

November 3, 2010

The Directors **Leoch International Technology Limited** 5/F, Xin Bao Hui Building No. 2061, Nanhai Avenue, Nanshan District Shenzhen, Guangdong Province, the People's Republic of China

Dear Sirs:

MWH Environmental Engineering (Shanghai) Co., Ltd. ("MWH" or "we") was engaged by Leoch International Technology Limited (the "Company") to perform an environmental assessment (the "Environmental Assessment") at its five existing sites (the "Sites"). The Sites are involved in the various stages of the manufacturing of lead-acid batteries and other products and are located in Shenzhen, Dongguan and Zhaoqing Cities in Guangdong Province, Jinhu County in Jiangsu Province, and Suixi County in Anhui Province, People's Republic of China (the "PRC").

The purpose of the Environmental Assessment was to:

- (1) assess and document the environmental regulatory status of the Sites with respect to the local PRC regulations;
- (2) compare local environmental standards to relevant international environmental standards; and
- (3) assess whether corrective actions would be required if international environmental standards were to be applied at the Sites.

SCOPE OF WORK

The Environmental Assessment at each of the Sites consisted of:

- Review of available environmental documents to obtain information on environmental regulatory frameworks, discharge standards, permit requirements and other related information.
- Interviews with site personnel, including Environmental, Health and Safety (EHS) manager and operations manager to obtain information on the environmental settings, pollution discharge, abatement measures, environmental permitting issues and other related information.
- Visual inspections of the Sites to verify information provided by the Company and assess other potential environmental issues.

LIMITATIONS

This report was intended to provide a preliminary assessment of the current environmental conditions at the Sites. This report is based on the data and information collected during the Environmental Assessment conducted by MWH. The assessment is based solely on the site conditions encountered at the time of the site investigations from March 30 through April 8, 2010. No assurance is made regarding changes in conditions subsequent to the time of investigation. In preparing this report, MWH has relied solely on documentation provided by the Company. No independent testing was conducted.

In evaluating the Sites, MWH has relied in good faith on information provided by individuals noted in this report. MWH assumes that the information provided is factual and accurate. MWH accepts no responsibility for any deficiency, misstatements or inaccuracies contained in this report as a result of omissions, misinterpretations or fraudulent acts of the persons interviewed or contacted.

SUMMARY OF COMPARISON

Following the review of available documents and site inspections, no major non-compliance issues were identified with respect to the PRC regulations and the Sites generally display adequate pollution prevention facilities to treat air emissions and wastewater discharge. A number of issues were identified for each of the Sites with respect to applicable PRC laws and regulations. These issues include (a) inadequate filings and approvals, (b) inadequate testing and evaluation of air emission and sanitary waste water discharge, and (c) inadequate waste management with respect to engaging qualified waste disposal services. As confirmed by the Company, these issues arose because (i) PRC regulations and administrative measures with regard to environmental protection were in the process of development, and (ii) local implementations of relevant regulations varied from place to place. It is sometimes very difficult for PRC enterprises such as the Company and relevant administrative authorities to understand fully all the administrative procedures required. As of the date of this report, all these issues have been rectified. For details, please see "Business—Environment, Health and Safety—Environmental protection measures" in this prospectus.

PRC standards with regards to the air emissions, wastewater discharges and waste management of lead substances were then compared to a number of international standards including the U.S., Japan and several European countries.

Although standards differ greatly in terms of mass loading, concentrations, etc, the comparison indicates that PRC standards are generally more stringent than other available international standards for air emissions. For waste management, PRC standards are similar to the other available international standards. For wastewater discharge, PRC standards are not as stringent as other selected international standards; however, PRC standards apply to discharge to municipal wastewater collection systems for further treatment rather than to direct discharge to the environment. A review of the monitoring data for the Sites indicates that the current wastewater discharges meet some other countries discharge standards such as the ones for France and Germany. Standards for Japan and the UK apply to direct discharge to surface water bodies, which is not the case for the Sites.

As a result, it was concluded that no additional corrective actions would be required for the Sites with respect to the status of their environmental discharges to the environment in light of the relevant applicable international environmental standards.

We enclose here with a summary report of our assessment. This summary report fully and accurately reflects all material information presented in the full version of the report.

Yours sincerely, For and on behalf of MWH Environmental Engineering (Shanghai) Co., Ltd.

> **Jeffrey Yuan** Manager – EHS Consulting Services

SUMMARY OF THE ENVIRONMENTAL ASSESSMENT REPORT

1. Introduction

1.1 Purposes

MWH Environmental Engineering (Shanghai) Co., Ltd. ("MWH") was engaged by Leoch International Technology Limited (the "Company") to perform an environmental assessment (the "Environmental Assessment") for its five existing manufacturing sites (the "Sites"), which are located in Shenzhen, Dongguan and Zhaoqing Cities in Guangdong Province, Jinhu County in Jiangsu Province, and Suixi County in Anhui Province, People's Republic of China ("PRC"). The site visits were conducted by Jeffrey Yuan and Ben Li of MWH from March 30 through April 8, 2010. The Sites are involved in manufacturing of lead-acid batteries.

