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Secretary

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August 12, 1993

File Ref: Monona Terrace

Mr. George Lightbourn  
Department of Administration  
101 E. Wilson Street  
Madison, WI 53702-0001

SUBJECT: Monona Terrace Convention Center

Dear Mr. ~~Lightbourn~~ <sup>George</sup> Lightbourn:

On May 20, we met and discussed some environmental concerns which had arisen as part of the initial studies for the Monona Terrace Convention Center. You had requested our response on what further work, if any, needed to be performed on either the local groundwater or the near shoreline sediments before this project could move forward. I apologize for the length of time this reply has taken, however, the data sparked some internal discussions which took a while to sort out.

The groundwater data provided to us did show elevated concentrations of polynuclear aromatic hydrocarbons (PAH's) in the groundwater beneath the site. Two of these PAH's, benzo(a)pyrene and naphthalene, were found at a concentration above the enforcement standard (ES) established in chapter NR 140, Wisconsin Administrative Code. While we would typically require levels such as these to be actively addressed through some type of remedial effort, the fact that this site was once a landfill for the city alters that approach. Section NR 140.22, Wis. Adm. Code, establishes how the point of standards application is determined for regulated facilities such as landfills. What this rule essentially allows is some degradation of groundwater quality beneath these types of facilities as long as the contamination does not migrate beyond the design management zone (DMZ), which is a point some given distance out from the waste boundary, nor impact other points of groundwater use. Given that the historical record indicates fill was actually placed within the shoreline of the Lake Monona, the DMZ would extend approximately 250 feet beyond that point, or out into the Lake itself.

At the meeting in May it was indicated that some additional groundwater monitoring wells were going to be installed in an upgradient direction, or next to the rail corridor, to get a better picture as to what background groundwater quality may be. These data points will be useful in determining whether the contamination identified originated from the old landfill or from some other off-site source. We are asking that once these new wells are installed and surveyed in, all exiting wells be sampled for the same



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compounds. Once that data is received we may be better able to point to a source of this contamination.

Given that this is an old landfill site, with the fill actually extending out into Lake Monona, source control measures such as waste removal would not be practicable. Since the lake would also more than likely be the groundwater discharge point from this site, collection of groundwater data from a downgradient location would require a well through the lake bed at some distance from shore, which also does not seem practicable. Since there are no downgradient groundwater users who might possibly be impacted by this contamination, we have decided that further downgradient data would not affect our decision on a need for additional work. Therefore, the Department has decided that no further action is necessary, other than the installation and sampling of additional wells.

The borings which were performed in the lake bed itself also detected some elevated concentrations of PAHs. In discussing this data with staff from our Water Resource Management (WRM) program, we discovered that a study conducted in the summer of 1989 identified contamination in lake bed sediments throughout various parts of Lake Monona and Monona Bay. While this study focused on a different set of contaminant parameters, it does indicate a more extensive problem than just in the area of the convention center.

In discussing the method of construction for the convention center it was stated that no soil or sediment removal would be conducted. Instead, the entire center was to be constructed on pilings which are to be driven into the ground. You were proposing to use circular pilings to further limit the amount of soil and sediment which would be disturbed and/or displaced during their installation. In discussing this with our WRM staff they felt that construction in or through these sediments should include precautionary steps to limit the resuspension of contaminated sediments and to restrict the dispersal of suspended solids. They have suggested the use of silt curtains throughout the water column during the driving of any pilings.

They are also planning on doing some follow up sampling in this area, as well as along various areas of the Law Park shoreline. They have requested access to all information from your consultant's efforts to characterize these sediments, including physical characterizations and/or descriptions of retrieved sediment cores. I ask that either you or your consultant provide us with any additional information you might have, or contact WRM staff directly to determine what specifically they are looking for. The contact in WRM is Lee Liebenstein who can be reached at (608) 266-0164.

Again, I apologize for the length of time it has taken to compile this response. If you have any questions regarding the groundwater or lake sediments issues, give me a call.

Sincerely, .



James R. Huntoon  
District Director

cc: DuWayne Gebken - EA/6  
Lee Liebenstein - WR/2  
Joe Brusca/Pat McCutcheon