

**From:** Grittner, Paul V - DNR  
**Sent:** Monday, May 18, 2020 8:37 AM  
**To:** 'Lanette.Altenbach@aecom.com'  
**Cc:** 'sbillingsley@kenosha.org'  
**Subject:** Request for further info - KEP NR 718.12 Exemption Request

Subject: NR 718.12 Exemption Request for the former Kenosha Engine Plant  
5555 30<sup>th</sup> Avenue, Kenosha WI  
DNR BRRTS Activity #: 02-30-000327, FID # 230004500

Lanette,

The DNR has reviewed the NR 718.12 exemption request to reuse contaminated soil excavated during the construction of a stormwater detention basin at the Kenosha Engine Plant site. Additional details regarding this project are needed to demonstrate that the reuse of this material will not result in a risk to human health or the environment. Contamination is present within and outside of the proposed basin but not all areas of the site are impacted by the same contaminants to the same degree. It must be clear where specific classes of contaminants are present at the completion of a soil management activity so the appropriate continuing obligations can be imposed to address the risks posed by those specific contaminants. If the movement of contaminated material is not specifically tracked then the entire area where soil is reused will have to be treated as if it is impacted by the most significant contamination identified within the excavated area. The same continuing obligations will then be applied to the entire area. To support the NR 718.12 exemption request, the DNR asks that you provide the additional details requested below regarding the material being excavated, the use of the material after excavation, and the steps that will be taken to ensure protective site conditions.

### **Material Characterization**

Based on the information provided in the exemption request and previous reports it appears that the following types of material will be excavated and managed on-site. It is unclear how each of these materials has been characterized and what the extent of each of these materials is expected to be. Confirm that the following materials will be excavated from the basin, provide the requested details regarding each, and confirm that other types of material are not expected to be generated during construction.

- Top soil found at the surface of the site and the underlying gravel.
  - o How is this material being classified for management? If it will not be managed as contaminated what is known about the origin of the material that would suggest it could be managed with minimal restrictions? If it will be managed as contaminated, have samples been collected of the material to assess how to use the material to not present a future risk?
- Contaminated soil found in the vicinity of SPW-8 and MW-904.
  - o Samples collected from SWP-8 and MW-904, and the large amount of foundry waste fill in between them, suggest that a significant amount of PAH contaminated material may be located in the vicinity of these borings. The RAOR outlined a large area containing foundry sand material near SWP-8; the bore log for SWP-8 indicated significant amount of fill at that location. Could this material be the same as the material that was

identified as foundry waste nearby; are concentrations of PAHs detected in SWP-8 indicative of what could be expected in the foundry sand?

- Soil contaminated with VOCs
- Soil contaminated with PCBs
- Soil contaminated with nickel and/or lead
- 'Clean soil'
  - o Explain how 'clean soil' is defined for the purposes of this exemption request.

A figure should be provided that identifies where each of these materials is expected to be found within the area to be excavated. Accurate characterization of the material proposed to be excavated ensures that conditions at the completion of the material management activity are understood and the appropriate continuing obligations can be imposed.

Non-soil solid waste, such as construction debris, is anticipated to be discovered and excavated during this project. Solid waste such as this should only be reused on-site only with prior DNR approval. Discuss under what authority will this material, if encountered, will be reused. An exemption could be obtained through NR 718.15 to reuse the material on-site if details are provided as to what the material is to be managed, how it was characterized, and how it will be reused.

To obtain an exemption under NR 718 to manage contaminated material on a site the number of samples collected from the material proposed to be excavated must be sufficient to determine what type of contamination is present and to separate the material that needs to be specially managed from that which does not. An exemption from the sampling requirements of NR 718.12(1)(e) was requested. The DNR will consider whether enough information is available to support how the material is being characterized and how it will be reused when determining if additional sampling is needed. Depicting the limits of the proposed excavation on a figure with the sample locations would be useful with displaying how samples were distributed throughout basin.

Based on the history and size of this site there is the potential that previously undiscovered contamination will be encountered, no matter how many samples are collected before the project starts. Any approval to reuse contaminated material on-site would be contingent on the expectation that newly discovered contamination will be immediately reported, segregated, characterized, and managed with DNR approval.

### **Material reuse on-site**

A detailed description of how the different materials identified above will be reused on-site must be provided. Describe where the different materials would be reused, at what thickness, and how they will be placed relative to other material in the same area (i.e., what material will be used as surface cover, what contaminated material will be placed under cleaner material, etc.). It would be helpful if this is illustrated on a figure. The overall area where excavated material will be reused must also be identified. A cut-fill map is usually provided as part of a NR 718.12 exemption request, but if the depth of excavation and thickness of replaced material across the site is going to be generally consistent throughout this would probably not be needed.

The DNR does not usually approve the reuse of soil contaminated with PCBs or chlorinated volatile organic compounds and will carefully consider how this material will be used before approving it to be replaced on the site. For this material to be considered for on-site reuse the extent of the

contamination within the basin and the area where it will be reused would need to be clearly identified. The area chosen for this material to be reused must minimize the potential for this contamination to pose a future risk.

### **Post management requirements**

An NR 718 exemption request to reuse contaminated material can be approved if the contaminants in the material will not pose a risk or if adequate controls are in place that will mitigate the risk. Specific restrictions (i.e., continuing obligations such as capping, requiring proper management of excavated material, addressing vapor intrusion, etc.) that will apply to certain areas of the reuse area will need to be identified and must be appropriate for the contaminants located there. Consider the following points when evaluating what restrictions will be imposed.

- The submittal stated that certain areas will require that a 'temporary' cap will need to be replaced by a 'permanent cap'. These different areas will need to be identified.
- One area within excavation area currently requires a cap to be maintained over it. If this soil is allowed to be reused on-site it will need to be capped after it is replaced.
- Requiring a vapor barrier be installed at buildings constructed on this site may reduce the potential for vapor intrusion but will not replace the requirement to assess the need to conduct a vapor investigation, collect sub-slab vapor samples if needed, and to operate an active mitigation system where a vapor intrusion risk exists.

The DNR will typically impose continuing obligations, including capping requirements, on the property upon approving the NR 718 exemption. This may require that annual inspections of surface barriers be conducted as outlined in an interim maintenance plan to be provided with the exemption request.

### **General questions**

Providing a brief response to the following questions would help to describe the proposed plan.

- A two-foot thick clay base is proposed for basin, does this mean that the pond is not intended to allow infiltration?
- The submittal states groundwater in the vicinity of the basin is at 10 feet, is the clay cap expected to limit infiltration of groundwater into the pond as well?
- Are there concrete foundations remaining in the excavation area? How will this material be removed/reused – characterized?
- Contaminated soil was previously identified in berms located along the edges of CS9 and CS10. Soil contained in these berms was used as backfill for remedial excavations on this site. Please confirm that soil within these berms will not be excavated as part of the basic construction.
- Various 'hot spot' excavations were completed across the site. Confirm that any of these areas identified within the basin were excavated as proposed and will not need to be addressed during this construction project.

### **Scope**

A written NR 718 exemption would only apply to contaminated material excavated from the basin and reused on-site as proposed. The exemption would not apply to any utility trenches connected to the pond or any other development activities. In the future we can discuss what the City's exact needs are

regarding the reuse of contaminated materials excavated from other areas of the site, and how we can work together to obtain these exemptions.

The DNR will review the exemption request after receiving the requested information.

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**Paul Grittner**

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