UIC Well Permitting Guidance for Air Sparging/Bio-Sparging Systems

On September 14, 2012, the Florida Department of Environmental Protection (FDEP) issued a Memorandum regarding Approval to Construct Class V, Group 4 Injection Wells for Contaminated Site Rehabilitation. A copy of the memo can be found at http://www.dep.state.fl.us/waste/quick_topics/publications/pcp/UIC_well_permitting_14Sep12.pdf. According to the memo, Section 373.326, Florida Statutes (F.S.) has been modified effective July 1, 2012, which allows statutory exemption of air sparging/bio-sparing systems as described below:

“A permit may not be required under this part for any well authorized pursuant to ss. 403.061 and 403.087 under the State Underground Injection Control Program identified in chapter 62-528, Florida Administrative Code, as Class I, Class II, Class III, Class IV, or Class V Groups 2-9. However, such wells must be constructed by persons who have obtained a license pursuant to s. 373.323 as otherwise required by law.”

When Underground Injection Control (UIC) wells are proposed to be used for contaminated site rehabilitation activities, by either injection of treated groundwater or injection of chemical or biological remediation products, the wells are considered to be Class V, Group 4 aquifer remediation wells, and are therefore subject to this statutory exemption. Additionally, it has been determined that in-situ sparging wells also qualify for this exemption and as such wells are also considered to be Class V, Group 4 aquifer remediation wells under UIC procedures. This means that the appropriate Water Management Districts (WMD) and/or their designees will no longer issue permits for construction of injection wells or in-situ sparging wells, which will be installed in conjunction with a contaminated site rehabilitation system or activity.

See UIC….., continued in Page 4
**Documenting Pre-existing Site Conditions Prior to Starting Work**

Frequently environmental assessment and remediation work requires alteration of the surface and subsurface conditions of a site. Prior to starting any work requiring site alteration (ex. drilling, construction, etc.), it is critical to document the pre-existing conditions of both the surface and subsurface conditions on the site. This article discusses the recommendations and requirements of documenting site conditions.

**Subsurface Utility Clearance**

Documenting underground features is important before starting subsurface work to avoid damaging underground utilities and structures. Utility clearance is required by Florida Law. According to the 2012 Florida Statutes, Chapter 556 “Underground Facility Damage Prevention and Safety,” anyone conducting an excavation has to call 811 or 1-800-432-4770, the toll-free phone number of Sunshine State One Call, at least two full business days before digging. If the excavation is underwater, ten full business days are required after notification before starting excavation. The notification time allows for marking the approximate utility locations.

Sunshine State One Call notifies the operators of underground utilities, who arrange the marking (stakes, paint, flags, etc.) of the utility locations in Right-of-Ways (ROWs). Utility locates, requested through Sunshine State One Call, are not conducted on private property. Following the utility clearance request, Sunshine State One Call will issue a ticket number. The ticket is valid for thirty calendar days and the contractor is required to have the ticket number on site.

Violation of Chapter 556 requirements may result in civil penalties or a misdemeanor criminal charge. If the utilities are damaged during construction, the contractor may be held liable for the cost of repair and disruption of the utilities.

Since the utility clearance arranged through Sunshine One Call is completed only on ROWs and not on private property, marking of utility locations on private property shall be arranged. Independent utility marking companies, many utilizing Ground Penetrating Radar, are available to detect and mark subsurface features. A pre-construction site visit and review of the As-built Drawings will provide important information about the subsurface features (drainage, underground storage tank systems, etc.) and visible surface features of the site.

**Visible Site Conditions**

Documenting observable site conditions is important to avoid being held responsible for pre-existing site conditions of the site. In many past instances, contractors were blamed for site damage that may have been pre-existing.

In addition to a review of the As-built Drawings, documenting the site in detail through the use of photographs is important. The photographs can be used to compare pre-construction and post-construction site conditions.

See *Documenting*...., continued on Page 3
**Requirements for Preapproval Program Work Order Funded Sites**

If the work is authorized through the Florida Department of Environmental Protection’s (FDEP’s) Preapproval Program, Section 3.81 “Photographic Documentation of Site Structures and Improvements” of the current Preapproval Standard Operating Procedure (SOP) requires documenting site conditions using photographs before commencing work. The photographic requirements include “both general view and close up shots from all four compass directions should be taken for buildings, canopies, driveways, sidewalks, landscaping, etc., and any visible specific pre-existing damage or issues noted in the description.” The purpose of the documentation is to establish baseline documentation in case of future allegations of any property damage.

