and chemical industry has turned Qingshuitang Industrial Zone into a brownfield contaminated by heavy-metals notorious in Hunan Province or even around the entire country. The environmental pollution in the area is endangering the health of residents and the safety of drinking water in the middle and lower reaches of Xiangjiang River. Over the years it has caused a series of livelihood, economic and social issues. Pollution remediation of Qingshuitang Industrial Zone has become an urgent need for improving the local people's livelihood and eliminating the water pollution problems of Xiangjiang River.

During the NPC & CPPCC meetings in 2011, the State Council approved the *Implementation Plan for the Heavy-metal Pollution Remediation in Xiangjiang River Basin*, and listed Qingshuitang Industrial Zone as an advance pilot area for Heavy-metal pollution remediation in China. The government of Zhuzhou City has paid much attention to the pollution remediation of Qingshuitang Industrial Zone, and has founded the ZREIDC (ZREIDC) in 2009 to specialize in the environment management and re-development of Qingshuitang Industrial Zone.

In order to combat the long-standing pollution and improve the soil quality of Qingshuitang, improve the water quality of Qingshuitang and the entire Zhuzhou City, as well as renovate the local ecologic environment, the government proposes to undertake the risk-based brownfield remediation of the key industrial zones in Qingshuitang under the support of World Bank loans and advanced international brownfield remediation technologies. The successful implementation of this project will set a good example for similar projects in Zhuzhou City to draw merits from international technologies and World Bank's advanced management practices, expand financial sources for ecological and environmental protection projects of Zhuzhou City, and provide insights for treatment of heavy metal pollution of China's other old industrial zones.

II. Project Development Objective and Institutional Structure

The project development objective is to reduce public exposure to contaminated land in the project area using risk-based remediation approaches.

The project will be managed by the Project Management Office (hereinafter referred to as "PMO") of the Zhuzhou Municipality, and be implemented by the Zhuzhou Recycling Economic Investment and Development Group Co.,Ltd (hereinafter referred to as "ZREIDGC") through the Project Implementation Unit (hereinafter referred to as "PIU"). The PMO will take overall responsibility for the project implementation; the PIU as the project owner will be responsible for the day-to-day management of the project implementation.

III. Project Description

<u>Project scope</u>: The implementation area of the project is the core area of Zhuzhou's Qingshuitang industrial zone, located in Shifeng District, Zhuzhou Municipality within Hunan Province, with Xiangtian Road to the east, the JingGuang Railway Line to the west, and its north boundary from west to east shows as: the planned Fahua Road, the planned Huanbao Road, the existing Qingshui Road, the existing Qingxia Road, the existing Tongxia Road, the existing exterior wall of Zhuzhou Chemical Plant and Zhuzhou Smelter Group, the planned Huaping Road, the planned Zhicheng Road and the planned Fahua Road; and to the South with the Xiangjiang River, the whole area amounts to 8.48km2.

The total project costs are estimated to be US\$245 million (including contingencies and financing charges), including a World Bank loan of US\$150 million. The Project consists of the following four parts:

Part A. Remediation of Contaminated Plots

Carrying out cleanup and remediation activities on contaminated plots and dispersed open soil plots in residential areas including, inter alia: (a) site preparation; (b) materials transport (including road construction to enable transport); (c) treatment of soil and sediment, (d) remediation of contaminated soil plots, ponds and channels; (e) cleanup of industrial waste piles; and (f) soil exchange programs for open soil plots in residential areas.

Part B. Associated Treatment and Disposal Works

Construction and/or upgrading of associated remediation and disposal facilities required to treat contaminated materials including, inter alia: (a) a dewatering site; (b) a stabilization/solidification

facility; (c) wastewater treatment facilities; and (d) the development of an industrial solid waste landfill in the Project Area.

