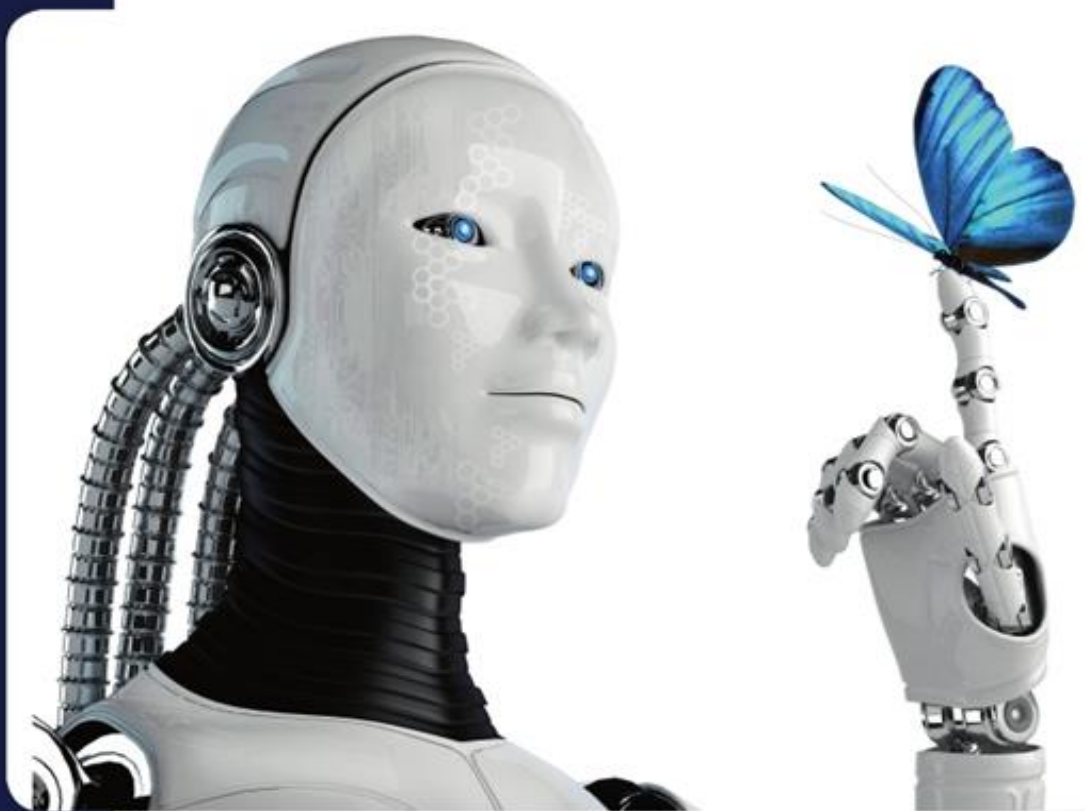


Newsletter March, 2024



ICR



Hot Issue

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ICR-Nemko Korea Signs Testing and Certification Agreement



[The MOU signing ceremony of ICR and Nemko Korea]

- On January 29, 2024, **ICR and Nemko Korea** signed a memorandum of understanding (MOU) for mutual cooperation **in the field of conformity assessment, including testing and certification**, at the Nemko Korea venue in Yongin.
- The purpose of this agreement is to establish close cooperation between ICR and Nemko Korea in testing and certification in the fields of **machinery and batteries**, based on their expertise.



ICR-Nemko Korea Signs Testing and Certification Agreement

■ The signing ceremony was attended by Mr. Kim Deok-yong, CEO of ICR, along with Vice President Shim Sang-woo, Director Yeo Seok-gwang from the Industrial Safety Center, Director Park Young-ho from the Battery Testing Center, Mr. Yang Seung-in, CEO of Nemko Korea, Mr. Kwak Sam-geun, Executive Director, Mr. Park Jae-hong, Head of the Testing Department, and Mr. Kim Cheon-ho, Manager, among other officials from both organizations.

■ Specific provisions of the agreement include

- mutual cooperation for battery testing and certification,
- collaboration on LPC certification and Field Evaluation services for machinery and industrial products,
- exchange of information on testing, inspection, certification, and standards, establishment of a cooperation system,
- personnel exchange, training,
- organizing technical seminars in the fields of electromagnetic waves, wireless technology, and electrical safety.



