

UMICORE RBM KOREA EHS REQUIREMENTS (Updated on 20th December 2021)

1. Definitions

In these Environment, health, safety(EHS) requirements, the following definitions apply:

Buyer: Umicore Rechargeable Battery Materials Korea

Supplier: All suppliers who agreed to provide manufacturing, construction, repair or service of goods, and other business contracts to buyer.

In-house contract: Contract projects that reside in the buyer's workplace and are carried out separately by contracting part of the business.

External contract: Contract projects that do not reside in the buyer's workplace and enter and perform contracting on an irregular or temporary basis.

Contract: All contracts concluded between a supplier and the buyer for the transaction of goods and services, or purchase orders with the same effect.

LOTO : Lock Out Tag Out, energy source blocking work

PPE : Personal Protection Equipment

EHS : Environment, Health, Safety

EPC : Engineering Procurement Construction

2. scope

2.1 These EHS requirements apply to all orders and contracts.

2.2 Unless there is an additional written agreement between the parties, the supplier's safety and health management regulations shall not apply to the buyer 's workplace. If the supplier's requirements are agreed upon in writing, these terms and conditions shall be applied first when the supplier's terms and conditions conflict with these terms and conditions.

3. Safety and health requirements

3.1 Supplier is responsible for the safety of the construction or work place.

3.2 Supplier is responsible for the preparation and implementation of the safety plan.

3.3 Supplier's worker shall comply with the safety and health plan during construction or contract work.

3.4 Supplier's safety manager shall regard safety as a key point of daily work.

3.5 Supplier shall comply with the requirements of the Safety and Health Act and the buyer's safety and health management regulations.

3.6 Wear prescribed PPE.

3.7 If an unsafe condition is found, report it.

4. Supplier's obligation in case of an in-house contractor.

4.1 Safety and health training

4.1.1 Supplier shall implement safety and health training and share the results with the buyer .

4.2 Risk assessment

4.2.1 Supplier shall conduct a regular risk assessment at least once a year and update risk assessment if there is a change in the process, personnel, or additional risks are found, then share the results with the buyer.

4.3 Organization and operation of the Safety and Health committee

4.3.1 Buyer shall organizes and operates a safety and health committee consisting of all business owners of suppliers.

4.3.2 Committee shall discuss matters concerning the start time of work, how to contact the work or workplace, how to evacuate in case of an emergency, how to conduct a risk assessment, how to contact between workers, and adjust the work process.

4.3.3 Supplier shall attend the regular meeting of committee, participate in a tour inspection and joint inspection, and if he/she is unable to attend, he/she may delegate it to representative.

4.4 Safety and health inspection

4.4.1 Supplier shall conduct safety and health inspection of the workplace at least once in two months or quarterly with its workers, other related suppliers and workers used by the relevant supplier.

4.4.2 Buyer and supplier shall conduct touring audit on the workplace at least once every two days, and supplier shall not refuse, interfere, or avoid audits, and shall comply with the request of buyer.

4.5 Health management

4.5.1 Buyer shall conduct working environment measurement including supplier's workers and share the result with supplier.

4.5.2 Buyer shall provide information of handled chemicals to supplier's worker and share the items subject to special medical checkup.

4.5.3 Supplier shall provide health checkup and special checkup to workers and share with workers.

4.6 Compliance with construction period.

4.6.1 Supplier shall not use a dangerous construction method to reduce construction costs or change the construction method without justifiable reasons.

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4.6.2 Supplier shall not shorten the estimated construction period according to construction plan.

4.7 Implementation of safety and health measures.

4.7.1 Supplier shall take necessary measures to correct the violation in connection with the relevant work, and the supplier shall comply with it unless there is a justifiable reason.

4.7.2 Buyer and supplier shall faithfully implement matters discussed or determined by the Safety and Health Committee.

4.8 Submission of industrial accident status

4.8.1 In order to prepare "Integrated Industrial Accident Status Survey Table" in the contractor work, the supplier shall submit the workplace information, the number of workers of supplier, accidents status and cooperate with the relevant investigation.

4.9 Training for operating an alarm system and evacuation methods.

4.9.1 Supplier shall establish a mutual contact system and signal method with its workers in preparation for blasting work, fire, explosion, collapse or earthquake of soil, construction, etc. and correct findings after conducting regular education and training according to evacuation methods.

5. Safety and health requirements for external contractor.

5.1 For the work and construction requested by buyer, external supplier shall prepare a work plan before entering and submit it to buyer.

5.1.1 The work plan shall be prepared in accordance with a form requested by buyer and shall specify type of dangerous work, safety measures, detailed plans, used equipment, PPE, and used chemicals for each work process in detail.

5.2 Supplier shall apply for visitor registration at least two days before entering the worker.

5.3 Supplier shall conduct training on the work area and work content for workers in advance.

5.4 In case of EPC construction, site safety manager of supplier must prepare a safety work permit and obtain approval before work, and must not start work before approval of buyer.

5.4.1 Work that requires safety work permit: general work, line breaking, hot work, access to confined spaces, work at height, heavy lift work, energy source blocking work, excavation work, live wire work, radiation work

5.5 Worker shall move through pedestrian passages while moving to workplaces.

5.6 Supplier's workers shall wear PPE in accordance with the requirements of the buyer when entering and working at the workplace.