Part C. Capacity Building and Knowledge Management

Provision of support to Zhuzhou Municipality and Shifeng District for the carrying out of Project-related studies and capacity building activities, public engagement campaigns, remediation management and redevelopment strategic planning, environmental quality and industrial pollution compliance, including the establishment of an environmental information and demonstration center.

Part D. Project Management, Monitoring and Evaluation

Provision of support to the PMO and PIU to enhance their management capacity through training, study tours and the provision of consulting services, including: (a) project management capacity building; (b) project management; and (c) external environmental and social monitoring.

IV. Objectives of the Consultancy

A qualified consulting firm (the Consultant hereafter) will be selected through "QCBS-Quality Cost Based Selection" and complete all tasks required according to the consultancy's objective and the outputs as specified in this Terms of Reference (TOR). The Consultant will ensure the project implementation to meet high performance standards in terms of progress, quality, safety, investment, financial management and environmental performance, as well as supervision and contract management in accordance with good international practices.

V. Scope of Work

The scope of the consultancy covers the following aspects:

i. <u>Design Review</u>: The Consultant will assist Zhuzhou PMO/ PIU in (a) reviewing the preliminary design and construction drawings and proposing optimization proposals as necessary, by referencing the project FSR; preparing Design Review Report based on the review of the key technologies, equipment and remediation or construction plan that are included the project construction drawings; (b) reviewing, providing advice and guidance on the preparation of technical specifications and bill of quantities (BOQ) of the bidding documents; (c) controlling the key points in the design process, including but not limited to, the remediation of contaminated soil plots, ponds and channels, cleanup and disposal of industrial waste piles, and the construction,

upgrading and operation of associated remediation and disposal facilities, and the selection of materials; ensuring the design quality and saving costs appropriately; (d) ensuring that all of the design comply with applicable domestic technical guidelines.

- **Procurement and Contract Management**: The Consultant will assist PMO/PIU in reviewing the bidding documents, contracts, engineering design and drawings, technical specifications, BOQ and other documents. It will be responsible for; (a) reviewing International Competitive Bidding (ICB) and National Competitive Bidding (NCB) Procedures (including bidding documents, pre-bid conferences, clarifications during the bidding period, bid opening and bid evaluation); (b) reviewing the engineering design, construction drawings, bill of quantities, bidding documents and proposing revision suggestions (under the circumstance of prior review, bidding documents should be submitted to the World Bank by the PMO/PIU for review and non-objection. The consultant will assist the PMO/PIU on responding the comments made by the World Bank until the non-objection is obtained); (c) assisting the PMO/PIU in completing the bid evaluation procedures and providing advice in compliance with the World Bank Procurement Guidelines. The consultant will assist the PIU in responding the comments made by the World Bank on the bid review until the non-objection is obtained; (d) assisting the PIU in bid evaluation and reviewing the bidding evaluation report, assisting the PIU and the procurement agent in dealing with all the comments feed-backed by the WB until there is no objection of the bidding evaluation report from the WB; (e) assisting the PMO/PIU in the preparation of the contract; (f) preparing the Contract Management Manual for Construction Management; (g) assisting the PIU in solving the issues emerged in the implementation of the contract management; (h) reviewing the contractors' working methods, variation orders and claims, responsible for the verification of the working drawings; and (i) providing advice on any other aspects of the procurement and contract management that may be requested by PMO and PIU.
- iii. *Financial Management*: The Consultants will assist PMO and PIU in financial management, accounting, withdrawal and reimbursement following domestic and World Bank requirements, including: (a) assisting the PMO and PIU to prepare detailed project planning financial report in accordance with the specific requirements of World Bank Project for future reference and implementation and good control of project finance; (b) assisting the PMO and PIU to account and preparing the project general ledger, to immediately reflect and analyze if the project funds are in place and how the funds are used; (c) assisting the PIU to list all of the expenditures under the project estimate cost, budget, compiling the relevant financial information and data to help complete the financial statement, and assisting to complete the establishment or optimization of the financial management part in the MIS; (d) assisting the PMO and PIU to timely

conduct the withdrawal and disbursement of the loan proceed according to the withdrawal and disbursement requirements of the bank; (e) assisting the PMO and PIU to strengthen the financial review and approval of the project expenses; (f) guiding the PIU to establish an independent project accounting system and cooperating with the project's auditing work; (g) assisting the PMO and PIU to modify and optimize the financial management manual, strengthening the financial supervision management; (h) conducting an annual assessment whether the Loan Agreement had be strictly observed, assisting to prepare relevant financial reports in accordance with the requirements.

