

NRC FORM 699 (05-2012)		U.S. NUCLEAR REGULATORY COMMISSION		DATE
<b>CONVERSATION RECORD</b>				10/23/2013
				TIME
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU		TELEPHONE NO.		TYPE OF CONVERSATION
See below				
E-MAIL ADDRESS				
ORGANIZATION				
SUBJECT				<input type="checkbox"/> IN-PERSON
Insert Closure Discussion				<input type="checkbox"/> E-MAIL
				<input checked="" type="checkbox"/> TELEPHONE
				<input type="checkbox"/> INCOMING
				<input checked="" type="checkbox"/> OUTGOING
SUMMARY				
<p>NRC participants: Chris Allen and Michel Call  Croft participants: Sarah Marshall  MURR participants: Michael Flagg</p> <p>After the call commenced, the NRC explained that an operational step in Chapter 7 might be more clear if similar wording in Chapter 8 were used. Next, the NRC asked clarifying questions about how cork thermal properties for the Safkeg-HS package thermal model were developed to assist in completing the Safety Evaluation Report and Croft succinctly answered the questions. Then, the NRC inquired if gamma energies greater than that emitted by Cesium-137 had been considered in the shielding analyses. Croft responded that their review indicated Cesium-137 provided the highest dose rate even though some proposed contents might emit higher energy gammas; however, Croft committed to reviewing their data to insure the use of Cesium-137 in the analyses was bounding. Relative to the bremsstrahlung evaluations performed by Croft, the NRC wanted to understand if Croft only utilized the highest energy beta emitted. Croft answered that not only were a range of beta energies utilized in the analysis, but also emission fractions were employed. The NRC stated that discrepancies had been identified between the tables of proposed contents in the Safety Analysis Report and supporting documentation and that inconsistent activity limits had been noted in the proposed contents tables for parent/daughter nuclide pairs. Croft appreciated being made aware of these anomalies and committed to correcting them. Subsequently, the NRC questioned the flux factors used to determine the allowable limits for certain nuclides based upon confirmatory calculations they had performed. Croft indicated they would review their analyses for potential errors. The NRC then noted that the term "leaktight" had been used in Croft's response to a second request for additional information in regards to closure of the inserts, and the NRC inquired if Croft intended for the inserts to be leaktight as defined in American National Standards Institute N14.5. Croft responded that was not their intent and would insure the term was not used in the Safety Analysis Report with regard to the inserts. The NRC asked if it was intended to survey the silicone disc, which Croft incorporated into the Safkeg-HS design based upon a</p> <p><b>Continue on Page 2</b></p>				
ACTION REQUIRED				
NAME OF PERSON DOCUMENTING CONVERSATION		SIGNATURE		DATE
Chris Allen				
ACTION TAKEN				
TITLE OF PERSON TAKING ACTION		SIGNATURE OF PERSON TAKING ACTION		DATE

## CONVERSATION RECORD (Continued)

### SUMMARY:

recent request for information. Croft indicated they would clarify the need to survey the silicone disc in the operating instructions. The NRC expressed concerns that the test performed on the as manufactured component would not match the calculation model because the text added to Section 8.1.6 for testing of the depleted uranium shielding did not mention the steel associated with containment vessel body and lid. Croft committed to modifying the Safety Analysis Report text. The NRC pointed out that SAR Tables 1-3-1 through 1-3-8 provided inconsistent guidance in packaging of contents because sometimes the word "shall" was used and at other times the words "may be" were used. Croft agreed the guidance was not consistent and committed to using consistent language. When the NRC asked why Iridium-194 was used in the shielding calculations versus Iridium 194 metastable, Croft did not have an immediate answer but they planned to research the question. The NRC then suggested instructions be added to step 4 of Section 7.1.2 to check for damage to the shielding insert o-ring. Croft thought this appropriate and agreed to add the instructions. The NRC then pointed out that Table 5 of CTR/2011 did not list Bismuth-215 while it appeared in other tables. Croft indicated this was most likely due to an oversight and would insure the information presented in the tables was consistent. Finally, the NRC inquired about the status of the vibration test to which Croft had committed. Croft informed the NRC that they were having trouble obtaining the necessary approvals to include depleted uranium as part of the test. However, they hoped to obtain those approvals and complete the test within the next couple of weeks. The call was concluded at approximately 12:15 P.M.