Underground Injection Control/Safe Drinking Water Act: Eco-Justice Collaborative U.S. EPA Environmental Appeals Board's Petition Challenging Putnam County, Illinois Sequestration Project

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Eco-Justice Collaborative ("EJC") filed a May 7th Petition for Review ("Petition") before the United States Environmental Protection Agency ("EPA") Environmental Appeals Board challenging a Safe Drinking Water Act Underground Injection Control ("UIC") Class VI Permit issued to Marquis Carbon Injection, LLC ("MCI").

The Petition states that EPA Region 5 issued a Class VI Permit to MCI authorizing geologic sequestration of carbon dioxide at the Marquis Biocarbon Project in Putnam County, Illinois.

EJC states that the Permit would authorize MCI to inject approximately 9,000,000 metric tons of carbon dioxide over 6 years into the Cambrian Mt. Simon Sandstone. The injection is stated to be at maximum bottom-hole injection pressure of 2,102 psi.

The issues presented by MCI for review before the Environmental Appeals Board include the following:

- Failure to require a computational model that evaluated the Project's pressure impacts on WPL-1, a Class I hazardous waste well within the AoR. This is in violation of 40 C.F.R. §§ 144.12, 146.83(a), 146.84(c)(1), and 124.17(a)(2), where Marquis's computational modeling did not include the WPL-1 hazardous-waste plume as an initial condition. Region 5 deferred the resulting non-endangerment question to a post-permit measurement.
- Failure to require a computational model that incorporated peer-reviewed empirical analysis showing that Marquis's modeling approach failed at the IBDP site. This is in violation of 40 C.F.R. §§ 146.84(c)(1) and 124.17(a)(2).
- Approval of an internally inconsistent and unsupported 12-year alternative PISC period (vs. the default 50 years required by 40 C.F.R. § 146.93(c)), particularly in light of empirical evidence of well failures at comparable Class VI projects within the proposed PISC period.
- Approval of an 18-year design life for the Project's injection wells rather than for the life of the Project as required by 40 C.F.R. § 146.86(b)(1).
- Failure to provide direct injection-zone monitoring between injection well CCS#3 and WPL-1. The lack of a deep monitoring well within the modeled CO2 plume path does not satisfy 40 C.F.R. § 146.90(d), given the proximity of the existing hazardous waste well.

- Issuance of a “no corrective action” determination for WPL-1 that failed to analyze the pressure of the Project on the state-regulated Class 1 WPL-1 well’s integrity per 40 C.F.R. § 146.84(c) and usurped state authority over this Class 1 well.
- Approval of seismic monitoring limited to approximately 1.1 percent of the AoR, contrary to 40 C.F.R. § 146.90(g) and 42 U.S.C. § 300h(b)(1), based on an unsupported finding that broader coverage was “practically infeasible” due to land-acquisition and right-of-way costs.
- Unsupported finding that seismicity will not interfere with CO2 containment despite evidence of substantial seismic activity. This violates (40 C.F.R. § 146.82(a)(3)(v); § 146.83).
- Approval of permit based on a finding that the caprock for the Project is shale when in fact it is predominately sandstone, per published Illinois State Geological Survey data in the administrative record. 40 C.F.R. § 146.83(a) requires the confining zone to be “of sufficient areal extent and integrity to contain the injected carbon dioxide stream.”
- Failure to renotice and restart the comment period, in violation of 40 C.F.R. § 124.14(b), when Region 5 accepted five substantial reductions in monitoring requirements requested by the applicant between the draft and final permit.
- Failure to extend the comment period following late disclosure of substantial material redacted by applicant. This is in violation with 40 C.F.R. §§ 124.10(d)(1)(vi) and 124.18 which require application materials necessary to evaluate the permit decision to be available to the public during the comment period.

A copy of the Petition can be found here.