



February 26, 2021

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Transmitted Via E-mail

Jaines, LLC
1515 Des Peres Road, Suite 300
St. Louis, MO 63131

Subject: Site Investigation Report (SIR) Addendum & Remedial Action Options Report (ROAR)
General Motors (GM) Property
1000 General Motors Drive

Greetings:

The Department of Natural Resources (DNR) has received your reports related to the GM Property site and has the following comments:

General Comments

- All submittals must have the appropriate certifications as required in Wis. Adm. Code NR 712.09. This applies to the SIR, and any subsequent submittals.
- Soil contaminant concentrations need to be compared to all Residual Contaminant Level (RCL) standards, including the pathway to groundwater RCL. All RCL exceedances need to be identified and delineated.
- The nature and extent of all groundwater quality exceedances (enforcement standard (ES) and preventative action limit (PAL)) must be identified and delineated in the SIR. The presence of a local ordinance, deed restriction or continuing obligation does not change this requirement.
- Use of a materials management plan as a remedial option is not appropriate. These plans are formulated at the time of proposed movement of regulated material and are reviewed for the specific proposed development, land use and zoning.
- Consider proposing natural attenuation as the remedial measure for site groundwater contamination. Based on our review of information, the contaminant plumes appear to be stable to receding and are confined to the property.

Site Investigation Report

Page 4, Paragraph 3

The Non-Industrial Direct Contact RCLs are not applicable to on-site soil conditions; therefore, analytical data was ultimately compared to Industrial Direct Contact RCLs.

- Exceedances of non-industrial standards must be identified and depicted in the SIR. Later, as part of the ROAR (and subsequently the closure request) a request/recommendation to remediate to industrial standards and maintain industrial zoning may be made. We ask that areas exceeding both industrial and non-industrial standards be depicted at this point in the process. This comment also applies to a number of other references to standards throughout the document.

Additionally, there is a restriction recorded on the deed of the property that states “The property may only be used for industrial and commercial uses”.

- Please note that for soils, Wisconsin RCLs are divided between industrial and non-industrial standards. Commercial use falls under the non-industrial category. Suggesting that industrial and commercial uses have the same RCLs is not appropriate. This comment also applies to several other references to standards throughout the document.

Page 4, Paragraph 4

Areas with concentrations of arsenic in excess of twice (2x) the BTV for soil were further evaluated (MW-68N-S, SB-23-16 and SB-158-16) – Concentrations of arsenic in soil exceeded background screening levels (of 8 mg/kg) at MW-31S, SB-37-16, SB-41S-S, SB-59-16, SB-133SE, SB-137-16, SB-137SW-S, SB-215-16, SB-229-16, SP-1S and SB-7S but were not evaluated because the concentrations did not exceed 2x the BTV of 16 mg/kg as considered consistent within typical statistical deviations in background data.

- Please provide additional technical or statistical justification for use of “twice the BTV” as a local background level for arsenic.

Page 5, Paragraph 1

Furthermore, the US EPA Regional Screening Level (RSL) for Dermal Contact, Composite Worker, is 5.9 mg/kg.

- Please reference and use the appropriate RCL from Wis. Adm. Code NR 720. Use of federal screening levels in this context is not appropriate.

Areas with concentrations of PAHs in excess of 2x the Industrial Direct Contact RCLs for soil were further evaluated

- Please provide data or citation to support this alternative concentration limit. We recommend using our approved method for calculating risk-based cleanup levels as described in our guidance documents RR-079 and RR-087. Use of these methods will be readily approvable. Alternatively, you could sample unimpacted soils in the vicinity of the plant and define local background levels that are different than the Background Threshold Values (BTV).

Concentrations of Cr(VI) in soil did not exceed Industrial Direct Contact RCLs in any of the soil samples.

- Chromium concentrations also need to be compared to non-industrial RCLs.

Page 6, First Paragraph 1

Trichloroethene (TCE) in Soil

- Concentrations of TCE also need to be compared to pathway to groundwater RCLs.

Page 7, Third Paragraph

Lead in Soil

- Concentrations of lead in soil also need to be compared to non-industrial RCLs.

Page 8, First Paragraph

PAHs in Soil

- Concentrations of PAHs in soil also need to be compared to non-industrial RCLs.