- iv. *Project management*: The Consultant will assist the PMO/PIU in (a) as needed, timely updating the comprehensive project implementation plan (PIP¹) and ensuring its implementation; (b) assisting the PIU to establish a project management & monitoring system to manage the project implementation and fund use; (c) establishing a sound construction supervision system; (d) building a sound consultation and coordination mechanism among the PMO, PIU, local communities and the stakeholders; (e) preparing documents needed for the World Bank implementation support missions and translate the World Bank mission Aide Memoire into Chinese; (f) According to the project result framework included in the World Bank Project Appraisal Document (PAD), establishing a Project Performance Monitoring System (PPMS) to track the output, performance indicators, achievements and impacts of the project, and make sure that all the data is sorted out into categories according to the project performance indicators of the World Bank, and provide data and analysis needed for project progress report required by the World Bank; monitor the performance of technical assistance, effectively coordinate all the related project activities.
- v. <u>Environmental Management</u>. The consultant will assist the PMO/PIU in (a) reviewing the civil works design documents and contracts, and ensuring the project environmental management plan (EMP) will be properly incorporated into the design and contractual documents; (b) supervising the project contractors, supervision engineers and environmental supervision engineers in EMP implementation; (c) reviewing the design documents of civil works and providing advice on potential regulatory requirements associated with any significant design changes in reference to the project EIA and EMP; (d) setting up an monitoring implementation arrangement according to the environmental monitoring plan included in the project EMP and ensuring its implementation; (e) preparing semi-annual EMP implementation monitoring report; and (f) monitoring and ensuring implementation of other compliance requirements included in the EMP.

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¹ A PIP will be prepared before the consultant is hired.

Reporting and Training: The consulting agency will assist the PMO and PIU to: (a) promptly solving all the problems on contract management and engineering management in compliance with the contract and international engineering project management conventions and timely report to the PIU; (b) formulating the format for engineering report of project management and the contract management manual; provide training on project management, loan withdrawal and financial management, and contract management to PMO/PIU relevant staff and the project contractors; (c) completing the consultancy's inception report, Weekly Progress Report, Monthly Progress Report, Semi-annual Project Progress Report, Semi-annual Report on Site Remediation, Semi-annual Report on the Design and Implementation of Landfill Site, Annual Progress Report (including progress on project construction, withdrawal and expenses report and payment), Completion Report and Performance Evaluation Report; completing and promptly updating the construction plan and investment plan at least once every three months; monitoring the performance indicators of the project; (d) providing risk assessment report to the PIU at least once every three months, which shall cover information on the investment, construction progress, quality, security and environmental compliance of the project, etc.; (e) providing training on the use of MIS and PPMS for PMO, PIU, and the construction supervision agency, also providing training on environmental protection, district planning, etc.; (f) the consulting agency will help the PMO, PIU and construction supervision agency to establish a system for quality monitoring and reporting, and hold quality assurance seminar for the relevant staff of the PIU, construction supervision agency., etc, if necessary; (g) regularly preparation of the external environmental monitoring report that accords with requirements of the World Bank based on the environmental engineering report provided by the environmental engineer and other relevant basic information and data, as well as providing training and guidance concerning about the external environmental monitoring; (h) reviewing the external resettlement monitoring report, ground water monitoring report formulated by the independent external monitoring organs, and provide suggestions and advice for improvement; (i) responsible for the formulating of the financial enforcement regulation and the financial training; (j)formulating the time-line for institutional arrangement and data collection, and calculate the performance indicator and prepare performance monitoring report required by the World Bank; (k) assisting the PMO and PIU to prepare documents for the interim review of the bank; (1) providing other documents required by the PMO and PIU and the World Bank to complete the project progress report.

vii. *Other responsibilities include*: complete other tasks assigned by the PMO/PIU.

