C6 Resources LLC—Review Comments
Concerning the
EPA's Draft Underground Injection Control Permit, Issued April 16, 2010

The following questions and comments are organized according section topic of the Draft UIC Permit:

Part II. Specific Permit Conditions

B. Well Construction

2. Information/Data Collection and Testing during Drilling and Installation

Question: The statement beginning with "If the Anderson Sandstone does not meet project requirements" is unclear. Which project requirements are being referenced? Perhaps this should be changed to "...proves unsatisfactory for injection."

Deliberative Ex. (b)(5) [redacted]

3(b)(ix)—Injection Formation Testing

Comment: It is our concern that a layman may interpret a 'mini frac' test as a deliberate, significant fracture of the formation. Suggest adding language that refers to the magnitude and routine nature of this testing, or omit the term 'mini frac injectivity test' and replace it with 'injectivity test'.

Deliberative Ex. (b)(5) [redacted]

5. Casing and Completion Specifications

Question: The statement, "Casing strings shall be maintained throughout the operating life of the wells." is unclear. How should the casing strings be maintained? Should it read, "...maintained in good condition throughout the operating life of the wells."?

Deliberative Ex. (b)(5) [redacted]

Question: Also, the statement beginning, "EPA may require or allow the operator's request for minor alterations to the construction requirements for wells C6-1 and C6-2" is vague. What constitutes a minor alteration?

Deliberative Ex. (b)(5) [redacted]

D. Well Operation

2(a)(ii)—Continuous Pressure Monitoring

Question: This section mentions the possibility that EPA may request more detailed records of the monthly results reports. Please clarify. What sorts of detailed records might be requested?

Deliberative Ex. (b)(5) [redacted]

2(a)(iii)(1)—Radioactive Tracer Log

Question: Will the California RWQCB allow the injection of a radioactive tracer for a Class V well? The Arizona Department of Environmental Quality did not allow the injection of radioactive tracers during the Arizona Utilities Carbon Sequestration Project.

Deliberative Ex. (b)(5) [redacted]

3(a)—Injection Pressure Limitation

Question: Will EPA's written notification of the maximum allowable injection pressure, thus necessitating a minor permit alteration, have to undergo public notice? Within what timeframe will EPA provide this written notification? Deliberative Ex. (b)(5) [redacted] Deliberative Ex. (b)(5) [redacted] Deliberative Ex. (b)(5) [redacted]

General Comment: In several instances within the Draft Permit, written approval from EPA is required before we can act in what appears to be a short turnaround or at least a critical circumstance. While our expectation would be for EPA to respond in a timely manner, our preference would be to have this documented within the permit. Deliberative Ex. (b)(5) [redacted] Deliberative Ex. (b)(5) [redacted]

3(b)—Injection Pressure Limitation

Comment: It appears that Section II D 3(b)—Injection Pressure Limitation and Section III E (2)—Penalties for Violating Permit Conditions combine to make any fracturing an automatic permit violation subject to, at least civil penalties, fines, etc. Perhaps that is normal but it seems like there should be a mechanism for exceptions. Deliberative Ex. (b)(5) [redacted] Deliberative Ex. (b)(5) [redacted]

E. Monitoring, Recordkeeping, and Reporting of Results

5(g)—Reporting

Comment: The results of all required and proposed subsurface CO2 monitoring, tracking, and imaging methods will be marked as "Confidential Business Information (CBI)". Any updates comparing operational results to predictive models with regard to reservoir and geologic characteristics, and injectate plume behavior and migration will also be designated as CBI. Deliberative Ex. (b)(5) [redacted]

G. Financial Responsibility

Comment: The bond amounts ($1.25 million per well) seem excessive when compared to the $417,000 bonds that were noted in our UIC Permit Application. The concern is that these elevated bond amounts can be precedent setting.

Deliberative Ex. (b)(5) [redacted]