

**MATRIX OF PEER REVIEW COMMENTS: Charge questions for U.S. EPA 's Preliminary Remediation Goals for Radionuclides (PRG) Electronic Calculator**

Commenter	Charge Question	Document Section	Details	Comment	EPA Resolution
Schneider	A.1.			The web site includes a lot of text which will be helpful to the more advanced risk assessor. It may be overwhelming to the more casual user or risk manager. It might be useful to have some pathway to a more concise direction to the default tables with a disclaimer of their conservative nature.	On home page EPA added hyperlinks in the first sentence to the download page and the calculator. In fourth sentence EPA added hyperlinks to the FAQ, What's New, Download and User's Guide.
Schneider	A.2.			I think so.	No response required.
Schneider	A.3.			There are some inconsistencies and/or improvements that could help the documentation. These are noted in the comments [in the review].	No response required.
Schneider	A.4.			See comments [in review] for usability improvement suggestions.	No response required.
Schneider	B.1.a.			Some comments [in review] for specific suggestions on clarifying assumptions.	No response required.
Schneider	B.1.b.			Yes.	No response required.
Schneider	B.1.c.			See comments [in review] for specific improvements to text.	No response required.
Schneider	B.1.d.			See comments [in review] for specific improvements to text.	No response required.
Schneider	B.2.			I'm not familiar with all the recent literature so will defer to others on this.	No response required.
Schneider	B.3.			One scenario or exposure path that comes to mind for me but doesn't appear addressed would be an on-site worker that conducts controlled burns for vegetation management. A number of former DOE sites are now maintained in a natural state that either might use burning as a management technique or might experience burning as a natural/vandalism event. It would be helpful in addressing public and worker concerns to have a scenario that provides PRGs to support this exposure pathway.	No current action. This will be considered for a future update. It was discussed several years ago with EPA regions as possible scenario but was considered lesser priority. It could be reconsidered as other priorities are completed.
Schneider	B.4.			I did find some discrepancies in the descriptions of the area contamination within the user's guide. See specific comments [in review].	No response required.
Schneider	B.5.			No response.	No response required.
Schneider	B.6.			It was not clear from my review where the detectors and detector heights were discussed.	This question is not applicable to this peer review. It was inadvertently copied over from a previous peer review charge.
Schneider	B.7.			They appeared to be to me.	No response required.
Schneider	B.8.			In general yes, some questions presented in the specific comments [in review].	No response required.
Schneider	B.9.			Specific recommendations for improvements to the user guide are provided [in the review].	No response required.
Schneider	C.1.			I like the PDF export feature. Provides all the information in one package. The time stamp on it will be helpful for determining differences if changes to the calculator are made.	No response required.
Schneider	C.2.			I defer to those more experienced with the algorithms and calculators than I am to provide comment on this.	No response required.
Schneider	C.3.			No response.	No response required.
Schneider	C.4.			Not that I'm aware of.	No response required.
Schneider	C.5.			The list of radionuclides seems appropriately comprehensive to me.	No response required.
Schneider	C.6.			No response.	No response required.
Schneider	D.			See specific comments [in review].	No response required.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/resairimage.html">http://epa-prgs.ornl.gov/radionuclides/resairimage.html</a>	It is planned to hire a new person to develop these graphics such as this one.

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Schneider		General		4. Technical Support Documentation under the Preliminary Remediation Goals for Radionuclides page. Would be good if the page would allow you to go back to expanded view of this subsection when clicking the back button after viewing one of the scenarios presented.	This issue has been resolved by addressing other comment. Now that the user guide has the toggle sections, EPA has incorporated the "land use pages" into the user guide. EPA has incorporated the graphical representation links into section 4.1 to 4.25. This eliminates other comments about getting the same order for listing landuses.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/res2Dsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/res2Dsoilimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/res2Dsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/res2Dsoilimage.html</a> , the area considered is provided as a range of 1-1,000,000 square meters. In all subsequent pages for 2Dsoil there is a list of areas evaluated presented, please explain the discrepancy.	EPA updated the other 2D site size descriptions which are referencing a now superceded anaylsis for Area Correction Factors. All of these sections now read as follows "This analysis is designed to look at external exposure from contamination of different area sizes. Areas considered are 1 to 1,000,000 square meters. Isotope-specific area correction factor (ACF) were developed for this analysis."
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/comworkairimage.html">http://epa-prgs.ornl.gov/radionuclides/comworkairimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/comworkairimage.html">http://epa-prgs.ornl.gov/radionuclides/comworkairimage.html</a> it would be good to provide an outdoor example for the second scenario of ambient air. The provided example of indoor air radon is not applicable to the outdoor worker of the composite scenario.	EPA modified the text to say continued emissions from a treatment technology or a factory.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/comwork2Dsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/comwork2Dsoilimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/comworksoilimage.html">http://epa-prgs.ornl.gov/radionuclides/comworksoilimage.html</a> it states the composite worker only differs from the outdoor worker in that it uses the more protective 250 day per year exposure. Page <a href="http://epa-prgs.ornl.gov/radionuclides/outworksoilimage.html">http://epa-prgs.ornl.gov/radionuclides/outworksoilimage.html</a> it states the outdoor worker is the "most highly exposed receptor in the outdoor environment". Not clear to the reviewer how the outdoor worker exposure exceeds that of the composite worker. Additional clarification of the two scenarios is needed.	EPA fixed the language. The text in section 4.6 changed to be: "The outdoor worker recieves more exposure than the indoor worker under commercial/industrial conditions."
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/outworkairimage.html">http://epa-prgs.ornl.gov/radionuclides/outworkairimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/outworkairimage.html">http://epa-prgs.ornl.gov/radionuclides/outworkairimage.html</a> it would be good to provide an outdoor example for the second scenario of ambient air. The provided example of indoor air radon is not applicable to the outdoor worker of the scenario.	EPA modified the text to say continued emissions from a treatment technology or a factory.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/outwork2Dsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/outwork2Dsoilimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/inworkairimage.html">http://epa-prgs.ornl.gov/radionuclides/inworkairimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.