ICR-Nemko Korea Signs Testing and Certification Agreement

■ As a Nationally Recognized Testing Laboratory (NRTL), Nemko provides efficient on-site assessment testing and special inspection services for product safety certification in the United States and Canada.

Through cooperation with Nemko, **ICR will be able to offer high-level LPC certification and Field Evaluation services for machinery and industrial products.**

■ With the establishment of a large-scale battery specialized testing facility in Pyeongtaek, **ICR anticipates synergies in the testing and certification of electric vehicle batteries and ESS (Energy Storage System)** with the close cooperation of Nemko Korea, a testing and certification specialist from Norway.

This collaboration will enable them to **provide one-stop testing and certification services to customers** who seek to enter not only the domestic market but also international markets.



ICR-Nemko Korea Signs Testing and Certification Agreement

- ICR and Nemko Korea are expected to expand their cooperation beyond machinery and battery testing and certification to other areas of business in the future.

Inquiries

Industrial Safety Center / Yeo, Seok-Gwang
T.070-5083-2629 / sky@icrqa.com

Inquiries

Battery Testing Center / Park, Young-Ho
T. 070-5083-2699 / youngho.park@icrqa.com



March 2024 Auditor Training Course Plan

- ICR International Certification Registrar Ltd. is an ISO auditor training provider directly registered to Exemplar Global. ICR plans to hold an **ISO auditor training course in March 2024**.
- Through the **AU/TL, QM, EM, OH and MD courses**, all the trainees will be conducted so that the one's can be qualified for each module.
- Our training teaches auditors how to provide impartial audits based on objective evidence.
- ※ **The detailed schedule** of the auditor training course **in Mar. 2024** is as follows.

Curriculum	Training period	Training hours
AU/TL	Mar 04~06 (3days)	8hours/1day, total 24hours (3 days)
QM	Mar 07~08 (2days)	8hours/1day, total 16hours (2 days)
EM	Mar 11~12 (2days)	8hours/1day, total 16hours (2 days)
OH	Mar 13~14 (2days)	8hours/1day, total 16hours (2 days)
MD	Mar 18~19 (2days)	8hours/1day, total 16hours (2 days)

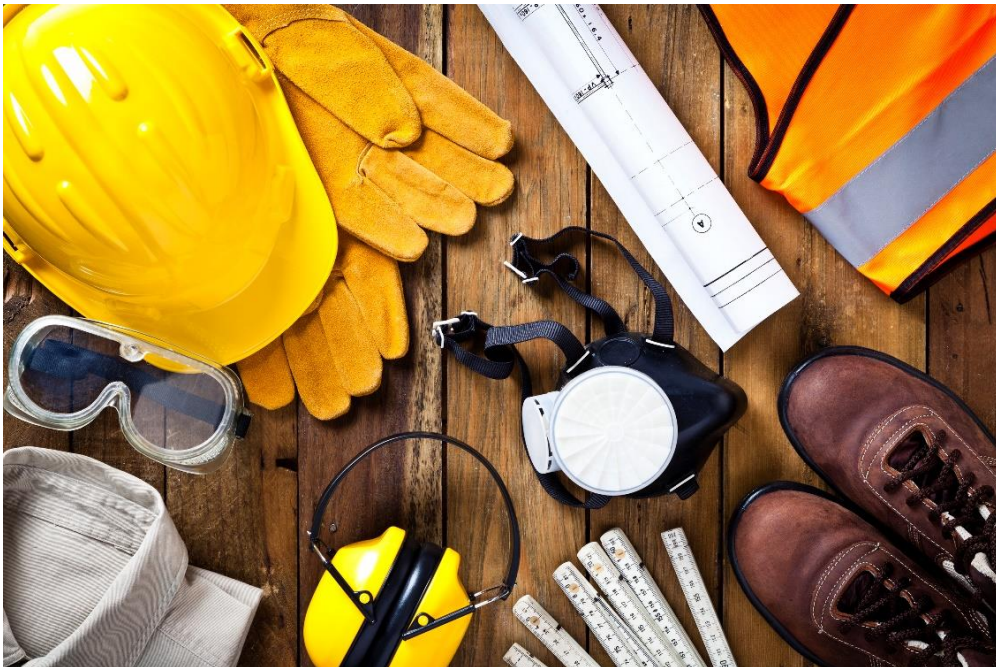
※ Please note that the training schedule and location may change depending on circumstances and each training may be held or not depending on the number of applicants.