VI. Staffing and Duration of Assignment

1. Staffing Roles, Minimum Qualifications and Indicative Person Months.

A total of about *127 consulting staff months* are envisioned. The supporting staff will be drawn from the PIU's own resources. The PMO and PIU shall approve all staff and have the right to reject any staff that he/she considers unsuitable.

2. The following summarizes the minimum qualification requirements and intended duties for each position. The Consultants shall provide its organization chart.

each position. The consultants sharif			
Position	Indicative Person Months	Minimum Qualifications	
Project Manager/	50	(a) Minimum Qualifications	
Chief Resident Engineer (1 Person)	(30 in Zhuzhou)	 Qualification of Senior Civil Engineer recognized by relevant departments in China and Supervising Engineer registered in China or Internationally recognized professional engineer accreditation for Civil Engineering. Minimum of fifteen years of experience in civil works design / construction management / contract management in China. (b) Adaptability to Work. Over ten years work experiences as a Project Consultant / Resident Engineer and experienced in successful management of international financial organizations, over five years project manager experiences as an international financial organization consultant. (c) Experiences and Languages in Similar Field Experiences in similar field. Well spoken and written in English and Chinese; able to communicate directly with the World Bank Project Manager (d) Tenure at Consulting Firms Preferably to be engaged in full-time job at the 	
		consulting firm that participates in bid.	

Position	Indicative Person Months	Minimum Qualifications
Deputy Project Manager/ Environmental Technology Specialist (1 Person)	30 (20 in Zhuzhou)	 (a) Minimum Qualifications Minimum of ten years experiences in projects of environmental protection and pollution controlling. Domestically accredited Environmental Engineer. (b) Adaptability to Work. Over five years work experience participating in international financial institutes (IFIs) financed projects in China. (c) Experiences and Languages in Similar Field Experiences in similar field. Well spoken and written in Chinese and in English.
Environment Management and Monitoring Consultant (1 Person)	15 (10 in Zhuzhou)	 (a) Minimum Qualifications Minimum of ten (10) years experiences in environmental management and monitoring. Qualification of accredited environmental engineer or environmental impact assessment engineer (b) Adaptability to Work. Over three (3) years of experience in environmental impact assessment or external environmental management monitoring; Has participated in at least two (2) World Bank or ADB financed projects. (c) Experiences and Languages in Similar Field Experiences in similar field.

Position	Indicative Person Months	Minimum Qualifications
		Well spoken and written in Chinese and in English.
Financial Management Specialist (1 Person)	20 (15 in Zhuzhou)	 (a) Minimum Qualifications Qualification of over fifteen years work experience as a Senior Accountant in financial affairs. Certificate of Certified Public Accountant of China. (b) Adaptability to Work. Over ten years work experiences in financial management of international financial institutes (IFIs) financed projects. Has been responsible for the financial management consulting for one or more World Bank financed projects over the past three years (Year 2013-2015).
		 (c) Experiences and Languages in Similar Field Experiences in similar field. Well spoken and written in Chinese and in English.
Procurement and Contract Management Specialist (1 Person)	10 (5 in Zhuzhou)	 (a) Minimum Qualifications Qualification of over 15 years work experience in procurement and management of engineering projects. Qualification of nationally accredited engineer or tenderer or internationally recognized project management engineer. (b) Adaptability to Work. Over ten years work experience in China or other