The Company is in the process of applying for listing in The Stock Exchange of Hong Kong Limited and thus requires that an independent consultant carry out an environmental assessment, whereby the current PRC discharge standards that apply to the facilities will be compared to a selection of relevant international environmental standards.

The purpose of the Environmental Assessment was to:

- (1) assess and document the environmental regulatory status of the Sites with respect to the local PRC regulations,
- (2) compare local environmental standards to relevant international environmental standards, and
- (3) assess whether corrective actions would be required if international environmental standards were to be applied at the Sites.

1.2 Scope of Work

The Environmental Assessment at each of the Sites consisted of a series of interviews with relevant parties, a review of readily available documents, and a site inspection. The assessment included:

- Review of available environmental documents to obtain information on environmental regulatory frameworks, discharge standard, permit requirements and other related information.
- Interviews with site personnel, including Environmental, Health and Safety (EHS) manager and operations manager to obtain information on the environmental settings, pollutants discharge, abatement measures, environmental permitting issues and other related information.
- Visual inspections of the five sites to verify information provided by the Company and assess other potential environmental issues.

1.3 Project Implementation Methodology

Interview

The following persons were interviewed during the site visits:

Shenzhen Leoch Battery Technology Co., Ltd.

Ms. Liu Haiying (劉海英)	Deputy Manager
Mr. Zhang Qing (章慶)	Office Director
Mr. Cai Shuilin (蔡水林) and	Engineering Department Staff
Mr. Wang Jinbo (王金波)	

Dongguan Leoch Battery Technology Co., Ltd.

Mr. Liu Feiping (劉飛平)	General Manager
Mr. Liang Houcheng (梁厚成)	Equipment Department Staff
Mr. He Wei (何瑋)	Production Planning Department Staff
Mr. Yin Jiangguang (尹建光)	Quality Assurance (QA) Department Staff

Zhaoqing Leoch Battery Technology Co., Ltd.

Mr. Li Yunyong (李雲勇)	Deputy Manager
Mr. Chen Peng (陳朋)	Staff Responsible for Environmental Issue

Leoch Battery (Jiangsu) Corp.

Mr. Li Mingjun (李明鈞)	General Manager
Mr. Jiang Rongcai (姜榮才)	Staff Responsible for Environmental Issue

Anhui Leoch Battery Technology Corp.

Mr. Jiang Yanqi (蔣延奇)	General Manager
Mr. Li Jianguang (李建光)	Deputy Technical Manager
Mr. Zhang Mingshuang (張明雙)	Quality Assurance (QA) Department Staff
Mr. Huang Zhengjun (黃正君)	Staff Responsible for ISO 9000/ISO 14000/OHSAS 18000
	System

Document Review

The first stage of the project implementation incorporated a review of relevant documentation held by each of the Sites. Some environmental documents relating to each of the Sites where available, were provided, including the following items:

- Brochure of the Company;
- Site Location Map of the Sites;
- Current Site Layout of the Sites;
- Land Use Certificate for the Sites;
- Pipeline Layout;
- Production Flow Chart;
- Geological Investigation Report;
- Environmental Management System Certificate;
- Environmental Impact Assessment Report ("EIA");
- "Three Synchronies" Monitoring Report and Approval Forms;
- Annual Pollution Discharge Registration Form for air, wastewater, noise and solid waste;
- Pollution Discharge Permits for air, wastewater, noise and solid waste;
- Environmental Monitoring Documents (including wastewater, air, emission and noise);
- Solid Waste List and Disposal Documents (Contracts, vendor license, and five-sheet form);
- Records of Environmental Incidents and Emergency Actions taken regarding spills, leaks and air emissions.

Site Inspection

The site inspection was based on qualitative observations and addressed items of potential environmental concern, including:

- environmental permitting;
- air emissions;
- wastewater discharge;
- waste segregation and storage; and
- chemical management and storage.

1.4 MWH Project Team

MWH possesses all of the requisite skills needed to provide high-energy leadership, proven expertise and substantial resources to complete a project such as the Environmental Assessment.

MWH is a global leader in providing knowledge-driven services. With more than US\$1 billion in revenue, its 6,500 specialists in more than 36 countries provide premiere solutions to municipalities, government agencies, multinational companies, industrial concerns and military organizations worldwide.

Since 1996, MWH has been very active in the PRC, assisting multinational clients who are investing in new or existing manufacturing facilities across the country. MWH staff have worked on hundreds of manufacturing plants and sites in the PRC completing environmental health and safety due diligence, environmental health and safety compliance audits, environmental impact assessment, remediation design and cost estimates, and providing evaluation and design services for wastewater, air treatment systems, hazardous materials storage facilities and ISO-14000 training and support services.

