

# LEAD BATTERY 360°

---

**Code**

**October 2024**

**November 2023**

## Table of Contents

<b>Performance Expectations</b>	<b>3</b>
<b>PRINCIPLE 1: Support responsible battery manufacturing and recycling by placing environmental health and safety excellence at the heart of our operations.</b>	<b>3</b>
<b>1.A. Occupational Health and Safety (OH&amp;S)</b>	<b>3</b>
<b>1.B. Environment</b>	<b>3</b>
<b>PRINCIPLE 2: Pursue zero harm and manage all potential lead exposure and emissions by setting continuous improvement targets and sharing best practice</b>	<b>5</b>
<b>PRINCIPLE 3: Adopt responsible sourcing policies for lead containing materials, seek to identify risks in the supply chain, and use our influence to promote best practices for EHS performance in suppliers' operations.</b>	<b>6</b>
<b>PRINCIPLE 4: Minimize the environmental impact of our products by encouraging the development of programmes that ensure effective collection, transportation and environmentally sound recycling of used lead batteries.</b>	<b>7</b>
<b>PRINCIPLE 5: Adopt business practices that consider the communities impacted by our operations, respect the human and labour rights of our employees and work against corruption in all its forms.</b>	<b>7</b>
<b>5.A. Communities</b>	<b>7</b>
<b>5.B. Human and Labour Rights</b>	<b>8</b>
<b>5.C. Compliance and Anti-Corruption</b>	<b>9</b>
<b>PRINCIPLE 6: Proactively engage key stakeholders in an open and transparent manner.</b>	<b>9</b>
<b>PRINCIPLE 7: Partner with key stakeholders and government agencies to share our expertise and promote environmentally sound recycling of lead batteries in low and middle-income countries.</b>	<b>9</b>
<b>Critical and non-critical Performance Expectations (PEs)</b>	<b>11</b>
<b>Applicability</b>	<b>17</b>

## Performance Expectations

Please note that detailed information for each Performance Expectation is provided in separate documents for each Principle.

### PRINCIPLE 1: Support responsible battery manufacturing and recycling by placing environmental health and safety excellence at the heart of our operations.

#### 1.A. Occupational Health and Safety (OH&S)

- (a) **OH&S Legal Compliance.** Ensure compliance with laws, regulations and international conventions on OH&S in the country of operation.
- (b) **Occupational Health and Safety (OH&S) Policy.** Document, communicate, and regularly review an OH&S policy designed for continuous improvement, endorsed by the Board and senior management, and supported through the provision of human and financial resources.
- (c) **Hazards and Risks Assessment and Management.** Maintain procedures and processes to identify work-related hazards and assess OH&S risks and apply a hierarchy of controls to *minimize* risks for workers and visitors.
- (d) **Workers' engagement on OH&S.** Provide workers with a mechanism by which they can raise, discuss, participate, and be consulted on matters that affect their health and safety, including for the resolution of OH&S concerns with management.
- (e) **Access to occupational health services.** Provide employees with access to occupational health services with appropriate levels of medical surveillance, counselling and advice on wellbeing.
- (f) **Incident follow-up.** Have procedures and processes in place to record, investigate, and follow-up on OH&S incidents, by definition and implementation of corrective actions and monitoring the effectiveness of such actions through management review at pre-planned intervals.
- (g) **Education and training on OH&S.** Provide appropriate and periodic training and effective education to employees, require onsite contractors to train their workers on all aspects relevant to their specific tasks and work areas, and provide appropriate briefings to visitors to company facilities.
- (h) **Emergency Response.** Have and regularly test, as appropriate, emergency procedures, response and evacuation plans.
- (i) **OH&S Performance.** Evaluate periodically OH&S performance using lagging and/or leading indicators, set goals to improve OH&S performance, and strive to continuously improve performance over time.

#### 1.B. Environment

- (a) **Environmental Legal Compliance.** Ensure compliance with laws, regulations and international conventions on environment-related matters in the country of operation.

