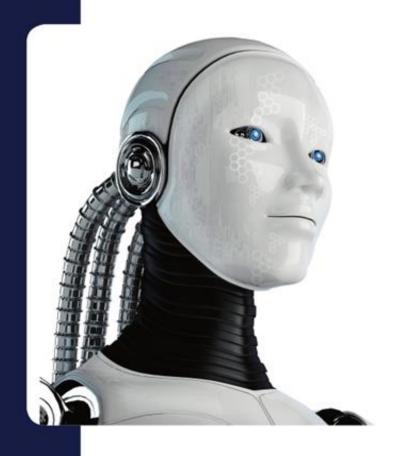
Newsletter September, 2022 ICR





Hot Issue

- 1. 2022 3rd Auditor Training Course Plan
- 2. Completion of ICR Battery Testing Center
- 3. Requirements about Thermal Propagation of UN ECE R100
- 4. 2022 IECEx Annual Meeting



2022 3rd Auditor Training Course Plan



- ICR International Certification Registrar Ltd. Is an auditor training provider directly registered to Exemplar Global.
- ICR plans to hold an auditor training course in Aug 2022.
- Through the AU, TL, QM, and OH 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.
- **X** The detailed schedule of the auditor training course in Aug 2022 is as follows. (Remote ZOOM training)

ОН	Aug 29~30 (2days)	8 hours/1 day, total 16 hours (2 days)
AU/TL	Aug 31~Sep 02 (3days)	8 hours/1 day, total 24 hours (3 days)
QM	Sep 05~06 (2days)	8 hours/1 day, total 16 hours (2 days)

* Training schedules may change depending on the Covid-19 situation.

T Inquiries

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Completion of ICR Battery Testing Center





< View of ICR Pyeongtaek Battery Testing Center>

- ICR Ltd. is building a testing center specializing in mid- to large-sized batteries (EV, ESS) with a total floor area of 5,710m2 with 4 floors of performance test building and single floor of safety testing building in Pyeongtaek, Gyeonggi-do and it is scheduled to be completed by the end of July and start operation in September this year.
- In particular, the safety test building consists of six medium/large explosion-proof rooms, which allow abuse test to be carried out in a safe test environment, such as thermal runaway, propagation, external short circuit, crush, nail-penetration, and drop test and so on.

Completion of ICR Battery Testing Center



<Testing Equipment>

	-qaipiiieiie			
Equipment / Facility	Setup & Operation			
Equipment / Facility	2022-09 ~ 2022-12	2022-11 ~ 2023-02		
Pack Cycler (1500V, 1000V)	0			
Module Cycler (200V)	0			
Cell Cycler (6V)	0			
Walk-in Chamber	0			
Temp. & Humid. Chamber	Ο			
Large Thermal Shock Chamber	0			
Altitude Simulation		0		
Salt Spray		0		
IP Water(IPx1, 2, 3, 4, 4K, 5, 6, 6K, 9, 9K)		0		
Pack/Module Crush/Nail Penetration	0			
Cell Crush/Nail Penetration		0		
External Short-Circuit	0			
Immersion (IPx7, 8)	0			
Drop	0			
Impact		0		
Large Shaker (30tf)	0			
Explosion-proof Room #1 (Drop, Impact)	O (Drop)	O (Impact)		
Explosion-proof Room #2 (Immersion, Cell crush/nail, Heating, Propagation)	O (Immersion, Propagation)	O (Cell crush/nail, Heating)		
Explosion-proof Room #3 (Pack crush/nail)	0			
Explosion-proof Room #4 (Propagation)	0			
Explosion-proof Room #5 (Overcharge, External short-circuit etc.)	0			
Explosion-proof Room #6 (Vibration)	0			

Completion of ICR Battery Testing Center





< View of ICR Pyeongtaek Battery Testing Center>

- The below table shows the list of equipment being set up, and the operating time varies depending on the test equipment, the 300kN(about 30tf) shaker and explosion-proof rooms can be used from September this year.
- If you need any additional equipment other than the above equipment list, we can discuss and make additional investment, so please feel free to contact our Battery Testing Center.

T Inquiries

Battery Testing Center / Young-Ho Park T. 02-6351-9003 / youngho.park@icrqa.com

Requirements about Thermal Propagation of UN ECE R100

■ What is the UN ECE R100?

To achieve EU Market access for road vehicles and vehicle components, it is mandatory to verify that the manufacturer's vehicle or vehicle components comply with applicable directives, regulation and technical requirements, and to receive Type Approval from the regulatory authority.

Safety requirements with respect to the Rechargeable Electrical Energy Storage System (REESS), of road vehicles of categories M and N equipped with electric power train were described in UN ECE Regulation No. 100.

Revision 2 - Amendment 5 was published June 2021 and Thermal Propagation is one of added requirements, and Revision 3 was published July 2022.

Requirements about Thermal Propagation of UN ECE R100

■ Requirements about Thermal Propagation of UN ECE R100.03

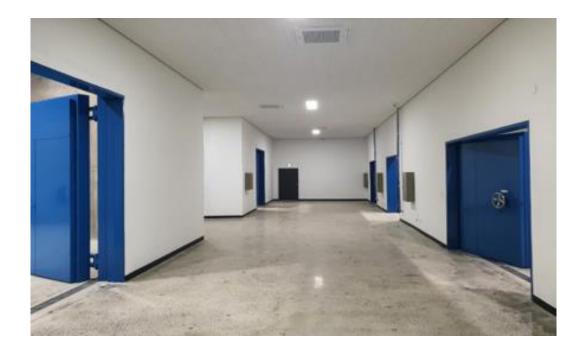
- 1. Description of the warning system
- 2. Risk reduction analysis
- 3. System diagram
- 4. Demonstration of the effectiveness of the risk mitigation function
 - : No external fire or explosion occurs within 5 minutes after the warning for a thermal event is activated.