Position	Indicative Person Months	Minimum Qualifications
		procurement and management of the international financial institutes (IFIs)financed projects as a member of an international consulting team. (c) Experiences and Languages in Similar Field • Experiences in similar field. • Well spoken and written in Chinese and in English.
Information Technology Specialist (1 Person)	2 (1.5 in Zhuzhou)	 (a) Minimum Qualifications Minimum of ten years experiences in Informa Technology projects. Domestically accredited information technology specialist qualification. (b) Adaptability to Work. Experience of one or more times to work as information technology consultant of internation financial institutes (IFIs)financed project in China other developing countries over the past five years (c) Experiences and Languages in Similar Field Experiences in similar field. Well spoken and written in Chinese and in English

3. The Consultant should decide other personnel needed to ensure the work of the consulting services. The main responsibilities of the consulting experts include, but are not limited to the following:

1) Project Manager / Resident Chief Engineer

The Project Manager has overall responsibility for Project Integration Management, and shall provide comprehensive technical support for the PMO and PIU, main responsibilities including but not limited to:

- preparation of quality control, progress, investment control and the overall contract management plan of the project, and be responsible for the review of the plan's implementation.
- quality control, progress, investment control and contract management of the project;
 specify the overall investment plans and arrangements of project management; guide the review of design and bidding documents;
- preparation of the work report and the progress report of project management, and other documents and reports that are required to be submitted to the PMO, the PIU and the World Bank;
- timely dealing with the problems in project management and contract management and reporting to the PMO and the PIU; post review of the intermediate payment reports and certificates, and prompt correction of the problems in measurement and payment process; responsible for the review of the project settlement;
- responsibility for skills transfer and training of project management; prepare project implementation procedure manual and guide project contract management manual;
- reviewing the BOQ and technical specifications for bidding submitted by the PIU, and providing review suggestions;
- responsibility for the review of prior review documents before submitting to the World Bank;
- provision for technical support of domestic standards, codes, national policies and regulations;
- examination and approval for the significant variations;
- examination and approval for Certificate of Interim Payment issued by the on-site General Supervising Engineer;
- reviewing the completed construction quantities that have been agreed and reported by the supervision unit and signing review opinions.

- completing the Contract Completion Quality Assessment Report; controlling the progress
 of the project; and compiling the supervision reports submitted by the on-site Chief
 Inspector;
- participation in the project's final acceptance;
- assurance of quality of all deliveries; and
- evaluation of the deviation between the actual performance and design performance;
- except for the preparation and submitting of the work reports, responsibility for the communication and reporting with the PMO, PIU from time to time;
- providing data and analysis related to the project performance indicators needed for project progress report required by the World Bank
- preparation of study tour programs for the PMO and PIU.

2) Deputy Project Manager/Environmental Technology Specialist

The responsibility of the Environmental technology specialist includes but not limited to:

- working as the assistant of the project manager, assisting to complete the relevant management work of the project;
- responsible for environmental engineering and technical guidance within the project area;
- responsible for the implementation and the follow-up of the environmental engineering technologies of solid remediation, etc., timely provide relevant technology schemes;
- participating in the research work of the relevant project subjects; summarize the experience
 of relevant environmental control technology during the implementation of the project and
 timely report to the PMO and PIU;
- responsible for the preparation of the training plan relevant to the environmental engineering technologies of solid remediation, etc. and providing training to the related environmental technical personnel of the project.

3) Environmental Management and Monitoring Specialist

The responsibility of the Environmental Management and Monitoring Specialist includes but not limited to the following:

- preparing the semi-annual environmental management monitoring report in line with the requirements of the World Bank based on the environmental supervision report provided by the environmental supervision engineer and other relevant basic information and data;
- providing training and guidance concerning about the implementation of the project environmental management plan; supervising the project contractors, supervision engineers and environmental supervision engineers in EMP implementation.
- reviewing design and contractual documents and ensure EMP requirements are incorporated into the design documents and contractual documents for civil works;
- Setting up an monitoring implementation arrangement according to the environmental monitoring plan included in the project EMP and ensuring its implementation;
- reviewing the design documents of civil works and providing advice on potential regulatory requirements associated with any significant design changes in reference to the project EIA and EMP following domestic environmental impact assessment law and world bank environmental assessment policy.
- and providing other consulting suggestions related to the external environmental management and monitoring for the project manager.

