

October 21, 2009

Ms. Elizabeth Southerland, Director  
Assessment and Remediation Division  
Office of Superfund Remediation  
and Technology Innovation  
U.S. Environmental Protection Agency  
M.S. 5204P  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

SUBJECT: RESPONSE TO RECOMMENDATIONS REGARDING THE  
DECOMMISSIONING OF THE MALLINCKRODT INCORPORATED SITE IN  
ST. LOUIS, MISSOURI

Dear Ms. Southerland:

I would like to thank the U.S. Environmental Protection Agency (EPA) for providing its views on the decommissioning of the Mallinckrodt Incorporated (Mallinckrodt) site in St. Louis, Missouri, in your letter dated September 9, 2009. The U.S. Nuclear Regulatory Commission (NRC) consulted with EPA about the Mallinckrodt site because the licensee's proposed derived concentration guideline levels (DCGLs) for certain radionuclides exceed the soil concentration values in Table 1 of the 2002 "Memorandum of Understanding (MOU) between NRC and EPA on Consultation and Finality on Decommissioning and Decontamination of Contaminated Sites."

In your letter you stated:

In EPA's view, if the licensee is unable to meet the Table 1 soil values, NRC should consider the use of a more restricted land use and appropriate institutional controls. In addition, NRC should consider determining if the use of site-specific parameters was justified in modeling at this site.

The NRC staff reviewed the licensee's proposed decommissioning plan (DP) and has concluded that the proposed cleanup levels for soil in the DP do not pose an adverse impact to public health and safety, or the environment. The NRC staff determined that the licensee provided adequate information to justify an industrial scenario as the most likely land use in the foreseeable future. Thus, the NRC staff concluded that an industrial scenario is the appropriate land use for demonstrating compliance with the requirements in Title 10 of the Code of Federal Regulations (CFR), Part 20, Subpart E. It should be noted that the DCGLs were derived from the licensee's commitment to meeting an annual dose limit of 25 millirem (mrem) per year, which is prescribed in 10 CFR 20.1402, "Radiological Criteria for Unrestricted Use." Remediation at the site will likely result in "as-left" residual concentrations well below the approved DCGLs, and therefore, the potential post-remediation dose to a member of the critical group will be some fraction of the annual dose limit of 25 mrem per year. Because we believe these measures are adequately protective, NRC will not adopt EPA's recommendations in your September 9, 2009, letter. Nonetheless, following site remediation activities, NRC staff will review the information in the Final Status Survey (FSS) reports and compare the levels of

residual radioactivity with the MOU trigger levels. If the FSS measurements exceed the trigger levels in the MOU, we will contact your office pursuant to the MOU.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions regarding this letter or the decommissioning activities at the Mallinckrodt site, please contact Dr. Keith I. McConnell, Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate, at (301) 415-7295.

Sincerely,

**/RA/**

Larry W. Camper, Director  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

cc: Mallinckrodt Service List

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Sincerely,

Larry W. Camper, Director  
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and Environmental Protection  
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cc: Mallinckrodt Service List

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Office	DWMEP	DWMEP	DWMEP	DWMEP	DWMEP	DWMEP
Name	RChang	JBuckley	SMichonski	LChang	KMcConnell	LCamper
Date	10/08/09	10/09/09	10/09/09	10/11/09	10/19/09	10/21/09

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Mallinckrodt Chemical Inc. Service List – Project Manager, John Buckley

Henry Morton  
Morton Associates  
10421 Masters Terrace  
Potomac, MD 20854

Dennis Chambers  
U.S. Army Corps of Engineers  
FUSRAP  
8945 Latly Avenue  
Berkley, MO 63134

Ms. Pat H. Duft  
Vice President, Legal  
Covidien  
Mallinckrodt Inc.  
675 McDonnell Boulevard  
Hazelwood, MO 63042

Branden B. Doster  
Missouri Department of Natural Resources  
Hazardous Waste Program  
P.O. Box 176  
Jefferson City, MO 65102-0176

Karen Burke  
Director, Environmental Remediation  
Covidien  
Mallinckrodt Inc.  
675 McDonnell Boulevard  
Hazelwood, MO 63042

H. Floyd Gilzow, Deputy Director  
Policy and Intergovernmental Cooperation  
Department of National Resources  
State of Missouri  
P.O. Box 176  
Jefferson City, MO 65102

Honorable Doyle Childers  
Director  
Department of National Resources  
State of Missouri  
P.O. Box 176  
Jefferson City, MO 65102

Sharon Cotner, Program Manager  
U.S. Army Corps of Engineers  
FUSRAP  
8945 Latly Avenue  
Berkley, MO 63134

Jacqueline Mattingly, Program Manager  
U.S. Army Corps of Engineers  
FUSRAP  
8945 Latly Avenue  
Berkley, MO 63134