 **Inquiries**

System Certification Center / Kim, Hyung-Geon
T. 070-5083-2635 / edu@icrqa.com

The countermeasure of the Serious Accident Punishment Act is ISO 45001 certification.

- As of January 27, 2022, the 'Serious Accidents Punishment Act', which strengthens **criminal punishment** for business owners when a serious disaster such as a fatal accident occurs in a company, came into effect. This law was extended to **businesses with less than 50 employees from January 27, 2024**, after a two-year grace period from the date of enforcement.
- In accordance with this Act, employers must establish a system to prevent hazards or risks to the safety and health of employees at the workplace. The conclusion for this is **ISO 45001 certification**.





The countermeasure of the Serious Accident Punishment Act is ISO 45001 certification.

■ ISO 45001 is a standard suitable for establishing and implementing a safety and health management system required by the Severe Accident Punishment Act. In order to establish a proper safety and health management system, it has the following correlation with the 'Safety and Health Management System Construction Guidebook' provided by the Ministry of Employment and Labor.





The countermeasure of the Serious Accident Punishment Act is ISO 45001 certification.

■ **ISO 45001** includes most of the matters required by the Serious Accident Punishment Act, allowing you to prevent and respond to various risks that may occur in the workplace.

In addition, by introducing this system, companies can meet their obligations for safety and health measures related to serious accidents, and as the workplace environment improves, accident rates and work loss rates are reduced, resulting in various effects such as improved productivity.

■ **ICR provides ISO 45001 (Safety and Health Management System) certification services** for corporate workplace safety. In addition, we provide related training based on our long experience. If you have any questions about the introduction of this system, please contact us below.

- **System certification center / 02-6351-9001 / icrcert@icrqa.com**

 **Inquiries**

System Certification Center / Kim, Gi-Beom
T. 070-5083-2656 / kgb@icrqa.com



New EU Batteries Regulation

- **New EU Battery Regulation (EU) 2023/1542** that replaces EU Directive 2006/66/EC, contains sustainability and safety requirements for all batteries placed on the EU market, and emphasizing management of battery life cycle and environmental friendliness.

- **Batteries are classified into five types** and there are different requirements accordingly by battery type.
 - ① Portable batteries
 - ② SLI batteries (Starting, Lighting and Ignition batteries)
 - ③ LMT batteries (Light Means of Transport batteries)
 - ④ Industrial batteries
 - ⑤ EV batteries (Electric Vehicle batteries)

- **The date of entry into force of EU Batteries regulation** are as follows.

Category	Requirement	Date of enforcement
Restrictions on substances	Mercury(Hg) \leq 0.0005% Cadmium(Cd) \leq 0.002%	2024.02.18
	Lead(Pb) \leq 0.01%	2024.08.18 (Portable)

New EU Batteries Regulation



Category	Requirement	Date of enforcement
Carbon footprint	Declaration	2025.02.18 (EV) 2026.02.18 (Industrial) 2028.08.18 (LMT)
	Performance class	2026.08.18 (EV) 2027.08.18 (Industrial) 2030.02.18 (LMT)
	maximum life cycle threshold	2028.02.18 (EV) 2029.02.18 (Industrial) 2031.08.18 (LMT)
Recycling	Documentation	2028.08.18
	Cobalt 16%, Lead 85%, Lithium 6%, Nickel 6%	2031.08.18
	Cobalt 26%, Lead 85%, Lithium 12%, Nickel 15%	2036.08.18
Performance and durability requirements	Documentation	2024.08.18
	Minimum values	2028.08.18 (Portable, LMT) 2027.08.18 (Industrial)
Removability and replaceability	by the end-user	2027.08.18 (Portable, LMT)
Safety of stationary ESS	Thermal, Electrical protection and mechanical tests	2024.08.18 (Industrial)
Labelling, marking and information requirements	Separate collection symbol	2025.08.18
	Labelling and marking	2026.08.18
	QR code (Battery passport)	2027.02.18 (EV, Industrial, LMT)



New EU Batteries Regulation

Category	Requirement	Date of enforcement	
State of health and expected lifetime of batteries	BMS	2024.08.18 (EV, Industrial, LMT)	
Collection of waste batteries	Portable batteries	45%	by 2023.12.31
		63%	by 2027.12.31
		73%	by 2030.12.31
	LMT batteries	51%	by 2028.12.31
		61%	by 2031.12.31

- The earliest date of enforcement related to battery testing is **August 2024** but the test method has not been announced yet.
- If you have any inquiry about **battery testing and certification service**, please feel free to contact our Battery Testing Center.