MWH has assisted numerous industrial clients in the PRC with regard to environmental and health and safety issues. The MWH project team involved with this environmental assessment was selected for its extensive experience in reviewing similar manufacturing sites across the PRC. The individuals that reviewed the operations of the Company were:

Mr. Jeffrey Yuan, Project Team Manager, EHS Consulting. With a BSc and MSc in Environmental Engineering from Tsinghua University, Mr. Yuan offers over six years of experience in the field of environmental, health and safety consulting. He is involved in environmental due diligence, EHS compliance audit, site characterization and remediation of contaminated soil/groundwater. As an environmental consultant, he has conducted numerous projects involving EHS due diligence, EHS compliance audit, environmental site assessment, soil and groundwater investigation, and remediation of contaminated land. He is also responsible for the internal EHS laws and regulations database construction and EHS newsletter within MWH, and is therefore very familiar with the EHS laws and regulations in the PRC.

Mr. Ben Li, Junior Consultant, EHS Consulting. Mr. Li holds a BSc in Environmental of Engineering from Shanghai Jiaotong University. Mr. Li is an Environmental Consultant with two years' experience in environmental due diligence, soil and groundwater investigation. He has conducted several EHS due diligence for multinational clients in the PRC.

2. Chinese Regulatory Framework

2.1 Major Environmental Regulations

In the PRC, the national legislature is responsible for formulating and enacting relevant laws, and ensuring that they are implemented and enforced by national, provincial, municipal and local government administrations. Environmental regulations are formulated by the Ministry of Environmental Protection of the PRC ("MEP") and enacted into law by the Standing Committee of the National People's Congress. Regional and local governments are also empowered to enact environmental regulations and standards, which may be stricter than national requirements or may contain parameters not covered by national regulations and standards.

Special industrial sector environmental standards are set by industrial ministries, in conjunction with MEP and the General Administration of Quality Supervision, Inspection and Quarantine (AQISQ). These standards are often stricter than national standards. In the past few years, more politically prominent industrial ministries have issued new environmental regulations. As a result of the rapid development of the environmental legal framework, there is often a degree of overlap between industry specific and other national and sub-national environmental legislation and regulations.

2.2 Integrated Site Permits

Environmental management in the PRC is based upon the following major principles of management. These principles have been advanced to facilitate the integration of environmental protection into decision-making mechanisms and form the basis of PRC regulatory framework. Implementation of these principles has been facilitated within the Environmental Impact Assessment Report ("EIA Report") or Environmental Impact Form ("EIF") and is encoded in the Environmental Protection Law. The environmental enforcement in the PRC is continuously strengthening.

- 1. **Environmental Impact Assessment System** a compulsory part of the permit process for any new projects, or those undergoing major expansion or changes. Suggestions for pollution mitigation are a requirement of EIA Report or EIF. Request to conduct an EIA Report or an EIF is based on the project characteristics. Level of environmental protection authority to approve EIA Report (or EIF) is based on the industrial sector and total investment.
- 2. Three Synchronies Policy controls pollution emissions by requiring new construction projects to include pollution control facilities. Include the following two procedures: (1) Project Design Approval The environmental protection part of project design should be reviewed by the Environmental Protection Bureau ("EPB") to ensure adequate pollution control facilities are included to meet EIA Report; and (2) Three Synchronies Inspection Approval Inspection and approval of the pollution control facilities by the EPB is required after construction and before operation commences. Generally, the Three Synchronies Inspection is undertaken within three months after the trial operation commences.
- 3. **Pollution Discharge Registration** Based on national and local environmental regulations, new facilities that discharge pollutants shall report to and register with the local EPB based on the stipulations of the types, quantities and concentrations of pollutants, manner of discharge and destination of the pollutants as well as the types of pollution prevention and control facilities, and submit technical documents on pollution prevention and control system within one month of construction completion. If for any reason, the registration cannot be completed by this time, the facility must report to the local EPB and provide an explanation and schedule for submission.
- 4. **Pollution Discharge Permits** facility-specific permits that set discharge limits for specified parameters involving air emission, wastewater discharge, solid waste and noise generation.
- 5. Mass Loading Controls Outlines the proposed national ceiling for emissions of 12 hazardous pollutants. They are implemented at the national and local levels. Mass loading controls are seen as developmental increments towards establishing environmental capacity standards for pollution-receiving bodies throughout the PRC. Capacity standards are defined as the maximum sustainable load that can be absorbed by surface waters, the atmosphere, or land, without further quality deterioration. Mass loading control is implemented through the Discharge Permit Policy. Mass loading allocation is the first stage in implementing the pollution discharge permits. EPBs will issue permits after a facility is in compliance with both discharge concentration limits and the mass loading allocations.
- 6. **Pollution Discharge Fees and Fines** According to the local EPB, the pollution discharge fee is currently regulated based on national pollution discharge fee regulation. The fee rate is

determined based on pollutant concentration and the level of concentration in excess of the required standards. Wastewater discharges, which are in compliance with the required standards, are charged at the normal sewerage fee.

