# 1.0 GENERAL INFORMATION

This chapter of the Safety Analysis Report (SAR) presents a general introduction and description of the RAJ-II package. The major components comprising the RAJ-II package are presented in Figure 1-1 through Figure 1-4. Detailed drawings presenting the RAJ-II packaging design are included in Appendix 1.4.1. Terminology and acronyms used throughout this document are presented in the Glossary of Terms and Acronyms in the Table of Contents, page xii. This package is intended to be used to transport Boiling Water Reactor (BWR) fuel assemblies containing both Type A and Type B fissile material.

## 1.1 INTRODUCTION

The model RAJ-II package has been developed to transport unirradiated fuel for Boiling Water Reactors. The cladding of the fuel and ceramic nature of the fuel pellets provide the primary containment for the radioactive material. The inner and outer containers provide both thermal protection as well as mechanical protection from drops or accident conditions.

The integrity of the fuel is maintained by the protective outer package, the insulated inner package and the fuel rod cladding through both Normal Conditions of Transport (NCT) and Hypothetical Accident Conditions (HAC) deformations. A variety of full-scale engineering development tests were included as part of the certification process. Ultimately, two full-scale Certification Test Units (CTUs) were subjected to a series of free drops and puncture drops.

The payload within each RAJ-II package consists of a maximum of two unirradiated Boiling Water Reactor (BWR) fuel assemblies or individual rods (BWR, Uranium Carbide, or generic Pressurized Water Reactor (PWR)) contained in a cylinder, protective case or bundled together and positioned in one or both sides of the inner container. See Table 6-1 RAJ-II Fuel Assembly Loading Criteria and Table 6-2 RAJ-II fuel rod parameters.

The shielding and criticality assessments provided in Chapter 5.0 and Chapter 6.0. The Criticality Safety Index (CSI) for the RAJ-II package is defined in Chapter 6.0.

The RAJ-II package is designed for shipment by truck, ship, or rail as either a Type B(U) fissile material or Type A fissile material package per the definition in 10 CFR 71.4 and 49 CFR 173.403.

Dimensions of the packaging identified in the text, tables, figures, etc. of this SAR, are intended to be nominal. The drawings provided in Appendix 1.4.1 contain the dimensions and the tolerances.

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Figure 1-1 RAJ-II Package Assembly



Figure 1-2 Cross-Section of Inner Container



Figure 1-3 Inner Container

#### GNF RAJ-II Safety Analysis Report



Figure 1-4 Inner and Outer Container

# 1.2 PACKAGE DESCRIPTION

This section presents a basic description of the model RAJ-II package. General arrangement drawings of the RAJ-II package are presented in Appendix 1.4.1. The Transport Index (TI) for this package is based on shielding and criticality assessments provided in Chapter 5.0 and Chapter 6.0.

# 1.2.1 Packaging

The packaging is comprised of one inner container and one outer container both made of stainless steel. The inner container is comprised of a double-wall stainless steel sheet structure with alumina silicate thermal insulator filling the gap between the two walls to reduce the flow of heat into the contents in the event of a fire. Foam polyethylene cushioning material is placed on the inside of the inner container for protection of the fuel assembly. The outer container is comprised of a stainless steel angular framework covered with stainless steel plates. Inner container clamps are installed inside the outer container with a vibro-isolating device between to alleviate vibration occurring during transportation. Additionally, wood and a honeycomb resin impregnated kraft paper (hereinafter called "paper honeycomb") are placed as shock absorbers to reduce shock due to a drop of the package. In addition to the packaging described above, the fuel rod clad and ceramic nature of the fuel pellets provide primary containment of the radioactive material.

The design details and overall arrangement of the RAJ-II packaging are shown in Appendix 1.4.1 RAJ-II General Arrangement Drawings.

## 1.2.1.1 Inner Container (IC)

The structure of the inner container is shown in Figure 1-2 and Figure 1-3. The inner container is comprised of three parts: an inner container body, an inner container end lid (removable), and an inner container top lid (removable). These components are fastened together by bolts made of stainless steel through tightening blocks. The inner container body is fitted with six sling fittings and the inner container lid is fitted with four sling fittings as shown in Figure 2-2 Inner Container Sling Locations. The inner container body has a double wall structure made of stainless steel. Its main components are an outer wall, inner wall and alumina silicate thermal insulator.