 **Inquiries**

Battery Testing Center / Yang, Chul-Ho
T. 02-6351-9003 / yangch@icrqa.com



SEMI S6-0618

Environmental, Health, And Safety Guideline for Exhaust Ventilation of Semiconductor Manufacturing Equipment

■ **SEMI S6** is a standard for **EHS**(Environmental, Health and Safety) guidelines using exhaust from **semiconductor manufacturing equipment** and applies to all semiconductor manufacturing equipment, including exhausts, which connect to the exhaust system.

■ **SEMI S6 test**

Semiconductor manufacturing equipment is used in different materials, and also used harmful materials.

Safety accidents should be prevented by protecting workers and equipment from harmful materials.

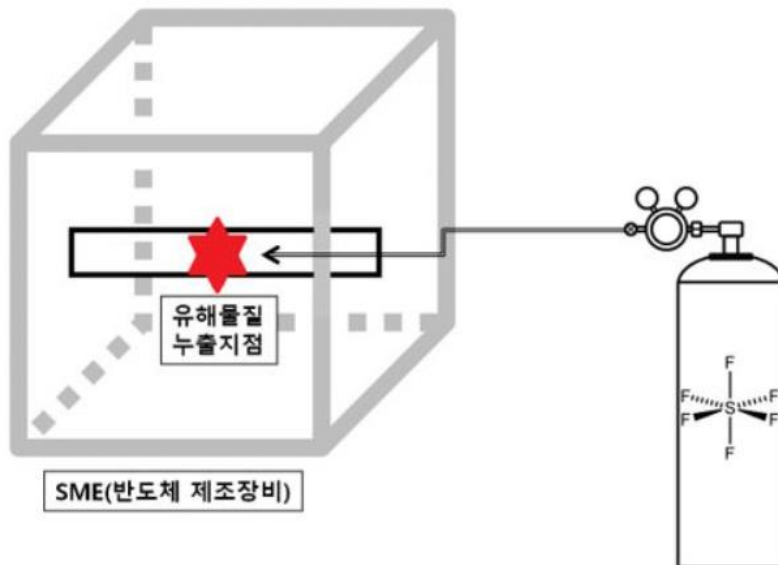
Flammable materials (Flammable chemical test)	Toxic materials (Toxic chemical test)
It should be measured less than 25 % of the LFL at the ignition source position present in the semiconductor manufacturing equipment.	It should be measured less than 25 % of the OEL in the area where the actual operator breathes.
✓ LFL(Lower Flammable Limit) the minimum concentration at which flammable substances can be burned in the air. (No combustion at concentrations below LFL)	
✓ OEL(Occupational Exposure Limit) Maximum acceptable concentration of substances in the air that the operator may be exposed to for a certain period of time.	

SEMI S6-0618

Environmental, Health, And Safety Guideline for Exhaust Ventilation of Semiconductor Manufacturing Equipment

■ Evaluation of the SEMI S6

- It measure the reference value by injecting the **tracer gas test** in the same way that harmful materials will leak
- At this time, if the test is conducted using actual harmful materials, dangerous situations can occur, so it is conducted using SF6 gas that is harmless to the human body and is not flammable.



<Tracer gas test configuration>

SEMI S6-0618

Environmental, Health, And Safety Guideline for Exhaust Ventilation of Semiconductor Manufacturing Equipment

SEMI S6 evaluation equipment and test photo



<Tracer gas test equipment>



<Toxic chemical test >

- ICR has tracer gas detection equipment, which can perform SEMI S6 tracer gas test and **provides test services** such as **SEMI S2** and **SEMI S8** as well as **SEMI S6**.

 **Inquiries**

Industrial Safety Center / Kang, Gyeong Man
T.070-5083-2620 / kkm@icrqa.com