Pollution fines are currently levied for major non-compliance related to air emissions, wastewater discharges and noise generation in the PRC. The criteria for the fine follows the protocol established in the local Pollutants Discharge Fine Standards. The local authorities calculate fines according to the monitoring data provided by the local environmental monitoring station.

2.3 Air Emissions

The PRC Air Pollution Prevention and Control Law (2000) is PRC main air protection legislation. The key features of this framework regulation include: provisions for the promulgation of national standards, with stricter local standards allowed; requirements for environmental impact assessments for large construction projects; and policies for preventing and controlling dust, exhaust and odor from boilers and chimneys. Ambient air quality standards are contained within the national Air Quality Standard (GB3095-1996).

The Comprehensive Air Emission Standard (GB16297-1996) was promulgated on April 12, 1996 and was enforced from January 1, 1997. Under the 1996 Standard, standards for both fugitive and process emissions, based on stack height, are set for 33 priority air pollutants. Stack height interval categories are not the same for each pollutant group and standards are given as maximum emission rates (mass/time) and concentrations (mass/volume). Generally, industrial facilities should meet Class II standards of GB16297-1996.

2.4 Wastewater

The *Integrated Wastewater Discharge Standard (GB 8978-1996)* applies to all enterprises and units discharging wastewater and has been implemented since January 1, 1998. Permissible discharge is determined according to the classification of the receiving water bodies, as defined under GB3838-2002, and the classification of pollutants to be discharged as defined under this standard.

Generally, an industrial facility that generates wastewater and discharges it to a municipal collection system linked to a wastewater treatment plant should meet Class III of *Integrated Wastewater Discharge Standard (GB 8978-1996)* as applicable at the sites. However, the maximum allowable concentration standards of the *Integrated Wastewater Discharge Standards (GB 8978-1996)* are applicable for those Type I pollutants, such as lead.

Storm water should be collected through a distinct collection system from the wastewater. If available, the site storm water should be discharged to the public storm water collection system.

2.5 Waste Management

The *Solid Waste Pollution Prevention Law* was revised on December 29, 2004 and became effective on April 1, 2005. This Law is enacted for the purpose of preventing and controlling environmental pollution by solid waste, safeguarding human health and promoting the development of socialist modernization drive. According to this law, all hazardous waste must be disposed of in accordance with the regulations and any enterprise that produces hazardous waste must report and register it with the local EPB. Organizations, which collect, store or dispose of hazardous waste are required to be licensed under the *Solid Waste Pollution Prevention Law*.

The Solid Waste Pollution Prevention Law defines that hazardous waste refer to "wastes listed in the national directory of hazardous wastes or wastes identified as having hazardous nature by identification standards or methods stipulated by the state". The directory of hazardous wastes was

prepared by MEP and became effective on July 1, 1998. Standard for *Pollution Control on Hazardous Waste Storage (GB18597-2001)*, which sets forth requirements for hazardous waste storage, transportation, treatment, and disposal, is a newly applied standard on hazardous waste management.

In the PRC, battery waste should be stored and disposed as per the requirements of *Battery Waste Pollution Prevention Policy* implemented from October 9, 2003. Under this policy, the collection, transportation, removal, and recycle of lead acid battery were required to comply with related requirements.

2.6 Chemical Storage

Storage and handling of chemicals and hazardous substances is primarily regulated by the Safety Management Regulation for Dangerous Chemicals (2002), which was effective on March 15, 2002. It requires that warehouse or storage rooms containing hazardous chemicals have adequate ventilation, fire equipment and fire fighting equipment, explosion protection, pressure release, storm protection, temperature control, static electricity protection and protection bund (secondary containment). Requirements for the preparation of material safety data sheets ("MSDS") are detailed in the General Rules to Drafting Safety Data Sheet for Dangerous Chemicals (GB16483-1996), which generally includes detailed information about the chemicals' identities, characteristics, dangers, toxicity and health hazards, first aid, personal protection measures, packaging and transporting, accidental release and emergency response and disposal. In addition, there are some regulations regarding chemical storage safety, which are enforced by the Safety Work Bureau and Labor Bureau, and fire protection, which are enforced by the Fire Control Bureau.

