

## Allen, William

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**From:** Alex Ferguson <alex.ferguson@croftltd.com>  
**Sent:** Wednesday, October 02, 2019 9:55 AM  
**To:** Allen, William  
**Subject:** [External\_Sender] RE: RE: RE: SAFKEG Source Terms and Computer Files  
**Attachments:** 3977a-CT6-NCT-M2-2\_50MeVb-i.txt; 3977a-CT6-NCT-M2-2\_50MeVb-o.txt; 3977a-CT-6-NCT-M2-SURFACES-prn.txt

Hi Chris,

I've substituted the file extensions were provided with .txt:

3977a-CT6-NCT-M2-2\_50MeVb.i to 3977a-CT6-NCT-M2-2\_50MeVb-i.txt  
3977a-CT6-NCT-M2-2\_50MeVb.o to 3977a-CT6-NCT-M2-2\_50MeVb-o.txt, and  
3977a-CT-6-NCT-M2-SURFACES.prn to 3977a-CT-6-NCT-M2-SURFACES-prn.txt

I presume the formats relate to the MCNP code requirements, but they open in Notepad as text files.

Kind regards,

Alex

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**From:** Allen, William <William.Allen@nrc.gov>  
**Sent:** 02 October 2019 14:41  
**To:** Alex Ferguson <alex.ferguson@croftltd.com>  
**Subject:** FW: RE: RE: SAFKEG Source Terms and Computer Files

Based upon what was attached to the e-mail I'm forwarding you, I'm assuming that you provided four files and I further assume that one of those files had the title "3977a-CT6-NCT-M2-CD1.txt."

I'm not certain what you did to the file "3977a-CT6-NCT-M2-CD1.txt" to get it past our internal firewall/electronic filter, but if you can do the same to the other three files, that would be helpful.

My best wishes for success.

Chris

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**From:** Alex Ferguson <[alex.ferguson@croftltd.com](mailto:alex.ferguson@croftltd.com)>  
**Sent:** Wednesday, October 02, 2019 9:32 AM  
**To:** Allen, William <[William.Allen@nrc.gov](mailto:William.Allen@nrc.gov)>  
**Cc:** Bob Vaughan <[bob.vaughan@croftltd.com](mailto:bob.vaughan@croftltd.com)>  
**Subject:** [External\_Sender] RE: RE: SAFKEG Source Terms and Computer Files

Good morning Chris,

I've just uploaded the updated SARP chapters and our response matrix, so these should be available soon.

I couldn't upload the shielding input/output example files as they are not in pdf format, therefore please find those attached (they are all text files, but the 'i' and 'o' file extensions signify input and output respectively).

Kind regards,

Alex

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**From:** Allen, William <[William.Allen@nrc.gov](mailto:William.Allen@nrc.gov)>  
**Sent:** 27 September 2019 14:13  
**To:** Alex Ferguson <[alex.ferguson@croftltd.com](mailto:alex.ferguson@croftltd.com)>  
**Subject:** RE: RE: SAFKEG Source Terms and Computer Files

Understood.

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**From:** Alex Ferguson <[alex.ferguson@croftltd.com](mailto:alex.ferguson@croftltd.com)>  
**Sent:** Friday, September 27, 2019 5:09 AM  
**To:** Allen, William <[William.Allen@nrc.gov](mailto:William.Allen@nrc.gov)>  
**Subject:** [External\_Sender] RE: SAFKEG Source Terms and Computer Files

Good morning Chris,

I've updated the SARP chapters to remove reference to the sealed plug etc, but unfortunately it will be Monday before I can get Bob to check and sign this off as he is currently travelling!

Kind regards,

Alex

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**From:** Alex Ferguson  
**Sent:** 25 September 2019 23:41  
**To:** 'Allen, William' <[William.Allen@nrc.gov](mailto:William.Allen@nrc.gov)>  
**Cc:** Bob Vaughan <[bob.vaughan@croftltd.com](mailto:bob.vaughan@croftltd.com)>  
**Subject:** RE: SAFKEG Source Terms and Computer Files

Hi Chris,

Yes, that matches.

I've attached a spreadsheet providing the full list, password protected – I'll forward the password separately.

Kind regards,

Alex.

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**From:** Allen, William <[William.Allen@nrc.gov](mailto:William.Allen@nrc.gov)>  
**Sent:** 25 September 2019 18:50  
**To:** Alex Ferguson <[alex.ferguson@croftltd.com](mailto:alex.ferguson@croftltd.com)>  
**Subject:** SAFKEG Source Terms and Computer Files

The shielding reviewer went through the RAI submittal and came up with the information below regarding the total source strength for each energy bin. Do these numbers match what you have pulled together?

< 30keV	1.11E+11
30-50 keV	1.89E+10
50-100 keV	3.39E+10
100-200 keV	4.15E+10
200-300 keV	3.34E+10
300-500 keV	7.44E+10
500-700 keV	8.80E+10
700 keV-	
1MeV	5.98E+10
1-1.5 MeV	2.10E+10
1.5-2 MeV	1.09E+10
2-2.5 MeV	2.36E+09
2.5-3 MeV	5.18E+09
3-4 MeV	4.95E+06
4-5 MeV	1.32E+05
5-6 MeV	0.00E+00

Also, the shielding reviewer said that one of your RAI responses mentioned MCNP input and output files. However, they couldn't find MCNP input and output files. Did you submit such files?

Please advise as soon as possible.

Thanks, Chris

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