

**From:** [Coenen, Douglas W - DNR](#)  
**To:** [Saari, Christopher A - DNR](#); [Sager, John E - DNR](#)  
**Cc:** [Carey, Angela J - DNR](#)  
**Subject:** FW: Koppers Superior Drip Pad - Review Comments  
**Date:** Thursday, September 19, 2019 2:26:42 PM  
**Attachments:** [image001.png](#)

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Chris and John – Thanks for the call. See below. Is it ok if I send Rob a quick note letting him know that John will be in touch with some additional questions?

Doug

**Doug Coenen, P.E.**

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**From:** Coenen, Douglas W - DNR  
**Sent:** Thursday, September 05, 2019 11:33 AM  
**To:** Rob Smith <[rsmith@kuresources.com](mailto:rsmith@kuresources.com)>  
**Subject:** RE: Koppers Superior Drip Pad - Review Comments

Rob, thanks for checking in. The ball is still in our court. Schedules have been a bit challenging of late, but we are reviewing your submittal.

Regards,

Doug

**Doug Coenen, P.E.**

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**From:** Rob Smith <[rsmith@kuresources.com](mailto:rsmith@kuresources.com)>  
**Sent:** Thursday, September 05, 2019 11:21 AM  
**To:** Coenen, Douglas W - DNR <[Douglas.Coenen@wisconsin.gov](mailto:Douglas.Coenen@wisconsin.gov)>  
**Subject:** FW: Koppers Superior Drip Pad - Review Comments

Doug: I know we put the process behind a bit on our end, but have your folks had a chance to look over our response?

Best regards.

Robert T. Smith, LRS  
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Senior Environmental Scientist  
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**From:** Rob Smith <[rsmith@kuresources.com](mailto:rsmith@kuresources.com)>  
**Sent:** Wednesday, July 10, 2019 7:22 AM  
**To:** 'Coenen, Douglas W - DNR' <[Douglas.Coenen@wisconsin.gov](mailto:Douglas.Coenen@wisconsin.gov)>  
**Cc:** 'Carey, Angela J - DNR' <[Angela.Carey@wisconsin.gov](mailto:Angela.Carey@wisconsin.gov)>; 'Saari, Christopher A - DNR' <[Christopher.Saari@wisconsin.gov](mailto:Christopher.Saari@wisconsin.gov)>; 'PaulLS@koppers.com' <[PaulLS@koppers.com](mailto:PaulLS@koppers.com)>  
**Subject:** RE: Koppers Superior Drip Pad - Review Comments

Doug: Sorry for the delay responding to your e-mail. The following information includes your e-mail text in italics, followed by Koppers response to the various questions/comments in your email. We trust the responses adequately address the questions/comments. We are available to discuss the information with you further. Thank you in advance for your consideration of the responses below.

**Text from WDNR Email and Reponses:**

*We are continuing our review of your Jan. 10, 2019 report, and your January 24, 2019 email that addressed our initial clarifying questions. We also thank you and Linda for participating in the conference call on February 14. It is our understanding that you are requesting that DNR issue an approval for “clean-closure” of a the 90-day generator drip dad to effectively end ongoing obligations under the NR 600-series hazardous waste rules [more specifically, NR 662.034(1)(a)3. and NR 665.0445]. We also understand that you are seeking this approval to end any continuing obligations to maintain the drip pad’s status as a “barrier cap” and “structural impediment” under NR 700-series rules regarding contaminated site investigation and remediation.*

Response: Yes. The above is correct. Past DNR correspondence stated the drip pad was required as a “barrier cap” or “structural impediment” due to a lack of data for the conditions beneath this concrete pad. Koppers implemented the approved Work Plan to collect information on conditions beneath the concrete drip pad and reported the findings from the drip pad investigation to specifically address this past DNR concern. As presented in the 2019 RCRA Subpart W Drip Pad Closure Demonstration Report, the collected information shows the drip pad is no longer needed as a “barrier cap” or “structural impediment”. In

addition, the information collected supports the request for approval of clean closure and end to the ongoing obligations under NR 6000 series hazardous waste rules as the 90-day generator drip pad has been sufficiently cleaned (prior demonstration) and assessed per those rules.