Based on the relevant regulations, typically the following environmental management procedures for chemicals are required:

- 1. Special warehouse required for hazardous chemicals, which must be approved by the department of public security;
- 2. Secondary containment installed for the storage areas of hazardous chemicals;
- 3. Proper labelling and packaging of hazardous chemicals meeting the requirements;
- 4. Appropriate safety measures or emergency action plan required for hazardous chemicals;
- 5. Dedicated technician responsible for management of hazardous chemical warehouse;
- 6. No hazardous chemicals stored in any open, humid and watery storage facilities;
- 7. Different properties of hazardous chemicals stored separately;
- 8. Regular inspections of the storage facilities regarding the release of hazardous chemicals;
- 9. Complete chemical inventory and file relevant MSDS.

3. Comparison with World Standard

Generally, the manufacture of lead-acid batteries releases lead mostly through its air emissions, its wastewater discharges and solid waste sent off-site for disposal. While significant improvements have been made by the industry in recent decades, there tends to be some variations between standards across the world. This section intends to compare current practice and enforceable standards in the PRC to selected international standards applicable to this industry.

In most countries, manufacturing facilities are licensed to allow emissions up to levels set by the regulatory authority. Regulations regarding monitoring and reporting of pollutant discharges are set. Some emissions are continuously monitored, including concentrations of metals in wastewater and in stack emissions. The three following chapters summarize applicable regulations in a selected number of countries and compare relevant standards in a table for air emissions, wastewater discharges and waste management.

It should be noted that the World Health Organization ("WHO"), who is the United Nations specialized agency for health, has only developed guidelines for ambient air and drinking water quality. The WHO has not issued specific guidelines for air emissions from manufacturing sites or for industrial wastewater discharges. Similarly, the World Bank, who is a source of financial and technical support for developing countries around the world, has not issued such standards.

3.1 Air emission

The PRC

Based on the properties of air emissions generated by battery manufacturing operations, the national *Comprehensive Air Emission Standard (GB16297-1996)* stipulates that concentrations of lead in air emissions should meet the limits summarized as follows:

Lead Emission Limits in the PRC

permissible emission		Fugitive
concentrationStack(mg/m³) (4)Height (m)Class I (1)Class II	Class III	emission concentration (mg/m ³) ⁽⁵⁾
Lead & its compound 0.9 15 Emission 0.005	0.007	0.0075
Emission Limits for 20 prohibited 0.007	0.011	
Existing sources ⁽²⁾ 30 0.031	0.048	
40 0.055	0.083	
50 0.085	0.13	
60 0.12	0.18	
70 0.17	0.26	
80 0.23	0.35	
90 0.31	0.47	
100 0.39	0.6	
Lead & its compound 0.7 15 Emission 0.004	0.006	0.006
Emission Limits for 20 prohibited 0.006	0.009	
New sources ⁽³⁾ 30 0.027	0.041	
40 0.047	0.071	
50 0.072	0.11	
60 0.1	0.15	
70 0.15	0.22	
80 0.2	0.3	
90 0.26	0.4	
100 0.33	0.51	

Notes:

- (1) The rate shall be implemented according to the categories of the quality areas and locations of the pollution sources of *Ambient Air Quality Standards (GB 3095-1996)*.
 - Pollution sources located in Category I areas must comply with Class I standards;
 - Pollution sources located in Category II areas must comply with Class II standards;
 - Pollution sources located in Category III areas must comply with Class III standards.

Category I: Nature preservation area, Scenic and Historic Interest area, and other special preservation area;

According to Ambient Air Quality Standards (GB 3095-1996), air quality standard define three classes for the areas as follows:

Category II: Residential area, Commercial and residential area, general industrial area, and rural area;

Category III: Special industrial area

- (2) Existing sources: All pollution sources built before January 1, 1997.
- (3) New sources: All pollution sources built (newly built, expanded, or rebuilt) after January 1, 1997. All the Sites were built after January 1, 1997, and should comply with limit for new sources.
- (4) Maximum permissible emission concentration refers to the hourly average concentrations that should not be exceeded while the waste gases are in the emission stacks, whether or not the stacks are equipped with treatment facilities.
- (5) Fugitive emission concentration limit refer to average concentration limits at control points for any one hour.

The U.S.

The Clean Air Act, which was last amended in 1990, requires the Environmental Protection Agency in the USA to set National Ambient Air Quality Standards ("NAAQS") for wide-spread pollutants from numerous and diverse sources considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. The Clean Air Act requires periodic review of the science upon which the standards are based and the standards themselves. EPA has set NAAQS for six principal pollutants, which are called "criteria" pollutants. The primary standard value and secondary standard value for lead is $1.5 \,\mu g/m^3$ measured as a quarterly average. This value is a general standard for lead. However, in the case of specific industries, such as lead-acid battery manufacturing and secondary lead smelter operations, NAAQS is superseded by specific National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Source Categories as described in the next paragraph.

