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| Fac/Perm/Co ID # | Date   | Doc ID#   |
| CCB0053          | 7/2/11 | DIN 15080 |

June 20, 2001

MEMORANDUM

Subject: Notes On 6/20/01 Visit to the Proposed Structural fill in Iredell County near Mooresville, NC to be known as "Race Park USA".

References:

- (1) January 23, 2001 Notification of a Proposed Coal Ash Structural Fill Near Mooresville in Iredell County. This fill is to be named "Race Park USA". The Notification was from Mr. Dean Johnston of Ash Basics Company (ABC) and was addressed to W.R. Hocutt of NC DENR.
- (2) February 13, 2001 Letter from James C. Coffey (NC DENR) to Mr. Dean Johnston of ABC. This letter lists six (6) details and descriptions of construction or drawings in the Reference (1) Notification that the Division of Waste Management (DWM) desired to be changed or additional descriptions or explanations furnished.
- (3) June 1, 2001 letter from Mr. Dean Johnston of ABC to W.R. Hocutt addressing the six (6) items covered in Reference Number (2). Except for the ones specifically covered in the body of this site visit report, the requirements of Reference (2) were satisfied.

To: The File

From: Bill Hocutt *WRH*

Tim Jewitt and Bill Hocutt met Mr. Dean Johnston at the subject site at 11:00 AM on 6/20/01. Mr. Larry Harper, Director of Product Applications, Fuels, Purchasing, and Ash Management for Duke Power (the ash generator for this project), was also present. We had not been told that he would also be there. He had perhaps been invited by Mr. Johnston late on 6/19 or early on 6/20 after we had, on 06/19, canceled and then rescheduled the meeting all within a period of 2-3 hours. This was done when it was learned that Jim Barber could not come to the meeting. Johnston told us that his engineer had scheduled another appointment after we cancelled the visit early in the day of 6/19 and could not change his schedule back and be there. Johnston probably felt that he needed an engineer present and maybe asked Harper to come. Another possibility is that Harper had planned to be there all along. I apologized for the confusion caused by the cancelation, but explained that we were trying to avoid any further delays in the project. Mr. Johnston had voiced displeasure over an additional week delay when we had canceled.

Very early in the 06/20/01 discussions on the information concerning the location of groundwater on the site, Mr. Johnston discovered that information which he received from Ground Technical Services Incorporated (GTSI) right at the time that he was writing Reference (3) was not included in his reply to Reference (2). The only groundwater information that the DWM was aware of as of 06/20/01 was a copy of a 01/25/01 letter from GTSI to Dean Johnston that was included in the 01/23/01 notification. That GTSI letter simply stated that six (6) hand augered probes had been conducted in January in the low lying areas of the planned project.

These six probes had been to an average of 2.5 feet in depth and no groundwater had been encountered. The information that was not included in Reference (3) was a copy of a 5/29/01 letter from GTSI to ABC stating that nine (9) additional hand auger probes had been conducted to a depth of 3.0 feet below existing grade for groundwater measurement purposes. It should be understood at this point that these additional borings were done after significant earth moving was indicated to be occurring when Tim Jewitt visited the site on April 27, 2001. A copy of the 05/29/01 letter from GTSI to Dean Johnson and a copy of an accompanying GTSI drawing (no scale) were obtained from Dean Johnson on 06/20/01. The drawing showed where the borings had been made and they were identified as B-1 through B-9. In the letter GTSI states that groundwater was noted in borings B-4 (14" below existing grade) and in B-8 (36" below existing grade).