The outer wall is made of a 1.5 mm (0.0591 in) thick stainless steel sheet formed to a U-shape that constitutes the bottom and sides of the inner container body. A total of 14 stainless steel tightening blocks are attached on the sides of the outer wall, seven per side, to fasten the inner container lid and the inner container end lid by bolts. Additionally, six stainless steel sling fittings are attached on the sides (three on each side) for handling.

The inner wall of the inner packaging is formed into U-shape with 1.0 mm (0.0391 in) thick stainless steel sheet. The inner packaging is partitioned down the center with 2.0 mm (0.0787 in) thick stainless steel sheet welded to the bottom of the packaging. Foam polyethylene is placed on the inner surface of the inner wall where the fuel assemblies are seated. The void space

between the outer and inner steel sheeting is filled with an alumina silicate thermal insulation 48 mm (1.89 in) thick.

## 1.2.1.2 Outer Container (OC)

The structure of the outer container is shown in Figure 1-4. The outer container is comprised of three parts: a container body, a container lid and inner container hold clamps made of stainless steel and fastened together using steel bolts.

Two tamper-indicating device attachment locations are provided, one on each end, of the outer container.

## 1.2.1.2.1 Outer Container Body

The outer container is made from a series of stainless steel angles (50mm x 50mm x 4mm)(1.97 inch x 1.97 inch x 0.157 inches) that make the framework. Welded to the framework are a bottom plate and side plates made of 2 mm (0.079 inch) thick stainless steel.

Sling holding angles for handling with a crane and protective plates for handling with a forklift are welded on the outside of the container body.

A total of eight sets of support plates are welded on the inside of the outer container body for installing the inner container hold clamps. Additionally, shock absorbers made of 146 mm (5.75 in) wood are attached to each end and paper honeycomb shock absorbers are attached to the bottom and sides for absorbing shock due to a drop. The geometry of the shock absorber is shown in Figure 1-5. The shock absorbers are 157 mm (6.18 in) thick and 108 mm (4.25 in) thick.

## 1.2.1.2.2 Outer Container Lid

The outer container lid is comprised of a lid flange and a lid plate made of stainless steel.

Stainless steel lid sling fittings are welded four places on the top surface of the outer container lid. A paper honeycomb shock absorber, 157 mm (6.18 in) thick by 160 mm (6.30 in) wide and 380 mm (14.96 in) long is attached to the bottom side of the lid similar to the attachment at the bottom of the container.

The outer container lid has holes for bolts in its flange so that it can be fastened to the outer container body by the stainless steel bolts.



# Figure 1-5 Shock Absorber Geometry

## 1.2.1.2.3 Inner Container Hold Clamp (Located on Outer Container)

The inner container hold clamp consists of an inner container receptacle and a vibro-isolating device.

The inner container receptacle consists of an inner container support plate, a support frame, a bracket and an inner container hold clamp fastener made of steel. The receptacle guides the inner container to the correct position. The inner container receptacle is fitted with the vibro-isolating device through the gusset attached to the bracket.

The vibro-isolating material is attached on the upper and lower side of the gusset. Shock mount fastening bolts go through the center of each piece of vibro-isolating rubber. The bolts at both ends are tightened so that the vibro-isolating rubber pieces press the gusset.

There are four sets (eight pieces) of the vibro-isolating devices mounted on the outer container. Finally, a variety of stainless steel fasteners are used as specified in Appendix 1.4.1.

#### 1.2.1.3 Gross Weight and Dimensions

The maximum gross shipping weight of a RAJ-II package is 1,614 kg (3,558 pounds) maximum. A summary of the major component weights and dimensions are given in Table 1 - 1. A summary of overall component weights is delineated in Table 2 - 1.

# Table 1 - 1Maximum Weights and Outer Dimensions of thePackaging

Item	Weight and outer dimensions
Maximum weight of inner container	308 kg (679 lbs)
Maximum weight of outer container	622 kg (1,371 lbs)
Maximum weight of packaging	930 kg (2,050 lbs)
Dimensions of inner container	Length: 4,686 mm (184.49 in)
	Width: 459 mm (18.07 in)
	Height: 286 mm (11.26 in)
Dimensions of outer container	Length: 5,068 mm (199.53 in)
	Width: 720 mm (28.35 in)
	Height 742 mm (29.21 in)
	(including bolsters)

#### **1.2.1.4 Materials and Component Dimensions**

#### 1.2.1.4.1 Inner Container

The materials and component dimensions of the inner container are shown in Appendix 1.4.1.

## 1.2.1.4.2 Outer Container

The materials and component dimensions of the outer container are shown in Appendix 1.4.1.