In this case, NESHAP is defined in **Title 40 of** *Code of Federal Regulations ("CFR"):* Environmental Protection PART 63 – National Emission Standards For Hazardous Air Pollutants For Source Categories Subpart X – National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting. The provisions of this subpart apply to the following affected sources at all secondary lead smelters: blast, reverberatory, rotary, and electric smelting furnaces; refining kettles; agglomerating furnaces; dryers; process fugitive sources; and fugitive dust sources. The provisions of this subpart do not apply to primary lead smelters, lead refiners, or lead remelters. The threshold values stipulated that for lead emissions from both fugitive dust sources and process sources that: "No owner or operator of a secondary lead smelter shall discharge or cause to be discharged into the atmosphere from any building or enclosure ventilation system any gases that contain lead compounds in excess of **2.0 milligrams of lead per dry standard cubic meter**." For operations similar to the ones conducted by the Company, this is the standard that would prevail.

Japan

The government enacted the *Air Pollution Control Law* in 1968, under which emission controls are enforced for factories and automobiles emitting any of the following: sulfur oxides, nitrogen oxides, carbon monoxide, suspended particulate matter ("SPM"), photochemical oxidants, and other substances that pollute the atmosphere. Air emission standard for lead is **10 milligrams per standard cubic meter** (mg/m³).

Europe

The European Union defines the obligations with which highly polluting industrial and agricultural activities must comply. It establishes a procedure for authorizing these activities and sets minimum requirements to be included in all permits, particularly in terms of pollutants released. The aim is to prevent or reduce pollution of the atmosphere, water and soil, as well as the quantities of waste

arising from industrial and agricultural installations to ensure a high level of environmental protection. This was enacted through the Integrated Pollution Prevention and Control ("IPPC") Directive (Council Directive 96/61/EC of 24/09/96).

Facilities involved with manufacturing of lead-acid batteries are required to have a permit according to the IPPC Directive. In order to receive the permit, the facility must comply with certain basic obligations. In particular, it must:

- use all appropriate pollution-prevention measures, namely the best available techniques (which produce the least waste, use less hazardous substances, enable the recovery and recycling of substances generated, etc.);
- prevent all large-scale pollution;
- prevent, recycle or dispose of waste in the least polluting way possible;
- use energy efficiently;
- ensure accident prevention and damage limitation;
- return sites to their original state when the activity is over.

In addition, the decision to issue a permit must contain a number of specific requirements, which are defined by the Member States according to relevant national legislation, in particular including:

- emission limit values for polluting substances (with the exception of greenhouse gases if the emissions trading scheme applies);
- any soil, water and air protection measures required;
- waste management measures;
- measures to be taken in exceptional circumstances (leaks, malfunctions, temporary or permanent stoppages, etc.);
- minimizing of long-distance or trans-boundary pollution;
- release monitoring; and
- all other appropriate monitoring.

ENVIRONMENTAL ASSESSMENT REPORT

Applicable standards in France, Germany, the Netherlands and the United Kingdom have been included in *Table 1* below for comparison purposes.

Country	Maximum Lead Level (mg/m ³)	Date Operative	Title of Legislation	Current Status	Controlling Authority
PRC	0.9 for existing sources 0.7 for new sources (facilities built after January 1, 1997)		Comprehensive Air Emission Standard (GB16297-1996)	Legal	Environmental Protection Bureau
EUROPEAN UNION	None quoted				
FRANCE (Battery Manufacturing Plants)	1	1993	Decree no.1-3-1993	Legal	Regional Authorities
GERMANY	5	1986	Technical Instructions Air	Legal	State Governments
JAPAN Calcination and drying furnace etc. for lead, and secondary lead smelting furnace	10	1968	Air Pollution Control Law	Legal	Ministry of Environment
NETHERLANDS	Variable	1970	Air Pollution Act	Proposal	Ministry of Environmental Protection
UNITED KINGDOM	10	1985	EC Directive on Lead In Air 82/994/EEC	Legal	Department for Environment, Food and Rural Affairs
UNITED STATES	2.0	1995	National Emission Standards for Hazardous Pollutants from Secondary Lead Smelting, 40 CFR Parts 9 and 63	Legal	State Governments through EPA

TABLE 1 STANDARDS FOR LEAD IN AIR EMISSIONS

Source: International Lead and Zinc Study Group - Environmental and Health Controls on Lead - 2007

Table 2 below summarizes lead concentrations measured in air emissions from the Sites.

TABLE 2 MEASURED LEAD CONCENTRATIONS IN AIR EMISSIONS

Site Name	Measured Lead Concentrations in Air Emissions (mg/m ³)
Shenzhen Leoch Battery Technology Co., Ltd	ND to 0.05
Dongguan Leoch Battery Technology Co., Ltd	0.014 to 0.04
Zhaoqing Leoch Battery Technology Co., Ltd.	0.065 to 0.69
Leoch Battery (Jiangsu) Corp	0.16
Anhui Leoch Battery Technology Corp	0.094 to 0.17

Note: ND Indicates - Not Detected

A review of the available monitoring data for the Sites showed that they all comply with the international standards selected for air emissions of lead.

