

Cabinet Resolution No. (41) of 2013
Regarding the UAE System for the Control of Laser Products

The Cabinet:

- Having reviewed the Constitution,
- Federal Law No. (1) of 1972 Regarding the Competences of Ministries and Powers of Ministers, as amended,
- Federal Law No. (28) of 2001 Regarding the Establishment of the Emirates Authority for Standardization and Metrology, as amended, and
- Federal Law No. (24) of 2006 Regarding Consumer Protection, as amended, and
- Upon the approval of the Cabinet,

Hereby resolves as follows:

Article (1)

Definitions

For the purposes of implementing the provisions of this System, the following terms and expressions shall have the meanings assigned to each of them, unless the context requires otherwise:

State	: The United Arab Emirates.
Authority	: The Emirates Authority for Standardization and Metrology.
Board	: The Board of Directors of the Authority.
Director	: The Director General of the Authority.
General	
Competent	: The competent federal or local governmental authority in the State
Authority	entrusted with implementing the provisions of this System.

Standard Specification	: A document that specifies the characteristics of a good, material, or service, or anything subject to measurement, including its descriptions, properties, quality level, dimensions, and measurements, or safety and security requirements, and also includes terminologies, symbols, testing methods, sampling, packaging, labeling, and marks.
Approved Standard Specifications	: The specifications adopted by the Authority, referred to as "UAE Standard Specification" and denoted by (UAE.S).
Mandatory Standard Specification	: A standard specification whose application is made mandatory by a Cabinet Resolution, upon the proposal of the Board.
Certificate of Conformity	: The certificate issued by the Authority, which confirms the conformity of a product or any batch thereof with the requirements of the approved or mandatory standard specification.
Mark	: Any drawing, sign, symbol, stamp, engraving, or image indicating the Authority or any issuance thereof in relation to specifications, metrology, quality, and conformity, or indicating any international authority related to specifications, metrology, quality, and conformity.
Emirates Quality Mark	: A mark adopted by the Authority, granted to a product to indicate its conformity with the approved or mandatory standard specifications, or any specification adopted or recognized by the Authority in respect of laser products.
Laser Products	: Any device or instrument that operates by generating high-intensity, narrow-beam light rays emitted at wavelengths ranging from the short ultraviolet region (180 nanometers) to the long infrared region (12 micrometers), passing through the visible region.

Supplier	: The manufacturer, carrier, packager, assembler, processor, agent, or storage provider of Laser Products, or any primary or secondary distributor whose activity has an effect on Laser Products, or any commercial or legal representative responsible for importing products subject to the provisions of this System.
Supply Chain	: All processes that Laser Products undergo after their manufacture until they reach the consumer, including importing, supplying, storing, delivering, and selling the product wholesale or retail, and any other related process leading to the delivery of laser products to the consumer.
Consumer	: Anyone who obtains a good or service, with or without consideration, for the purpose of satisfying personal needs or the needs of others.
Placing on the Market	: The process aimed at selling, leasing, trading, possessing, or offering the product to the consumer, whether with or without consideration.
Emirates Conformity Assessment Scheme (ECAS)	: The scheme issued by the Board, which is concerned with verifying compliance with the requirements set out in the Approved Standard Specifications, directly or indirectly, through specific procedures carried out by the Authority, such as inspection, examination, testing, calibration, or the issuance of Certificates of Conformity.

Article (2)

Scope of Application

- a. The provisions of this System shall apply to:
 1. General-use Laser Products with wavelengths extending from the ultraviolet region of the spectrum (180) nanometers to the far-infrared region (12) micrometers, with a focus on the visible wavelengths between (400) and (700) nanometers, due to their direct impact on consumer safety.
 2. Electronic parts (semiconductors) that emit light with the specifications of laser

radiation.

- b. The following shall be excluded from the application of the provisions of this System:
 - 1. Special-use laser products used for medical, research, and industrial purposes.
 - 2. Laser-generating parts that form part of an electrical or electronic device, such that none of these devices can be operated upon the removal of such parts.

Article (3)

Classification

Laser products shall be classified into classes in accordance with the Approved Standard Specification No. (UAE.S GSO IEC 60825-1) as set out in Annex (1) attached to this System.

