

Appendix I

ADDENDUM TO HEALTH AND SAFETY PLAN (HASP) FOR TWIN CITIES ARMY AMMUNITION PLANT (TCAAP) PHYTOREMEDIATION PROJECT

Please use this memorandum as an addendum to the HASP to address concerns caused by the presence of asbestos containing material (ACM) at the TCAAP Site C. I spoke with Tanya Drake, ERM, Incorporated, one of the people who found the ACM and she provided some additional information. The ACM found at Site C is presumed to be transite construction material. The material has not been analyzed for asbestos content, but transite was widely used on military installations and it is widely assumed in the asbestos abatement industry to be an ACM. I concur with this assumption.

Transite is a Category II, non-friable ACM, and it is not hazardous unless it is vigorously disturbed. Grinding, sawing, drilling, crushing, or other such activities on transite can release hazardous, airborne asbestos fibers.

Future work on this project can continue with a little modification to our operations. The following list of precautions should prevent exposure to airborne asbestos fibers.

1. Prior to plowing or tilling the test plots, police the area to be disturbed and pick up visible pieces of the transite. The pieces need to be bagged in asbestos waste bags for disposal at a licensed asbestos landfill. Those workers who pick up the transite need to complete the 2 hour asbestos awareness training required by OSHA standard 29 CFR 1926.1101. Other activities at the test plot should not significantly disturb the transite in the soil. The personal protective equipment (PPE) and decontamination procedure specified in the HASP to protect against airborne lead exposure will be adequate to protect against airborne asbestos during plowing and tilling or any of these other activities.
2. Keep samples wet if possible. Handle soil samples in a laboratory hood if there is a chance of releasing asbestos fibers into the air. Good laboratory practices that prevent lead exposure from these samples will also prevent asbestos exposure.
3. Assess future work and plan activities to prevent generating airborne asbestos exposure. This can be done by removing as much of the visible transite as feasible, conducting as much of the work as possible with the ground wet, using the PPE and decontamination procedures already in the HASP, and communicating with other people who have site or laboratory responsibilities.