

DSG ACTION: DSG(2017)M001/A004: SUMMARY OF IAEA AND EURATOM

What are nuclear safeguards?

Nuclear safeguards are measures to verify that countries comply with their international obligations not to use nuclear materials for nuclear explosives.

A fundamental principle of the safeguards regime is that the verification is independent of the country, and is performed by international inspectorates.

More than 180 non-nuclear weapons states are now party to the Treaty on the non-proliferation of nuclear weapons. This means they have agreed that the IAEA must apply safeguards on all their nuclear material. Alongside the IAEA safeguard requirements, civil nuclear material in the Member States of the European Union is also subject to the safeguards of Chapter VII of the Treaty establishing the European Atomic Energy Community. The safeguards are applied by the European Commission to provide confidence that nuclear materials in the EU are not diverted from their declared end uses.

IAEA/Euratom safeguards arrangements

Implementation of IAEA safeguards arrangements focused on nuclear materials accountancy measures which involved the state providing IAEA with declarations of this nuclear material (ie how much material there is and where it is, in nuclear materials accountancy reports), and information on relevant aspects of the design and the nuclear facilities concerned. The IAEA’s verification activities were directed at confirming nuclear material was present as declared, through regular inspections to confirm that records and supporting information at the facility were consistent with the declarations to the IAEA and to perform checks on the material itself, either by means of direct measurement/sampling or by so-called containment and surveillance measures.

The Euratom approach to safeguards verification has been largely the same as that of the IAEA.

Summary

IAEA and Euratom work to the same regulations for nuclear safeguards. At present, the NDA is working on the assumption that there will be changes to the laws which govern the NDA estate and there is a possibility to revert to IAEA regulations if

Summary Overview of IAEA/Euratom

IAEA	Euratom
<p>Overview: Widely known as the world’s “Atoms for Peace” organization within the United Nations family, the IAEA is the international centre for cooperation in the nuclear field. The Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.</p>	<p>Overview: Euratom aims to pursue nuclear research and training activities with an emphasis on continually improving nuclear safety, security and radiation protection, notably to contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way. By contributing to these objectives, the Euratom Programme will reinforce outcomes under the three priorities of Horizon 2020: Excellent science, Industrial leadership and Societal challenges.</p>
<p>Mission:</p> <ul style="list-style-type: none">) is an independent intergovernmental, science and technology-based organization, in the United Nations family, that serves as the global focal point for nuclear cooperation;) assists its Member States, in the context of social and economic goals, in planning for and using nuclear science and technology for various 	<p>Mission:</p> <ul style="list-style-type: none">) Support safety of nuclear systems;) Contribute to the development of safe longer term solutions for the management of ultimate radioactive waste;) Support the development and sustainability of nuclear expertise and excellence in the

IAEA	Euratom
<p>peaceful purposes, including the generation of electricity, and facilitates the transfer of such technology and knowledge in a sustainable manner to developing Member States;</p> <p>) develops nuclear safety standards and, based on these standards, promotes the achievement and maintenance of high levels of safety in applications of nuclear energy, as well as the protection of human health and the environment against ionizing radiation;</p> <p>) verifies through its inspection system that States comply with their commitments, under the Non-Proliferation Treaty and other non-proliferation agreements, to use nuclear material and facilities only for peaceful purposes.</p>	<p>European Union;</p> <p>) Support radiation protection and development of medical applications of radiation, including, inter alia, the secure and safe supply and use of radioisotopes;</p> <p>) Move toward demonstration of feasibility of fusion as a power source by exploiting existing and future fusion facilities;</p> <p>) Lay the foundations for future fusion power plants by developing materials, technologies and conceptual design;</p> <p>) Promote innovation and industrial competitiveness;</p> <p>) Ensure availability and use of research infrastructures of pan-European relevance.</p>

In the Queen’s speech mention was also made of the Nuclear Safeguards Bill:

The Bill will establish a UK nuclear safeguards regime as we leave the European Union and Euratom. The Bill will give the Office for Nuclear Regulation powers to take on the role and responsibilities required to meet our international safeguards, and nuclear non-proliferation, obligations.

<https://www.gov.uk/government/publications/queens-speech-2017-what-it-means-for-you/queens-speech-2017-what-it-means-for-you>

Until such times the draft bill is published it is difficult to predict what the outcome of the new regime will be.

Dounreay Site Restoration Ltd
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