4) Financial Specialist

The responsibility of the Financial/Accounting Specialist includes but not limited to:

- responsibility for the preparation of the financial management implementation details of the project and providing relevant training;
- responsibility for guiding the concrete implementation of the project's financial management details;
- regular submission of the reports on the implementation of the professional financial work to the Project Manager and timely written report on the major issues;
- responsibility for the financial materials of the project to collect, gather and sort; the preparation of the financial statement and report;
- providing consulting suggestions related to the financial management for the project manager.

5) Procurement and Contract Management Specialist

The responsibility of the Procurement Specialist includes but not limited to:

- responsibility for the review of the bidding documents before submitting to the World Bank,
 and providing reviewing suggestions;
- reviewing of the scientificity and rationality of the procurement processes, and providing reviewing suggestions;
- reviewing of the bid evaluation report and relevant documents, providing reviewing suggestions;
- responsibility for the training of the preparation of bidding documents for the relevant departments and staff;
- coordinating and solving the problems in contract implementing, and regularly providing the contract implementing and management report to the project manager;
- preparation of the contract management manual that applies to construction management for the World Bank loan project;
- providing project management and contract and procurement management training for the PIU, the on-site managers and the contractor of the World Bank loan project;
- and providing consulting suggestions related to the procurement and contract management for the project manager.

6) Information Technology Specialist

The responsibility of the Information Technology Specialist includes but not limited to:

- assisting the PMO and PIU to establish a Management Information System (MIS) to monitor the proceeding of all the sub-projects as well as all the project-related techniques, finance and contract issues. The MIS will provide data needed for project progress and financial report;
- assisting the PMO and PIU to establish an effective document control system (DCS);
- assisting the PMO and PIU to establish a Project Performance Monitoring System (PPMS), guiding and using it to track the output, achievements and impacts of the project, and make sure that all the data is sorted out into categories according to the project performance indicators of the World Bank;

• providing training on the use of MIS and PPMS for PMO and PIU.

<u>Duration of Assignment.</u> The overall duration of this assignment is expected to be 60 months. The actual timing (both duration and commencement date) of the individual staff inputs will be subject to agreement with the PIU. The Consultants will be expected to accommodate the staffing requirements for the individual component programs within the total contract inputs contained in the proposal.

VII. Timetable and Outputs

The Consultants should prepare a variety of work reports that will submit to the PMO and PIU according to the task arrangements and the PMO and PIU's needs. The basic requirements and format of the reports should be described in the technical proposal submitted by the consultant and determined in the preliminary report by the consent of the PIU. In addition to the specified work reports, the consultant also prepares the following general report:

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Report	Time of Submission
Inception Report and Work Plan	on the 30th day after the contract signing
Contract Management Manual	on the 90th day contract signing
Monthly Report, including monthly construction	submit last month's report on the 10th day of
schedule of each contract package	each month
Semi-annual Project Progress Report	submit report for first half-year on July
	28,submit report for second half-year on
	January 28 of the following year
Semi-annual external environmental monitoring	submit the semi-annual report for first
report	half-year on July 28,submit report r on
	January 28 of the following year
The latest Project Implementation Schedule and	submit the semi-annual report for first
Financial Plan	half-year on July 28,submit report r on
	January 28 of the following year

Report	Time of Submission
Risk Analysis Report on the progress, quality / safety, environmental compliance and cost of the	submit quarterly, on the 10 th day of next quarter
project	
Reports required by various civil contract, such as monthly metering report, payment certificate,	submit monthly, on the 10th day of next month
etc.	monui
Other assignment reports	see TOR
The draft Project Implementation Completion Report	two months before the completion
Completion Report	one month before the completion

The semi-annual project progress report prepared by the Consultants during the implementation of the project should include all aspects of the project, including the progress of the implementation, key issues, constraints and solutions. The report is for the PMO, PIU and the World Bank to use.

