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April 17, 2010

Nedzlene Ferrario
Solano County Department of Resource Management
675 Texas Street, Ste 5500
Fairfield, California 94533

Sent Electronically and Via US Mail

Re: Permit Application U-09-3
Applicant: C6 Resources LLC

Dear Ms. Ferrario:

Please recall that this office represents C6 Resources LLC in matters related to the above referenced Use Permit application for a Small Scale CO_2 Reduction Project in unincorporated Solano County. This correspondence is sent in response to your letter to DaMonica Pierson, dated March 17, 2010, in which you requested additional information related to the processing of our application.

Regarding Requests Related to Noise Analysis (Items 3 and 4)

Drill Compressor Noise
There are no compressors associated with the drill rig that would create noise of any substance. No compressors would be required on-site during CO_2 injection, as the CO_2 arrives and is stored in a compressed state. As discussed in the Initial Study, the limited noise from the *total* drilling operations is not expected to impact residents, primarily because of distance and topography. (See Initial Study, p. 52.)

Truck Noise
In response to your request for an evaluation that includes decibel levels from trucks traveling at 55 mph, please accept the revised text set out below and in the replacement page attached. Revisions are shown in underline/~~strikeout~~. You will note that the additional information does not change the conclusion that no mitigation is required, because the noise expected to be generated at the greater rate of speed still falls within acceptable levels.

The Solano County Public Health and Safety element of the General Plan has Land Use Compatibility Standards of 45 dBA CNEL[1] for the interiors of residential uses. Because of the noise barrier provided by building walls and windows, the rule of thumb is that the interior of residences will be about 15 dBA lower than the noise outside the residence. Based on this difference, exterior noises of 55 to 60 dBA would be 40-45 dBA inside the residence. Stated another way, exterior noise of 60 dBA would meet the General Plan objective of 45 dBA for interior noise levels in residential uses.[2]

~~Gravel trucks associated with the project would have a CNEL of 44 dBA. Trucks delivering gravel would operate during the daytime for approximately a week. The highest single hour noise levels from these trucks, travelling 40 miles per hour, would be about 59 dBA at the exterior of a building located 50 feet from the source. Taking into account the shielding provided by walls and windows, this would be about 44 dBA in the interior of the residence. This assumes some background noise from existing traffic; however, data on existing traffic are unavailable.~~

~~CO_2 delivery trucks would have a CNEL of 41 dBA. Trucks delivering CO2 would generate a similar noise level as gravel trucks, about 56 dBA CNEL measured at the exterior of the building. CO_2 is expected to be delivered around the clock, at the rate of about ten round trips per 24-hour day. This would be 20 truck passes of a point per day – or about one per hour. Half would be loaded, half would be empty. For nighttime noise, which is more disruptive of sleep and evening/morning activities, a penalty of 10 dBA is added to actual nighttime noise levels. That penalty has been applied to the CO_2 delivery calculations here.~~

Gravel trucks associated with the project would operate during daytime hours for approximately one week. At a residence 35 feet from Birds Landing Road, this could result in an indoor CNEL ranging from 45 to 47 dBA, depending on truck speed. For trucks travelling 40 miles per hour, the highest single hour noise levels at this building would be about 60 dBA at the exterior and 45 dBA in the interior. For trucks traveling at 55 mph, this would result in a daytime single hour noise level of about 62 dBA at the exterior and 47 dBA in the interior.

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[1] Community Noise Equivalent Level (CNEL) measurements are a weighted average of sound levels gathered throughout a 24-hour period.

[2] CNEL is essentially a measure of ambient noise. Different weighting factors apply to day, evening, and nighttime periods. This recognizes that community members are most sensitive to noise in late night hours and are more sensitive during evening hours than in daytime hours. CNEL depends not only on the noise level of individual approaches, but also on the number of approaches during the measurement period.

CO_2 is expected to be delivered around the clock for a month, at the rate of about ten round trips per 24-hour day. This would result in 20 truck passes of a point per day – or about one per hour. Half of the trucks would be loaded; the other half would be empty. As nighttime noise is identified as more disruptive of sleep and evening/early morning activities, a penalty of 10 dBA is added to actual nighttime noise levels to account for this effect. This penalty is applicable to nighttime trips and has been taken into account in the CO_2 delivery calculations here. CO_2 delivery trucks would have a CNEL of up to 45 dBA experienced indoors at a building 35 feet from the source. Depending on truck speed, this would be up to 60 dBA CNEL measured at the exterior of the building.

Based on the noise levels for day and night, and the fact that the anticipated noise levels would occur for a short period, no mitigation is required.

Regarding Requests Related to Costs (Item 5)

Our previous submission included a line for "reclamation" of the site, which was intended to address restoration. The estimated cost is $61,000.00. In terms of a timeline for restoration, we project this work would begin upon the direction from the property owner and take a minimum of 30 days to complete.

Regarding the Choice of the Subject Site (Item 7)

An evaluation of the southern Sacramento Basin was carried out in 2007 to identify potential CCS opportunities. The evaluation focused on subsurface parameters pertaining to Injectivity, Capacity, and Containment of a potential CCS site.

Injectivity was assessed by measuring the following key parameters:

1. Thickness of the prospective reservoir(s)
2. Permeability
3. Rock fracture pressure, and
4. Pore pressure

Capacity assessment focused on:

1. Reservoir properties such as porosity, thicknesses and heterogeneity, as well as,

2. The potential of the reservoir(s) to effectively accommodate CO_2 via the processes of residual solution trapping, dissolution trapping (salinity, temperature and pressure) and/or mineralization trapping.

Containment effectiveness of a potential CCS site focused on avoiding leakage by assessing:

1. The presence/absence of a proven trap
2. Presence/absence of proven top seal(s) that is regionally extensive
3. Proximity to faults and fractures (ie. structural complexity in the vicinity of the CCS site)
4. Number and location of existing wells in and around the potential CCS site.

In comparing sites within the region, Montezuma Hills presented clear advantages. As a syncline east of the Kirby Hills fault zone, it is relatively structurally undeformed with multiple continuous sandstones and shales providing adequate storage capacity and containment. The terrain is favorable with respect to environmental sensitivity and land access, is close to existing pipeline infrastructure and has very few well penetrations.

Regarding the Remaining Issues (Items 1, 2, and 6)

I would like to direct your attention the Underground Injection Control ("UIC") permit, expected to issue shortly from the US Environmental Protection Agency - Region 9 ("the EPA").

As you and I recently discussed, we anticipate that the EPA, the agency exclusively tasked under the Safe Drinking Water Act ("SDWA") with the permitting of CCS injection, will approve our UIC Class V permit application. Further, each of us has been informed by Adam Freedman, EPA Region 9, that a Draft of the UIC permit and attendant conditions of approval will be circulated to Solano County and to C6 Resources, LLC in advance of public review. The result is that Solano County will have the opportunity for early review and comment on the conditions necessary for injection to be permitted, as well as the opportunity to review the information relied on by the Agency in making its determination to permit the injection for the small scale project. It is our understanding that the draft permit will be sent to you in the very near future, likely within days.

Some of the requests for information contained in your March 17, 2010 letter relate to subjects that we believe are addressed in the UIC permit. As such, we ask that you refer to the UIC permit, as well as other relevant communications from EPA for clarification of these areas of inquiry.

At this time we believe we have produced all information necessary in order for you to issue a determination that our application is complete.

Please feel free to contact me at your convenience to discuss these matters further. Thank you for your continued consideration.

Regards,

/s/

DANA DEAN

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Attachment/enclosure (1)