

**From:** Elizabeth Ullrich  
**To:** Ron Fraass  
**Date:** Wed, Mar 30, 2005 11:28 AM  
**Subject:** try, try again - corrections to phone conversation re: FA

Ron,

Some corrections to our conversation a few minutes ago: In writing this email to give you details, I found my error in thinking the dividing lines were at greater than/equal to quantity values, rather than less than or equal to. This makes the issues for SNM and source material not much of a problem. However, I also found an error in my reading of Condition 18 for the Part 30 byproduct material, which creates a problem there. Here is my revised evaluation:

Part 30 byproduct material, unsealed [30.35]

- less than/equal to 1E3 times Part 30 App B values requires no FA
- 1E3 to less than/equal to 1 E4: \$225,000
- 1E4 to less than/equal 1 E5: \$1,125,000
- greater than 1E5 requires DFP/CE

**I mis-spoke on the phone. Your license, in Condition 18, limits you to quantities under the unity rule of less than 1E5 times App C; this would require the now-\$1,125K FA amount.**

Part 40 source material, dispersible form (not solid or sealed) [40.36]

- less than 10 millicuries requires no FA
- 10 millicuries to less than/equal to 100 millicuries: \$225,000
- greater than 100 millicuries : DFP/CE with funding to the CE

**Your license currently authorizes source material in item B as any 40.4 byproduct material (which is a different definition than the Part 30 byproduct material above) at 100 millicuries total. I mis-spoke here, also, in that I stated this would currently require a DFP and FA in the amount of the cost estimate for the DFP. HOWEVER, I forgot it was 100 mCi or less, therefore the \$225K is acceptable here.**

Part 70 special nuclear material, unsealed [70.25]

- less than/equal to 1E3 times Part 30 App C values requires no FA
- 1E3 to less than/equal to 1 E4: \$225,000
- 1E4 to less than/equal 1 E5: \$1,125,000
- greater than 1 E5 requires DFP/CE

**For U235 and Pu239, the Part 30 value is 0.01 microcuries, so the \$225K is required at greater than 0.01 millicuries which is 10 microcuries. Your license currently authorizes SNM in Item A(2) at 10 microcuries per radionuclide and 100 microcuries total; again, I forgot that it is GREATER THAN 10 microcuries and less than/equal to 100 microcuries ..this then currently requires the \$225K. [Your Condition 18 compounds the confusion by limiting your possession of SNM to less than 1E5 values; Item A(2) is more limiting than that.]**

Based on my review of the current limits of your license, you would need to provide \$1,125K for the Part 30 material, \$225K for the source material, and \$225K for the special nuclear material; this is a total of \$1,575,000. I am not sure how your current FA amount of \$750K was arrived at in 1992, but it really does not matter; your license limits have changed many times since then.

The most current guidance on writing a DFP for the cost estimate is in NUREG-1757, Volume 3. Financial Assurance is contained in Part II. Discussion of the cost estimate is on page 4-9. The DFP tables used to come up with the cost estimate are found in Appendix A.3, pages A-25 through A.42

Any questions, feel free to call me at 610-337-5040 or email to [exu@nrc.gov](mailto:exu@nrc.gov).

Betsy

**Mail Envelope Properties**

(424AD3C8.6CF : 2 : 34954)

**Subject:** try, try again - corrections to phone conversation re: FA  
**Creation Date:** Wed, Mar 30, 2005 11:28 AM  
**From:** Elizabeth Ullrich

**Created By:** EXU@nrc.gov

**Recipients**

epa.gov  
fraass.ron (Ron Frass)

**Post Office**

**Route**

epa.gov

**Files**

MESSAGE

**Size**

4835

**Date & Time**

Wednesday, March 30, 2005 11:28 AM

**Options**

**Expiration Date:** None  
**Priority:** Standard  
**Reply Requested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard