OhioEPA

State of Ohio Environmental Protection Agency

Central District Office

STREET ADDRESS:
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 728-3778 FAX: (614) 728-3898
www.epa.state.oh.us

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

FILE COPY

March 24, 2009

John M. Uruskyj, Remedial Project Manager
General Electric Company
319 Great Oaks Office Boulevard
Albany, NY 12203

Re: Notice of Violation
RCA (Thomson Electronics)
Revised Remedial Investigation Report Discussion
Pickaway County
Project I.D. No. 165-000655-001

Dear Mr. Uruskyj:

The Ohio Environmental Protection Agency (Ohio EPA), General Electric Company (GE), and Thomson Consumer Electronics (Thomson) met on October 28, 2008 to discuss the Agency's September 22, 2008 comment letter on the "*Revised Remedial Investigation Report RCA/Thomson Site*" September 2007 submittal from GE. The remedial investigation (RI) Report summarizes GE's efforts and a baseline risk assessment for the former Thomson site located at 24200 U.S. Route 23 South in Pickaway County, Ohio. At the end of the October meeting, GE proposed to submit a summary of the changes to the RI Report that were agreed to during this meeting by the end of November 2008 to Ohio EPA, including an updated project work schedule. By the end of December 2008, GE was to submit to Ohio EPA the revised baseline risk assessment, including the human health and ecological risk assessments (HHRA and ERA) as a separate document from the RI Report.

However, GE's January 14, 2009 monthly progress report submittal stated that Thomson and GE were still reviewing Ohio EPA's comments on the revised RI report, and expects to submit a summary of the report's proposed changes to Ohio EPA in January 2009.

Then GE's February 13, 2009 monthly progress report submittal stated that Thomson and GE were still reviewing Ohio EPA's comments on the revised RI report, and expects to submit a summary of the report's proposed changes to Ohio EPA in February 2009.

Now GE's March 13, 2009 monthly progress report submittal states that Thomson and GE were still reviewing Ohio EPA's comments on the revised RI report, and expects to submit a summary of the report's proposed changes to Ohio EPA in April 2009. GE and Thomson will also propose a submittal date for the revised RI Report. Therefore, Ohio EPA considers the continued delay of the submittal dates agreed to in the October 2008 meeting as a violation of the provisions of the terms in the February 1994 Director's Findings and Orders.

To assist GE and Thomson in the completion of the revisions to the RI Report, Ohio EPA is providing the following summary of the revisions to GE's draft September 2007 RI Report agreed to during the October 2008 meeting. Please review each issue/response and notify Ohio EPA if you believe any additions or corrections are needed to this summary letter by April 24, 2009.

Ohio EPA's September 2008 Letter's General Comments:

1) Future land usage of the developed (former industrial) or active portion of the site is planned to remain as industrial/commercial. The East Fenced Area (EFA) will be included as part of the active portion of the site. The inactive area of the site is proposed to be developed for commercial and/or residential usage. A figure or map to clearly define the extent and boundaries of the site's active and undeveloped (inactive) areas will be added to the RI report. An accurate figure/map will assist in the determination of a reasonable exposure scenario for the site's South Ditch.

2) The hypothetical future risk assessment of the Offsite Creek Area (OCA) does not need further delineation of residential exposure scenario since GE has reached an agreement with the OCA's owner, Mr. Richards, to restrict the future land usage. Ohio EPA requests GE to provide a written copy of their agreement with Richards by April 24, 2009 to explain the details of the restricted land use. Several areas of the OCA have soil types classified as wetlands in the U.S. Army Corps of Engineers internet wetlands mapping website.

3) The background soil samples, BG-SS-5 and BG-SS-6, respective concentrations of 225 milligrams per kilogram (mg/kg) and 174 mg/kg for arsenic are not naturally occurring natural soil values, but appear to be related to the field's historical agricultural activity.

3A) No further soil sampling is needed to determine the extent of contamination from arsenic at the seven background soil sampling locations since the earlier samples were collected from five feet below the ground surface (bgs).

3B) The RI report will not use the seven historical background soil sampling results for arsenic in the human health risk assessment (HHRA) exposure evaluation. To determine the reference background value for arsenic at the site, Ohio EPA recommended using the sampling results for arsenic presented in the RI Report's **Table F-8**, *Adjacent Fields soils data – Circleville Site*.