## 1.2.1.5 Criticality Control Features

The RAJ-II package does not require specific design features to provide neutron moderation and absorption for criticality control. The contents of the package rely on gadolinia loading for criticality control based on enrichment. Gadolinia loading requirements are provided in Table 6-1 RAJ-II Fuel Assembly Loading Criteria. There are no spacers required for criticality control. Fissile materials in the payload are limited to an amount that ensures safely sub-critical packages for both NCT and HAC. Further discussion of criticality control features is provided in Chapter 6.0.

## 1.2.1.6 Heat Transfer Features

The unirradiated fuel has negligible decay heat, therefore, the RAJ-II package is not designed for dissipating heat. The packaging is designed to protect the fuel and its containment by providing containment during the Hypothetical Accident Conditions (HAC). A more detailed discussion of the package thermal characteristics is provided in Chapter 3.0

## 1.2.1.7 Coolants

Due to the passive design of the RAJ-II package with regard to heat transfer, there are no coolants utilized within the RAJ-II package.

## 1.2.1.8 Protrusions

The only significant protrusions on the RAJ-II packaging exterior are those associated with the lifting features on the outer container exterior. These are the sling holding angles and the bolsters at the bottom of the packaging. The bolsters protrude the furthest at 80 mm (3.15 in).

The only significant protrusions on the inner container exterior are the lifting sling fittings and the tightening blocks that are used for securing the lid. There are lifting sling fittings on the body and the main lid. Each of the sling fittings fold down so they protrude only the thickness of the lifting rod or bail.

## 1.2.1.9 Lifting and Tie-down Devices

The lifting devices for the RAJ-II consist of the sling holding angles on the outer container which keep the slings from moving when used to sling the container during handling. The loaded container is designed to use four slings that form basket hitches under the container. The empty container is handled with two slings. The package may also be handled by the use of a forklift. The sling hold angles are designed so that even if they failed it would not affect the performance of the package.

The inner container is handled by the use of a series of lifting sling fittings. They are attached in a manner that even if they fail it will not compromise the performance of the inner container. On both the inner and outer containers, the lid lifting devices are marked to ensure proper use. A

detailed discussion of lifting and tie-down designs, with corresponding structural analyses, is provided in Section 2.4.1 and 2.4.2.

## 1.2.1.10 Shielding

Due to the nature of the unirradiated fuel payload, no biological shielding is necessary or provided by the RAJ-II packaging.

## 1.2.1.11 Packaging Markings

The packaging will be marked with its model number, serial number, gross weight and also with the package identification number assigned by the NRC.

## 1.2.2 Containment System

The containment system components are identified above in Section 1.1 and accompanying figures. The primary containment boundary of this package is the fuel rod cladding as shown in example Figure 1-6 Example Fuel Rod (Primary Containment). The fuel rod is completed by loading the uranium dioxide pellets into a zirconium alloy cladding tube. The tubes are pressurized with helium and zirconium end plugs are welded to the tube which effectively seals and contains the radioactive material. Welds of the fuel rods are verified for integrity by such means as X-ray inspection, ultrasonic testing, or process control. A representative maximum internal pressure of fuel rods at room temperature conditions is 1.1 MPa (160 psia) (absolute pressure). The RAJ-II package cannot be opened unintentionally. Both the OC and IC lids are attached to their respective bodies with socket-headed cap screws. There are twenty-four bolts holding the outer lid in place. There are no other openings in the outer container. The inner container has ten bolts holding the main lid in place and four bolts holding the end closure in place. Thus, the requirements of 10 CFR 71.43(c) are satisfied.

# Figure 1-6 Example Fuel Rod (Primary Containment)

#### 1.2.2.1 Pressure Relief System

There are no pressure relief systems included in the RAJ-II package design to relieve pressure from within either the inner or outer containers or the fuel rod. Fire-consumable fusible plugs are used on the exterior surface of both the outer and inner containers to prevent pressure build up from the insulating and shock absorbing material during a fire event. These fusible plugs may be made of plastic. Two plugs are installed in the outer container body and two in the outer container lid. Four are installed in the inner container body, one in the end lid and two in its main lid.