Page 12, Fourth Paragraph

Chromium in Groundwater, Concentrations of total chromium exceeded Public Health GWQS ES at MW-1S, MW-2S, MW-5S, MW-7S, MW-8S and MW-21S; however, the groundwater samples were also submitted to the laboratory for analysis of Cr(VI). All of the groundwater samples reported concentrations of Cr(VI) were less than of the laboratory reporting limit of 3 µg/L (i.e., not detected). There is no complete exposure route (i.e., potable water wells) nor risk to human health or the

environment from the residual chromium reported in the groundwater. No further evaluation or investigation of the chromium in groundwater is necessary.

- Point of standards application for groundwater RCLs applies everywhere groundwater is monitored. For purposes of the SIR, ES and PAL exceedances need to be identified and delineated for all parameters exceeding standards. Also, recall that in Wisconsin, the point-of standards application for groundwater quality is anywhere groundwater is sampled. This comment applies to all parameters.

Remedial Action Options Report

Page 2, Section 2.3.1

Soil samples were previously compared to Soil Migration to Groundwater RCLs; however, the current on-site groundwater deed restriction eliminates this pathway.

- The presence of a deed restriction does not eliminate the need to compare the analytical results to the Groundwater (GW) RCLs. If there are GW RCL exceedances, these exceedances must be delineated in the Site Investigation Report (SIR) and the ROAR should identify measures to mitigate/remediate the exceedances or provide other documentation/testing to show that groundwater will not be impacted despite these exceedances. Recall that in Wisconsin, the point-of standards application for groundwater quality is anywhere groundwater is sampled. Acceptable measures to address these soil GW RCL exceedances could include removal of the materials, groundwater use restrictions and/or capping to reduce ground water infiltration. Also, you can perform leaching tests to show that particular constituents won't migrate appreciably under site-specific conditions or, alternatively, compare the exceedances to groundwater analytical results in nearby groundwater monitoring wells to show that despite the presence in soils above the RCL, particular constituents don't cause a groundwater ES exceedance.

Page 4, Section 2.3.2, Third Bullet

Only areas with concentrations of PAHs in excess of 2x the Industrial Direct Contact RCLs were further evaluated - Areas with concentrations less than 2x the Industrial Direct Contact RCLs were not evaluated because concentrations of PAHs that slightly exceeded the RCLs are common in developed urban and industrialized areas, do not indicate a significant release, and in EAG's professional judgment concludes that low concentrations do not pose an unacceptable risk to human health or ecological receptors for the existing site conditions and intended land use(s).

- Please provide data or citation to support this alternative concentration limit. We recommend using our approved method for calculating risk-based cleanup levels as described in our guidance documents RR-079 and RR-087. Use of these methods will be readily approvable. Alternatively, you could sample unimpacted soils in the vicinity of the plant and define local background levels that are different than the BTW.

Page 4, Section 2.3.2, Fourth Bullet

Only areas with concentrations of lead in excess of 1,000 mg/kg were further evaluated - Areas with concentrations less than 1,000 mg/kg do not indicate a significant release and EAG concludes that concentrations do not pose an unacceptable risk to human health or ecological receptors for the existing site conditions and intended land use(s).

- Arbitrary use of a lead action level of 1,000 mg/kg is not appropriate. The direct contact RCLs for lead are 400 mg/kg for non-industrial settings and 800 mg/kg for industrial settings. Areas of exceedances of these levels must be identified clearly in the SIR. Exceedances of the industrial RCL can be addressed in the ROAR by recommending remediation or capping of these areas. Areas exceeding the non-industrial RCL but below the industrial RCL can be handled the same way or by committing to maintain industrial zoning. Please note that if the industrial zoning option is pursued, this will preclude future development for commercial or residential uses unless the soils are addressed relative to non-industrial RCLs. This could involve additional investigation, remediation or capping along with associated planning and approvals.

Page 5, Section 2.3.2, Paragraph 2

Analytical results confirmed that none of the groundwater samples reported concentrations of COPC in excess of ES.

- This statement is not consistent with Table 2 that shows some parameters still exceeding ESs. If ground water is impacted above the ES, it needs to be addressed in this document. Based on the limited extent of impacts, natural attenuation may be a viable alternative.