(b) **Environmental Policy.** Document, communicate and regularly review an environmental policy designed for continuous improvement, endorsed by senior management and supported through the provision of human and financial resources.

(c) **Environmental Risks and Impacts Assessment and Management.** Maintain procedures and processes to identify environmental risks and impacts and apply the *mitigation hierarchy* to *minimize* and manage material risks and impacts.

(d) **Air quality.** Measure and *minimize significant air emissions* into the atmosphere (including, at a minimum, lead, arsenic, sulfur dioxide, and particulate matter) from point source and fugitive/diffuse emissions, as necessary to manage negative impacts on air quality.

(e) **Water quality.** Measure and *minimize* substances of concern in water discharges to surface waters, groundwater, and seawater, including, at a minimum, lead contaminants, as necessary to manage negative impacts on the receiving waterbody, ecosystem, or human health.

(f) **Spills and Leakages.** Prevent and manage spills and leakages to avoid and remediate adverse impacts on air, water and/or soil.

(g) **Energy consumption.** Quantify energy consumption and identify technically practical measures for setting energy efficiency targets and implement a plan designed to achieve such targets.

(h) **Greenhouse Gas (GHG) emissions.** Quantify and disclose GHG emission and identify technically practical measures for setting GHG emissions intensity reduction targets and implement a plan designed to achieve such targets.

(i) **Water consumption and availability.** Quantify water consumption and identify technical and practical measures for setting water intensity reduction targets and implement a plan designed to achieve such targets, to *minimize* negative impacts on water availability.

(j) **Hazardous waste management.** Minimize and, where possible, avoid the generation of hazardous waste generated by the site's operations, where this is not possible, manage and dispose of waste in a manner that minimizes negative impacts on human health and the environment through a waste management strategy in accordance with the waste mitigation hierarchy.

(k) **Recycling Efficiency.** Ensure that recycling processes reduce the production of waste by maximizing recycling efficiencies and the levels of recovered materials.

(l) **Biodiversity protection.** Respect legally protected areas in accordance with local laws, understand potential negative impacts on biodiversity, and apply the biodiversity mitigation hierarchy to avoid, and manage potential negative impacts.

(m) **Decommissioning, closure and rehabilitation.** Adopt a documented closure plan, allocate adequate financial resources and engage with stakeholders on social and environmental aspects associated with closure and decommissioning.

## **PRINCIPLE 2. Pursue zero harm and manage all potential lead exposure and emissions by setting continuous improvement targets and sharing best practice**

(a) **Lead Exposure Legal Compliance.** Ensure compliance with applicable standards, laws, and regulations related to workers' occupational lead exposure.

(b) **Workers' occupational lead exposure assessment.** Document and implement a system to assess and regularly monitor the equipment-, job- and process-related risks of workers' occupational lead exposure through occupational hygiene measurements and appropriate medical surveillance including regular biological monitoring (e.g., blood lead measurements).

(c) **Workers' occupational lead exposure management.** Have a system in place to *minimize* lead exposure risks through application of the Hierarchy of Controls and integration of the Hierarchy of Controls into the decision-making processes, to achieve levels that prevent or mitigate the development of adverse health effects among the workforce.

(d) **Provision of Personal Protective Equipment (PPE).** Ensure companies provide workers with Personal Protective Equipment (PPE) to protect them from lead exposure risks.

(e) **Workers' occupational lead exposure performance.** Based on the results of individual workers' occupational lead exposure assessment (b), establishment of an Occupational Lead Management program which clearly identifies who is subject to testing and describes the testing methodology and frequency. Conform with the provisions of such a written program, set targets to *minimize* and control workers' occupational lead exposure, implement a plan to achieve set targets and ensure continuous improvement towards the ILA/BCI/ABR/EUROBAT voluntary target and/or more stringent targets set by the Company.

(f) **Provision of Employee Hygiene and Welfare Facilities.** Document, communicate, educate, and implement policies that clearly state that lead soiled workwear is not permitted to be worn in non-lead work or amenity areas. Provide appropriate hygiene facilities for lead exposed workers and implement measures to ensure that common areas, such as a canteen, are kept as free as practicable from lead contamination.

