

Johnson, Bill H (DNR)

From: Fred Marinelli <[REDACTED]>
Sent: Thursday, October 11, 2012 3:15 PM
To: Cory D. Anderson
Cc: Tina Pint; Johnson, Bill H (DNR); Carlson, Erik (MPCA); David Blaha; Melinda Todorov; Houston Kempton; Paul Haby
Subject: Re: FTB materials

Cory,

Thanks for doing this so quickly. Regards, Fred

On Thu, Oct 11, 2012 at 1:52 PM, Cory D. Anderson <[REDACTED]> wrote:

Fred, see below my edits in red. They aren't really edits because you pretty much had it right, I just filled in the table a little more completely.

Make sure the calibration factors (for the LTV materials) are applied correctly. Each constituent has an individual correction factor. However, sulfate has a specific correction for coarse or fine LTV tailings.

Since the new dams are a "bulk" or "other" material, neither the coarse or fine sulfate release correction factor was used, but an average instead. See the column I added below.

Thanks Fred,

Cory D. Anderson

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resourceful. naturally.



From: Fred Marinelli [mailto:[REDACTED]]
Sent: Thursday, October 11, 2012 2:16 PM
To: Cory D. Anderson; Tina Pint
Cc: [REDACTED] Carlson, Erik (DNR); David Blaha; Melinda Todorov; Houston Kempton; Paul Haby; Fred Marinelli
Subject: FTB materials

Cory,

To make sure we are comparing apples to apples, can you indicate what materials and amendments are being used in subareas of the FTB? I put together a rough table (below) and filled in some of the boxes. Have I missed anything? Thanks for your help on this.

Regards,

Fred

Sub-area	Unsaturated Zone Material	Amendments?	Sulfa Corro
North Dam banks (outer slopes)	LTV bulk (other)	Bentonite amended	Aver Fine
East Dam banks (outer slopes)	LTV bulk (other)	Bentonite amended	Aver Fine
South Dam banks (outer slopes)	LTV bulk (other)	Bentonite amended	Aver Fine
North Beach	35% NM fine, 65% NM coarse	Bentonite amended only in closure	N/A
East Beach	35% NM fine, 65% NM coarse	Bentonite amended only in closure	N/A
South Beach	35% NM fine, 65% NM coarse	Bentonite amended only in closure	N/A
Closure Beach	35% NM fine, 65% NM coarse	Bentonite amended only in closure	N/A
Pond	N/A	Bentonite amended only for t >= 30 yr	N/A
1E coarse	LTV coarse	Same as current	Coar
1E fine	LTV fine	Same as current	Fine
2E coarse	LTV coarse	Same as current	Coar
2E fine	LTV fine	Same as current	Fine
2E other	LTV coarse	Same as current	Coar
2W coarse	LTV coarse	Same as current	Coar
2W fine	LTV fine	Same as current	Fine
2W Banks	LTV coarse	Same as current	Coar
North Buttress	Assumed to be Cat 1 Waste Rock but won't really be		N/A
South Buttress	Assumed to be Cat 1 Waste Rock but won't really be		N/A

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Fred Marinelli

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