3.2 Wastewater Discharge

The PRC

According to national *Integrated Wastewater Discharge Standard (GB 8978-1996)*, the permissible limit for lead is **1.0 mg/L** for discharge to a municipal wastewater collection system or directly into the environment (i.e. surface water body).

The United States

Title 40 of *Code of Federal Regulations ("CFR")*: Environmental Protection PART 461– Battery Manufacturing Point Source Category

This subpart applies to discharges to waters of the United States and introduction of pollutants into publicly owned treatment works from the manufacturing of lead anode batteries.

Generally, in the U.S., the requirement is that Best Available Technology be applied to treat the wastewater discharges, and the amount of lead permitted in wastewater is measured by reference to the amount of lead used in production. Thus, there is no specific quantitative standard for wastewater discharge.

Japan

Under its Water Pollution Prevention Laws, national standards for unified hazardous substances discharge standards and unified living circumstance items discharge standards were implemented in industrial factories in Japan. The permissible wastewater discharge limit for lead and its compounds is **0.1 mg/L**. However, for some industries which could not reach the national standards based on current pretreatment technologies, temporal discharge standards are implemented. According to the temporal standards, for the manufactories involved in Lead dioxide, the permissible lead limit is 0.2 mg/L.

Europe

As described in the previous chapter, the European Union requires that facilities discharging wastewater must comply with specific requirements, which are defined by the Member States according to relevant national legislation. Applicable requirements for lead for wastewater discharges in France, Germany, Netherlands and United Kingdom have been included in *Table 3* below for reference.

TABLE 3 STANDARDS FOR LEAD IN INDUSTRIAL WASTEWATER DISCHARGES

Country	Maximum Lead Level (mg/L)	Date Operative	Title of Legislation	Current Status	Controlling Authority
PRC	1.0	1996	Integrated Wastewater Discharge Standard (GB 8978-1996)	Legal	Environmental Protection Bureau
EUROPEAN UNION	None quoted				
FRANCE	0.5	1993	Ministerial Decree of March 1, 1993	Legal	Regional Authorities
GERMANY	0.5	1989	Federal Water Act	Legal	State Governments
JAPAN	0.1	1993	Water Pollution Prevention Law	Legal	Ministry of Environment
NETHERLANDS	Variable (according to type of plant, its location and nature of receiving water)	1970	Pollution of Surface Water Act	Legal	National, Provincial and Local Water Authorities
UNITED KINGDOM	Variable (typically 0.004-0.25 mg/L for discharge to fresh surface waters)	1989	Water Resources Act,1991 Water Industry Act,1991	Legal	National Rivers Authority
UNITED STATES	Variable (based on Best Available Technology-BAT)	1984	Clean Water Act 1977 (as amended)	Legal	Environmental Protection Agency

Source: International Lead and Zinc Study Group - Environmental and Health Controls on Lead - 2007

Table 4 summarizes lead concentrations measured in the wastewater samples collected at the outlet of each wastewater treatment plant for each of the Sites. After wastewater is discharged from a site to the municipal wastewater collection system, the site no longer bears any responsibility for further treatment, as it falls under the responsibility of the municipality. Generally, wastewaters collected through a municipal wastewater collection system are treated through a municipal wastewater treatment plant and then discharged to the environment.

TABLE 4

MEASURED LEAD CONCENTRATIONS IN WASTEWATER DISCHARGES

Site Name	Measured Lead Concentrations at Outlet of WWTP (mg/L)	
Shenzhen Leoch Battery Technology Co., Ltd.	NA	
Dongguan Leoch Battery Technology Co., Ltd.	NA	
Zhaoqing Leoch Battery Technology Co., Ltd.	_ *	
Leoch Battery (Jiangsu) Corp	0.11 to 0.56	
Anhui Leoch Battery Technology Corp	<0.068 to 0.080	

Note: "*" indicates no monitoring report; and NA indicates not applicable

Review of the wastewater discharge monitoring results of the Sites indicates that:

- There was no lead containing wastewater generated from Shenzhen Leoch Battery Technology Co., Ltd. and Dongguan Leoch Battery Technology Co., Ltd., therefore no industrial wastewater will be discharged to the environment
- Lead containing wastewater generated from the Zhaoqing Leoch Battery Technology Co., Ltd. and Anhui Leoch Battery Technology Corp. are recycled by the Sites, therefore no industrial wastewater will be discharged to the environment; and monitoring results show that lead containing wastewater generated from Anhui Leoch Battery Technology Corp. meets the Integrated Wastewater Discharge Standards. No monitoring report for Zhaoqing Leoch Battery Technology Co., Ltd. was available for review; however, all treated industrial wastewater will be recycled at the Sites, therefore, there will be no discharge to the environment.
- The lead concentration in wastewater samples collected from the outlet of the onsite wastewater treatment facility ("WWTF") of Jiangsu Leoch Battery Technology Co., Ltd. ranges from 0.11 mg/L to 0.56 mg/L, which were lower than the standards for lead in industrial wastewater discharges for the PRC standards of 1.0 mg/L, above the Japanese standards of 0.1 mg/L and occasionally above the standards of France and Germany of 0.5 mg/L.