(g) **Take-home Lead.** Document, communicate, educate, and implement policies that clearly state that lead soiled workwear is not permitted to be worn or taken home under any circumstance. Provide appropriate hygiene facilities for lead-exposed workers and implement measures to ensure that workers always wash, shower, and change out of work clothes and work shoes before leaving work in appropriate changing rooms equipped with separate storage facilities for protective work clothing and equipment and for clean home going or street clothes.

(h) **Control of Point and Fugitive Lead Emissions.** Correct design, implement and maintain engineering, technical and procedural measures to control and *minimize* the release of gaseous or particulate lead emissions from smelting, refining and casting areas, emission points (stacks), material handling and storage areas, vehicular traffic and cleaning, and other uncontrolled sources.

(i) **Management of Slags and Residues.** Regularly review and improve the recovery of lead by treatment of slags and other residues. Assess opportunities for increasing recycling of treated lead residues and

assess options to *minimize* and responsibly manage the disposal of slags and residues that are technically and commercially viable.

(j) **Battery Breaking.** Disassemble used lead batteries and manage used lead batteries components (sulfuric acid, lead paste, and metallic grids, and deleterious materials such as heavy plastics and separators) in a manner that limits potential for occupational lead exposure and environmental contamination and provides for efficient material recovery and recycling.

(k) **Lead Materials Handling and Storage.** Whole and complete used lead batteries are stored in areas that ensure that they remain intact. Damaged used lead batteries are stored with secondary containment to limit lead exposure.

Intact used lead batteries, damaged used lead batteries, and other collected lead waste and lead bearing input material are stored in areas that:

- i. Are undercover and protected from precipitation to prevent rainwater collection and minimize contaminated run-off or in areas where run-off is collected or treated prior to discharge,
- ii. Have an impermeable and acid-resistant floor, with some means of containment for spills.

**PRINCIPLE 3: Adopt responsible sourcing policies for lead containing materials, seek to identify risks in the supply chain, and use our influence to promote best practices for EHS performance in suppliers' operations.**

(a) **Responsible Sourcing Policy.** Document, regularly review and communicate publicly and to suppliers a Responsible Sourcing Policy for *lead-containing materials*, articulating the company's environmental, social, and governance requirements for suppliers, including with respect to sourcing from Conflict-Affected and High-Risk Areas (Performance Expectation (b)) and lead exposure and emissions, endorsed by the Board and senior management, and anchored in key purchasing functions and processes.

(b) **Sourcing from Conflict-Affected and High-Risk Areas (CAHRAs).** Conduct risk-based due diligence in line with the recommendations of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas to identify, assess, and where relevant address risks associated with the extraction, trading, handling, and export of minerals from CAHRAs. For companies in scope, adopt and implement the Joint Due Diligence Standard for Copper, Lead, Nickel, and Zinc.

(c) **Environmental, Health and Safety Performance of Suppliers – Lead Exposures and Emissions.** Collect information on suppliers' policies and control measures to minimize occupational lead exposure and site lead emissions. Suspend or discontinue engagement with suppliers who fail to meet the Company's standards of environmental, health & safety performance as defined in the Company's Responsible Sourcing Policy (Performance Expectation (a)) or continue to perform below regulatory requirements after reasonable efforts have been made to encourage improvement.

(d) **Sourcing of Used Lead-Acid Batteries (ULABs), Battery Components (paste and plates) and Other Lead Containing Scrap.** Implement a system of control and transparency (for example, a traceability or chain of custody system or the identification of upstream actors in the supply chain) and ensure, as a minimum, that suppliers meet applicable regulatory requirements and that compounds are not sourced from informal battery breakers.

(e) **Sourcing of Lead Bullion and Refined Lead.** Implement a system of control and transparency (for example, a traceability or chain of custody system or the identification of upstream actors in the supply chain) and ensure, as a minimum, that suppliers meet applicable regulatory requirements, and that lead is not sourced from informal lead smelters.