# 1.2.3 Contents

A maximum of two fuel assemblies are placed in each packaging, see Table 6-1. The packaging is designed and analyzed to ship fuel configured either in 8x8, 9x9 or 10x10 arrays or as loose rods contained in a cylinder, protective case or positioned in one or both sides of the inner container, see Table 6-2. Fuel assemblies may also be shipped in the BWR fuel channel. The nuclear fuel pellets located in rods and contained in the packaging are uranium oxides primarily as  $UO_2$  and  $U_3O_8$ . The fuel assembly average enrichment is less than or equal to 5.0% U-235 (the fuel rod maximum enrichment is less than or equal to 5.0% U-235). In addition to the shipment of fuel assemblies, Section 1.2.3.4.2, Section 1.2.3.4.3 and Section 1.2.3.4.4 describe contents configurations for shipping individual fuel rods not contained in a fuel assembly.

Where fuel rods are referenced as being loaded with uranium dioxide mixed with gadolinium oxide (hereinafter gadolinia) the pellets in the gadolinia fuel rods contain a minimum of 2.0% gadolinium.

## 1.2.3.1 Type A contents

Where the contents of the packaging is commercial grade uranium or other uranium materials where the  $A_2$  value is not exceeded, the packaging may be considered to contain Type A quantities.

## 1.2.3.2 Type B contents

Where the contents of the packaging is enriched reprocessed uranium or other origin uranium not exceeding the values in Table 1-3, the packaging is considered to contain Type B quantities.

## 1.2.3.3 Quantity of Radioactive Materials of Main Nuclides

Where the content of the packaging consists of Type B quantities of material, the main nuclides are treated as shown in Tables 1-2 through 1-4 to calculate total activity, activity fractions and  $A_2$  for the mixture.

Fuel assembly	Type 8×8 fuel assembly	Type 9×9 fuel assembly	Type 10 x10 fuel assembly
Main nuclides	Low enriched uranium less than or equal to 5% U-235	Low enriched uranium less than or equal to 5% U- 235	Low enriched uranium less than or equal to 5% U- 235
State of uranium	Uranium oxide ceramic pellet (Solid)	Uranium oxide ceramic pellet (Solid)	Uranium oxide ceramic pellet (Solid)
Fuel assembly average enrichment (Fuel rod maximum enrichment)	5.0% maximum (5.0% maximum)	5.0% maximum (5.0% maximum)	5.0% maximum (5.0% maximum)
Number of fuel rods containing gadolinia	See Table 6-1	See Table 6-1	See Table 6-1
Weight of uranium dioxide pellets (per fuel assembly)	235 kg	240 kg	275 kg

# Table 1 - 2 Quantity of Radioactive Materials (Type A and Type B)

Isotope	Maximum	Maximum	Specific	Total	Total
-	content <sup>1</sup>	mass, g	Activity <sup>2</sup> ,TBq/g	Activity, TBq	Activity, Ci
U-232	2.00E-09	9.68E-04		8.03E-04	2.17E-02
	g/gU		0.83		
U-234	2.00E-03	9.68E+02		2.23E-01	6.02E+00
	g/gU		2.30E-04		
U-235	5.00E-02	2.42E+04		1.94E-03	5.23E-02
	g/gU		8.00E-08		
U-236	2.50E-02	1.21E+04		2.90E-02	7.85E-01
	g/gU		2.40E-06		
U-238	9.23E-01	4.47E+05		5.36E-03	1.45E-01
	g/gU		1.20E-08		
Np-237	1.66E-06	8.03E-01		2.10E-05	5.67E-04
	g/gU		2.61E-05		
Pu-238	6.20E-11	3.00E-05		1.90E-05	5.13E-04
	g/gU		6.33E-01		
Pu-239	3.04E-09	1.47E-03		3.38E-06	9.15E-05
	g/gU		2.3E-03		
Pu-240	3.04E-09	1.47E-03	8.40E-03	1.24E-05	3.34E-04
	g/gU				
Gamma	5.18E+05	N/A	N/A	2.51E-02	6.78E-01
Emitters	MeV-				
	Bq/kgU				
			Total	2.85E-01	7.70E+00