3.3 Waste Management

According to the PRC Solid Waste Prevention Law, all hazardous waste must be disposed of in accordance with the regulations and any enterprise that produces hazardous waste must report and register it with the local EPB. Organizations, which collect, store or dispose of hazardous waste are required to be licensed under the Solid Waste Law. Wastes containing lead are classified as Hazardous Waste in the PRC and must be disposed of accordingly.

Wastes containing lead are also classified as hazardous waste in the U.S., Japan, the U.K., France and Germany and must disposed of through licensed waste disposal vendors. Thus, the standards for solid waste management in the PRC are similar to the relevant standards in the U.S., Japan, the U.K., France and Germany. Currently, the Sites comply with the PRC Solid Waste Prevention Law.

3.4 Chemical Management

Storage and handling of chemicals and hazardous substances would be primarily regulated by the Safety Management Regulation for Dangerous Chemicals (2002), which was effective on March 15, 2002. It requires that warehouse or storage rooms containing hazardous chemicals have adequate ventilation and fire-fighting equipment, explosive protection, pressure release, storm protection, temperature control, static electricity protection and protection bund (secondary containment).

Requirements for the preparation of MSDS are detailed in the General Rules to Drafting Safety Data Sheet for Dangerous Chemicals (GB 16483-1996). In addition, there are some regulations regarding chemical storage safety which are enforced by the Safety Work Bureau and Labor Bureau, and fire protection, which are enforced by the Fire Fighting Bureau.

Chemical management at the Sites can normally meet with the PRC regulatory requirements.

3.5 Soil and Groundwater Conditions

Based on the site visit, interviews with Site-related personnel, and a review of available site documents, MWH identified no RECs or HRECs (as defined below), as defined below, at the Sites during the course of the Environmental Assessment.

- A REC means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not RECs.
- A HREC means an environmental condition which in the past would have been considered a REC, but which may or may not be considered a REC currently.

Although no soil and groundwater cleanup law/criteria available in the PRC, the recent promulgated regulations specifically emphasize the investigation of soil and groundwater quality when industrial facilities cease their activities, relocate their site and change their operations.

3.6 Summary of Comparison

Based on the above review, lead air emissions and wastewater discharges have been restricted in most developed countries like the U.S., Japan and Member States of the European Union. In the U.S., there are specific regulations for battery manufacturers on lead containing wastewater discharge and specific regulations for battery smelters on lead air emissions. Environmental concerns of lead have also been well recognized in the PRC, and there are specific regulations for lead air emissions and wastewater discharges.

Although standards differ greatly in terms of mass loading, concentrations, etc, the comparison indicates that the PRC standards are generally more stringent than other available international standards for air emissions. For waste management, the PRC standards are similar to the other available international standards. For wastewater discharge, the PRC standards are not as stringent as other selected international standards; however, they apply to discharge to municipal wastewater collection systems for further treatment rather than to direct discharge to the environment. A review of the monitoring data for the Sites indicates that the current wastewater discharges in most of the Sites meet some other countries discharge standards such as the ones for France and Germany. Standards for Japan and the U.K. apply to direct discharge to surface water bodies, which is not the case for the Sites.

In addition, chemical management at the Sites can normally meet with the PRC regulatory requirements and no RECs or HRECs were identified at the Leoch Sites.

As a result, MWH concluded that no additional corrective actions would be required for the Sites with respect to the status of their environmental discharges to the environment in light of the relevant applicable international environmental standards.

4. Limitations and Exception of Assessment

This report was intended to provide a preliminary assessment of the current environmental conditions at the Sites. This report is based on the data and information collected during the Environmental Assessment conducted by MWH. The assessment is based solely on the site conditions encountered at the time of the site investigations from March 30 through April 8, 2010. No assurance is made regarding changes in conditions subsequent to the time of investigation. In preparing this report, MWH has relied solely on documentation provided by the Company. No independent testing was conducted.

In evaluating the Sites, MWH has relied in good faith on information provided by individuals noted in this report. MWH assumes that the information provided is factual and accurate. MWH accepts no responsibility for any deficiency, misstatements or inaccuracies contained in this report as a result of omissions, misinterpretations or fraudulent acts of the persons interviewed or contacted.