5.7 Supplier shall conduct TBM before work to share work contents and then record issues.

5.8 Supplier shall fill out a work log to report the contents of the work on the day and plans for next day, and send the contents to the buyer.

5.9 Supplier shall establish a temporary contact network that can communicate with the buyer, and in the event of an accident, contact through the emergency contact network and take prompt action.

5.10 Supplier shall comply with following basic safety rules in case of dangerous work, and consult in advance on other necessary matters.

5.10.1 Post safety work permit.

5.10.2 Installation of Larva Cone in the work area.

5.10.3 Installation of safety hooks and use of safety harness for working at height

5.10.4 Placement of fire extinguishers and fire blanket during hot work

5.10.5 Scattering prevention measures of cutter chip.

5.11 Environmental Requirements

5.11.1 Supplier shall classify wastes by types of waste until 30 minutes before the end of the work on the day after 5S.

5.11.2 The generated waste shall be classified as general waste, designated waste, and recycling waste.

5.11.3 The generated waste shall be transported to a designated location and stored according to the type of waste.

5.11.4 In the case where the supplier agrees to dispose of the waste according to the agreement between supplier and buyer, the generated waste shall be taken out and treated by the supplier

5.12 Organization for safety management

5.12.1 EPC(Engineering procurement construction) supplier shall designate a general manager of safety and health (If the construction amount is more than KRW 2 billion)

5.12.2 Designate and legally appoint a safety manager and health manager.

(If the construction amount is more than KRW 12 billion)

5.12.3 Designate an environmental manager.

5.12.4 If the construction amount is less than KRW 2 billion, one person can perform the above work at the same time.

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6. Safety management requirements for dangerous work

6.1 Handling heavyweights.

6.1.1 Wear PPE during work. (Safety helmet, safety shoes, safety vest, safety harness, armband of signal)

6.1.2 Approval for the safety certification before bringing in equipment and protective equipment shall be checked.

6.1.3 Submit a certificate of safety inspection when using cranes and forklifts.

6.1.4 Supplier shall place a safety manager wearing a signal armband on site.

6.1.5 The safety manager shall check the surroundings before work and control access non-related personnel.

6.2 Working at height_Lift

6.2.1 Wear PPE during working.(Safety helmet, harness, safety shoes)

6.2.2 After checking the usage method and precautions, operate equipment.

6.2.3 Place barriers, a vehicle guide, etc. and work.

6.2.4 Fix the safety guard to the safety railing on the upper part.

6.2.5 Check the railings and doors before moving.

6.2.6 Check the surrounding situation before raising/dropping.

6.2.7 While moving to the working platform, workers shall move using a ladder for elevation.

6.2.8 Forward/reverse driving is prohibited while raising a high-altitude platform, and if movement is necessary, the platform shall be completely lowered and operated.

6.2.9 Supplier shall check machinery and safety devices (override prevention device, emergency stop button, etc.) before operation.

and check whether there is an abnormality in the stop device, outrigger, etc.

6.2.10 Overriding of safety devices is prohibited.

6.2.11 Safety certificate must be attached to the lift equipment, in the case of facilities subject to safety inspection of hazardous machinery equipment, they must be passed in safety inspections.

The certificate must be attached to the outside.

6.2.12 The serial number of the equipment shall not be covered with paint, etc., and measures should be taken to confirm whether the safety certificate matches the equipment.

6.3 Working at height_scaffolding

6.3.1 If a scaffold is to be installed, it shall be installed to meet Occupational Safety and Health Act.

6.3.2 Wear PPE during working.(Safety helmet, safety belt, safety shoes)

6.3.3 Install workbench and handrails in accordance with domestic laws.

6.3.4 Install and use a ladder for lifting and move through it to the top of the workbench.

6.3.5 Secure the safety railing on the upper part of the scaffold.

6.3.6 Fix the scaffold using a stopper and an outrigger.

6.3.7 When work is completed, move to the lower part using a ladder for lifting.

6.3.8 Failure to use a safety harness is prohibited and scaffold shall not be moved while the operator is on board.

6.4 Crane work.

6.4.1 Check for abnormalities in the machine before starting work.

6.4.2 Place a signalman or a guide to control the surroundings.

6.4.3 Work after confirming the fixing of the hook on the lifting object.

6.4.4. Check the railing and entrance door while moving to prevent collision.

6.5 Hot work

6.5.1 Wear PPE while working.(Flame-retardant work clothes, apron, face shield)

6.5.2 Place a fire extinguisher within 1m of the work space and work for at least two people, including a fire watchman.

6.5.3 Fire extinguishers must be prepared by the supplier and suitable type for digestion is selected.

6.5.4 Work after removing combustible materials in the work area.

6.5.5 flame scattering prevention blanket shall be used and fire-threatening materials are prohibited to use.

6.6 Energy source blocking work (work subject to LOTO , Power outage operation)

6.6.1 While working in a place where dangerous energy exists, such as electricity, steam, pressure, hydraulic pressure, chemical energy, etc., LOTO procedure shall be observed as follows.