4) The earlier Extraction Procedure Toxicity Test (EPtox) results summarized in Ohio EPA's September 2008 letter's Table 5-4 will be added to the discussion of the nature and extent of contamination in the appropriate areas of interest at the site; the EFA, East Swale, South Ditch and OCA.

5) Since it was an editorial observation, it was not discussed further.

5A) The HHRA's reference guidance documents will be revised to use and follow the current Ohio EPA's risk assessment guidelines.

5B) In the HHRA's evaluation of the other chemicals of interest (CoIs), the exposure method's assumptions and parameters references will be updated to reflect current U.S.EPA guidance documents. It was noted the U.S.EPA's December 2002 "*Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*" document is appropriate to determine screening levels, but not in the evaluation of the HHRA. However, this guidance document also states "*Soil screening levels (SSLs) can be used as preliminary remediation goals (PRGs) provided conditions found during subsequent investigations at a specific site are the same as the conditions assumed in developing the SSLs.*"

5C) A fractional intake (FI) term = 0.5 will be used in the HHRA's evaluation of risk exposures from other CoIs (excluding lead) in the recreational trespasser and residential scenarios, but the onsite worker risk exposure scenario be evaluated using a FI value of 1.

5D) The soil ingestion rates and exposure evaluation in the HHRA will be revised to follow the current U.S.EPA guidance. Refer to General Comment 5B.

5E) Agreed to revise the HHRA's summary discussion of results for chemicals other than lead to match the requested/proposed changes in the HHRA.

6) The Adult Lead Model's (ALM) values and assumptions will be revised to incorporate the U.S.EPA's March 2002 technical document (*NHANES III survey Phases 1 and 2*) baseline blood lead data results based on "geographic area" using the defaults for the Midwest Region. Using the "Midwest Region" values changes the ALM's geometric mean baseline blood lead (GM) concentration from 1.4 micrograms per deciliter (µg/dL) to 1.53 µg/dL, and changes the geometric standard deviation (GSD) value from 2.1 µg/dL to 2.18 µg/dL.

6A) The FI term = 0.5 will be removed from the default ALM equation used to calculate blood lead level concentrations for the various exposure scenarios in the HHRA.

6B) The blood lead level calculations and associated narrative for the HHRA's various exposure scenarios will be updated based on the agreed to changes.

7) The Integrated Exposure Uptake Biokinetic (IEUBK) model's lead intake values are changed to use the updated dietary intake values cited in the *U.S. Food and Drug Administration's Total Diet Study of 2001*. U.S.EPA's latest version of the IEUBK model ses these same updated intake values in the modeling of lead exposure risk for the younger child.

8) The maximum lead concentration detected at each soil/sediment sampling location will be used to recalculate the arithmetic mean lead values used in an alternate ALM exposure scenario for each area of concern: EFA; East Swale; South Ditch; and the three sub-sets of the OCA, the upper deltaic, deltaic and non-deltaic areas.

9) The on-site worker's blood lead evaluation will be changed to include additional scenarios for exposure assessments of two days per week, every other day and daily. The OCA's adolescent blood lead evaluation will also be modified to include a two days per week exposure assessment.

10) A range of GM and GSD values will be used in the adolescent's blood lead evaluation to generate a range of associated risks for the OCA's exposure assessment scenario.

11) GE will develop site-specific preliminary remediation goals (PRGs) for all chemicals of concern identified in the RI Report's HHRA and ERA. The PRGs can be part of a separate submittal that includes the revised HHRA and ERA sections to Ohio EPA as an addendum to the RI Report.

12-12A) These comments were about the calculations used to determine the exposure point concentrations (EPCs) for the site's areas of interest listed in the RI Report's Appendix F were briefly discussed at the end of the meeting. The EPCs for the chemicals of concern would be determined from the 95 percent upper confidence limit (UCL) of the arithmetic mean of all the sample results, not from a composite of averaged samples results. However, if the calculated UCL exceeds the maximum detected value, then the maximum detected value should be used as the EPC.

The maximum detected values used to determine the EPCs for each area of interest in Tables F-15, F-15A, F-15B, F-15C-1 and F-15E were much lower than the same area's maximum detected values listed in other tables of the RI Report. Please refer to the following narrative for further clarification about Appendix F's tables showing the determination of EPCs and the listed maximum detected values.

