

Comments By Robert A. Meck for Revision 2 of MARSSIM Provided on July 24, 2011 at 4:42 PM to:

K. Jack Kooyoomjian, Ph.D. Designated Federal Officer

Radiation Advisory Committee (RAC) Augmented for MARSSIM Consultation

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1. MARSSIM revision two will have an effect on MARSAME. Specifically, Tables 1.2 and 1.3 of MARSAME, which list similarities and differences with MARSSIM, respectively will be affected. Thus, the MARSSIM Workgroup should also make revisions to MARSAME to make the documents consistent with each other. The Workgroup should also check for other changes in MARSAME that may need revision for consistency between the two documents.
2. The MARSSIM website needs maintenance. Namely, the e-mail address to submit comments should remove the underline, so that the underscore in the address becomes visible. In addition, the Workgroup Charter should be more prominent on the site, so that visitors can transparently read how the Workgroup functions and its relationship to ISCORS. Further, the Charter currently displayed should be replaced by the current Charter.
3. The MARSSIM revision should address the widely-used technological advances that have taken place since the last revision. Specifically, it should address the automated data collection with large numbers of data that are correlated with their position on the survey unit. The underlying statistics of the current version of MARSSIM explicitly assumes that radionuclide measurements are independent of each other and are not correlated. However, automated measurement techniques, spectral analyses, and statistical software that are now commonly used are available to generate and analyze the correlated measurements. These newer techniques can lead to considerable cost and labor savings by providing high resolution of the location of radionuclides, the kind of specific radionuclide, and concentration. The Workgroup should address optimization of these methods keeping in mind the objective of technically sound surveys with a minimal cost and labor.
4. Ten years or more have elapsed since State and Federal regulators have been trained on MARSSIM. It is reasonable to expect that there has been significant turnover of the personnel leaving replacements that have not been trained. Further, a training refresher and coverage of how to handle the new methods are greatly needed according to reports from contractors. The success of MARSSIM was a product of mutual understanding of its processes by the property owners, the contractors, the regulators and other stakeholders. This understanding was largely due to the training that was provided immediately after MARSSIM's original publication. Training should be an integral part of the plan for revision two.