

May 19, 2000

Ms. Kate Allan
Assistant Director, Nuclear Security
Department of Trade and Industry
Nuclear Industries Directorate
1 Victoria Street
London

SUBJECT: REVIEW OF THE UK's NUCLEAR SECURITY REGULATIONS

Dear Ms. Allan:

The NRC is pleased to be of assistance to the United Kingdom's reform of nuclear security legislation resulting from your government's decision to separate the Directorate of Civil Nuclear Security from the Atomic Energy Authority.

Attached is information regarding United States (U.S.) experience and requirements involving nuclear security regulations specific to your detailed questions. We have kept our response brief and high level as you have requested. We encourage you to visit our Web page (www.nrc.gov) for further information or links to related sites such as the CFR. I have also included copy of our user's guide to NRC published physical protection documents (NUREG/BR-0252) for your review.

Should you have any further questions or would like a more detailed discussion of the information provided, please do not hesitate to contact me at (301) 415-8141 or by email at MFW@nrc.gov.

Sincerely,

Michael F. Weber, Director **/RA**
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Enclosure: As stated

Transport of Nuclear Material

1. *Does your government regulate those who transport nuclear material? If so, what obligations do the regulations impose? How are the obligations enforced?*

Yes. In the U.S., transport of nuclear material is primarily regulated by the Department of Transportation (DOT) with assistance from other specialized regulatory bodies (such as the NRC) through Memorandums of Understanding (MOUs). For commercial nuclear material transport, the NRC promulgates specific regulations for the transport of fissile material and other high specific activity material under Title 10 of the Code of Federal Regulations Part 71 (10 CFR 71), "Packaging and Transportation of Radioactive Material." The physical protection requirements for such shipments are promulgated under 10 CFR 73, "Physical Protection of Plants and Materials." Exports of certain nuclear materials must also meet the physical protection requirements of 10 CFR 110.44 in addition to those specified in 10 CFR 73. Likewise, the Department of Energy (DOE) promulgates specific requirements in addition to the safety requirements established by DOT for defense related materials. DOT promulgates its safety requirements under 49 CFR 170 - 189.

Physical security requirements for transport of nuclear materials subject to 10 CFR Part 73, are appropriately graded to the significance of the material involved. Requirements can include such things as advanced notifications and approvals of rail and road routes or vessel ports, approved security plans for responding to threats, thefts, or radiological sabotage, escort training requirements, etc.

The NRC has the authority to impose civil and criminal penalties under Sections 234 and 223 of the Atomic Energy Act, as amended, and in accordance with 10 CFR Part 2, Subpart B, "Procedures for Imposing Requirements by Order, or for Modification, Suspension, or Revocation of a License, or for Imposing Civil Penalties." The NRC relies upon the candor and integrity of Licensees to operate in accordance with the requirements but also verifies such performance through routine and reactive inspection efforts.

2. *Do you (i.e., the security regulatory authority) have to be notified in advance about the transport of nuclear material?*

Advance notification requirements are dependent upon the types and quantities of nuclear material being transported. For spent fuel shipments, Category I, and Category II shipments, a licensee must make advance notifications to the NRC in accordance with 10 CFR 73.72 which applies to both domestic and international shipments. Such notifications are required in writing a specified number of days in advance of the shipment and require information be provided concerning shipper, receiver, and carrier, description of the shipment, modes of shipment, routes and transfer points, and estimated times and dates of shipment and receipt. Advance notification requirements are also established for the export of Category III materials (10 CFR Part 73.73) and import shipments of nuclear material from countries that are not party to the Convention on the Physical Protection of Nuclear Material (10 CFR 73.74).

3. *Does your government operate a system whereby it approves the carriers of nuclear material before they are allowed to undertake such transport?*

No. It is the responsibility of the authorized licensee to ensure that carriers are appropriately selected for the particular material of interest. However, the NRC does require each licensee to describe, as part of its Contingency Plan, a description of the vehicles, shipping routes, and other related features relied upon for physical protection. In addition, for transport of spent fuel, NRC requires the licensee to ensure that a transport vehicle is equipped with NRC-approved features that permit immobilization of the cab or cargo-carrying portion of the vehicle and that the transport vehicle driver has been familiarized with, and is capable of implementing immobilization, communications, and other security procedures.

Regulation of Holdings of Quantities of Nuclear Material
Below the Limits of the IAEA's Category III

4. *Are there regulations in place in the USA imposing security requirements on holdings of nuclear material below the Category III lower limit? If so, what kinds of obligations are involved? How are these obligations enforced?*

Yes. NRC promulgates requirements for physical security of high-level radioactive waste that is stored in either an independent spent fuel storage installation (ISFSI) or a monitored retrievable storage (MRS) installation, or at a geologic repository, as well as nuclear waste that is required to be in Type B packaging for transport.

As stated above, NRC has authority under the Atomic Energy Act, as amended, to enforce its regulations including civil and criminal penalties. NRC ensures compliance through routine and reactive inspections based on risk insights.

5. *What is the relationship between regulations relating to the security of sub-Category III quantities of nuclear material and regulations with relevance to security (e.g., on storage and access) which apply to radioactive material generally? Is there co-operation between the different regulatory bodies involved?*

NRC licensees are required, in general, to physically protect nuclear materials from loss or theft in accordance with 10 CFR Part 20, "Standards for Protection Against Radiation" to ensure public health and safety. These materials many times are of sub-Category III types and quantities (e.g., 0.1uCi U-235 or 10 uCi Strontium-90). In addition, licensees must meet regulations of other regulatory bodies such as the Department of Transportation. NRC maintains MOUs with the various regulatory agencies to ensure consistent application of appropriate security requirements.

May 19, 2000

Ms. Kate Allan
Assistant Director, Nuclear Security
Department of Trade and Industry
Nuclear Industries Directorate
1 Victoria Street
London

SUBJECT: REVIEW OF THE UK's NUCLEAR SECURITY REGULATIONS

Dear Ms. Allan:

The NRC is pleased to be of assistance to the United Kingdom's reform of nuclear security legislation resulting from your government's decision to separate the Directorate of Civil Nuclear Security from the Atomic Energy Authority.

Attached is information regarding United States (U.S.) experience and requirements involving nuclear security regulations specific to your detailed questions. We have kept our response brief and high level as you have requested. We encourage you to visit our Web page (www.nrc.gov) for further information or links to related sites such as the CFR. I have also included copy of our user's guide to NRC published physical protection documents (NUREG/BR-0252) for your review.

Should you have any further questions or would like a more detailed discussion of the information provided, please do not hesitate to contact me at (301) 415-8141 or by email at MFW@nrc.gov.

Sincerely,

Michael F. Weber, Director
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Enclosure: As stated

cc William Kane, NMSS
Martin Virgilio, NMSS
Skip Young, SFPO
Michael Warren, FCSS
Charles Emeigh, FCSS
Janice Dunn-Lee, OIP
Ronald Hauber, OIP
Marvin Peterson, OIP

Distribution:

NMSS Dir Ofc r/f FCSS r/f

Document Name:

Accension No.:

Template:

OFFICE	FCSS		SFPO		NMSS	
NAME	JDavis		EWBrach		M Weber	
DATE	05/19/00		05/19/00		05/19/00	

C = COVER

E=COVER AND ENCLOSURE

N=NO COPY

OFFICIAL RECORD COPY

ENCLOSURE