- Table F-15, Summary of EPCs for areas of interest
- Table F-15A, EPCs for East Fenced Area's sludge
- Table F-15B, EPCs for East Swale soils/sediments
- Table F-15C-1, EPCs for South Ditch soils/sediments
- Table F-15E, EPCs for Offsite Creek Area's soils/sediments

The four tables generated antimony and arsenic EPCs for three different exposure scenarios using a range of depths: all data (0-30 inches), surface data (0-6 inches), and sub-surface data (6-18 inches). However, the EPCs' "maximum" values listed in these tables actually represent "averaged" values from one sample location that consists of multiple samples collected from spatially separate points at each range of depth. For example, Table F-15B's Sample ES-1 listed one sample value for the "all data" range, with averaged concentrations of antimony at 43 mg/kg and arsenic at 102 mg/kg. But as shown in the same table, Sample ES-1 has nineteen distinct and separate samples with "maximum" concentrations of antimony at 604 mg/kg and arsenic at 530 mg/kg that should be included in the calculations used to determine the EPCs.

Ohio EPA agrees that the East Swale was sampled in eight different transects, but each transect had multiple spatial locations with discrete sampling depths. Therefore, the number of samples "**n**" listed in the Table F-15B should be modified from the transect locations to the actual number of separate samples collected. For example, arsenic would be changed: all data's "**n**" from 8 to 26, surface data's "**n**" from 7 to 14, and subsurface data's "**n**" from 5 to 12.

Please refer to Ohio EPA's proposed revisions to the EPC summary values "maximum" and "n" listed in the attached Tables F-15A, F-15B, F-15C-1 and F-15E. Once these four tables are revised, the EPC/source summary values will need to be recalculated to determine if the maximum or the 95 percent UCL is the appropriate value to use in the HHRA. The summary of EPCs listed in Table F-15 could also require revision, depending on the results of the changes to the EPCs values listed in the other four tables.

12B) The carcinogenic risk estimates for the onsite worker (adult) in Table F-16 and the older child (adolescent) in Table F-17 will also need to be revised to address the changes to Appendix F's tables requested above in General Comment 12–12A.

Ohio EPA's September 2008 Letter's Specific Comments:

1) Agreed to perform the editorial change in the report's text.

2) The RI Report's lead concentration value reference stated as the remedial action objective for the OCA's interim action will be modified to match the language stated in the approved work plan for the interim action.

3) Agreed to perform the editorial change in the report's text.

4) Agreed to perform the editorial change in the report's text.

5) Agreed to perform the editorial change in the report's text.

6) Agreed to perform the editorial change in the report's text.

7) Agreed to perform the editorial change in the report's text.

8) Agreed to perform the editorial change in the report's text, and to add a reference about parts of the OCA have wetland type soils as classified by the U.S. Army Corps of Engineers.

9) Reached consensus not to add another area of interest (the background soil sampling area) to the risk evaluation of the RI Report. Please refer to General Comment 3.

10) Agreed to perform the editorial change in the report's text.

11) Agreed to perform the editorial change in the report's text.

12) Agreed to perform the requested changes in the ERA.

13) Agreed to update the conceptual site model to reflect the revised HHRA and ERA.

14) Agreed to update the summary of exposure scenarios to reflect the revised HHRA.

15) Agreed to perform the editorial change in the report's text.

16) Agreed to perform the editorial change in the report's text.

17) Agreed to perform the editorial change in the report's text.

18) Agreed to perform the editorial change in the report's text.

19) Agreed to perform the editorial change in the report's text.

20) Agreed to perform the editorial change in the report's text.

Ohio EPA hopes this summary of the proposed changes to draft RI Report will aid in the completion of the final version of the report. Please contact us to indicate your proposed date for the revised RI Report submittal. Should you have any questions about this letter, please contact me at (614) 728-5040.

Sincerely,

David M. O'Toole, Jr.

David M. O'Toole, Jr.
Site Coordinator
Division of Emergency and Remedial Response
Central District Office

Attachments

c: Mark Navarre, CO/LEGAL (w/o attachments)
Deborah Strayton, CDO/DERR (w/o attachments)
File Copy, CDO/DERR
Jack Kinnamon, Thomson Electronics
Thomas Sipher, Thomson, Inc.
Frank Merrill, Bricker & Eckler
Brian Tucker, CO/DERR
Mark Rickrich, CO/DERR
Janusz Byczkowski, CO/DERR

DMO/nsm RI Report Sept. 2007 Meeting