ICR's service about Thermal Propagation

ICR Ltd. has launched the service regarding Thermal Propagation test this month and has the capability to carry out **Thermal**Propagation test for mid- to large-sized batteries (EV, ESS).

■ If you have any inquiry about battery testing and certification service as well as Thermal Propagation test, please feel free to contact our Battery Testing Center.

Requirements about Thermal Propagation of UN ECE R100



< Inside view of ICR Pyeongtaek Safety Testing Building>

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

2022 IECEx Annual Meeting



- The IECEx Annual Meeting is a conference where discussions are held on the enactment and amendment of ExMC (Ex Management Committee) and ExTAG (Ex Testing and Assessment Group) related regulations in relation to the operation of IECEx Scheme.
- ICR will attend the IECEx Annual Meeting as an ExTL (Ex Testing Laboratory) applicant.
- Currently, ICR has established ICR Polska in Poland and is qualified as a Notified Body, so CE and ATEX certification can be carried out, and ExCB (Ex Certification Body) registration had been completed, it is possible to issue certificates such as IECEx ExTR, QAR, and CoC.
- After IECEx ExTL registration, we plan to provide more services to our customers, from certification to testing.

2022 IECEx Annual Meeting



General Information

The 2022 IECEx Annual meetings of the IECEx System will be a Remote Participation Meetings. The meetings and associated events will be conducted via **ZOOM** web conference.

For information regarding registration refer to the Meeting Registration tab above, and for remote participation see ExMC/1840/Inf.

Remote Meetings of the IECEx System:

Meeting Schedule: 05th September to 09th September

Time	Mon 05 September 2022	Tue 06 September 2022	Wed 07 September 2022	Thu 08 September 2022	Fri 09 September 2022
Session from 12:00 to 16:00 (*4 Hrs Max) Time Zone = UTC (includes a 15 min break)	Assessor Training (up to 4 hr max)	ExTAG Technical Session 1 (4 hr max)	EXTAG Technical Session 2 (4 hr max)	ExMC Session 1 (4 hr max)	ExMC Session 2 (4 hr max)
	IECEX Executive (2 hr max - but overflow available) *up to 6hrs Day 1				

NOTE: Conversions for UTC to your location's time zone can be done using https://www.timeanddate.com/worldclock/converter.html



☎ Inquiries

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Partial revision of notice on conformity assessment of broadcasting and communication equipment, etc.

< National Radio Research Agency Notice No. 2022-14>

■ In accordance with Articles 58-2 through 58-4 of the Radio Wave Act and Articles 77-2 through Article 77-8 of the Enforcement Decree of the same Act The 「Notice on Conformity Assessment of Broadcasting and Communication Equipment, etc.」 has been revised and announced as follows.

July 19, 2022

Director, National Radio Research Institute

- Part of 「Notice on Conformity Assessment of Broadcasting and Communication Equipment, etc.」 is amended as follows.
 - ▶ In Article 2 (Definition), "2 of 1" is newly added as follows.
 - 2 of 1. "Manufacturing country" refers to the country where equipment is finally made.
 - ▶ Article 18 (Detailed scope of exemption from conformity assessment, etc.) In the main text, "차" is replaced with "캬".
 - ► [Annex 1] Item C-57) Electric atomizer device code "MST11" in Item 11 is "MST12", and device code "MST11" in Item C-58) is "MST13".

Partial revision of notice on conformity assessment of broadcasting and communication equipment, etc.

- ► [Attached Table 1] In Remark-4 of No. 11, "F. Electric sprayer such as hand sanitizer" is newly added, and the main text of Remark-7 is as follows.
 - Among the equipment falling under item 자 or 파, "boost cables", cables that are connected one-to-one without a separate power source, cable connectors, and cable accessories are excluded from conformity
- ▶ assessment.[Attached Table 5] Labeling standards and methods for conformity assessment of broadcasting and communication equipment (related to Article 23) No. 2 B. are newly added as follows.
- * In the case of conformity assessment in multiple manufacturing countries, only the country in which the relevant equipment is finally manufactured shall be indicated.
- ► [Attached Table 5] In the main text of No. 2-D-3) of the labeling standards and methods for conformity assessment of broadcasting and communication equipment, etc. (related to Article 23), part of the text of "However" is deleted and the following is done.

Partial revision of notice on conformity assessment of broadcasting and communication equipment, etc.

- 3) If the model name written at the time of conformity assessment application and the model name used for product sales and promotion are the same, only the national integrated certification mark and model name of No. 1 can be written.

However, in this case, the model name shall be indicated at the location of the identification code, and both the identification code and conformity assessment information shall be described in the user manual.

- ► Add "Test report information, test institution name, test report issuance number, and technical manager" to [Appendix No. 1 Form] and [Form No. 5].
- ▶ Add "Test Book Issuance Number" to [Appendix No. 6 Form].

T Inquiries

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www.icrqa.com

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