6.6.1.1 Power off the facilities subject to work according to the procedure and block all energy sources and dangerous material supply lines related to the work.

6.6.1.2 Install a lock on blocked power panel line and valve, and perform the LOTO procedure.

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6.6.1.3 Install a tag in the related cut-off section and indicate the details.
 6.6.1.4 Check whether blocked energy sources and dangerous materials shall be blocked before work.
 6.6.2 Supplier, SWP issuer, and the person in charge of the work area each fasten a separate lock on one HASP, and the key is also held by the individual.

7. PPE requirements

7.1 When supplier work above general risk work or enter the building, supplier must wear prescribed PPE.
 7.2 In the case of work at production buildings, warehouses, AM workshops, and construction sites, supplier shall wear safety helmets, safety shoes, and safety vests basically and, wear a dustproof mask in places where there is a risk of exposure to dust.
 7.3. Wear a suitable gas mask for exposed materials in the place where organic compounds are handled.
 7.4. When you want to directly handle chemicals or enter chemical facilities, wear a full-body protective suit to prevent exposure to skin.
 7.5 When working at height is required, it is necessary to check whether the condition to fix safety harness is appropriate in advance, and if it is impossible to fix the safety harness, a wire or fixture must be equipped and a plan for use must be established.
 7.6. At least two safety bars or safety blocks for working at height shall be attached per safety harness.
 7.7 Supplier must use products with domestic safety certification, and if there is no domestic safety certification product, supplier can use overseas certified products.
 7.8 If requested by buyer, only PPE products prescribed by the buyer shall be used.

7.9 PPE list by work.

PPE	Work / Work place
Safety helmet	Workplaces where objects are at risk of falling or flying and being hit, and where there is a risk of head injury due to falling or electric shock.
Safety shoes	Workplaces where objects fall and are at risk of hurting foot, shocked, or water, oil, chemicals, etc.
Harness	A working at height at risk of falling more than 1.8 meters in height or

	depth.
Dust mask	Places where there is a risk of powdering, polishing, blending, and dust exposure
Gas mask	Organic solvent, harmful gas, mist, fume generation workshop.
Air supply mask	Cleaning of storage tanks, sewers, etc. and oxygen deficiency dangerous workplaces.
Motorized respirator	Cleaning of storage tanks, sewers, etc. and oxygen deficiency dangerous workplaces.
Safety goggles, Safety glasses	Workplaces where objects are at risk of being scattered or where harmful substances are exposed to eyes.
Face shield	Workplaces exposed to harmful ultraviolet rays, intense visible rays, or infrared rays, and risks such as face, head, and neck due to burns or welding fragments caused by heat.
Protective suit for heat	Workplaces with high temperature.
Protective suit for chemical	Workplaces where liquid organic compounds are at risk of being absorbed into human body through skin.
Safety gloves	Workplaces where there is a risk of electric shock due to electricity or liquid organic compounds are absorbed into human body through skin.
Ear plug, Ear cover	Noise-producing workplaces

8. Penalties in case of violation of safety regulations.

8.1 Penalties shall be granted as follows in accordance with the violation level of safety rules.
 8.1.1 Level 1: A warning letter is issued, and if a warning letter is issued three times for the relevant person, the supplier shall be evicted from the workplace.
 8.1.2 Level 2: Immediately eviction of violators from buyer 's workplace.
 8.1.3 Level 3: Violator shall be immediately evicted from buyer 's workplace and the relevant work or construction shall be stopped.

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If construction is to be resumed, a new work permit will be issued after all risks are eliminated.

8.2 Types of violations for each level.

8.2.1 Level 1

8.2.1.1 When buyer's rules, policies, procedures, and standards are not observed.

8.2.1.2 In a case where general dangerous work is performed without a work permit or contents of the work permit are not fulfilled.

8.2.1.3 When fall prevention measures such as use of safety harness and installation of scaffolding are not properly implemented.

8.2.1.4 Failure to comply with PPE wearing requirements.

8.2.1.5 In the case of intentionally violating relevant laws and regulations.

8.2.2 Level 2

8.2.2.1 In the case of dangerous work without secondary approval.

8.2.2.2 Failure to comply with confined space work procedures

8.2.2.3 If supplier doesn't adopt PPE requirement deliberately.

8.2.2.4 If supplier doesn't comply with a signal or hand sign.

8.2.3 Level 3

8.2.3.1 If LOTO is not performed in LOTO work,

8.2.3.2 If LOTO is removed without permission,

8.2.3.3 When an accident occurs due to the unauthorized removal of the safety device,

8.2.3.4 If supplier's workers work under the influence of alcohol,

8.2.3.5 In the case of using abusive language or violence in the workplace,

8.2.3.6 In a case where it is judged as a serious risk according to the judgment of the department in charge of the work or the EHS department,

8.2.3.7 In the case of serious dangerous work without secondary approval,

8.2.3.8 In the case of releasing the protection equipment without any special reason,

8.3 If supplier delays work and construction due to a violation of safety regulations, or additional labor costs or equipment rental costs are incurred, supplier shall bear the responsibility.