

RESPONSE TO PUBLIC COMMENTS

REGARDING AN EXEMPTION FROM THE LAND DISPOSAL RESTRICTIONS UNDER THE HAZARDOUS AND SOLID WASTE AMENDMENTS TO THE RESOURCE CONSERVATION AND RECOVERY ACT GRANTED TO INEOS NITRILES USA LLC FOR FOUR HAZARDOUS WASTE INJECTION WELLS AT 1900 AMANDA ROAD, LIMA, OHIO

Introduction

EPA public notices all draft decisions related to permits and land ban exemptions. When EPA issues final actions on which it has received comments on the draft decision during the public comment period, the Agency prepares a response which includes a description and response to all significant comments raised during the public comment period and a specification of which provisions, if any, of the draft decision have been changed and the reasons for the change. The Agency makes the response to comments available to the public.

Background

The public comment period for this land ban decision began on September 10, 2015, when EPA published the public notice in *The Lima News* and mailed public notices to those on EPA's mailing list. EPA accepted any comments postmarked by midnight October 13, 2015, for a public comment period of 33 days. During the comment period, EPA received one letter. Subsequently, EPA reviewed the comments and developed this response to comments. This facility's name was changed from Ineos USA LLC to Ineos Nitriles USA LLC on January 1, 2016.

Final Determination

EPA greatly values all public participation and appreciates the time the commenter took to express his concerns related to the proposed reissuance of a land ban exemption to Ineos Nitriles USA LLC. Following review of the land ban petition, EPA has determined that there should be no impact to the drinking water supplies as a result of injection into these wells. The geologic siting, engineering and construction, and operating and monitoring standards applied to the Ineos Nitriles USA LLC injection wells are sufficient to protect underground sources of drinking water. The Agency has determined that the public comments submitted did not demonstrate deficiency of the petition based on requirements for approval at 40 C.F.R. Part 148, Subpart C, and did not raise issues which would alter EPA's basis for determining that it is appropriate to reissue Ineos Nitriles USA LLC's land ban exemption. Therefore, EPA is reissuing this land ban exemption.

RESPONSES TO COMMENTS

Comments and Responses

- 1) There is already too much pollution confined to a small geographic area for too long a period of time and there are numerous Superfund sites scattered nearby.

Response: When EPA evaluates petitions for exemptions from the land disposal restrictions, it is required to use the standards that are found in 40 C.F.R. Sections 148.20, 148.21 and 148.22. These sections identify the specific factors that EPA must consider. Section 148.20(f) provides that EPA must reissue the petition if the petitioner complies with these requirements. The presence of pollution nearby, unless connected to injection operations, is not a factor that EPA can consider to deny a petition.

- 2) News reports have stated that the area is a cancer cluster. A woman died from ovarian cancer last November and she suspected that pollution from Ineos may have been related.

Response: The Agency is not aware of a cancer cluster in Lima, Ohio. EPA contacted the Agency for Toxic Substances and Disease Registry, the federal agency which tracks information of this nature, and they had no information about a cancer cluster in Lima. They contacted the Ohio Department of Health, which confirmed this.

Based on an evaluation of the petition, EPA has determined to a reasonable degree of certainty that there will be no migration of waste from the injection zone for as long as the waste remains hazardous. Thus, we do not believe people have been or will be exposed to waste injected underground by means of the Ineos wells.

- 3) Fishing and swimming are prohibited in the Ottawa River and there are legacy wastes in the riverbed and in soil.

Response: The exemption allows Ineos to continue injecting waste between 2,631 and 3,241 feet below ground surface. Hydrogeologic and geochemical models show that the waste will not migrate out of the injection zone within 10,000 years. In other words, models show that the waste will not enter underground sources of drinking water or the Ottawa River.