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Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/inwork2Dsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/inwork2Dsoilimage.html</a> gamma shielding is misspelled "gamma shilding" and account is misspelled "accound."	EPA fixed the spelling.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/con1worksoilimage.html">http://epa-prgs.ornl.gov/radionuclides/con1worksoilimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/con2worksoilimage.html">http://epa-prgs.ornl.gov/radionuclides/con2worksoilimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/con2worksoilimage.html">http://epa-prgs.ornl.gov/radionuclides/con2worksoilimage.html</a> the page title says "Construction Worker (Other than Standard Vehicle Traffic)" while the lead to the paragraph says "Construction Worker (Standard Vehicle Traffic)". The latter needs to be corrected.	EPA fixed the language. The merging of the two sections of the user guide have resolved this comment.
Schneider		General		From the descriptions provided on pages <a href="http://epa-prgs.ornl.gov/radionuclides/con1worksoilimage.html">http://epa-prgs.ornl.gov/radionuclides/con1worksoilimage.html</a> and <a href="http://epa-prgs.ornl.gov/radionuclides/con2worksoilimage.html">http://epa-prgs.ornl.gov/radionuclides/con2worksoilimage.html</a> it is unclear what the difference in exposure is. The descriptions should at least describe the parameters that are changed between the two scenarios.	The merging of the two sections of the user guide have resolved part of this comment. In addition this sentence is added. "The only difference between this construction worker and the one described in section 4.10 is that this construction worker uses a different PEF."
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/conworkairimage.html">http://epa-prgs.ornl.gov/radionuclides/conworkairimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/conworkairimage.html">http://epa-prgs.ornl.gov/radionuclides/conworkairimage.html</a> it would be good to provide an outdoor example for the second scenario of ambient air. The provided example of indoor air radon is not applicable to the outdoor worker of the scenario.	EPA modified the text to say continued emissions from a treatment technology or a factory.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/conwork2Dsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/conwork2Dsoilimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/conwork2Dsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/conwork2Dsoilimage.html</a> the area considered is provided as a range of 1-1,000,000 square meters. In most prior pages for 2Dsoil there is a list of areas evaluated presented, please explain the discrepancy.	EPA fixed the language in other examples which are referencing ranges of site sizes used in a now superceded study for determining Area Correction Factors.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/recsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/recsoilimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/recairimage.html">http://epa-prgs.ornl.gov/radionuclides/recairimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/recairimage.html">http://epa-prgs.ornl.gov/radionuclides/recairimage.html</a> recreational is misspelled "reacrecational"	EPA fixed spelling.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/recairimage.html">http://epa-prgs.ornl.gov/radionuclides/recairimage.html</a> , this scenario should include the description from the previous scenario, "This receptor spends time outside involved in recreational activities."	No, air exposure can be indoor.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/recairimage.html">http://epa-prgs.ornl.gov/radionuclides/recairimage.html</a> it would be good to provide an outdoor example for the second scenario of ambient air. The provided example of indoor air radon is not applicable to the assumed outdoor activity of the scenario.	EPA modified the text to say continued emissions from a treatment technology or a factory.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/recwaterimage.html">http://epa-prgs.ornl.gov/radionuclides/recwaterimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.

