Former Electrolux Manufacturing Facility
Jefferson, Iowa
Work Plan for Supplemental Soil and Groundwater Assessment dated January 2012
Comments from Bill Ferguson, Corps of Engineers

1. Page 3, Section 1.4 – Work Plan Objectives. The objectives identified in the second and third bullets are associated with the RFI and CMS stages, respectively. The RFA should focus on activities including, but not necessarily limited to, the following: a) identification of **all** potential sources of contamination; b) identification of **all** products that were used at the facility; c) identification of all hazardous wastes that were generated; d) the identification of solid waste management units (SWMUs); e) quantities of products and hazardous wastes, stored/generated at the facility; f) hazardous waste storage and disposal information; and d) evaluating the presence/absence of contamination in soil and groundwater. The operating history of the facility should be thoroughly researched and then documented in the report. It is unclear why the objective only considers petroleum and volatile organic compounds since the constituents of potential concern (COPCs) have not been identified.

2. General Comment. The text indicates that nine monitoring wells were installed to assess the shallow (i.e. upper 12 feet) groundwater flow direction. A detailed review of the boring logs indicated that the borings were of insufficient depth to encounter the saturated zone (water table). Thus, the direction of groundwater flow at the site has not been established and the potential impact to groundwater from site activities has not been assessed. Well records in the IDNR GEOSAM database for wells in the vicinity of the site indicate that sand and/or gravel zones exist within the till at various depths but generally at depths of 30 to 60 feet. These coarser-grained materials within the till are very likely to be water-bearing. Monitoring wells must be installed in the uppermost saturated zone to evaluate the potential impact to groundwater.

3. Page 3, Section 1.4 – Work Plan Objectives. The additional assessment of soil and groundwater is focused on the southern edge of building. The investigation activities should not be limited to this area but should also include areas where hazardous wastes were generated and stored and also where releases may have occurred. For example, a Site Map (Figure 3) shows the location of a former solvent AST on the west side of the former building. It appears that samples have not been collected in this area. A map figure that shows where hazardous wastes were generated and stored in addition to areas where products were stored should be included in the document. This comment applies to subsequent portions of the document.

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4. Page 7, Section 3.1 – Refinement of the Conceptual Site Model. The development of a conceptual site model is beneficial; however, according to Figure 3 (Site Map), most of the existing data points are situated in the southern portion of the site. The modeling of large areas based on sparse data points can lead to erroneous interpretations of site conditions and thus, an inaccurate Conceptual Site Model. As indicated in a previous comment, none of the borings are of sufficient depth to have intercepted the water table; thus, groundwater data are nonexistent at the present time.

The last statement of this section states that the model will be used to assess the vertical and horizontal extent of soil and groundwater impacts. The extent of soil and groundwater impacts must be based on valid laboratory data. Revise the text to delete this statement.

5. General Comment, Section 3.2 – MIP/EC and LIF Screening Surveys. The proposed screening survey is a reasonable approach to determining the presence or absence of chlorinated volatile organic compounds (CVOCs) and petroleum compounds; however, these screening methods are not capable of detecting other constituents such as metals and PCBs. Screening (for CVOCs and petroleum compounds) and/or sampling (for non-volatile constituents) should begin immediately adjacent to each potential source and proceed laterally and vertically based on the results from the initial data points. If extremely high concentrations of contaminants, especially CVOCs and petroleum compounds, are suspected or detected in the subsurface, care should be taken so that a vertical conduit for contaminant migration is not created by pushing the rods through areas where free product may exist.

6. Page 13, Section 4.0 – Schedule and Reporting. Revise the text to specify that the complete laboratory data package will be included in the Assessment Report.

7. Appendix A, Section 1.11, SOP-11 Slug Testing Procedures. The removal of water from the well with a pump is not recommended as this method cannot induce an instantaneous change in water level. A solid cylinder should be used as a "slug." A pressure transducer and a data recorder should be used to obtain water level data. Early time data are very important; manual measurements will not provide sufficient early time data.