

**Lyall E. Johnson, Chief
Licensing Branch**

**Project S-8
Docket 70-36**

**Edson G. Case, Acting Chief
Hazards Evaluation Branch**

5-18-60

MALLINCKRODT NUCLEAR CORP.

We have reviewed the Mallinckrodt application dated March 2, 1960, requesting approval of shipping procedures.

Mallinckrodt describes procedures for utilizing a container and birdcage of its own design and which we consider acceptable by its inclusion in TID-7019 (Figure a(2), Section 4.5). It has a sufficient degree of water-tightness, although the amounts to be shipped in each container will permit any degree of flooding.

The applicant has demonstrated that 12 containers may be shipped at one time, with allowance for safety in case 24 units are accidentally grouped together, in any configuration.

Mallinckrodt states that they will obtain certification from the carrier that the Mallinckrodt shipment will not be combined enroute with other shipments of special nuclear material.

We recommend approval, with one restriction, viz., use of Figure 12 p. F-17, K-1380 (see p. 2, first par. of application) must be used only for fully enriched uranium metal - not for alloys, compounds or uranium of less than full enrichment.

HEB:DL&R

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CDLuke:alp

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