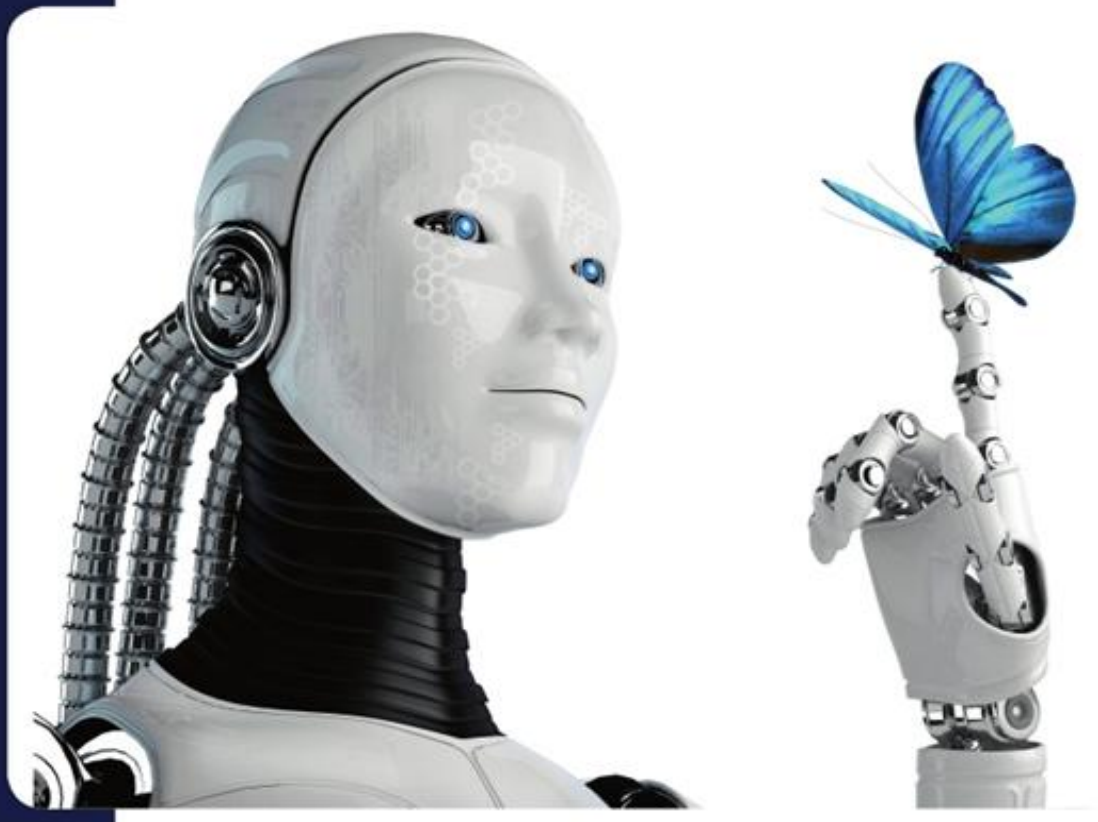
Newsletter
March, 2025

ICR



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Hot Issue

1. 12-ton combined vibration equipment is operating
2. Explosion Proof Certification Team, IECEx scope extension
3. Wireless devices test methods and precautions for object detection sensors
4. ISO 14001:2015/DAmd 2 – Reached DIS Stage