(f) **Supplier Engagement.** Communicate and engage with significant suppliers to promote responsible business practices and adoption of relevant Principles of the LB 360 Code and use influence to share practices and build capacity for continuous improvement, with a focus specifically on occupational lead exposure and site lead emissions.

**PRINCIPLE 4: Minimize the environmental impact of our products by encouraging the development of programmes that ensure effective collection, transportation and environmentally sound recycling of used lead batteries.**

(a) **Undertake Due Diligence of Available Recyclers.** Before marketing batteries, undertake appropriate due diligence of the country/region to ensure that there is sufficient capacity available in ULAB recyclers that meet the Company's expectations for EHS, as defined in the Company's policies for responsible supply chain management. If marketing via distributors and resellers, ensure that these have systems in place to assess the EHS practices of ULAB recyclers.

(b) **Producer Responsibility.** Adopt business practices in all regions of battery sales that encourage a high collection rate of end-of-life batteries from responsible supply chain operators.

(c) **Battery Recycling.** Ensure that end-of-life products are supplied to formal, licensed recyclers that meet applicable regulations, or the Basel Technical Guidelines for the Environmentally Sound Management of Waste Lead-acid Batteries and adopt EHS business practices aligned with the Lead Battery 360° requirements. At no time shall the company intentionally direct used batteries to informal recyclers.

(d) **Transportation of Used Lead-Acid Batteries (ULABs).** Ensure operators engaged to ship or transport ULABs package them intact and in a manner that avoids damage to batteries and leakage of electrolyte (battery acid) during transport and handling. Where batteries are damaged, ensure operators ship or transport ULABs adopting appropriate control measures that avoid negative effects on human health and the environment.

(e) **Maximizing use of recycled materials for battery manufacturing.** Design new battery products with maximal use of recovered/recycled material in new battery manufacturing and has implemented this concept in new product design.

(f) **Reducing carbon footprint of battery manufacturing processes.** Measure the carbon footprint of batteries along their lifecycle (including raw materials production/extraction, manufacturing and recycling) and take steps to reduce the carbon footprint by implementing actions that result in improved energy and manufacturing efficiency.

**PRINCIPLE 5: Adopt business practices that consider the communities impacted by our operations, respect the human and labour rights of our employees and work against corruption in all its forms.**

**5.A. Communities**

**(a) Community Health and Safety Risks and Impacts Assessments.** Maintain and implement procedures and processes to regularly identify, assess, and monitor the risks and adverse impacts of the company's operations on community health and safety. To this end, establish and monitor indicators of community health and safety in consultation with impacted communities and local government agencies and authorities, as appropriate.

**5.B. Human and Labour Rights**

**(a) Human Rights Assessment and Management.** Maintain and implement policies, procedures, and processes to regularly identify, assess and manage potential or actual human rights risks and impacts caused, contributed by, and/or linked to the company's operations.

**(b) Employment Terms.** Provide employees with clear information, including in writing and in the relevant language, regarding their employment rights under all applicable laws and collective agreements, where applicable, including information on their rights relating to working hours and remuneration.

**(c) Working Hours.** Apply regular working hours in accordance with applicable laws and, where no applicable law exists, with internationally recognized standards, and maintain procedures and processes to ensure that overtime is voluntary, the sum of regular and overtime hours does not exceed 60 hours per week and workers are provided with one rest day in seven.

**(d) Paid Leave.** Provide employees with all legally mandated leave. Where no applicable law exists, provide paid annual leave in accordance with internationally recognized standards.

**(e) Remuneration.** Apply wages that meet or exceed the legal minimum national wages or wages agreed through collective agreements, where applicable.

**(f) Child Labour.** Maintain and implement procedures and processes to comply with minimum age standards; prohibit, and, where necessary, remediate, work by children who are under the age of 15, the age for completing compulsory education, or the legal minimum age for employment in the country, whichever age is greatest and to prohibit exposure to hazardous work to employees under 18 years of age.