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Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/recwaterimage.html">http://epa-prgs.ornl.gov/radionuclides/recwaterimage.html</a> the header reads "Tapwater Graphic and Supporting Text" and the paragraph lead reads "Recreator Surface Water." Recreator Surface Water is the correct text	The merging of the two sections of the user guide have resolved this comment.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/rec2Dsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/rec2Dsoilimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page <a href="http://epa-prgs.ornl.gov/radionuclides/rec2Dsoilimage.html">http://epa-prgs.ornl.gov/radionuclides/rec2Dsoilimage.html</a> this scenario should include the description from the previous recreational scenario, "This receptor spends time outside involved in recreational activities." Also the area considered is provided as a range of 1-1,000,000 square meters. In most prior pages for 2Dsoil there is a list of areas evaluated presented, please explain the discrepancy.	EPA added the description. EPA also updated the other 2D site size descriptions which were referencing a now superceded anaylsis for Area Correction Factors.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/recgameimage.html">http://epa-prgs.ornl.gov/radionuclides/recgameimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/restapwaterimage.html">http://epa-prgs.ornl.gov/radionuclides/restapwaterimage.html</a> the title reads "ResidnetTapwater Graphic". It should be corrected to read "Resident..."	The merging of the two sections of the user guide have resolved this comment.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/agtapwaterimage.html">http://epa-prgs.ornl.gov/radionuclides/agtapwaterimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		Graphic missing on the following page: <a href="http://epa-prgs.ornl.gov/radionuclides/fishimage.html">http://epa-prgs.ornl.gov/radionuclides/fishimage.html</a>	It is planned to hire a new person to develop these graphics such at this one.
Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download/summary_rprg_table_run_pCi_25NOV14.pdf">http://epa-prgs.ornl.gov/radionuclides/download/summary_rprg_table_run_pCi_25NOV14.pdf</a> the Actinium (89) Ac-223 row is frozen with the header row. Ac-223 row should be released to prevent confusion.	EPA will fix when all comments are investigated.
Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download/summary_rprg_table_run_Bq_25NOV14.pdf">http://epa-prgs.ornl.gov/radionuclides/download/summary_rprg_table_run_Bq_25NOV14.pdf</a> the Actinium (89) Ac-223 row is frozen with the header row. Ac-223 row should be released to prevent confusion.	EPA will fix when all comments are investigated.
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Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download/resair_rprg_table_run_Bq_25NOV14.pdf">http://epa-prgs.ornl.gov/radionuclides/download/resair_rprg_table_run_Bq_25NOV14.pdf</a> it would be better if this PDF was set up like the soil table with the header frozen and the ability to scroll the table.	EPA will fix when all comments are investigated.
Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download/restap_rprg_table_run_pCi_25NOV14.pdf">http://epa-prgs.ornl.gov/radionuclides/download/restap_rprg_table_run_pCi_25NOV14.pdf</a> it would be better if this PDF was set up like the soil table with the header frozen and the ability to scroll the table.	EPA will fix when all comments are investigated.

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Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download/res2D_rprg_table_run_pCi_25NOV14.pdf">http://epa-prgs.ornl.gov/radionuclides/download/res2D_rprg_table_run_pCi_25NOV14.pdf</a> the Actinium (89) Ac-223 row is frozen with the header row. Ac-223 row should be released to prevent confusion.	EPA will fix when all comments are investigated.
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Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download/resfish_rprg_table_run_Bq_25NOV14.pdf">http://epa-prgs.ornl.gov/radionuclides/download/resfish_rprg_table_run_Bq_25NOV14.pdf</a> it would be better if this PDF was set up like the soil table with the header frozen and the ability to scroll the table.	EPA will fix when all comments are investigated.
Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download/ressoil2gw_rprg_table_run_pCi_25NOV14.pdf">http://epa-prgs.ornl.gov/radionuclides/download/ressoil2gw_rprg_table_run_pCi_25NOV14.pdf</a> the Actinium (89) Ac-223 row is frozen with the header row. Ac-223 row should be released to prevent confusion.	EPA will fix when all comments are investigated.
Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download/ressoil2gw_rprg_table_run_Bq_25NOV14.pdf">http://epa-prgs.ornl.gov/radionuclides/download/ressoil2gw_rprg_table_run_Bq_25NOV14.pdf</a> the Actinium (89) Ac-223 row is frozen with the header row. Ac-223 row should be released to prevent confusion.	EPA will fix when all comments are investigated.
Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download.html">http://epa-prgs.ornl.gov/radionuclides/download.html</a> all remaining PDF tables with frozen header the Actinium (89) Ac-223 row is frozen with the header row. Ac-223 row should be released to prevent confusion.	EPA will fix when all comments are investigated.
Schneider		General		On page: <a href="http://epa-prgs.ornl.gov/radionuclides/download.html">http://epa-prgs.ornl.gov/radionuclides/download.html</a> for all PDFs where the header is not frozen it would be better if this PDF was set up like the soil table with the header frozen and the ability to scroll the table.	EPA will fix when all comments are investigated.