

From: Pete Hess
To: bprice@rbgengineering.com
Date: 2/7/2008 4:54 PM
Subject: My concerns @ Grassy Trail Dam
Attachments: 20080207170310.pdf

*Outgoing dk
e/007/0013*

CC: Dana Dean; Daron Haddock; Pam Grubaugh-Littig
 Mr. Price...

Thank you for calling me per Dave Shaver's request. It appears we are playing phone tag however. I did not want to call you while you were driving, as indicated by the young lady answering my call.

I basically have two concerns at this point, the first of which is based on the RB&G report titled "Grassy Trail Dam, Seismic Summary for January 26, 2008" by Mr. Michael Hansen.

1) It appears that the seismic instrument on the Dam (reporting check sensor message) and the one on the Hillside (improper connection with power supply cord) are not functioning correctly, although eight events have been recorded by the instrument located on the Dam through January 12, 2008.

Inclinometer I-2 located on the Dam has shown no sign of movement. However, I-3 could not be read without error messages and I-4 is not capable of being monitored.

Piezometer readings on the Dam are missing due to snow depths on the Dam itself.

It appears that one monitoring instrument is functioning as it should.

I have the Ware Engineering report / E-mail of January 9, 2008, in which he indicates that only the straight line survey across the Dam was capable of being conducted due to the snow depths on the Dam proper. The City is not keeping the snow accumulations off of the Dam such that the monitoring surveys can be properly conducted, and has actually heaped snow on several of the survey monuments (please refer to the attachment).

East Carbon and Sunnyside Cities should be made to correct this such that Ware Engineering can properly conduct these surveys, particularly in light of the fact that several of the other monitoring devices can not be monitored, or are not functioning as they should.

2) A lot of seismic events are occurring, as determined from Mr. Hansen's report. From December 15 to January 26, 2008, 57 events have occurred, with a maximum event of 2.5.

I am aware that the emergency action plan for Grassy Trail does not require an evaluation of the Dam until a 3.0 event is recorded within five miles of the Dam. However, I am fearful that we may be placing too much faith in the instruments which, as I have stated above, are not functioning correctly.

Mr. Hansen's report states that no movement has occurred, but I fear that even very slight signs of movement may have been covered by the frequency of snow storms we have had in this area this winter.

Snow pack in the Book Cliffs about 5 miles to the NE approximates eight feet. I am concerned that the seismic events occurring (up to 2.5) could create a potential avalanche danger on the west side of the Dam. If overtopping of the Dam could occur from a snow slide into the reservoir, I believe we should consider avalanche control.

You are certainly more capable in this field than I, but I would like to recommend the following;

- 1) Have the Cities remove the snow from all survey monuments such that Ware Engineering can do the job we expect them to do.
- 2) Evaluate and implement (if necessary) avalanche control above the reservoir to prevent snow slides into the impoundment.
- 3) If I remember correctly, the west abutment is the problem child. I believe an area on the Dam should be cleaned of snow and a portable seismic unit be installed and monitored while mining activities are occurring until the Dam and Hillside unit can be repaired.
- 3) Until the instruments are repaired, at a minimum, have a qualified person inspect this facility, and the slopes above the reservoir (visual) every 48 hours until all monitoring instruments can be properly repaired.

Please call me to discuss these issues.

Thank you.