*After reviewing your request and background materials more fully, it is not clear to the DNR if the proposed subsoil data evaluation method is appropriate. In reading the applicable section of the October 2009 Revised Addendum to the Post-Remediation HHRA (p. 4), the end point concentrations were calculated after removing from the dataset the sample values that would be covered by the remedial action (i.e., those soils would be capped, thereby “eliminating” the potential for future exposure, so they were not considered in the evaluation).*

Response: The description of the end point calculation is correct; in the October 2009 Revised Addendum to the Post Remediation HHRA (October 2009 Revised Addendum), concentrations of constituents in areas that were designated for remediation (capping) were removed from the dataset used to estimate the post-remediation exposure point concentrations because, as DNR indicates in its comment “those soils would be capped, thereby eliminating” the potential for future exposure. However, we believe that the proposed subsoil data evaluation method that compares drip track subsoil concentrations to the post remediation concentrations is appropriate. As a post-remediation risk assessment, the values in Table 1e of the October 2009 Revised Addendum show that the remaining concentrations fall within acceptable potential risk levels and represent concentrations that do not need to be remediated/covered. As the concentrations in soil under the drip pad are consistent with those listed on Table 1e, they indicate the drip pad area would be acceptable to remain uncovered.

*If you are comparing the drip pad subsoil data results directly to the HHRA Table 1e numbers, then this does not appear to be an apples-to-apples comparison, because it assumes that all soil exceeding certain values will be covered.*

Response: Our approach is a direct comparison. Table 1e presents values statistically-derived from the full site data set that indicate concentrations at which soils can remain uncovered, i.e., post-remediation, as the areas that represent greater potential risk have been remediated and do not need to be considered further. As a comparison, all of the constituent average values from the sampling beneath the drip pad fall below the values presented in Table 1e of the October 2009 Revised Addendum that were determined to be acceptable to remain uncovered. As an example, one of the risk-drivers for the facility soil in the October 2009 Revised Addendum was benzo(a)pyrene toxic equivalency (BAP-TE). Table 2 of the Drip Pad Closure Demonstration Report compares the average drip pad investigation values to the maximum value for BAP-TE that could remain uncovered as presented in the October 2009 Revised Addendum. In this example, the maximum BAP-TE value that could remain uncovered based on the risk calculation in the October 2009 Revised Addendum was 14.0 milligrams per kilogram, while the average BAP-TE concentration from the drip pad investigation for the soil beneath the drip pad was 1.07 milligrams per kilogram. Consequently, while the drip pad concrete is still present, it is not needed to prevent exposure to the underlying soil, based on the risk-based post-remediation assessment conducted as part of the RCRA corrective action process.

*However, Koppers is asking the DNR to tell them that the continuing obligation for a cover is not needed, so if the cover is removed, are those risk assessment assumptions valid?*

Response: Yes. Even though the concrete drip pad is still present, the drip pad is not needed as a barrier cap or structural impediment to meet the acceptable risk standard established for the site within the RCRA corrective action program. Consequently, there is no need to maintain the drip pad concrete as a cover, even though it will remain. Additionally, no remediation will be necessary for the drip pad subsoils as an identified SWMU in the RCRA Corrective Action Program.

*Also, your request for drip-pad closure relies, in part, on the site-wide RCRA corrective action program. This work is the subject of BRRTS 02-16-000484, and is being executed by Beazer East, Inc. We recommend that Koppers augment its "clean- closure" proposal to address how Koppers and/or Beazer plans to ensure that such corrective actions being relied on will occur, and that adequate financial assurance for this work is in place.*

Response: The drip pad unit will not require remediation as demonstrated by the data collected as part of Koppers drip pad closure demonstration and as presented in this response. The site-wide RCRA Corrective Action program has been ongoing for many years and already has the necessary mechanisms in place, including Continuing Obligations, between WDNR and Beazer East, Inc. to address the site-wide considerations.