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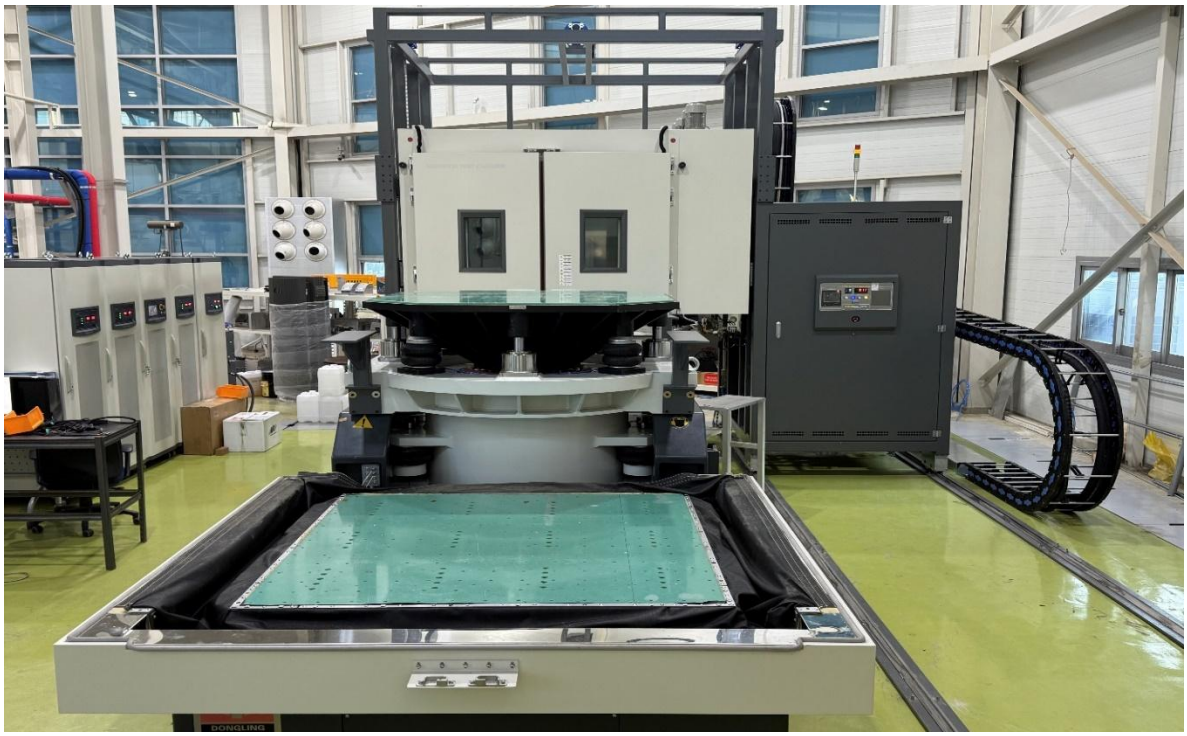
12-ton combined vibration equipment is operating



▣ ICR have introduced a 12-ton combined vibration tester.

ICR has been operating a 12-ton vibration tester **since February 25.**

It is possible to **test heavy products such as automobile motors and large displays, etc.**

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12-ton combined vibration equipment is operating

▣ Equipment specifications

1) Max. Sine force : 12,000 Kgf
2) Max. Acceleration : 100 g
3) Frequency Range : 5 ~ 2,500 Hz
4) Table size (mm) : 1500 x 1500 x 50
5) Chamber temperature range : -50 ~ 150 ℃

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Explosion Proof Certification Team, IECEx scope extension

▣ ICR, IECEx Scope Extension

The ICR explosion-proof certification team is scheduled to officially confirm the IECEx Scope Extension in March 2025. Anyone can check it on the IECEx website (www.iecex.com), and ICR can issue **ExTR** (Explosion-Proof Test Report), **IECEx CoC** (Explosion-Proof Certificate), and **QAR** (Quality Assessment) for all explosion-proof types below.

