
STATUTORY INSTRUMENTS

2019 No. 196

The Nuclear Safeguards (EU Exit) Regulations 2019

PART 1

Introduction

Interpretation

2. In these Regulations—

“Agency” means the International Atomic Energy Agency;

“Agreement with the Agency” means the agreement made on 7th June 2018 between the United Kingdom and the Agency for the application of safeguards in the United Kingdom in connection with the Treaty on the Non-Proliferation of Nuclear Weapons;

“batch” means a portion of qualifying nuclear material handled as a unit for accounting purposes at a key measurement point and for which the composition and quantity are defined by a single set of specifications or measurements. The qualifying nuclear material may be in bulk form or contained in a number of separate items;

“batch data” means the total weight of each category of qualifying nuclear material and, in the case of plutonium and uranium, the isotopic composition when appropriate. For reporting purposes the weights of individual items in the batch must be added together before rounding to the nearest unit. The units of account are—

- (a) grams of contained plutonium;
- (b) grams of total uranium, grams of contained uranium-235 and grams of uranium-233 for uranium enriched in these isotopes; and
- (c) grams of contained thorium, natural uranium or depleted uranium;

“book inventory” in relation to a material balance area means the algebraic sum of the most recent physical inventory of that material balance area and of all inventory changes that have occurred since that physical inventory was taken;

“category” in relation to qualifying nuclear material means natural uranium, depleted uranium, uranium enriched to less than 20%, uranium enriched to 20% and above, thorium and plutonium;

“closed down” in relation to a qualifying nuclear facility means a qualifying nuclear facility which has not been decommissioned but in relation to which it has been confirmed by the ONR that operations have ceased and all the qualifying nuclear material removed;

“commencement day” means the day described in regulation 1(2);

“conditioned waste” means waste which has been conditioned in such a way (for example, in glass, cement, concrete or bitumen) that it is not suitable for further nuclear use;

“correction” means an entry made in an accounting record or report which rectifies an identified mistake in a previous entry or reflects an improved measurement of a quantity which was previously entered in a record or report;

“decommissioned” in relation to a qualifying nuclear facility means a qualifying nuclear facility for which it has been confirmed to the satisfaction of the ONR that residual structures and equipment essential for its use have been removed or rendered inoperable so that it is not used to store and can no longer be used to produce, handle, process, dispose of or utilise qualifying nuclear material;

“effective kilogram” means a unit used in safeguarding qualifying nuclear material which is obtained by taking—

- (a) for plutonium, its weight in kilograms;
- (b) for uranium with an enrichment of 0.01 (1%) and above, its weight in kilograms multiplied by the square of its enrichment;
- (c) for uranium with an enrichment below 0.01 (1%) and above 0.005 (0.5%), its weight in kilograms multiplied by 0.0001; and
- (d) for depleted uranium with an enrichment of 0.005 (0.5%) or below, and for thorium, its weight in kilograms multiplied by 0.00005;

“enrichment” means the ratio of the combined weight of the isotopes uranium-233 and uranium-235 to that of the total uranium in question;

“inventory change” means an increase or decrease, in terms of batches of qualifying nuclear material, in a material balance area as described in the inventory change report set out in Part 2 of Schedule 1;

“item” means an identifiable unit of qualifying nuclear material such as a fuel assembly or a fuel pin;

“key measurement point” means a location where qualifying nuclear material appears in such a form that it may be measured to determine material flow or inventory, including, but not limited to, the inputs and outputs (including measured discards) and storages in material balance areas;

“material balance area” means an area in a qualifying nuclear facility in respect of which—

- (a) the quantity of qualifying nuclear material in each transfer into or out of the area can be determined; and
- (b) the physical inventory of qualifying nuclear material in the area can be determined when necessary in accordance with specified procedures, in order that the quantity of qualifying nuclear material for safeguards purposes under these Regulations can be established;

“material unaccounted for” means the difference between the physical inventory for a material balance area and the book inventory for that material balance area;

“operator” means a person or undertaking setting up, operating, closing down or decommissioning a qualifying nuclear facility for the production, processing, storage, handling, disposal or other use of qualifying nuclear material;

“ore” means any ore containing any average concentration of—

- (a) 0.1% or more uranium, in the case of uranium bearing ores;
- (b) 3% or more of thorium, in the case of thorium bearing ores, other than monazites;
- (c) 10% or more of thorium or 0.1% or more of uranium, in the case of monazites,

from which a source material may be obtained by the appropriate chemical and physical processing;

“particular safeguard provision” means a particular safeguard provision imposed by the ONR under regulation 5;

“physical inventory” means the sum of all the measured or derived estimates of batch quantities of qualifying nuclear material on hand at a given time within a material balance area, obtained in accordance with these Regulations;

“qualifying nuclear facility with limited operation” means a qualifying nuclear facility—

- (a) in which less than one effective kilogram of qualifying nuclear material is produced, processed, stored, handled, disposed of or otherwise used; and
- (b) which is not a reactor, a critical facility, a conversion plant, a fabrication plant, a reprocessing plant, an isotope separation plant nor a separate storage installation;

“relevant international standards” mean those international standards which are both published by third parties and listed by the ONR on their website;

“retained waste” means waste which is generated from processing or from an operational accident, measured or estimated on the basis of measurements, which has been transferred to a specific location within the material balance area from which it can be retrieved;

“safeguards equipment” means equipment used by the ONR or the Agency to provide independent confirmation that the information produced by an operator under these Regulations is accurate and up to date;

“shipper/receiver difference” means the difference between the quantity of qualifying nuclear material in a batch, as stated by the shipping material balance area and as measured at the receiving material balance area;

“source data” means those data, recorded during measurement or calibration or used to derive empirical relationships, which identify qualifying nuclear material and provide batch data, including, for example—

- (a) weight of compounds;
- (b) conversion factors to determine weight of element;
- (c) specific gravity;
- (d) element concentration;
- (e) isotopic ratios;
- (f) relationship between volume and manometer readings; and
- (g) relationship between plutonium produced and power generated; and

“waste” means qualifying nuclear material in concentrations or chemical forms irrecoverable for practical or economic reasons and which is intended to be disposed of.