Article (4)

Supplier's Obligations

The Supplier, at any stage of the Supply Chain, shall comply with the following:

- 1. Providing a protective enclosure that prevents access to the radiation source except during maintenance, while ensuring that the necessary preventive measures are implemented, when designing laser devices.
- 2. Providing a safety interlock that stops the emission of radiation upon removal of the protective cover, when designing laser devices of Classes (3R, 3B, and 4), in accordance with the classification set out in the Approved Standard Specification No. (UAE.S GSO IEC 60825-1).
- 3. Complying with the labeling requirements referred to in Article (5) of this System.
- 4. Cooperating with the inspectors of the Authority and the Competent Authority and providing them with all required documents and test certificates.
- 5. Ensuring that Laser Products conform to all requirements set out in the Approved Standard Specifications specified in Annex (1) attached to this System, except in cases of non-conformity after sale resulting from improper storage or transport.
- 6. Complying with the requirements of quality management systems (ISO 9001) and the product Good Manufacturing Practice (GMP) guidelines, as accepted by the Authority.

Article (5)

Labeling

The labeling for Laser Products intended to be placed on the market shall comply with the following:

1. Include user manuals and warning instructions, in accordance with the classes specified in the Approved Standard Specification No. (UAE.S GSO IEC 60825-1), as set out in Annex (1) attached to this System.
2. Include the general safety conditions to be observed, in accordance with Schedule (3) annexed to this System.
3. Be provided in both Arabic and English in a clear and indelible manner.
4. Not contravene public order, public morals, and the prevailing Islamic values in the State.

Article (6)

Verification of Conformity

- a. To obtain a Certificate of Conformity, the Supplier shall:
 1. Comply with the forms approved by the Authority for obtaining the Certificate of Conformity and with the conditions stipulated in this System.
 2. Ensure that all Laser Products of the Supplier are subject to Module (B), the requirements of which are set out in the Emirates Conformity Assessment Scheme (ECAS).
 3. The Supplier must comply with the Approved Standard Specifications and the requirements set out in this System.
- b. Products that have obtained the Emirates Quality Mark or any conformity mark issued outside the State and recognized by the Authority shall be deemed compliant with the requirements set out in this System.

Article (7)

Import of Laser Products

- a. The Supplier is permitted to import Laser Products according to the classification referred to in Article (3) of this System, as follows:

1. Low-power laser devices enclosed within sealed housing and classified under Classes (1) and (2), such as laser devices found in printers and CD players, which do not pose a risk to consumer safety upon short-term exposure.
 2. Laser toys classified under Class (1), provided that the laser-generating part is placed within a housing that prevents direct eye exposure to the emitted radiation.
- b. The Supplier is prohibited from importing Laser Products according to the classification referred to in Article (3) of this System, as follows:
1. General-use laser devices classified under Classes (3R, 3B, and 4), such as laser pointers and pens.
 2. Laser toys classified under Classes (2, 3R, 3B, and 4).

Article (8)

Market Surveillance and Inspection

- a. The Authority and the Competent Authority shall have the right to take samples of Laser Products for the purpose of conducting the necessary tests to verify their conformity with the requirements and conditions stipulated in this System.
- b. If the source of non-conformity cannot be determined, the entity at whose premises the violation is detected shall be deemed responsible for this case, unless the violator proves otherwise within the period specified by the Authority or the Competent Authority.
- c. The Authority shall have the right to take appropriate measures against products that do not conform to this System, including withdrawing or revoking the Certificate of Conformity of non-conforming products and removing such products from the market.

Article (9)

Violations and Penalties

- a. If any violation of the provisions of this System is detected, the Authority or the Competent Authority, as the case may be, shall take the necessary measures to remedy such violation and its effects, and for this purpose, it may:
 1. Instruct the violating entity responsible for Placing the non-conforming product on the

Market to withdraw it from the market for the purpose of rectifying its status, re-export it to the country of origin, or destroy it within a period to be specified by the Authority or the Competent Authority, as the case may be.

2. Take all necessary measures by the Competent Authority to withdraw, seize, or destroy such products, or to take any other necessary actions to remedy the committed violation. The Authority may also announce the withdrawal of the product from the market, with the violating entity bearing all costs arising therefrom.
- b. Without prejudice to any more severe penalty stipulated in applicable legislation, anyone who violates the provisions of this System shall be punished with the penalties stipulated in Federal Law No. (28) of 2001 Regarding the Establishment of the Emirates Authority for Standardization and Metrology, as amended.