▣ IECEx types that can be issued by ICR

IEC 60079-0	General requirements	IEC 60079-1	flameproof enclosures “d”
IEC 60079-2	pressurized enclosure "p"	IEC 60079-5	powder filling "q"
IEC 60079-6	liquid immersion "o"	IEC 60079-7	increased safety ''e''
IEC 60079-11	intrinsic safety "i"	IEC 60079-15	protection type "n"
IEC 60079-18	encapsulation “m”	IEC 60079-26	combined Levels of Protection
IEC 60079-28	Optical radiation “op”	IEC 60079-31	dust “t”
ISO 80079-36, 37	Non-electrical equipment	IEC TS 60079-46	assemblies
IEC 60079-10-1, 2	Classification of areas		

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Explosion Proof Certification Team, IECEx scope extension

▣ ICR, Explosion-proof Certification

ICR provides **testing and certification** services for **IECEx** as well as ATEX (CE). In addition, the following national explosion-proof certifications can be converted to ICR's IECEx certificates.

▣ The national explosion-proof certificate Bodies that have signed MoU with ICR.

CCC	TIIS	TS Mark
China	**Japan**	**Taiwan**
Ex certification	**Ex certification**	**Ex certification**
SITIIAS/NEPSI	TIIS	ITRI

▣ ISO 9001, QAR/QAN One-stop Audit.

ICR is conducting system certification such as **ISO 9001/14001** and explosion proof quality review (**QAR, QAN**).

☎ Inquiries

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Wireless devices test methods and precautions for object detection sensors

▣ Wireless devices for object detection sensor (5 GHz, 10 GHz, 24 GHz, 70 GHz)

Object detection sensor refers to products corresponding to object detection sensors, ultrasonic generators, automobile sensors, motion detection sensors, and vehicle radars.

The contents specified for wireless devices for wireless stations that can be opened without reporting refer to **wireless devices for detecting objects such as detecting people entering and leaving a building, moving vehicles, and blind spots of vehicles.**

▣ Preparations for wireless testing

1) Continuous TX output

- When using multiple channels, the first, middle, and last frequencies must be set.

  It is possible to proceed with the test even if a single channel is used.

2) Continuous RX output

- If the product has an RX function, the first, middle, and last frequencies must be set for the RX as well as the TX.

  It is possible to proceed with the test even if a single channel is used.

Wireless devices test methods and precautions for object detection sensors

3) Implementing modulation and non-modulation functions.

- Modulation and non-modulation functions must be implemented to proceed with the test.
- If there is difficulty in implementing the function in the case of non-modulation, it can be handled on its own.

4) Test samples are implemented as finished products.

▣ Documents required for wireless testing

1) User Manual

2) Antenna Specification

▣ Process

Product application–Product test–Test progress–Certificate issuance.

▣ Laws and precautions for object detection sensors

1) Related laws

- Wireless devices for wireless stations that can be opened without reporting.
- Technical standards for wireless equipment for wireless stations that can be opened without reporting.

Wireless devices test methods and precautions for object detection sensors

2) Explanation of related laws

(wireless devices for object detection sensors 5 GHz)

- Frequency band, power, etc.

Frequency bands(MHz)	Radiated power
5 847~5 850	10 mW(Including antenna absolute gain)

- Frequency tolerance shall be within the designated frequency band.
- Occupied frequency bandwidth shall be 3 MHz or less.
- Unwanted emissions in the spurious region shall be below the reference value.

Frequency	Reference value	Reference bandwidth
Less than 1 GHz	-36 dBm	100 kHz
1 GHz or more	-30 dBm	1 MHz

- Secondary radio emissions in the receive or transmit standby state shall be below the reference value.

Frequency	Reference value	Reference bandwidth
Less than 1 GHz	-54 dBm	100 kHz
1 GHz or more	-47 dBm	1 MHz

Wireless devices test methods and precautions for object detection sensors

3) Notes

- The reference value is the same for the spurious region and secondary radio emissions of wireless devices for object detection sensors.
- The power is as shown in the table below.

Frequency	Power reference value
5 847 ~ 5 850 GHz	10 mW(Including antenna absolute gain)
10.5 ~ 10.55 GHz	25 mW(Including antenna absolute gain)
24.05 ~ 24.25 GHz	100 mW(Including antenna absolute gain)
76 ~ 81 GHz	100 mW(Including antenna absolute gain)

- In the case of frequency tolerance, note that the frequency band for 5 GHz object detection sensors is only 3 MHz.
- In the case of occupied frequency bandwidth, the reference value is the frequency range.
  In other words, the reference value for the occupied frequency bandwidth can be considered to be the same as the reference value for the frequency tolerance.