**(g) Forced Labour.** Maintain and implement procedures and processes to prohibit and in no way support or benefit from the use of any form of forced labour, modern slavery or human trafficking.

**(h) Freedom of Association and Collective Bargaining.** Respect the rights of employees to associate freely without interference to the extent possible under applicable law, in accordance with internationally recognized standards. Respect the rights of employees to collective bargaining,



participate in any collective bargaining process in good faith to the extent possible under applicable law and adhere to collective bargaining agreements where such agreements exist.

(i) **Non-Discrimination.** Maintain and implement procedures and processes to provide equal opportunities for all employees, and to prevent and address all forms of discrimination and harassment in the workplace.

(j) **Disciplinary Practices & Harassment.** Maintain and implement procedures and processes to prevent and address harassment, intimidation, and/or exploitation in the workplace and to ensure that employees are not subjected to any threat or form of corporal punishment, harsh or degrading treatment, harassment, mental, physical, or verbal abuse, coercion or intimidation, or monetary fines as disciplinary measures.

(k) **Workers' Grievance and Whistle-Blowing Mechanisms.** Establish and implement a workers' grievance and whistle-blowing mechanism available to all employees.

### 5.C. Compliance and Anti-Corruption

(a) **Legal Compliance.** Ensure compliance with applicable standards, laws, and regulations.

(b) **Anti-Corruption Policy.** Document, communicate, and regularly review an Anti-Corruption policy designed for continuous improvement, endorsed by the Board and supported through the provision of human and financial resources.

### PRINCIPLE 6: Proactively engage key stakeholders in an open and transparent manner.

(a) **Stakeholder Engagement.** Document, implement, communicate, and regularly review a stakeholder engagement plan scaled to the company operations' risks and impacts, tailored to the characteristics and interests of identified stakeholders including host governments, civil society, and impacted communities.

(b) **Stakeholder Feedback Mechanism.** Document, implement, communicate, and regularly review a mechanism for collecting, investigating, and where appropriate addressing feedback and potential grievances from impacted communities and other stakeholders.

(c) **Transparency and Disclosure.** Publicly annually disclosure environmental, social and governance performance in line with internationally reporting standards, including against business practices relevant to this Code.

### PRINCIPLE 7: Partner with key stakeholders and government agencies to share our expertise and promote environmentally sound recycling of lead batteries in low and middle-income countries.

(a) **Support International Initiatives Designed to Eliminate Lead Pollution.**

Support G7, G20, OECD, UNEP, WHO, UNICEF, the World Bank, FAO, and others; existing international policy structures such as Basel Convention, Rotterdam Convention, SAICM, GEF, and Sustainable Development Goals (SDGs); and existing international partnerships.

**(b) Knowledge Sharing.**

Support Trade Association efforts to develop and share best practices in EHS performance in the lead battery value chain both domestically and in other regions.

**(c) Support Policy Makers to Develop National Strategies.** Work with Policy Makers, NGO's and other stakeholders to develop National Strategies that encourage development of circular economies for lead batteries that consider environmental, health and safety practices.

**(d) Sustainable Development of Impacted Communities.** Support the social, economic, and institutional development of communities impacted along the lead and lead batteries supply chains in countries with low regulatory oversight and where substandard supply chain actors are prevalent.

### Critical and non-critical Performance Expectations (PEs)

The Lead Battery 360° Certification is based on the **performance determination levels** achieved across different **Performance Expectations (PEs)** across the 7 Guiding Principles (GPs).

- Specific **“critical” PEs** will require to be rated **“Meets”** for the LB 360 certification to be awarded to the site.
- If any of the **“critical” PEs** are either rated **“Partially Meets”** or **“Does Not Meet”**, the certification will not be awarded - independently of performance determination outcomes of other non-critical PEs.
- For **“non-critical” PEs** which are rated as **“Partially Meets”**, the site will need to agree to a **Performance Improvement Plan (PiP)** after which **LB 360 certification will be awarded.**

The timeframe to address “Partially Meets” gaps will be determined on a case-by case basis by the assessor, however, should be completed by next review cycle.