In addition to the progress report (monthly and semi-annual reports), other reports should be submitted in draft to the PMO/PIU first, and then the final report should be submitted to the PMO and PIU in two weeks after receiving comments and revisions requested by the PMO/PIU. Six copies of the draft report and the final report should be submitted respectively.

Unless otherwise required by the PMO/PIU, the consultant should submit the same number of all the reports in both Chinese and English. The Consultants should assist the PMO in submitting reports of Chinese version and English version to the World Bank. If only one language required, the abstract need to be translated into the other language.

VIII Expected Level of Effort

The Consultants should guarantee that the proposed personnel in its Technical Proposal will participate in and complete various tasks. Without the prior approval of the PIU, the consultant shall not change the personnel.

IX. Facilities to be provided by the PIU

The PIU will provide the following facilities for the Consultants during their mission:

- Office space with office furniture, air-condition, domestic telephone and Internet networks;
- Designated PMO/PIU project officers and/or technical staff who will work with the Consultant;
- The relevant information and data to meet the needs of the Consultant, including engineering drawings, environmental assessment and geological survey reports;
- The relevant reports and data to meet the needs of the consulting firm.

X. Facilities to be provided by the Consultants

The Consultants would include but not limited to the following items in its financial proposal:

- All staff and personnel costs including international and local travel and housing accommodation;
- All local transports cost including necessary drivers, vehicles, toll and petrol costs, insurance, maintenance costs, etc.;
- Communication costs for mobile, Internet, telephone and IDD;
- The consultants should be equipped with computers and other necessary necessary facilities for daily work by themselves to carry out the assignments under the contract;
- The costs of all report and document translations, printing and binding including color printing and photocopies.

XI. Skills Transfer

The Consultants should provide relevant training to the project management staffs of the PMO and PIU, the designers, the on-site engineering management staffs of the contractor. The training includes (but is not limited to): project management, procurement, preparation of the bidding documents(including the technical specifications and BOQ), the engineering quality and safety control, financial and contract management, environmental management, etc. (basic requirements

for the training showed in the below chart). The specific training plan and TOR should be given in the Consultant's technical proposal.

No	Types of Training	Period	Location	Objective	Number of People per time	Times
1	Project Management Training	2016-2018	Zhuzhou	To receive project management training, project quality control training and schedule control training	10	2
2	Procurement Management Training	2016-2018	Zhuzhou	Familiar with the World Bank procurement policy	5	3
3	Financial Management Training	2016-2018	Zhuzhou	Familiar with the World Bank financial and payment policy	5	3
4	Contract Management Training	2016-2020	Zhuzhou	Study contract management skill, payment management skill, project tendering and procurement skill	10	5
5	Environmental Management Training	2016-2020	Zhuzhou	Improve environmental protection management skill	10	5
6	MIS、PPMS Skill Training	2016-2018	Zhuzhou	Familiar with the operation of the MIS and PPMS	5	5

Above training will be conducted in the place provided by the PIU for free. The PIU will provide the meeting room with air-condition, furniture, and the projector equipment as the training space for free; the consultant should provide the printing and binding of the needed documents for the training. Please note that: the specialists in the consultant team should act as the trainer to conduct the corresponding training and skills transferring, the staff-months of the specialists to conduct training have been included in the on-site staff-months specified above. The training costs payed by the consultant including: the labor cost for the trainer, the reimbursable expense, as well as the compiling and printing cost; The transportation and accommodation costs for the trainees should be afforded by themselves.

XII. Comments by the Consultants

The Consultants are requested to make any comments on and suggestions for improvements to the Terms of Reference in the technical proposal. The financial implications, if any, of these comments and suggestions shall be indicated in the financial proposal.