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ISO 14001:2015/DAmd 2 – Reached DIS Stage

▣ Overview of ISO 14001:2015/DAmd 2

ISO 14001:2015/DAmd 2(Amendment 2) is a document outlining the latest revisions to **the Environmental Management System(EMS) requirements.** These revisions are designed to help organizations manage their environmental responsibilities more effectively.

The amendment is currently at **the Draft International Standard(DIS) stage**, with its development led by the ISO/TC 207/SC 1 technical committee.

▣ What is the DIS Stage?

The DIS(Draft International Standard) stage is the phase where a draft standard is **reviewed and receives feedback before its official release**.

Currently, ISO 14001:2015/DAmd 2 is in the DIS stage, with voting and feedback collection running from February 3, 2025, to April 28, 2025. During this phase, national standardization bodies, industry experts, and stakeholders evaluate the amendment's appropriateness, practicality, and applicability. The feedback & voting results may lead to further modifications.

The DIS stage is the last opportunity to incorporate international feedback before finalizing the standard.

ISO 14001:2015/DAmd 2 – Reached DIS Stage

40 Enquiry	40.00 DIS registered	40.20 DIS ballot initiated: 12 weeks	40.60 Close of voting	40.92 Full report circulated: DIS referred back to TC or SC	40.93 Full report circulated: decision for new DIS ballot	40.98 Project cancelled	40.99 Full report circulated: DIS approved for registration as FDIS

▣ Standardization Process After the DIS Stage

If ISO 14001:2015/DAmd 2 successfully passes the DIS stage, it will proceed as follows:

1) FDIS (Final Draft International Standard) Stage

- The FDIS document is drafted by incorporating feedback from the DIS stage.
- No further major changes will be made at this stage, and the focus is on final approval.
- ISO member countries will vote again, typically requiring at least 75% approval.

2) IS (International Standard) Stage

- Once approved at the FDIS stage, ISO 14001:2015/DAmd 2 will be officially published as an International Standard (IS).
- Organizations will receive official guidance on transitioning to the revised standard.
- National standardization bodies may adopt the new ISO standard into their local versions (e.g., KS, JIS, DIN).

ISO 14001:2015/DAmd 2 – Reached DIS Stage

▣ Key Revisions in ISO 14001:2015/DAmd 2

The amendment introduces clearer improvements to key EMS concepts and applications. The following elements are emphasized:

1) Strengthened “Environmental Performance Management”

- Organizations must demonstrate measurable improvements in environmental performance.
- While ISO 14001:2015 focused on setting and managing environmental objectives, the amendment now requires documented evidence of actual performance improvements.

2) Incorporation of “Circular Economy” and “Biodiversity Protection” Concepts

- Organizations are encouraged to minimize resource consumption across the entire product lifecycle and implement reuse/recycling-friendly production and operation practices.
- Biodiversity protection must now be integrated into environmental impact assessments, requiring companies to prevent biodiversity loss and consider ecosystem health.

ISO 14001:2015/DAmd 2 – Reached DIS Stage

3) Additional Considerations for Environmental Conditions (Climate Change, Ecosystem Health, etc.)

- Organizations must now actively integrate climate change, biodiversity, and ecosystem health factors into their EMS.

▣ Conclusion

The ISO 14001 revision will have a significant impact on companies preparing for or maintaining certification.

ICR Co., Ltd. is committed to delivering timely and accurate **updates on the latest standard revisions**, ensuring companies can fully prepare for audits in alignment with new requirements.

We will continue providing updates on the revision process and best practices for meeting new audit criteria, sharing the latest information promptly.

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