		Critical PEs		
		Meet	Partially meet	Does not meet
Non- critical PEs	Meet	Certification No PIP required	No certification	
	Partially meet	Certification PIP required	Re-assessment required	
	Does not meet	No certification PIP required(*) Re-assessment required		

(\*) PIP required to address the 'does not meet' PE(s).

Guiding Principle	Performance Expectation	Rating performance required
1A	(a) OH&S Legal Compliance.	Fully meets required
1A	(b) Occupational Health and Safety (OH&S) Policy	Fully meets required
1A	(c) Hazards and Risks Assessment and Management.	Fully meets required
1A	(d) Workers' engagement on OH&S	Fully meets required
1A	(e) Access to occupational health services	Fully meets required
1A	(f) Incident follow-up	Fully meets required
1A	(g) Education and training on OH&S	Fully meets required
1A	(h) Emergency Response	Fully meets required
1A	(i) OH&S Performance	Fully meets required
1B	(a) Environmental Legal Compliance	Fully meets required
1B	(b) Environmental Policy	Fully meets required
1B	(c) Environmental Risks and Impacts Assessment and Management	Fully meets required
1B	(d) Air quality	Fully meets required
1B	(e) Water quality	Fully meets required
1B	(f) Spills and Leakages	Fully meets required
1B	(g) Energy consumption	Partially meets required
1B	(h) Greenhouse Gas (GHG) emissions	Partially meets required

1B	(i) Water consumption and availability	Partially meets required
1B	(j) Hazardous waste management	Fully meets required
1B	(k) Recycling Efficiency	Partially meets required
1B	(l) Biodiversity protection	Partially meets required
1B	(m) Decommissioning, closure and rehabilitation	Partially meets required
2	(a) Lead Exposure Legal Compliance	Fully meets required
2	(b) Workers' occupational lead exposure assessment	Fully meets required
2	(c) Workers' occupational lead exposure management	Fully meets required
2	(d) Provision of Personal Protective Equipment (PPE)	Fully meets required
2	(d) Workers' occupational lead exposure performance	Fully meets required
2	(e) Provision of Hygiene and Welfare Facilities	Fully meets required
2	(f) Take-home Lead	Fully meets required
2	(g) Control of Point and Fugitive Lead Emissions	Fully meets required
2	(h) Management of Slags and Residues	Fully meets required
2	(i) Battery Breaking	Fully meets required
2	(j) Lead Materials Handling and Storage	Fully meets required
3	(a) Responsible Sourcing Policy	Fully meets required

3	(b) Sourcing from Conflict-Affected and High-Risk Areas (CAHRAs)	Fully meets required
3	(c) Environmental, Health and Safety Performance of Suppliers – Lead Exposures and Emissions	Partially meets required
3	3(d) Sourcing of Used Lead-Acid Batteries (ULABs), Battery Components (paste and plates) and other Lead Containing Scrap	Fully meets required
3	(e) Sourcing of Lead Bullion and Refined Lead	Fully meets required
3	(f) Supplier Engagement	Partially meets required
4	(a) Undertake Due Diligence of Available Recyclers	Partially meets required
4	(b) Producer Responsibility	Fully meets required
4	(c) Battery Recycling	Fully meets required
4	(d) Transportation of Used Lead-Acid Batteries (ULABs).	Fully meets required
4	(e) Maximizing use of recycled materials for battery manufacturing	Partially meets required
4	(f) Reducing carbon footprint of battery manufacturing processes	Partially meets required
5A	(a) Community Health and Safety Risks and Impacts Assessments	Fully meets required
5B	(b) Human Rights Assessment and Management	Partially meets required
5B	(c) Employment Terms	Partially meets required

