



# Florida Department of Environmental Protection

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Mr. John J. McNally, Esq.  
Shook, Hardy & Bacon, L.L.P.  
Miami Center, Suite 2400  
201 South Biscayne Boulevard  
Miami, FL 33131-4332

MAY 14 2007

Re: Groundwater Quality Update Report No. 3/ Limited Soil Assessment  
Boca West – Old Golf Course Maintenance Area, Boca Raton  
OGC Case # 91-1543

Dear Mr. McNally:

Staff of the Department's Waste Cleanup Section has reviewed the Groundwater Quality Update Report No. 3 / Limited Soil Assessment, dated August 28, 2006 (received October 11, 2006), which was prepared by URS Corporation, for the above referenced property. The following comments need to be satisfactorily addressed at this time.

1. Additional information is needed in order to concur with the consultant's proposal to continue to monitor arsenic groundwater concentrations in order to generate additional trend data for evaluation. Specific documents should include;

- a. A comprehensive report, summarizing all groundwater data from all sampling events, from project inception to date. It doesn't appear that delineation, either horizontally or vertically, has yet been achieved. The report should include the results for all parameters examined (not limited to Arsenic) and compare the current data to current Groundwater Cleanup Target Levels (GCTLs).
- b. Supporting documentation, to show that it is appropriate to use a GCTL of 50 ug/L, as opposed to the current 10 ug/L, should be provided. In the absence of such documents, the Department will have to use the current GCTL when evaluating future submittals.
- c. Please explain the context in which the monitoring is being proposed. Pursuant to Chapter 62-780.690 (1)(b), Florida Administrative Code (F.A.C.), Natural Attenuation with Monitoring is only an allowable strategy when the plume has been proven to be stable and shrinking. This has not yet been demonstrated at this site; consequently, MNA does not appear to be an option at this time.

2. Natural Attenuation with Monitoring is also an allowable strategy for site rehabilitation only if there is no contaminated soil present in the unsaturated zone, or if the soil does not constitute a continuing source of contamination to the groundwater. It appears that all three soils samples tested failed the Synthetic Precipitation Leaching Procedure (SPLP), which indicates that an alternative strategy may be necessary.

3. The Department concurs with the recommendation to check the survey elevation of western property boundary monitoring wells in order to explain the apparent unexplained drop in groundwater elevation in this area. Groundwater elevations and comparisons should be based upon the National Geodetic Vertical Datum (NGVD). In addition, please provide the source of irrigation water for the adjoining golf courses. If groundwater is utilized, please provide the location, pumping rates, and other relevant hydrologic details.

4. Please explain if the proposed engineering controls are intended as an interim measure or as a final remedy. Provide details on the type of engineering controls that would be employed. Are they intended to address direct risk or leachability? Two feet of clean fill would be acceptable only if there are no leachability concerns.
5. The use of fill material after the soil excavation necessitates that subsequent soil sampling should be extended to the water table. Additionally, the 95%UCL should be calculated for each soil horizon sampled (0-6", 6-24", 24-48", etc.), in order to ensure that no other excavations are needed. Use of the 95% UCL also means that apportionment will be required.
6. The arsenic plume does not appear to be stable or shrinking therefore, an Institutional Control (IC) as a final remedy, is not acceptable at this time. The absence of hydraulic receptors (surface water or production wells) in the vicinity would also have to be demonstrated in order to use an Institutional Control on Parcel C.
7. The Department reserves the right to disapprove dewatering activities in an area of known ground-water contamination.

Please provide a written response to these comments no later than June 4, 2007. If you have any questions, please contact Ms. Bridget Armstrong at (561) 681-6679.

Sincerely,



Paul Alan Wierzbicki, P.G.  
Waste Cleanup Supervisor

cc: Pat Evans, via email ([EvansPatm@aol.com](mailto:EvansPatm@aol.com))  
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