Article (10)

Transitional Provisions

- a. The Supplier shall register their Laser Products in the Emirates Conformity Assessment Scheme (ECAS) within a period not exceeding (180) days from the date of publication of this System in the Official Gazette.
- b. Laser devices that are non-compliant with the Standard Specifications set out in this System and are currently available in the markets may be circulated for a period not exceeding one year from the date of publication of this System in the Official Gazette. This excludes high-risk Laser Products that affect consumer safety, which shall be specified by a decision issued by the Authority or the Competent Authority.

Article (11)

Final Provisions

1. For the purposes of implementing the provisions of this System, the Approved Standard Specifications set out in Annex (1) attached hereto shall be deemed Mandatory Standard Specifications in the State.
2. The Authority shall establish the necessary procedures for the implementation of the

provisions of this System, and may delegate any of the Competent Authorities to monitor the products subject to its provisions, under its supervision.

3. The Authority shall be responsible for receiving, reviewing, and approving any application for the registration and conformity of Laser Products covered by the provisions of this System. It may delegate any of the Competent Authorities to undertake the registration and conformity assessment of such products.
4. The Competent Authority in each Emirate shall be responsible for monitoring the Supplier's compliance with the provisions of this System and ensuring the conformity of their Laser Products with the Standard Specifications set out in Annex (1) attached hereto, including inspection, surveillance, examination, and testing activities.
5. The Board may adopt any other Standard Specification necessary for the implementation of the provisions of this System.
6. The annexes attached to this System, including the terms and definitions set out in Annex (2) attached hereto, shall form an integral part thereof. The Board may amend any of these annexes whenever necessary.
7. The provisions of this System shall not prevent the inspectors of the Competent Authorities from conducting additional tests to ensure the conformity of the products subject to its provisions with the mandatory requirements stipulated in other technical laws and regulations.
8. All entities subject to the provisions of this System shall provide the inspectors of the Competent Authorities with all assistance and information requested thereby in connection with the implementation of its provisions.
9. If any situation arises that cannot be addressed by the provisions of this System, or if any dispute arises in its interpretation or application, the matter shall be referred to the Director General to issue the decision they deem appropriate in respect of such situation or dispute, in a manner that serves the public interest.
10. All points of sale in the State shall be prohibited from displaying or selling Laser Products subject to the provisions of this System unless such products are registered under the Emirates Conformity Assessment Scheme (ECAS) or have obtained a Certificate of Conformity.

Article (12)

Repeals

Any provision in any other system is hereby repealed to the extent that it conflicts with the provisions of this System.

Article (13)

Publication and Entry into Force

This System shall be published in the Official Gazette and shall enter into force from the date of its publication. The concerned authorities shall implement the provisions of this System.

Mohammed bin Rashid Al Maktoum

Prime Minister

Issued by Us:

Date: 28 Safar 1435 A.H.

Corresponding to: 31 December 2013 A.D.

**Annexes Attached to Cabinet Resolution No. (41) of 2013
Regarding the UAE System for the Control of Laser Products**

Annex (1)

Approved Standard Specifications

#	Standard Number	Standard Title
1.	UAE.S GSO IEC 60825-1	Safety of Laser Products - Part 1: Equipment Classification and Requirements
2.	UAE.S GSO IEC 60825-3	Safety of Laser Products - Part 3: Guidelines for Laser Displays and Shows
3.	UAE.S GSO IEC 60825-4	Safety of Laser Products - Part 4: Laser Guards
4.	UAE.S GSO IEC 60825-8	Safety of Laser Products - Part 8: Guidelines for the Safe Use of Laser Beams on Humans

Annex (2)

List of Technical Terms

SN	Technical Term	Definition
1	Laser Radiation	Electromagnetic radiation emitted from a laser device with wavelengths ranging from (180) nanometers (ultraviolet) to (12) micrometers (infrared), as a result of stimulated emission.
2	Laser Beam	The emitted laser radiation described by its direction, divergence angle, and diameter.
3	Beam Divergence	The increase in the diameter of a laser beam as it travels over a distance, measured by the corresponding angular spread of the laser beam, expressed in radians.
4	Laser Intensity	The laser power per unit area, measured in watts per square meter (W/m ²).

