NCDENR
North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

March 31, 2008

Mr. Marvin Gobles
CTS Corporation
905 West Boulevard North
Elkhart, Indiana 46514

Subject: Phase I Site Assessment Plan, CTS, Mills Gap Road Site, Mills Gap Road, Asheville, Buncombe County, North Carolina

Dear Mr. Gobles:

The Inactive Hazardous Sites Branch (Branch) has reviewed the above referenced Assessment Plan (Plan) as received in the Winston-Salem Regional Office (WSRO) on March 3, 2008. This letter summarizes our comments on the Plan.

The Plan must comply with Section 2 of the Inactive Hazardous Sites Program Guidelines for the remedial investigation work plan. The Plan must also comply with Appendix A of the Inactive Hazardous Sites Program Guidelines for sampling and analytical procedures.

The Plan indicates on page 1 that on-site soil contamination has been "generally" delineated by prior soil investigations. However, the vertical extent of soil contamination has not been fully defined. The Plan must include a strategy for defining the complete vertical extent of soil contamination at the site. Laboratory analyses for soils should utilize EPA Methods 8260/8270 including a library search to identify TICs (refer to the Inactive Hazardous Sites Program "Guidelines for Assessment and Cleanup") and SW-846 for the 14 hazardous_substance metals in soils and cyanide. Once a complete scan has been performed on soil and groundwater, the analyte list can then be reduced to those contaminants detected and their degradation products. A complete definition of both the horizontal and vertical extent of soil contamination at the site's source areas is required so that an appropriate remedial action plan can be developed. Soil sample analytical data from previous site investigations can be utilized in the assessment efforts.

The recommendation for five permanent, monitoring well locations (MW-1, MW-2 & 2A, MW-3, MW-4, and MW-5) within the site boundaries is generally acceptable for the initial Phase I investigation. However, an additional monitoring well location is needed within the north-northeast area of the property as illustrated on the attached map. Also, the proposed screened intervals of the monitoring well locations, which intersect only the groundwater surface, are insufficient for generating a working conceptual model of the site's hydrogeology and contaminant distribution. Each monitoring well location at the site must consist of a set of nested wells with distinct and discreetly screened intervals. For example: In each monitoring well nest, one well would intersect the groundwater surface, another well would intersect the saprolite or partially weathered rock interface (PWR) with competent rock, and a third well would intersect the first major fracture system located below the PWR and competent rock interface and be located well within competent rock. The number of wells and the specific depths of the screened intervals will be dictated by the on-site conditions as noted by a geologist's interpretation during the installations of the monitoring wells. A sufficient number of monitoring wells should

be installed at each nest to define the vertical and horizontal extent of groundwater contamination at the site. All monitoring wells must be constructed according to the EPA-SW 846 Type III well construction requirements.
The Phase I investigation must be planned to gather information sufficient to provide a description of the geology and hydrogeology of the site and surrounding area. Geophysical techniques may be needed for distinct fracture mapping within competent rock. A description of any plans for additional data gathering along these lines should be included in the Plan. Hydrologic testing and characterization of the aquifer in Phase II may be required after the contaminate plume has been defined.

All groundwater samples must be analyzed as proposed for Volatile Organics using EPA Method 8260. In addition, all groundwater samples must also be analyzed for Semi-volatiles and the 14 Hazardous Substance Metals using EPA Methods 8270 and SW-846 methods, respectively. Cyanide must also be added to the analyte list for analysis. The metals samples should employ the 3030C sample prep method.

The investigative-derived waste handling must also include the containment, collection and removal of water derived from drilling operations. An impermeable basin must be constructed and maintained around the auger or air rig at all times during the drilling procedures. The drilling process water must be pumped into DOT-approved containers for proper short-term on-site storage and off-site transport. The containers must be labeled and sampled for characterization.

Please submit a revised Phase I Assessment Plan that addresses these comments within 30 days of receipt of this letter.

If you have any questions, please contact Bonnie S. Ware, at (336) 771-5000.

Sincerely,

Bonnie S. Ware
Hydrogeologist

CC: Susan Kelly, P.E., L.G., MacTec Engineering
Elizabeth Ahlemann, CTS Corporation
Michael Dolan, Jones Day
William Clarke, Robert & Stevens, P.A.
CAG Team Leadership
Marc Fowler, Environmental Health Director, Buncombe County
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