The Ohio Environmental Protection Agency (Ohio EPA) has evaluated water quality and aquatic life in the Ottawa River. Relevant excerpts from the report, *Biological and Water Quality Study of the Ottawa River and Principal Tributaries* (Ohio EPA Technical Report EAS/2012-12-13 (April 2013)) are attached. The excerpts show the causes and sources of partial or total non-attainment of water quality standards in the river in Lima. Injection into the Ineos wells is not identified as a source of non-attainment.

In January 2015, the U.S. District Court for the Northern District of Ohio entered a Consent Decree to resolve alleged violations of the Clean Water Act by the City of Lima. Under the Decree, Lima will eliminate overflows from sanitary sewers and reduce, to five in a typical year, the number of overflows from combined sewers. U.S. EPA expects that the reduction in overflows will significantly improve water quality in the Ottawa River in and downstream from Lima.

- 4) The wells have been operating for 23 years and the pressure will increase to an unacceptably high level.

Response: EPA is very concerned about any potential pressure increases in the zone into which Ineos injects its waste. Under the regulations implementing the Underground Injection Control (UIC) Program authorized by the Safe Drinking Water Act, injection pressures in hazardous waste injection wells must be limited to assure that the pressure in the injection zone does not initiate new fractures or propagate existing fractures in the injection zone. The UIC permitting program is implemented by the Ohio EPA in the State of Ohio. Each Ohio UIC permit for the Ineos wells sets appropriate well-specific injection pressure limits which have been calculated to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures as required by the Ohio Administrative Code 3745-34-38(A) and 3745-34-56. Ineos is required to test its wells annually to track this pressure. In addition, the simulation modeling required by the land ban regulations predicts the pressure in the injection zone over time. If the measured pressure is significantly different from the predicted pressure, EPA can require additional study or terminate the exemption.

- 5) The standard of "reasonable degree of certainty" is not reassuring.

Response: Section 3004(d)(1) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6924(d)(1), prohibits the land disposal of hazardous wastes into underground injection wells unless it has been demonstrated, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous. Thus, as provided by RCRA, EPA uses a standard of "reasonable degree of certainty" in evaluating petitions for an exemption to the ban on underground disposal of hazardous waste.

- 6) This facility has had numerous accidents in the past.

Response: Please see our response to the first comment about the standards EPA must use to evaluate land ban petitions. Whether the facility has had accidents in the past is relevant only if connected with the injection activity. EPA contacted Ohio EPA staff to research any history of accidents at this facility. Ohio EPA staff knew of no incidents related to the injection wells during the previous 28 years. EPA also reviewed reports from the Occupational Safety & Health Administration. There were two incidents in the past five years. Neither was connected with the injection activity.

- 7) An oil tank exploded several years ago and sprayed oil onto houses, cars, a church and cemetery tombstones up to two miles away.

Response: Please see our response to the first comment about the standards EPA must use to evaluate land ban petitions. An oil tank explosion in the past is not relevant to regulation of the injection activity at the site.