5B	(d) Working Hours	Partially meets required
5B	(e) Paid Leave	Partially meets required
5B	(f) Remuneration	Partially meets required
5B	(g) Child Labour	Partially meets required
5B	(h) Forced Labour	Partially meets required
5B	(i) Freedom of Association and Collective Bargaining	Partially meets required
5B	(j) Non-Discrimination	Partially meets required
5B	(k) Disciplinary Practices & Harassment	Partially meets required
5B	(l) Workers' Grievance and Whistle-Blowing Mechanisms	Partially meets required
5C	(m) Legal Compliance	Fully meets required
5C	(b) Anti-Corruption Policy	Partially meets required
6	(a) Stakeholder Engagement	Partially meets required
6	(b) Stakeholder Feedback Mechanism	Partially meets required
6	(c) Transparency and Disclosure	Partially meets required
7	(a) Support International Initiatives Designed to Eliminate Lead Pollution	Partially meets required
7	(b) Knowledge Sharing	Partially meets required
7	(c) Support Policy Makers to Develop National Strategies	Partially meets required
7	(d) Sustainable Development of Impacted Communities	Partially meets required

## Applicability

Performance Expectation	Primary lead production	Secondary lead production	Battery manufacturing
1.A.(a)	√	√	√
1.A.(b)	√	√	√
1.A.(c)	√	√	√
1.A.(d)	√	√	√
1.A.(e)	√	√	√
1.A.(f)	√	√	√
1.A.(g)	√	√	√
1.A.(h)	√	√	√
1.A.(i)	√	√	√
1.B.(a)	√	√	√
1.B.(b)	√	√	√
1.B.(c)	√	√	√
1.B.(d)	√	√	√
1.B.(e)	√	√	√
1.B.(f)	√	√	√



1.B.(g)	√	√	√
1.B.(h)	√	√	√
1.B.(i)	√	√	√
1.B.(j)	√	√	√
1.B.(k)		√	
1.B.(l)	√	√	√
1.B.(m)	√	√	√
<b>Performance Expectation</b>	<b>Primary lead production</b>	<b>Secondary lead production</b>	<b>Battery manufacturing</b>
2.(a)	√	√	√
2.(b)	√	√	√
2.(c)	√	√	√
2.(d)	√	√	√
2.(e)	√	√	√
2.(f)	√	√	√
2.(g)	√	√	√
2.(h)	√	√	√
2.(i)	√	√	
2.(j)		√	

2.(k)		√	
<b>Performance Expectation</b>	<b>Primary lead production</b>	<b>Secondary lead production</b>	<b>Battery manufacturing</b>
3(a)	√	√	√
3(b)	√	√	√
3(c)	√	√	√
3(d)	√	√	
3(e)		√	√
3(f)	√	√	√
<b>Performance Expectation</b>	<b>Primary lead production</b>	<b>Secondary lead production</b>	<b>Battery manufacturing</b>
4.(a)			√
4.(b)			√
4.(c)			√
4.(d)		√	√
4.(e)			√
4.(f)		√	√
<b>Performance Expectation</b>	<b>Primary lead production</b>	<b>Secondary lead production</b>	<b>Battery manufacturing</b>

5.A.(a)	√	√	√
5.B.(a)	√	√	√
5.B.(b)	√	√	√
5.B.(c)	√	√	√
5.B.(d)	√	√	√
5.B.(e)	√	√	√
5.B.(f)	√	√	√
5.B.(g)	√	√	√
5.B.(h)	√	√	√
5.B.(i)	√	√	√
5.B.(j)	√	√	√
5.B.(k)	√	√	√
5.C.(a)	√	√	√
5.C.(b)	√	√	√
<b>Performance Expectation</b>	<b>Primary lead production</b>	<b>Secondary lead production</b>	<b>Battery manufacturing</b>
6.(a)	√	√	√
6.(b)	√	√	√
6.(c)	√	√	√

Performance Expectation	Primary lead production	Secondary lead production	Battery manufacturing
7.(a)	√	√	√
7.(b)	√	√	√
7.(c)	√	√	√
7.(d)	√	√	√