



State of Oregon
Department of
Environmental
Quality

Hazardous Waste Phase 2 Rulemaking – CO2 Rule Fiscal Impact Statement

Oregon Department of Environmental Quality
Headquarters Office
811 SW Sixth Avenue
Portland OR 97204

Contact: Jeannette Acomb – ajcomb@deq.state.or.us – 503-229-6303

Fiscal and Economic Impact

If adopted, DEQ anticipates the 2014 *Conditional Exclusion for Carbon Dioxide (CO2) Streams in Geologic Sequestration Activities* federal rule will have no fiscal or economic impact as it applies only to facilities permitted with a Class VI Underground Injection well in the State of Oregon.

This rule conditionally excludes hazardous carbon dioxide streams from the definition of hazardous waste, provided the hazardous stream is captured from a specific industrial emission source and meets conditions to be injected into a permitted class VI underground injection control well for storage and future use.

Oregon law currently prohibits Class VI underground injection control wells and injecting hazardous waste into the ground.¹

Assumptions

DEQ assumes the fiscal and economic impacts identified in federal rulemaking are accurate and will have no impact on Oregon facilities.

Statement of Cost of Compliance

Local, State and federal agencies

DEQ anticipates the proposed rule will have no adverse fiscal or economic impacts on state or other federal agencies as the rule applies only to specific industrial emission sources.

Public

DEQ anticipates there will be no fiscal and economic impacts to the public based on the fiscal and economic impact assessment EPA performed in adopting the rule.

Large and Small Business

A small business is one with 50 or fewer employees.

The Regulatory Flexibility Act requires EPA to conduct economic assessments for small businesses before adopting rules.

EPA estimates the total incremental annual cost associated with implementing the final rule to be \$38.1 million and \$31.7 million using 3 percent and 7 percent

¹ Source: Oregon Administrative Rule 340-044

discount rates, respectively.² The costs associated with the sequestration,³ and not the capture or transport of CO₂, represent less than 3 percent of the total cost of carbon capture and storage.

Sequestering carbon dioxide by injection wells is a voluntary action and a small business would only undertake if it were in its interest compared to other available alternatives. Geologic sequestration of carbon dioxide is still a scientifically complex activity the cost of which is anticipated to be prohibitive to small businesses. Therefore EPA expects most small businesses would not elect to sequester hazardous carbon dioxide.

EPA has determined the rule will not have a significant economic impact on a substantial number of small businesses.⁴

<p>a. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.</p>	<p>Using recent employment data, DEQ identified 18 North American Industry Classification System codes with less than 50 employees in Oregon. Those included:</p> <table border="0"> <tr> <td>211111–Crude petroleum & natural gas extraction</td> <td>1</td> </tr> <tr> <td>221112 – Fossil fuel electric power generation</td> <td>5</td> </tr> <tr> <td>322121 – Paper, except newsprint, mills</td> <td>1</td> </tr> <tr> <td>324110 – Petroleum refineries</td> <td>0</td> </tr> <tr> <td>324199 – All other petro & coal product manuf.</td> <td>0</td> </tr> <tr> <td>325120 – Industrial gas manufacturing</td> <td>4</td> </tr> <tr> <td>325193 – Ethyl alcohol manufacturing</td> <td>3</td> </tr> <tr> <td>325311 – Nitrogenous fertilizer manufacturing</td> <td>4</td> </tr> <tr> <td>327310 – Cement manufacturing</td> <td>0</td> </tr> </table> <p>There are no current businesses permitted for a class VI underground injection well since Oregon law prohibits it.</p>	211111–Crude petroleum & natural gas extraction	1	221112 – Fossil fuel electric power generation	5	322121 – Paper, except newsprint, mills	1	324110 – Petroleum refineries	0	324199 – All other petro & coal product manuf.	0	325120 – Industrial gas manufacturing	4	325193 – Ethyl alcohol manufacturing	3	325311 – Nitrogenous fertilizer manufacturing	4	327310 – Cement manufacturing	0
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<p>b. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule.</p>	<p>None, as this rule applies only to facilities permitted with a Class VI Underground Injection well.</p>																		
<p>c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule.</p>	<p>None, as this rule applies only to facilities permitted with a Class VI Underground Injection well.</p>																		
<p>d. Describe how DEQ involved small businesses in developing this proposed rule.</p>	<p>DEQ included small business representatives on the Hazardous Waste Rulemaking Advisory Committee who will advise DEQ on the cost of compliance for small businesses.</p>																		

² Source: EPA Final Rule Fact Sheet, p. 3

³ Costs include: site characterization, well construction, mechanical and integrity testing, well operation, monitoring, well plugging, post care, corrective action, and financial responsibility. Source: EPA 2010 Technology & Cost Analysis, p.3

⁴ Source: Federal Register (79 FR 350-364), C. Regulatory Flexibility Act, p.362

Documents relied on for fiscal and economic impact

Document title	Document location
Federal Register entries for the incorporated rule and amendments	Federal Register
EPA's 2010 Geologic Sequestration Technology and Cost Analysis	EPA 2010 Cost Analysis EPA Cost Analysis Appendices EPA Final Rule Fact Sheet
Oregon Underground Injection Control Program database	Oregon Department of Environmental Quality UIC Program 811 SW Sixth Avenue Portland, OR 97204

Advisory committee

DEQ appointed an advisory committee.

As ORS 183.333 requires, DEQ will ask for the committee's recommendations on:

- Whether the proposed rule would have a fiscal impact,
- The extent of the impact, and
- Whether the proposed rule would have a significant, adverse impact on small businesses and if so, how DEQ can comply with ORS 183.540.

The committee will review the draft fiscal and economic impact statement and its findings will be in the record for this rulemaking.

If the committee determines there would be a significant impact to small businesses, as ORS 183.333 and 183.540 require, the committee will consider how DEQ could reduce the rule's fiscal impact on small businesses by:

- Establishing differing compliance or reporting requirements or time tables for small business;
- Clarifying, consolidating or simplifying the compliance and reporting requirements under the rule for small business;
- Utilizing objective criteria for standards; or
- Establishing less intrusive or less costly alternatives applicable to small business.

Housing cost

As ORS 183.534 requires, DEQ evaluated whether the proposed rule would have an effect on the development cost of a 6,000 square-foot parcel and construction of a 1,200 square-foot detached, single-family dwelling on that parcel. DEQ determined the proposed rule would have no effect on the development costs because the proposed rule only affects businesses under the hazardous waste regulations.