## Table 1 - 3 Type B Quantity of Radioactive Material

1. Based on a maximum payload of 275 kg UO<sub>2</sub> per assembly, 242 kg U (550 kg UO<sub>2</sub>, 484 kg U total)

2. 10CFR71, Appendix A

3. Assuming gamma energy of 0.01 MeV to maximize total content.

Table 1 - 4 Isotopes and A <sub>2</sub> Fractions				
Isotope	Maximum Radioactivity content (Ci)	10CFR71 A <sub>2</sub> per isotope (Ci)	Activity Fraction	A <sub>2</sub> Fraction
U-232	2.17E-02	0.0027	2.82E-03	1.04E-01
U-234	6.02E+00	0.1600	7.81E-01	4.88E+00
U-235	5.23E-02	Unlimited	NA	NA
U-236	7.85E-01	0.1600	1.02E-01	6.37E-01
U-238	1.45E-01	Unlimited	NA	NA
Np-237	5.67E-04	0.0540	7.36E-05	1.36E-03
Pu-238	5.13E-04	0.0270	6.67E-05	2.47E-03
Pu-239	9.15E-05	0.0270	1.19E-05	4.40E-04
Pu-240	3.34E-04	0.0270	4.34E-05	1.61E-03
Gamma				
Emitters	6.78E-01	0.5400	8.80E-02	1.63E-01
Total			Sum of $\overline{A_2}$	
	7.70E+00		fractions	5.79E+00
Mixture A <sub>2</sub>				0.17 Ci

## 1.2.3.4 Physical Configuration

#### 1.2.3.4.1 Fuel Assembly

The configuration of typical fuel assemblies is shown in Figure 1-8 Fuel Assembly with Optional Packing Materials. The fuel assemblies may be of various model and type as long as they meet the requirements listed. The dimensions of the main components in the fuel assemblies are listed in Table 1 - 5. The maximum weight of contents including fuel and packing material is 684 kg (1,508 lbs).

#### 1.2.3.4.2 Chemical Properties

Example of structural materials of the fuel assembly is shown in Table 1 - 6. Zirconium alloy, stainless steel and Ni-Cr-Fe alloy are chemically stable materials, and they are excellent in heat resistance and corrosion resistance.

#### 1.2.3.4.3 Density of Materials

The density for the fuel assembly materials is presented in Table 1 - 7.

#### 1.2.3.4.4 Packing Materials

A number of packing materials may be used to guard the fuel assembly (e.g., cluster separators, and polyethylene bags). An example of the packing materials and their use is shown in Figure 1-8.

## 1.2.3.4.5 Bundled Fuel Rods

In addition to the fuel assembly configuration described above, fuel rods may be shipped bundled together in groups of rods up to 25 total rods. Fuel rods are fixed together using ring clamps. The criticality safety case for loose rods that shows that as many as 25 fuel rods per side can be arranged in any configuration within the volume of the inner container. Based on this criticality safety analysis the ring clamps are not relied on or needed for maintaining the configuration of the fuel rods.

## 1.2.3.4.6 Fuel Rods In a 5-Inch Pipe

Another physical configuration is the use of a 5-inch diameter schedule 40 stainless steel pipe. The physical configuration of the pipe is shown in drawing 0028B98. The number of fuel rods shipped in this configuration is limited by the quantities in Table 6-2. See Section 6.3.1.3.1 and 6.3.1.3.2 for other descriptions of the pipe.

## 1.2.3.4.7 Fuel Rods in a Protective Case

Figure 1-7 shows the configuration of the protective case. The protective case is a stainless steel box comprised of a body, lid, wood spacer absorber and end plate. In addition to the figure below, detailed drawings of the protective case are provided in Appendix 1.4.1. The protective case is surrounded by polyurethane foam cushioning material, which provides a snug fit within the inner container. Depending on the rod type, the protective case may be used to transport any authorized fuel rods as shown in Table 6-2.



Figure 1-7 Protective Case

Table 1 - 5	<b>Typical Dimensions</b>	of the Main	Components of	of Fuel
Assembly	and Fuel Rod			

Item	Dimensions			
		(mm)		
Type of fuel assembly	Boi	ling Water Reactor		
Fuel assembly full length		Up to 4,480		
Maximum cross-section of fuel		134 x 134		
assembly				
Fuel rod length	Up to 4,480	) and includes partia	al rods	
Туре	8x8	9x9	10x10	
Maximum effective fuel length	3,810	3,810	3,850	
Wall thickness of cladding tube	0 - 2.06	0 - 1.70	0 - 2.21	
Fuel pellet diameter	9.2-10.7	9.2-9.6	8.28-9.2	
Fuel Rod OD	10.72-12.50	9.60-11.2	10.0-11.21	
Cladding ID	10.44-12.19	9.5-11.1	8.80-10.33	

