Review and Evaluation of Discrepancy from RESRAD and RAD-PRG Risk Values for Hunters Point

Objectives: evaluate if the risk results and/or risk based concentration results presented by the Navy and EPA are comparable and identify the main source of discrepancy between the values.

Approach: Get all applicable and detailed information on how the values were calculated, what specific models were used and what modeling assumptions were made, including choice of input parameters. Evaluate if modeling results are comparable based on modeling assumptions (e.g. conceptual site model, exposure routes, etc). Review the input values for each of the model used and the range of acceptable values.

For Internal Discussion:
The EPA RAD-PRG Website and User's guide states the following:

- This document does not establish binding rules. Alternative approaches for risk assessment may be found to be more appropriate at specific sites (e.g., where site circumstances do not match the underlying assumptions, conditions and models of the guidance). The decision whether to use an alternative approach and a description of any such approach should be documented.
- Once this database tool is used to retrieve standard PRGs or calculate site specific PRGs, it is important to clearly demonstrate the equations and exposure parameters used in the calculations. Discussion of the assumptions that go into the PRGs calculated should be included in the document where the PRGs are presented.
- In order to set radionuclide-specific PRGs in a site-specific context, however, assessors must answer fundamental questions about the site. Information on the radionuclides that are present onsite, the specific contaminated media, land-use assumptions, and the exposure assumptions behind pathways of individual exposure is necessary in order to develop radionuclide-specific PRGs.
- Chemical concentrations above the PRG would not automatically designate a site as "dirty" or trigger a response action. Exceeding a PRG, however, suggests that further evaluation of the potential excess lifetime cancer risk (ELCR) that may be posed by site contaminants is appropriate.

Requested information:
It is not enough to just know that default values were used for EPA RAD-PRG or RESRAD calculations, as there are several alternatives for default assumptions based on the conceptual site model adopted, for example, the source term in RESRAD can be defined in several ways and geometries.

Below is a list of questions and information needed

1. Has any summary report been presented to EPA with the RESRAD calculations, describing the model assumptions, selected input parameters and output files?
2. Has anyone from EPA reviewed the summary report (bullet #1)? If so, have any review comments been drafted?
3. Is there a summary report on the calculation of the EPA RAD-PRG value?
4. Request a copy of the reports from bullets 1, 2, 3
5. Request screen shots of the model inputs and output
6. Request copy of the model printout

7. After the items above have been received, request a half hour meeting with the staff that have performed the modeling to clarify any questions.