

Subject: FW: Mallinckrodt Site Profile Review and Revision

Dear Board Member, Petitioners, and Interested Parties:

As requested at the July 6, 2005 Board meeting in St. Louis, a Working Group of the Board including Petitioner Denise Brock, SC&A staff, and NIOSH staff have been diligently working through the 6 tasks (see attached "Priority Issues for demonstrating feasibility of dose reconstruction for MCW workers...") identified by the Board.

These tasks, as the title of the attached list indicates, addresses issues regarding how dose reconstruction will be accomplished for Mallinckrodt workers and specific radiation exposure situations. As a result of the work on these 6 tasks and the discussions held, NIOSH has revised and presents as attached a DRAFT Mallinckrodt Chemical Company Site Profile (ORAUT-TKBS-0005) for the Board's deliberations at its next meeting (August 24-26, 2005). To explain in a general sense how dose reconstruction is to be accomplished for workers who may have been exposed to uranium process residue streams and may not have been fully monitored for that exposure, the attached draft revision of the site profile has been modified at Section 6.0, page 103, with the following language:

"For uranium process residues, because the ability is limited to accurately determine the fraction of time a worker spent in any given part of the residue stream areas, the approach to assigning intakes from uranium progeny will be based on the highest dose delivered by either established source term. That is, NIOSH will separately evaluate the dose from inhalation of either radium bearing or thorium bearing residues. Intakes of thorium bearing residues will be estimated from air monitoring data using the 95th percentile of the distribution of air measurements observed in plant 6. Intakes of radium bearing residues will be estimated using the worker's individual radon in breath measurements when available or on the 95th percentile of the distribution of breath measurements when no samples for the individual have been located. Thus, the dose will be reconstructed for each source term and the value that provides the highest probability of causation will be used."

Additionally, attached is the recent SC&A 3rd supplement review report on the MCW site profile which includes all of the documents created in response to the 6 tasks and which were used in discussion by the Working Group of the Board. (Each of you have already received these documents separately as they were developed and compiled in the SC&A Report, they are presented again here in one place with the site profile for your convenience. The SC&A report, and the site profile revision, have also been placed on the NIOSH website.) Upon conclusion of the Board's deliberations regarding the Mallinckrodt Chemical Works, these documents (and any forthcoming recommendation(s) from the Board) will serve to facilitate and expedite our consideration toward completion of a fully revised (modifications especially to Section 6.0, page 103) site profile for immediate dose reconstruction use.

Our intent and hope is that the attached general revision of the site profile and accompanying documents will serve the Board well in its deliberation regarding the Mallinckrodt Chemical Works site profile and SEC petition.

Due to the large volume of the documents, you might have difficulty downloading them so we will also be placing a hardcopy in the fed-ex to you today.

Respectfully,

Larry J. Elliott
Director
Office of Compensation Analysis and Support
National Institute for Occupational Safety and Health