Signed and Dated

February 1, 2016

Tinka G. Hyde

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Director, Water Division

Table 1. Aquatic Life Use Attainment for stations sampled in the Ottawa River Watershed, June-Oct. 2010.								
River Miles Fish/Invert.	IBI	MIwb	ICI ^a	QHEI ^b	Landmark	Attainment Status ^{c,d}	Cause(s)	Source(s)
Ottawa River mainstem (04-200) Eastern Corn Belt Plains (ECBP) Warmwater Habitat (WWH)								
46.1 ^W / 46.0	37 ^{NS}	8.7	48	81.0	Thayer Rd.	FULL	NA	NA
44.3 ^W	39 ^{NS}	9.4	46	70.0	Fetter Rd.	FULL	NA	NA
43.4 ^W / 43.45	35*	8.6	VG ^b	59.5	Dst. Metzger Dam	PARTIAL	Low Flow Alteration Nutrient / Eutrophication Biol. Indicators Nutrients	Flow Alteration from Water Diversions Impoundment Crop Production with Subsurface Drainage
42.5 ^B	32*	9.0	38	61.3	Dst. Roush Rd.	PARTIAL	Low Flow Alteration Nutrient / Eutrophication Biol. Indicators Nutrients DO (Low, Range)	Flow Alteration from Water Diversions Impoundment Crop Production with Subsurface Drainage
41.3 ^W / 41.2	44	9.1	44	71.3	Sugar St.	FULL	NA	NA
40.1 ^W	35*	8.7	40	69.5	Dst. Lovers Lane Dam (dst. CSO)	PARTIAL	Nutrient/Eutrophication Biol. Indicators Nutrients DO (Range)	Sanitary Sewer Overflows (SSOs) Combined Sewer Overflows (CSOs)
39.6 ^W / 39.67	37 ^{NS}	9.3	46	71.5	Dst. Elm St. Dam	FULL	NA	NA
38.6 ^B / 38.65	39 ^{NS}	8.0 ^{NS}	Low Fair*	46.5	Collett St./ Erie RR Dam pool	PARTIAL	Direct Habitat Alteration Nutrient/Eutrophication Biol. Indicators DO (Low, Range) Organic Enrichment (Sewage) Biological Indicators	Impoundment CSOs
37.9 ^W	35*	9.3	20*	74.0	Dst. Erie RR Dam Ust. Lima WWTP	PARTIAL	Nutrient / Eutrophication Biol. Indicators DO (Range) Organic Enrichment (Sewage) Biological Indicators Nutrients Other Anthropomorphic Substrate Alteration	CSOs Impoundment Historic Bottom Deposits

River Miles Fish/Invert.	IBI	MIwb	ICI ^a	QHEI ^b	Landmark	Attainment Status ^{c,d}	Cause(s)	Source(s)
Ottawa River mainstem (04-200) (ECBP) WWH (cont.)								
37.4 ^W /37.55	34*	9.0	20*	71.8	Dst. Lima WWTP	PARTIAL	Nutrient/Eutrophication Biol. Indicators Ammonia-N Nutrients	Municipal Point (Pt.) Source Discharges CSOs
37.0 ^W	31*	7.7*	20*	70.3	Dst. Husky Refinery	NON	Nutrient/Eutrophication Biol. Indicators Ammonia-N Nutrients Excess Algae Chronic Toxicity (Impairment unknown)	Municipal Pt. Source Discharge Industrial Pt. Source Discharge Source Unknown
36.1 ^W	31*	7.7*	26*	77.3	Dst. PCS Nitrogen	NON	Nutrient / Eutrophication Biol. Indicators Ammonia-N Nutrients DO (Range) Chronic Toxicity (Impairment unknown)	Municipal Pt. Source Discharge Industrial Pt. Source Discharges Source Unknown
34.6 ^W /34.55	29*	7.3*	36	69.3	Adj. Westfield Dr. (Shawnee CC/ Dst. major dischargers)	PARTIAL	Nutrient/Eutrophication Biol. Indicators DO (Minimum, Range) Nutrients Chronic Toxicity (Impairment unknown)	Municipal Pt. Source Discharge Industrial Pt. Source Discharges Source Unknown
31.1 ^B / 30.75	31*	8.3	38	60.0	Elm St. / Dst. Shawnee WWTP	PARTIAL	Nutrient / Eutrophication Biol. Indicators DO (Minimum, Range) Nutrients Organic Enrichment (Sewage) Biol. Indicators	Sanitary Sewer Overflows Municipal Pt. Source Discharge (upst.) Industrial Pt. Source Discharges Urban Runoff / Storm Sewers
29.3 ^W	33*	8.3	38	69.5	Copus Rd.	PARTIAL	Nutrient / Eutrophication Biol. Indicators Nutrients Organic Enrichment (Sewage) Biological Indicators	SSOs Municipal Pt. Source Discharge Industrial Pt. Source Discharges