

**From:** [Craig Browne](#)  
**To:** [Kromhout, Elizabeth](#); [Dilmore, Cory](#)  
**Cc:** [Mike Kaiser \(michael.kaiser@progressivewaste.com\)](#); [Kwasi Badu-Tweneboah](#)  
**Subject:** Intermediate Modification Permit Application for JED Cells 11-13 Base Grade Revisions - Response to FDEP Comments  
**Date:** Tuesday, January 06, 2015 3:55:59 PM

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El/Cory,

Thanks for calling me today to discuss questions related to the Intermediate Modification Permit Application for Base Grade Revisions to Cells 11-13 at JED. As requested during our conversation, I have summarized comments that were discussed along with responses for each, as follows:

FDEP Comment 1: How is the required transmissivity for the secondary geocomposite calculated?

Response to Comment 1: The transmissivity of the secondary geocomposite is calculated using an iterative process whereby the hydraulic conductivity of the secondary geocomposite layer is varied such that the peak monthly average head on top of the secondary geomembrane (Layer 6 in the HELP model) is no greater than the assumed minimum thickness of the secondary geocomposite of 0.200 inches (200 mils). The resulting hydraulic conductivity is multiplied by the assumed minimum secondary geocomposite thickness (200 mils) to arrive at the minimum required transmissivity in the HELP model. This value is then multiplied by the design factors of safety to arrive at the specified minimum transmissivity for the secondary geocomposite.

FDEP Comment 2: Will a pipe fitting be needed in the leachate collection and leak detection system piping as it transitions from a 0.5% slope to a 1.0% slope in the collection corridor?

Response to Comment 2: A pipe fitting is not proposed at the location of the leachate collection corridor transition from a 0.5% slope to a 1.0% slope. Due to the flexibility of the proposed high density polyethylene (HDPE) pipe and the minimal change in slope, there will be negligible bending applied on the pipe (approximately half an inch over ten feet of pipe). In addition, the gradual pipe bend (as opposed to a fitting) will facilitate passage of pipe cleaning and video inspection equipment at this location.

FDEP Comment 3: Should the minimum required primary geocomposite thickness be 300-mil as opposed to 200-mil shown in the proposed technical specification?

Response to Comment 3: Geocomposite transmissivity is a function of geocomposite thickness and hydraulic conductivity. As such, as long as a geocomposite meets the transmissivity requirement, the actual product thickness does not matter. Historically a 300-mil or thicker product has been used in the primary geocomposite layer to meet the transmissivity requirements at the JED Facility. It is possible that the geocomposite transmissivity specification could be met using a thinner product with a much greater hydraulic conductivity, however Geosyntec is not aware of such product that is commercially available.

Should you have any additional questions or comments do not hesitate to reach me by email or phone.

Regards,  
Craig

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