SN	Technical Term	Definition
5	Visible Radiation	Any light that can be seen by the naked eye and may cause immediate visual disturbance upon exposure to the retina, such as the visible spectrum colors.
6	Beam Stop	A device that prevents the transmission and emission of the laser beam from the device.
7	Intrabeam Viewing	Exposure of the eye to a laser beam directly or through the reflection of laser radiation from smooth mirror-like surfaces.
8	Restricted Devices	High-power laser devices falling under classes (3R, 3B, 4).
9	Protective Housing	The part that contains the laser components (including associated components forming an integral part thereof) and is designed to prevent human access to laser radiation when such radiation exceeds the Accessible Emission Limit (AEL).
10	Safety Interlock	An automatic safety device associated with the protective housing of a laser device to prevent human access to laser radiation emitted from laser devices classified as Classes (3R, 3B, 4) when the Protective Housing of the laser device is removed, replaced, or displaced.
11	Invisible Radiation	Any light that cannot be seen by the naked eye and may cause direct effects on the cornea of the eye, such as infrared radiation at long wavelengths and ultraviolet region at short wavelengths.
12	Exposure Duration	The period of time during which the human body is exposed to laser radiation, whether pulsed or continuous.
13	Accessible Emission	The level of laser radiation at a point beyond the aperture of the laser device, measured in watts, joules, or, where applicable, watts per square meter, and used for the classification of laser devices and the assessment of their risk to public safety.

SN	Technical Term	Definition
14	Accessible Emission Limit (AEL)	The maximum amount of radiation permitted to be emitted within that class of laser devices (3R, 3B, 4).
15	Collimated Beam	A laser beam that propagates in parallel rays with a small diameter and low divergence.
16	Beam Expander	A set of optical lenses used to increase the diameter of the laser beam.
17	Stray Laser Beam	Deviation of the laser beam from its straight path due to reflection from one of the components of the laser device or from external surfaces.
18	Diffuse Reflection	Reflection of the laser beam from rough surfaces in multiple directions.
19	Emission Duration	The time period of a pulse, a sequence of pulses, or continuous wave laser to which a person is exposed during the operation or maintenance of the laser device.
20	Pulse Wave	Emission of laser radiation in pulses and for short durations, where the emitted energy is measured in joules.
21	Continuous Wave (CW)	Emission of laser radiation continuously over extended periods, where the emitted power is measured in watts.
22	Access Panel	An opening in the protective housing of a laser device that allows access to the laser beam when opened.
23	Thermal Hazard Limit	The maximum permissible exposure to laser radiation to protect persons from the harmful thermal effects of such radiation.
24	Photo Chemical Hazard Limit	The maximum permissible exposure to a laser beam to protect persons from the harmful photochemical effects, particularly at short wavelengths within the ultraviolet region.
25	Radiant Power	The power emitted or received by a laser device in the form of radiation, measured in watts.

SN	Technical Term	Definition
26	Specular Reflection	Reflection of the laser beam from smooth mirror-like surfaces.
27	Reflectance	The ratio of the reflected power of a laser beam to the incident radiant power on a surface.
28	Nominal Ocular Hazard Area (NOHA)	The area within which the irradiance of the laser beam exceeds the Maximum Permissible Exposure for the eye cornea.
29	Pulse Duration	The time measured between the points at which the pulse rises to and falls from its peak energy.
30	Nominal Ocular Hazard Distance (NOHD)	The minimum distance from the laser aperture at which the irradiance of the laser beam equals the Maximum Permissible Exposure for the eye cornea.
31	Maximum Permissible Exposure (MPE)	The level of laser radiation to which a person may be exposed to (under normal conditions) without suffering an adverse effect.

Annex (3)

General Safety Conditions to be Observed when Using Laser Products

SN	General Safety Condition
1	Laser radiation shall be directed towards the intended target and shall not be directed towards the eye or skin directly.
2	Batteries shall be removed from laser pointers when not in use, and such pointers shall be kept out of the reach of children.
3	Protective eyewear appropriate for laser radiation shall be used