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## 6 CRITICALITY EVALUATION

This section specifies the requirements for fissile contents for the Safkeg-HS 3977A package which are restricted to solids as Contents Type CT-7 as specified in Section 1.2.2 and Table 1-3-7.

Fissile material in quantities requiring a criticality evaluation, are not to be carried. However, small quantities may be carried under the conditions described below.

### 6.1 Description of Criticality Design

There are no special features needed or provided for fissile contents.

### 6.2 Fissile Material Contents

The contents are limited to the quantities as specified in the following sections

#### 6.2.1 Fissile material under Exemption 71.15

Fissile material meeting the requirements of 10CFR 71.15 [6.1] are allowed by virtue of the Exemption provided by this regulation.

Note that the other requirements of CT-7 specified in Section 1.2.2 and Table 1-3-7 have to be met.

#### 6.2.2 Fissile material under General License 71.22

Fissile material meeting the requirements of 10 CFR 71.22 [6.1] are allowed by virtue of the General License provided by this regulation.

Note that the other requirements of CT-7 specified in Section 1.2.2 and Table 1-3-7 have to be met.

### **6.2.3 Plutonium-beryllium special form material under General License 71.23**

Plutonium-beryllium special form material meeting the requirements of 10CFR 71.23 [6.1] is included in CT-7 specified in Section 1.2.2 and Table 1-3-7 on the basis of the General license in 10 CFR 71.23.

Note that the other requirements of CT-7 specified in Section 1.2.2 and Table 1-3-7 have to be met.

### **6.3 General Considerations**

Not required as the limited quantities of fissile material specified in 10 CFR 71.15, 10 CFR 71.22, 10 CFR 71.23 [6.1] are accepted as not requiring criticality evaluation.

### **6.4 Single Package Evaluation**

Not required as the limited quantities of fissile material specified in 10CFR 71.15, 10 CFR 71.22, 10CFR 71.23 [6.1] are accepted as not requiring criticality evaluation.

### **6.5 Evaluation of Package Arrays under Normal Conditions of Transport**

Not required as the limited quantities of fissile material specified in 10CFR 71.15, 10 CFR 71.22, 10 CFR 71.23 [6.1] are accepted as not requiring criticality evaluation.

### **6.6 Package Arrays under Hypothetical Accident Conditions**

Not required as the limited quantities of fissile material specified in 10 CFR 71.15, 10 CFR 71.22, 10 CFR 71.23 [6.1] are accepted as not requiring criticality evaluation.

### **6.7 Fissile Material Packages for Air Transport**

Air transport of plutonium is only allowed for the limited quantities specified in 10 CFR 71.88.

### **6.8 Benchmark Evaluations**

Not applicable

### **6.9 Appendix**

#### **6.9.1 References**

- [6.1] Title 10, Code of Federal Regulations, Part 71, Office of the Federal Register, Washington D.C.