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**From:** Coenen, Douglas W - DNR <[Douglas.Coenen@wisconsin.gov](mailto:Douglas.Coenen@wisconsin.gov)>  
**Sent:** Friday, April 26, 2019 2:00 PM  
**To:** Rob Smith <[rsmith@kuresources.com](mailto:rsmith@kuresources.com)>  
**Cc:** Carey, Angela J - DNR <[Angela.Carey@wisconsin.gov](mailto:Angela.Carey@wisconsin.gov)>; Saari, Christopher A - DNR <[Christopher.Saari@wisconsin.gov](mailto:Christopher.Saari@wisconsin.gov)>; [PaulLS@koppers.com](mailto:PaulLS@koppers.com)  
**Subject:** Koppers Superior Drip Pad - Review Comments

Hello, Rob. We are continuing our review of your Jan. 10, 2019 report, and your January 24, 2019

email that addressed our initial clarifying questions. We also thank you and Linda for participating in the conference call on February 14. It is our understanding that you are requesting that DNR issue an approval for “clean-closure” of a the 90-day generator drip pad to effectively end ongoing obligations under the NR 600-series hazardous waste rules [more specifically, NR 662.034(1)(a)3. and NR 665.0445]. We also understand that you are seeking this approval to end any continuing obligations to maintain the drip pad’s status as a “barrier cap” and “structural impediment” under NR 700-series rules regarding contaminated site investigation and remediation.

After reviewing your request and background materials more fully, it is not clear to the DNR if the proposed subsoil data evaluation method is appropriate. In reading the applicable section of the October 2009 Revised Addendum to the Post-Remediation HHRA (p. 4), the end point concentrations were calculated after removing from the dataset the sample values that would be covered by the remedial action (i.e., those soils would be capped, thereby “eliminating” the potential for future exposure, so they were not considered in the evaluation). If you are comparing the drip pad subsoil data results directly to the HHRA Table 1e numbers, then this does not appear to be an apples-to-apples comparison, because it assumes that all soil exceeding certain values will be covered. However, Koppers is asking the DNR to tell them that the continuing obligation for a cover is not needed, so if the cover is removed, are those risk assessment assumptions valid?

Also, your request for drip-pad closure relies, in part, on the site-wide RCRA corrective action program. This work is the subject of BRRS 02-16-000484, and is being executed by Beazer East, Inc. We recommend that Koppers augment its “clean- closure” proposal to address how Koppers and/or Beazer plans to ensure that such corrective actions being relied on will occur, and that adequate financial assurance for this work is in place.

We look forward to your responses. Please contact me with any questions.

Thanks,

Doug

**Doug Coenen, P.E.**

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**From:** Rob Smith <[rsmith@kuresources.com](mailto:rsmith@kuresources.com)>

**Sent:** Tuesday, March 12, 2019 6:23 AM

**To:** Coenen, Douglas W - DNR <[Douglas.Coenen@wisconsin.gov](mailto:Douglas.Coenen@wisconsin.gov)>

**Cc:** [PaulLS@koppers.com](mailto:PaulLS@koppers.com)

**Subject:** Koppers Superior Drip Pad

Doug: Just checking in on the status of your review of or report.

Also, a clarification from our discussion a couple weeks ago regarding what we are asking for drip pad closure.

We don't see a protectiveness or regulatory procedural impediment to officially clean closing the RCRA unit concrete slab drip pad now by your department, and allowing the subsoil SWMU issue to be resolved over the longer term, along with the other SWMUs by Chris's department. This would also reduce the DNR regulatory and reuse / redevelopment of the property complications that have gone on now for a very long time.

The "partial closure" DNR approval for the drip pad in the past was due to the unknown soil conditions beneath the drip pad, and resolving that was the subject of the report we recently sent you. The need to maintain the concrete slab as the DNR termed it in the past as a "structural impediment," or "barrier cap" has been resolved by our recent investigation and we believe that now knowing what lies beneath the concrete slab drip pad can allow the previously DNR-approved "partial closure" to be upgraded to final closure. Our report shows that the concrete slab is not needed to prevent direct contact with the underlying subsoil or protection of groundwater, and so we believe can be officially "closed" .

Again, if there is anything we can provide you as you consider this matter or if you want to discuss this in more detail don't hesitate to contact us.

Best regards.

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