

**GM POWERTRAIN BEDFORD CORRECTIVE ACTION  
COMMUNITY LIAISON PANEL (CLP) MEETING MINUTES  
MEETING NO. 17**

**DATE:** March 18, 2005  
**TIME:** 11:00 A.M. EST  
**LOCATION:** GM Powertrain Bedford Facility  
**RECORDED BY:** Mary Kelly

**ATTENDEES:** Janie Craig Chenault - County Commissioner  
Chad Faust - City Engineer  
David Flinn - County Road Commissioner  
Paul Ford - General Motors  
Cheryl Hiatt - General Motors  
Mike Hilfinger - General Motors Real Estate  
Joe Klumpp - Mayor, City of Bedford  
Paul McBride - County Health Sanitarian  
Jim McGuigan - Conestoga-Rovers & Associates  
Ed Peterson - General Motors  
Larry Smith - Bedford Resident  
Bill Spreen - County Road Commissioner  
Bob Stowe - Highway Superintendent  
Katie Kamm - Conestoga-Rovers & Associates (guest)  
Mary Kelly - Conestoga-Rovers & Associates (guest)  
Gerald O'Callaghan - Indiana Department of Environmental Management (guest)  
Steve Song - ENVIRON Corporation (guest)

**ABSENT:** *The following members were invited but could not attend:*  
Becki Akers - General Motors  
Adele Bowden-Purlee - Bedford Chamber of Commerce  
Tom Brent - Bedford Resident  
Melva Cooper - Bedford Resident  
Kim Crame - General Motors  
Stanley Glenn - Bedford Resident  
Bob Hamilton - Hamilton & Associates Real Estate  
Tammie Jean - County Assessors Office  
John Lancaster - GM Bedford Powertrain Plant Manager  
Cedar Orman - Williams Reality  
Bridgid Thomas - Bedford Regional Medical Center  
Rick Wallace - Dunn Memorial Hospital  
John Williams - Bedford Resident

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- 11:20** • Meeting called to order by Cheryl Hiatt.
- 11:20** • Cheryl outlined that this was a special session of the CLP that would provide an overview for the proposed remedy of the East Plant Area. A guest speaker, Steve Song (ENVIRON), who conducts human health risk assessments for the project, will be providing a risk based overview of the proposed remedy.

- Cheryl also introduced three new members to the CLP: Chad Faust, David Flinn, and Bill Spreen.
- 11:25**
- Steve Song presented an overview of the project and explained his role in providing Human Health Risk Assessment support. Steve stated that a significant amount of sampling has been conducted already as part of the RCRA Facility Investigation. This sampling involved the sampling of soil, surface water, sediment, and groundwater. As part of his role, Steve explained that ENVIRON is constantly evaluating the on-Site data.
    - Through this ongoing evaluation they have recognized areas of the Plant property where PCB concentrations were higher than the Screening Levels, and therefore these areas were fenced off.
  - The baseline risk assessment focused on hypothetical exposures under reasonably expected future conditions. Hypothetical workers activities such as the daily routine, construction, and maintenance were evaluated. Worker contact with soil groundwater, sediment, surface water, and spring water was evaluated. This risk evaluation assumed that no institutional or engineering controls were in place.
  - Areas that resulted in higher risks require additional evaluation and therefore result in an Interim Measure (IM). The IM would look at what elements would be required to eliminate/reduce the risk.
  - In portions of the East Plant Area, if no action were taken the calculated risk would exceed the U.S. EPA acceptable risk level. The installation of a cover system would significantly reduce the risk level.
  - Removal of material in the >1,500 mg/kg PCBs, >500 mg/kg PCBs, and >50 mg/kg PCBs ranges were evaluated in terms of cancer and non-cancer (i.e., severe rashes and skin irritations) risk estimates for post-IM scenarios for the typical routine and construction worker.
  - PCBs cause cancer in test animals but there is not enough scientific data to prove that PCBs can cause cancer in humans, but as a precautionary approach the regulators require that these levels be evaluated and that the assumptions be used to make decisions.
- 11:42**
- Cheryl Hiatt discussed the evaluation of all files relevant to the Site and the development of the Areas of Interest (AOIs). Cheryl pointed out on a map areas where:
    - Historic storm water pond was cleaned out in the 1980's.
    - Foundry sand waste and sludge disposal areas.
    - Cascading pond system, where pond no. 4 was cleaned to bedrock but now oily material is coming up through the underlying bedrock and recontaminating the fill materials that were placed in the pond.
- 11:45**
- Ed Peterson summarized the process employed to evaluate cleanup options for the East Plant Area. This evaluation included both objective and subjective metrics. These were essentially the guiding principles for the remedy. These objectives include:
    1. eliminate potential unacceptable human exposures;
    2. minimize potential worker and public exposure during cleanup;
    3. eliminate potential oil or groundwater migration;