Copies of the engineering drawing numbered Sheet 1 of 2 and identified as the "Ash Fill Plan" were submitted with the initial (01/23/01) Notification. Modifications # 2 and #3 were not shown. Those modifications (#2 and #3) are identified as having occurred on 3/9/01 and 5/23/01 respectively on the "Ash Fill Plan" drawing submitted with Mr. Johnston's Reference (3), 06/01/01 letter. The major portion of the elevation contour lines in the second drawing (that copy which contained revisions) appear to be identical to the initial drawing. The changes in the contour elevation contour lines appear to be concentrated in the the lower elevation part of the site. This same general area appears to be where GTSI made the nine , 3.0 foot hand augered borings. Mr. Johnston has agreed to identify the locations of those nine probes on the "Ash Fill Plan" drawing and to also shoot and show the elevations of the B-4 and B-8 probes on the drawing. It is anticipated that these points will show that a significant amount of contour change has occurred.

Mr. Johnston admitted to having done some excavating of the site and said that it was necessary for two reasons: 1) the site had been used for dumping and he had removed material because it would biodegrade making the area unsuitable to support a building which was to be placed there, and 2) the site had to be made suitable for trucks to enter and be able to dump ash. These statements are in agreement with Tim's observations at the site in late April and late June. In April, Tim went by at my request to see if any activity was going on there because no communication had occurred from Mr. Johnston since the February 13, 2001 Reference (2) letter. Tim found that some large earth moving equipment was involved in moving soil and screening it. In June, Tim saw that a wide and deep trench had been dug up towards Doolie Road becoming maybe 15 feet deep near the road and then turning 90 degrees and going along Doolie to end abruptly. On June 20, the ditch was no longer discernable as the site had been smoothed and probably recontoured.

Mr. Johnston has agreed to use measured elevations of B-4 and B-8 to help determine the amount of soil that will be required to ensure two (2) foot separation between the seasonal high groundwater table and the ash. He was cautioned that the groundwater elevations being measured at this time period are not representative of the seasonal high groundwater table elevations. It was suggested to him that perhaps the Army Corps of Engineers or the Soil Conservation Service might have long term data on the groundwater level fluctuations typical of

the Mooresville area. If so, this could provide him with guidance as to how much separation he should provide where he needs to add soil. I told him that J. Barber had shown me long term (eight years or more) data from another part of NC which showed a six (6) foot swing in groundwater levels comparing the low measured (dry season) points vs the seasonal high (wet seasonal) groundwater table elevations. Johnston expressed a willingness to be conservative and place as much extra soil as was seen needed to compensate for the difference to seasonal high elevations.

Referring again to the February 13, 2001, Reference (2) letter; item number five (5) asked that Cross Section "A"- Profile (Dowell & Co.) drawing submitted with the January 26, 2001 Notification letter be changed to include that the coal ash exterior slopes shall have a maximum of 1 vertical to 3 horizontal. Larry Harper argued that the rules allowed deviation from the 3:1 under special circumstances and I told him that was not the case. He then went and got his copy of the rules and apologized that I was right. The original Dowell & Co. Cross Section "A" drawing made no mention of the **ash** slopes and only indicated that **earthen cover** was to have 1.0 vertical to 2.0 horizontal slope. The modified drawing that was received with the June 1, 2001 Reference (3) letter has two changes. First, the **earthen cover** slope is changed to say it will have a 3:1 slope, but no written comment is made in reference to the **ash fill exterior** slope. Instead, the second change is that the drawing now shows the ash to be enclosed by a berm. This changes the ash slope to no longer be an exterior slope but it is now interior which is not regulated by the rules. However, it was pointed out to Mr. Johnston that the drawing now showed a berm enclosing an ash face w/o any slope, ie vertical. It was stated to Mr. Johnston that we did not believe that he could construct the fill as shown. He agreed, and said that this was an error. He said that Dowell & Co. had shown him two versions to select from. One was similar to Jim Barber's penciled changes (that I showed to Mr. Johnston) which showed the earthen cover and the ash both had equal (3:1) slopes. The other was the berm version which was used on the modified drawing. He said that he had selected the other and not the berm and Dowell & Co. had misunderstood him. Johnston is supposed to be submitting a revised drawing. Larry Harper agreed that the vertical interface between ash and earthen cover could not be constructed.

cc: Jim Coffey  
Tim Jewitt  
Jim Barber

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