<b>Component parts</b>	Structural materials
Pellets	Uranium dioxide sintered (in some cases uranium dioxide
	blended with gadolinia)
Cladding tube	Zirconium alloy, metallic zirconium
Internal spring	Stainless steel
Getter	Zirconium alloy and stainless steel
Upper and Lower end	Zirconium alloy
plug	
Water rod	Zirconium alloy
Upper and Lower tie	Stainless steel
plate	
Spacer	Zirconium alloy and Ni-Cr-Fe alloy (Inconel X-750)
Finger spring	Ni-Cr-Fe alloy
Expansion spring	Ni-Cr-Fe alloy
Nut	Stainless steel
Locking tab washer	Stainless steel

# Table 1 - 6 Example of Fuel Structural Materials

# Table 1 - 7 Density of Structural Materials

Main structural materials	Density
Zirconium alloy	Approximately 6.5 g/cm <sup>3</sup>
Metallic zirconium	$(0.2351b/in^3)$
Uranium dioxide pellet	Approximately 10.4 g/cm <sup>3</sup>
	$(0.376 \text{ lb/in}^3)$
Stainless steel	Approximately 7.8 g/cm <sup>3</sup>
	$(0.282 \text{ lb/in}^3)$
Ni-Cr-Fe alloy	Approximately 8.5 g/cm <sup>3</sup>
	$(0.307 \text{ lb/in}^3)$



Figure 1-8 Fuel Assembly with Optional Packing Materials

# 1.2.4 Operational Features

The RAJ-II packaging is not considered operationally complex. Operational features are readily apparent from an inspection of the drawings provided in Appendix 1.4.1 and the previous discussions presented in Section 1.2.1. Operational procedures and instructions for loading, unloading, and preparing empty RAJ-II packages for transport are provided in Chapter 7.0.

# 1.3 GENERAL REQUIREMENTS FOR ALL PACKAGES

## 1.3.1 Minimum Package Size

The RAJ-II package is a rectangular box that is 742 mm (29.21 in) high by 720 mm (28.35 in) wide by 5,068 mm (199.53 inches) long. Thus, the requirement of 10 CFR 71.43(a) is satisfied.

## 1.3.2 Tamper-Indicating Feature

Seal pins are provided at each end of the outer container body and lid for the use of tamper indicating seals. A tamper indicating seal is attached at each end of the loaded outer container by inserting the seal through the holes in the body and lid seal pins and securing the seal. The tamper indicating seal is not readily breakable and would provide evidence of tampering or opening by an unauthorized person. Thus, the requirement of 10 CFR 71.43(b) is satisfied.

## 1.4 APPENDIX

## 1.4.1 RAJ-II General Arrangement Drawings

This section presents the RAJ-II packaging general arrangement drawing consisting of 16 drawings entitled, *RAJ-II SAR Drawing*, see drawing list below. Within the packaging general arrangement drawing, dimensions important to the packaging safety are dimensioned and toleranced. Other dimensions are provided as a reference dimension, and are toleranced in accordance with the JIS (Japan Industrial Std.) B 0405. See 2.1.4.1 and 2.1.4.2.

#### 1.4.1.1 Drawing List

## Table 1 - 8 Outer Container Drawings

Drawing number	Sheet Number	Revision #	Name
105E3737	1	6	Outer Container Assembly Licensing Drawings
105E3738	1-2	8	Outer Container Main Body Assembly Licensing Drawings
105E3738	3	7	Outer Container Main Body Assembly Licensing Drawings
105E3739	1	4	Outer Container Fixture Assembly Licensing Drawings
105E3740	1	4	Outer Container Fixture Assembly Installation Licensing
			Drawings
105E3741	1	1	Outer Container Shock Absorber Assembly Licensing
			Drawings
105E3742	1	3	Outer Container Bolster Assembly Licensing Drawings
105E3743	1	5	Outer Container Lid Assembly Licensing Drawings
105E3744	1	6	Outer Container Marking Licensing Drawings

## Table 1 - 9 Inner Container Drawings

Drawing	Sheet	Revision	Name
number	Number	#	
105E3745	1-4	8	Inner Container Main Body Assembly Licensing Drawings
105E3746	1	1	Inner Container Parts Assembly Licensing Drawings
105E3747	1	4	Inner Container Lid Assembly Licensing Drawings
105E3748	1	2	Inner Container End Lid Assembly Licensing Drawings
105E3749	1	6	Inner Container Marking Licensing Drawings

## Table 1 - 10 Contents Drawings

Drawing	Sheet	Revision	Name
number	Number	#	
105E3773	1	1	Protective Case
0028B98	1	1	Shipping Container Loose Fuel Rods