4. cut off contact of PCB soil with rainwater and snowmelt;
  5. minimize disruption to the plant and surrounding community;
  6. allow for continued plant operations;
  7. reduce the toxicity, mobility, or volume of PCBs in general in the environment;
  8. reduce long-term operation, maintenance, and monitoring;
  9. complete IM construction activities within a reasonable timeframe; and
  10. be cost effective.
- Ed reviewed the distribution of PCBs in the soil at the surface and at depth in the East Plant Area. The potential contaminant pathways via preferential groundwater flow were explained. The plant sits at a high elevation and acts as the recharge zone; groundwater flow is focused through bedrock valleys.
    - Bedrock at depth is more competent and chemical analyses of groundwater in deeper bedrock showed no detects for PCBs.
    - A number of experts have reviewed the information and the question of the mobility of PCBs. PCBs tend to take the easiest pathway (i.e., through fractures in the bedrock).

**12:10** • IM Components for a protective remedy:

1. Institutional Controls: such as deed restrictions will be designed and implemented as part of the final Corrective Measure. These controls ensure that future land use remains compatible with the IM's engineering control components.
2. Soil Removal/Landfill Vault: involves the removal of materials determined (during the investigation) to be  $\geq 50$  mg/kg PCBs. This also takes into account worker safety, timeliness, and the minimization of disruptions to the community and the Plant. A few small select areas are impractical to remove because of plant utility corridors or structural risks to the storm water pond. A lined landfill vault will be constructed in the East Plant Area consistent with the RCRA Subtitle C Hazardous Waste Landfill and Toxic Substances Control Act (TSCA) requirements. This landfill vault will be placed within the low permeability Cover System and Perimeter Groundwater Trench Collection System.
3. Removal Action Grading Material: approximately 400,000 cubic yards of low level (<50 mg/kg PCBs) impacted soils from the Removal Action can be utilized to grade area beneath the low permeability cover since significant quantities of backfill material are required. This would also reduce the impact to the local community by minimizing traffic and damage to local roads, speed up completion of Removal Action, reduce fuel consumption, save backfill material from other sources, and save landfill space.
4. Perimeter Groundwater Trench Collection System: will be cut into the competent bedrock (below the fractured karst rock), lined with impermeable heavy duty plastic (i.e., Flexible Membrane Liner) along the bottom and downgradient side, perforated pipe and gravel trench will to capture and convey water to wet wells, and collected water pumped to a water treatment facility. Rock trenching will be required to depths of 5 to 20 feet into bedrock. Options will include traditional track excavator with use of hoe ram, bedrock trenching machine, and blast fractured trench with rock removal via traditional excavation.

5. Groundwater/Oil Source Collection System: targeted collection of impacted groundwater and oil in the area of highest impact, if present. Systems under evaluation include gravity collection trench, traditional extraction wells, and multi-phase extraction. Collected water will be treated; any oil will be separated and properly disposed of off-Site.
6. Cover System: A low permeability Cover/Cap System will be installed over the East Plant Area to control erosion, prevent direct contact, and reduce rainwater through the soil to the groundwater. Some areas (salary lot and Zipp lot) will covered with an asphalt or concrete cap to allow continued use. The Cover System design will include contour/drainage layer, barrier layer, and grading layer.
7. Operation, Maintenance, and Monitoring: Periodic inspection of landfill Cover System for signs of erosion and vegetative stress. Ongoing maintenance and monitoring of the Perimeter Groundwater Collection System. Ongoing maintenance and monitoring of the groundwater/stormwater collection treatment system.
8. Pre-Design Studies: A geophysical survey of the East Plant Area to better define subsurface conditions including bedrock topography and the condition of the upper bedrock surface, perimeter surface PCB delineation to finalize the limit of the Cover System, East Plant Area investigative coreholes to further define the geology within the East Plant Area, proposed Perimeter Groundwater Collection System alignment investigative coreholes, dye tracer studies in AOI 4, and a detailed topographic survey of the East Plant Area.

- 1:20** • The meeting was adjourned.