Page 6, Section 2.3.3.1

EAG developed remedial action options to address residual PAH and VOC contamination located within the direct contact zone based on the following parameters: Areas with PAH soil contamination in excess of the US EPA Composite Worker Dermal Contact Regional Screening Level (RSL), 5.9 mg/kg.

- Please reference and use the appropriate RCL from Wis. Adm. Code NR 720. This federal level is referenced numerous times in the report and should be amended as appropriate to reflect Wisconsin regulations.

Page 17, Section 3.5.6

Continuing obligations will include the MMP for handling contaminated soil if exposed in the future. All continuing obligations will be recorded on the deed of the property.

- Continuing obligations are not required to be recorded on the deed. They will be posted to our BRRTS site. Please note that this statement is made in many other sections of the report and should be amended as necessary.

Page 18, Section 4.1

The property may only be used for industrial and commercial uses:

- Please note that for most media (other than soil vapor), Wisconsin RCLs are divided between industrial and non-industrial. Residential and commercial uses fall under non-industrial standards.

Page 18, Section 4.1

The drinking water pathway and residential land use pathways are incomplete. No further evaluation of these pathways is necessary or required.

- This statement/analysis is inappropriate under Wis. Adm. Code NR 700 series regulations. Concentrations at sampling locations must be compared to the appropriate standards for the media tested.

Page 20, Section 4.3

Concentrations of lead in soil exceeded the site-specific investigation criteria of 1,000 mg/kg at depths of 0-4 feet bgs at boring locations SB-137-16 (8,560 mg/kg) and at SB-137-SW-S (3,670 mg/kg).

- Please reference to 800 mg/kg, the industrial RCL for lead in Wisconsin.

Page 22, Section 4.5, First Paragraph

Concentrations of PAHs in soil at sampling locations NP-7S, NP-7W, NP-7W-NW, NP-7W-S exceeded the EAG defined site-specific remediation criteria of 5.9 mg/kg at depth of 0-4 feet bgs.

- Revise remediation criteria of 5.9 mg/kg as necessary per earlier comment.

Page 30, Section 4.13.1

EAG recommends that areas of residual PAH contamination that exceed the Industrial Direct Contact RCL (2.11 mg/kg) but are below the US EPA Composite Worker RSL for dermal contact (5.9 mg/kg) be addressed using a site-wide materials management plan. The recommended remedial options for cover maintenance at NP-7, SB-102-16, SB-161-1, SB-203-16 and SB-205-16, and the use of a site-wide materials management plan for MW-73S, MW 76S, MW-76-N, SB-98-16, SB-102-W, SB-133-16, SB-165-16, SB173-16, SB-183-16, SB-200-16, SB-203-4, SB-204-16 and SB-212-16 addresses all areas with

PAH concentrations exceeding Industrial Direct Contact RCLs. The proposed material management plan is included in Appendix F.

- Addressing these areas using a materials management plan is not an applicable or protective option.

Page 34, Section 6

Areas within the direct contact zone with concentrations of PAHs in excess of USEPA Composite Worker RSLs for Dermal Contact will be addressed using the recommended remedial option described in Section 4.

Areas within the direct contact zone with concentrations of PAH contamination in excess of Industrial Direct Contact RCLs but below USEPA Composite Worker RSLs for Dermal Contact will be addressed using a materials management plan.

- References to EPA RSL not appropriate. Revise as necessary.

Areas within the direct contact zone with concentrations of PAH contamination in excess of Non-Industrial Direct Contact RCLs will be addressed using the current land use restrictions.

Areas within the direct contact zone with concentrations of lead contamination in soil at concentrations in excess of Non-Industrial Direct Contact RCLs will be addressed using the current land use restriction.

- The current site zoning limits site use to industrial or commercial. Non-Industrial RCLs apply to commercial use. Therefore, current zoning alone is not protective for commercial uses in these areas.

If you have any questions about requirements or procedures you can reach the project manager, Gena Larson, by email at Gena.Larson@Wisconsin.gov, or via phone at 608-400-9215. Alternatively, feel free to contact me at stevenl.martin@wisconsin.gov, or via phone at 608-293-0112.

We look forward to continuing our work with you on this project.

Sincerely,



Steven L. Martin, P.G.

South Central Region Team Supervisor
Remediation & Redevelopment Program

cc: Gena Larson – RR/5
Carolyn Edwards – EnviroAnalytics Group, LLC
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