Section-7.7. “Utility Clearance” of the Preapproval SOP discusses the utility clearance requirements. This section references Chapter 556 of the Florida Statues. The Drilling Setup Unit of the Fixed Cost Template includes the cost of utility clearance activities, including having the contractor onsite during the utility location event.

**Conclusion**

In conclusion, it is important to document the surface and subsurface conditions at the site to minimize the potential for damage to utilities and reduce contractor liability. Additional information can be found at the following websites:

The FDEP Petroleum Cleanup Program Standard Operating Procedures:  
http://www.dep.state.fl.us/waste/counties/pcp/pages/SOP.htm.

Chapter 556 “The Underground Facility Damage Prevention and Safety Act” of the Florida Statutes:  

Sunshine 811:  
http://www.sunshine811.com/

Any questions regarding this article can be directed to Mr. Fraser Mickle at (954) 519-1288 or fmickle@broward.org.

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**We are MOVING!!**

Broward County Environmental Assessment and Remediation (EAR) Section has moved to Suite #4100B on the 4th Floor of Government Center West, 1 North University Drive, Plantation, Florida 33324.

Please continue to send reports and correspondence to the old mailing address until we settle down and inform you about the new mailing address.

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**Happy Holidays**

We wish Happy Holidays and a peaceful, prosperous New Year 2013 to all of the Broward Environmental Remediation Times Subscribers

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UIC,..., continued from Page 1

Please refer to May/June 2008 edition of Broward Environmental Remediation Times for an article titled ‘Underground Injection Control Requirements for Petroleum Contaminated Sites.’ This article discussed all of the UIC requirements in detail.

According to the modified Section 373.326, F.S., any new air sparging/bio-sparging systems approved after September 14, 2012 require an enforceable FDEP Order and completion of the UIC notification memo. All other air sparging/bio-sparging systems that were approved prior to September 14, 2012 do not require an enforceable FDEP Order and completion of the UIC notification memo. The following table indicates UIC Well Information Matrix:

<table>
<thead>
<tr>
<th>UIC Activity</th>
<th>UIC Notice Required?</th>
<th>UIC Order Required?</th>
<th>Explanation/Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Sparging/Bio-Sparging</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Sparging/Bio-Sparging pilot test</td>
<td>No</td>
<td>No</td>
<td>The department/local program approval of a pilot test plan will serve as the permit for installing the pilot test wells. The pilot test wells will additionally be approved in the Remedial Action Plan (RAP) Order for the full system and the UIC notice will be prepared at that time for the full system, including pilot test wells which are incorporated. A separate approval letter will be issued by the DEP or the local program if it is necessary to install pilot test wells prior to the approval of the pilot test plan.</td>
</tr>
<tr>
<td>Air sparging and bio-sparging systems which were approved and installed prior to 9-14-12</td>
<td>No</td>
<td>No</td>
<td>UIC noticing is not being performed retroactively for systems which existed before the determination that in situ sparging wells are UIC wells.</td>
</tr>
<tr>
<td>RAPs/RAP Mods involving a new air sparging/bio-sparging system approved before 9-14-12 but not installed prior to 9-14-12</td>
<td>Yes</td>
<td>No</td>
<td>Either the approval Letter for a RAP Modification or an Approval Order for a RAP which was previously issued can be attached to the UIC Notice For RAP Modifications approved before the 9-14-12 policy memo but installed after 9-14-12.</td>
</tr>
<tr>
<td>RAP Mods involving modifying an existing air sparging/bio-sparging system which was originally approved either before or after 9-14-12</td>
<td>No</td>
<td>No</td>
<td>If there was a previous in situ sparging system existing and it is proposed for the system to be modified, any modifications to the system including installation of additional sparging wells does not need UIC notice or a UIC approval order regardless of whether there was UIC notification when the system was first approved and installed.</td>
</tr>
<tr>
<td>RAPs/RAP Mods involving a new air sparging/bio-sparging system approved after 9-14-12</td>
<td>Yes</td>
<td>Yes</td>
<td>All RAPs and RAP Modifications Involving new Air Sparging/Bio-Sparging systems Approved after 9-14-12 require an enforceable FDEP Order and completion of the UIC notification memo.</td>
</tr>
</tbody>
</table>

Any questions regarding this article can be directed to Mr. Avinash Thummadi, P.E. at (954) 519-1467 or athummadi@broward.org.