



City of Chesapeake

Office of the City Manager
Post Office Box 15225
Chesapeake, Virginia 23328-5225
Office: (757) 382-6166
Fax: (757) 382-6507
TDD: (757) 382-8214

July 16, 2008

Mr. Donald S. Welsh
Regional Administrator
U.S. Environmental Protection Agency, Region 3
1650 Arch Street (3PM52)
Philadelphia, PA 19103-2029

Re: National Response Center
Incident Report #877440
Battlefield Golf Course
1001 South Centerville Turnpike
Chesapeake, VA 23322
Latitude: 76 10 53.572 W
Longitude: 36 41 26.209 N
(MJM Golf, Inc. - Owner)

Dear Mr. Welsh:

The City of Chesapeake, Virginia, submits herein its report of elevated contaminant levels discovered during an initial site assessment and petition for a preliminary assessment of the site by the Environmental Protection Agency (EPA). The site is a 216-acre golf course which used 1.5 million tons of fly ash purportedly mixed with a cementitious binder as fill material. The fly ash originated from the Chesapeake Energy Facility operated by Dominion Power. The current owner and operator of the site is MJM Golf, Inc.

Construction of the golf course contours began in the spring of 2002 and was not completed until approximately the summer of 2007. The City has learned that Dominion Power contracted to have 1.5 million tons of fly ash recovered from its Chesapeake Energy Facility placed at the site to create the hills and contours necessary for the golf course. Under the Commonwealth's administrative code, fly ash, a coal combustion byproduct, can be used as a fill material without use of a liner, as long as there is two feet of separation from the groundwater and an 18-inch cap of soil covering the fly ash at all times.

In March 2008, it was reported by our local newspaper that a fly ash disposal area used by Dominion Power for its Chesapeake Energy facility had a release and contaminants of concern were found in the groundwater at that location. The City has learned through documents obtained from the Virginia Department of Environmental Quality (DEQ) that at Dominion Power's Chesapeake Energy Facility's fly ash disposal site, levels of arsenic, lead and other contaminants exceeded national drinking water standards. The DEQ continues to monitor this site. Although this is a different site, the City became concerned that the fly ash used at the golf course may have similar levels of contaminants.

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It was further reported by our local newspaper that at the golf course, portions of the soil cap had eroded and exposed fly ash for some period of time. Citizens living near the golf course during construction have expressed concerns relative to construction of the golf course. The DEQ released the owner of the golf course from the DEQ oversight in late 2007. For these reasons, the City believed the safest course was to test all drinking water wells surrounding the site to insure they complied with national drinking water standards.

There are approximately 79 families residing adjacent to the golf course who use wells as their primary source of drinking water. The City began to test drinking water wells of the surrounding residents for constituents of concern. The elements tested for included: Arsenic, Barium, Boron, Chromium, Cadmium, Lead, Selenium, Silver, Vanadium, and Mercury.

The results of the tests showed that no elements of concern were detected at levels exceeding national drinking water standards, except for one or two isolated results considered anomalies which could have been attributed to collection methods. However, approximately twenty-seven wells showed levels of boron which exceeded levels shown in neighboring wells.

With the permission of the landowner, the engineering firm of Kimley-Horn and Associates, Inc. has conducted an initial site assessment. During their work, the engineers took samples of surface water from several lakes on the site and at outfalls. No constituents of concern were detected in the initial tests. However, for reasons discussed below, the City has requested that these locations be retested.

The engineers pulled seven samples of fly ash using a hand auger at the site. Leaching tests were conducted on these samples using the Toxicity Characteristic Leaching Procedure (TCLP) and Synthetic Precipitation Leaching Procedure (SPLP) methods.

After pulling fly ash samples, three groundwater monitoring wells were installed on site and groundwater samples were taken and tested. From the groundwater samples, several constituents of concern were found at levels exceeding safe drinking water standards and are set forth below:

Arsenic:

Average among three monitoring wells approximately 82 parts per billion.
Drinking Water Std. 10 parts per billion.

Beryllium

Highest reading found 5.2 parts per billion.
Drinking Water Std. 4 parts per billion.

Chromium

Average among three monitoring wells 240 parts per billion.
Drinking Water Std. 100 parts per billion.

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Lead

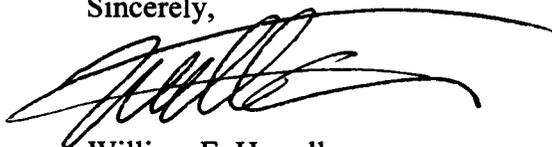
Average among three monitoring wells 84.2 parts per billion.
Drinking Water Std. 15 parts per billion.

The City has also received test results for the 30-day SPLP leaching test performed on the fly ash. These results have been reviewed by a fly ash chemist and expert. It is his opinion that levels for constituents of concern are high. Further, high levels of vanadium were detected in the groundwater recovered from the monitoring wells. It is the opinion of our fly ash expert that vanadium is an element associated with and found in fly ash.

We are taking the following actions: 1) retesting drinking water wells for residents living adjacent to the golf course; 2) retesting surface water on the golf course; 3) retesting groundwater monitoring wells; and 4) establishing groundwater monitoring wells up gradient and down gradient to assist in determining background levels for constituents of concern.

We are asking that your agency respond to this detection and provide support to our residents. The City's contact person is Mary Anne Saunders, Assistant to the City Manager. She may be reached at (757) 382-6166.

Sincerely,



William E. Harrell
City Manager

WEH:sc

cc: Preston Bryant, Secretary, Virginia Natural Resources
David Paylor, Director, Virginia Department of Environmental Quality
Ronald S. Hallman, City Attorney
Frank Daniel, Virginia Department of Environmental Quality-Tidewater Regional Office
Rick Matthews, MJM Golf, Inc.
Neil Wallace, CPM
Junius Williams, Dominion Power
Nancy Welch, MD, Director, Chesapeake Health Department