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Mr. John Buckley
Senior Project Manager, Reactor Decommissioning Branch
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environment Management Programs
Nuclear Regulatory Commission
Washington, D. C. 20555-0001

RE: Draft Safety Evaluation Report and Environmental Assessment for approval of the Phase 2 Decommissioning Plan for the Mallinckrodt Inc. St. Louis, MO.

Dear Mr. Buckley:

This letter responds to your March 22, 2010, letter, addressed to Mr. Floyd Gilzow, Missouri Department of Natural Resources, regarding the above referenced documents. Please address future correspondence to either Mr. Mark Templeton, Director-Missouri Department of Natural Resources; or to Mr. Dru Buntin, Deputy Director for Policy, Missouri Department of Natural Resources. It would also be helpful to copy Mr. Branden Doster, Chief - Radioactive and Remediation Unit, Federal Facilities Section, Hazardous Waste Program.

As the Missouri Department of Natural Resources (Department) has stated throughout the decommissioning process, we appreciate the cooperation afforded by your agency. We are also confident in the knowledge that despite the many hurdles we each face, we share the goal that this decommissioning process will protect both the health of Missouri's citizens and our environment.

We recognize that these current documents are the product of an extensive process of review and response between our agencies. In this letter, we are focusing our attention on the following major areas of concern.

Environmental Assessment

1. We recognize that the Derived Concentration Guideline Levels (DCGLs) are being targeted for an "unrestricted" release. The Department understands that this "unrestricted" designation is premised on NRC's expectation that the Mallinckrodt site will remain an industrial, not a residential, scenario. The Department feels strongly that the public requires a full and



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persistent understanding of this as well. We are restating our concern that unless there are robust, enforceable, and effective land-use controls in place, reliance on zoning or historical land-use will not ensure the cleanup of the site will remain protective. The Department shares the same concern that the Environment Protection Agency (EPA) voiced in their September 9, 2009, letter to Larry Campor of the NRC.

The Department believes that this issue can be resolved if Mallinckrodt will implement various land-use controls and a soils management plan as were discussed at the public meeting on April 24, 2009. Although this office has not received any information from Mallinckrodt on this issue, we remain confident that this solution will ultimately be adopted.

2. The NRC's review of the Decommissioning Plan for this Environmental Assessment (EA) does cite four documents developed by the U.S. Army Corps of Engineers (USACE) for the FUSRAP portion of the site. Those documents are referenced for data and interpretation of the groundwater. The Department recommends that the legally binding decision document (Record of Decision (ROD)) signed by the EPA and the USACE, should also be included among the references. The ROD clearly states that groundwater in the "lower unit" is a potential source of drinking water. NRC staff state in the third sentence of the last paragraph, under section 3.5.6 Ground Water of the EA that "...nor will it {groundwater} likely be a source of drinking water in the future." The Department suggests that this sentence be modified, for consistency with the ROD, for example: "The groundwater beneath the site is not a current source of drinking water. Based on current and projected needs, it is not anticipated that it will be used as a source of drinking water in the future."

The Department further suggests that the USACE will not know if the groundwater (upper or lower) will be impacted by their remediation activities until after the soil cleanup has been completed and a long term post-remediation monitoring of the groundwater shows whether or not there has been an impact. That monitoring is focused on the MED-AEC issues. The Department also requests that the NRC clarify whether they will require Mallinckrodt to employ a similar monitoring plan for the Plant 5 area.

- 3. The last sentence under section 7. AGENCIES AND PERSONS CONSULTED AND SOURCES USED, of this EA says that the State's concerns were addressed in this EA. The Department notes that while the NRC may have **addressed** the State's concerns, these concerns have not necessarily been **resolved**.
- 4. Section 3.5.4.1 "Drains and Subsurface Sewerage That Served C-T Process Buildings" The Department suggests that a map of the sewer system and building drains of Plant 5 would be helpful in the review of this section of the EA. We may have additional comments once the Final Site Survey (FSS) is provided and we can verify if remediation of these pipes meets the goal.

Safety Evaluation Report

5. The Department requests some clarification in this document concerning the management of the cleanup for Plant 7. Some statements (i.e. next to last paragraph under Section 3.2.3

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Previous C-T and MED-AEC Decommissioning Activities) indicate that the USACE will remediate Plant 6 and 7. Section 3.4.3 Subsurface Material and the last paragraph under Section 3.6.6 Soil) note that an agreement defining responsibility between the USACE and Mallinckrodt will need to be made.

- 6. Referencing comment number 2 above, the statement in the last paragraph of Section 3.6.7 Groundwater "...nor will it (Groundwater) likely be a source..." is not consistent with the ROD language.
- 7. Section 3.11.1.1 Solid Radioactive Waste Management. This section notes that ...unimportant quantities of radioactive material can be managed by NRC-authorized transfer to a state-regulated disposal facility." It should be noted that the state of Missouri's solid waste rules and regulations specifically prohibit these types of materials in this state's permitted facilities {10 CSR 80-3.010(3)(A)2}.
- 8. Section 4. Regulatory Evaluation, next to last paragraph, appears to state that decommissioning of the C-T process areas will be independent of the remediation of the MED-AEC areas. This is not the message the Department believes it was given in previous meetings with the NRC. It was and is our understanding that all areas of the Mallinckrodt plant would have to meet the NRC's release criteria before the license would be terminated. The noted section further states that MED-AEC contamination will be remediated to meet the NRC unrestricted release standards; however, there will be some areas that will remain "inaccessible" which will have land-use controls and a management plan and ROD.

The Department again points out that the cleanup goals for the MED-AEC areas have a lower radioactive content than the NRC licensed areas. This difference may be addressed once the final site survey for the C-T area is available.

We appreciate the cooperation given by the NRC on this process and support the continued work to have the cleanup of the NRC licensed area finished. If you have any questions or require clarification of the above comments, please contact Robert Geller at (573) 751-2747. Direct written correspondence to P.O. Box 176, Jefferson City, MO. 65102-0176.

Sincerely,

HAZARDOUS WASTE PROGRAM

Robert Geller Director

RG:bdd

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c: Ms. Karen Burke, Director, Covidien, Mallinckrodt, Inc.

Ms. Sharon Cotner, USACE

Mr. Rich Nussbaum, Permits Section

Mr. Robert Stout, Directors Office

Mr. Dan Wall, U.S. EPA Region VII