

April 25, 2019

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Via email to: swofford.nancy@deq.state.or.us

RE: WOF PNW Threemile Project, LLC Proposed Oregon Title V Operating Permit

Ms. Swofford:

Thank you for the opportunity to comment on WOF PNW Threemile Project, LLC's (Threemile Canyon) proposed Oregon Title V Operating Permit (Title V Permit or Permit), application number 30204. These comments are submitted on behalf of Columbia Riverkeeper, Friends of Family Farmers, Friends of the Columbia Gorge, Humane Voters Oregon, Food & Water Watch, Center for Food Safety, Center for Biological Diversity, Animal Legal Defense Fund, Farm Forward, and Factory Farm Awareness Coalition (Commenters). Commenters have tens of thousands of members and supporters throughout Oregon, and support a statewide moratorium on all new and expanded mega-dairies. We are deeply concerned with the state's proposal to approve this Permit, which will allow Threemile Canyon to build a publicly subsidized gas treatment system and pipe manure biogas to fuel vehicles in California, while its substantial dairy emissions continue unabated and unregulated.

For the following reasons, DEQ should deny the Permit. However, if DEQ denies this request, at the very least it must consider Threemile Canyon's emissions in their entirety when determining what Clean Air Act (CAA) requirements apply.

I. DEQ Should not Authorize Threemile Canyon's Biogas Expansion Project

a. Threemile Canyon is a Significant Source of Air Pollution, including Pollution Harming the Columbia Gorge

Threemile Canyon is a significant source of air pollution. Yet the Permit, as currently written, does not address the full suite of air pollutants produced by this operation, nor does it address the fact that Threemile Canyon is contributing to the creation of fine particulate matter that is damaging to public health as well as to visibility in the Columbia Gorge National Scenic Area. Mega-dairies like Threemile Canyon continuously emit numerous air pollutants, including particulate matter, ammonia, hydrogen sulfide, methane, volatile organic compounds (VOCs), nitrogen oxides, and odors.¹ These pollutants can cause significant public health risks and environmental impacts, including contributing to climate change. Ammonia and hydrogen sulfide exposure, for example, irritates the respiratory system, and both chemicals can be fatal at

¹ See, e.g., Oregon Dairy Air Quality Task Force, Technical Support Document for Dairy Air Quality Task Force Report 32-38 (2008).

high concentrations.² Hydrogen sulfide releases from factory farms have been associated with respiratory and digestive symptoms. As a result, workers in these facilities and neighboring communities can experience high levels of asthma-like symptoms, bronchitis, and other respiratory diseases.³ Both pollutants also contribute to the odors associated with mega-dairies. The U.S. Government Accountability Office has reported that storing large quantities of livestock manure on mega-dairies and other industrial livestock operations could cause emissions of “unsafe quantities” of ammonia, hydrogen sulfide, and particulate matter.⁴ VOCs contribute to the formation of ground-level ozone, which leads to respiratory symptoms and eye irritation as well as harming ecosystems.⁵ In a just-released report, the American Lung Association gave Umatilla County, which is just east of and sometimes downwind of Morrow County and Threemile Canyon, an “F” grade for high ozone days.⁶

These pollutants are also harming Oregon’s environment. Ammonia and nitrous oxides are two of the three major components of haze pollution that affect the Columbia River Gorge Scenic Area, and also contribute to acid rain.⁷ The Gorge has long suffered from the effects of persistent air pollution and poor visibility. Monitoring studies have documented impaired visibility on 95% of days monitored.⁸ DEQ has found that livestock manure management, which includes field applications of manure, is “by far the most significant source of ammonia” contributing to regional haze.⁹ When operating with just over 50,000 cows in 2005, Threemile Canyon Farms reported ammonia emissions that ranked among the highest of all reported industrial sources in the nation.¹⁰ Methane digesters do nothing to reduce these emissions or the threats they pose to the environment and public health.

b. Mega-Dairy Biogas is not Clean, Renewable Energy and Threemile’s Proposal is Contrary to the Public Interest

Because the production of methane for manure-to-energy projects like the Threemile Canyon proposal is dependent on the continuous generation of massive amounts of industrial animal waste by livestock operations, these technologies are inherently dirty sources of energy production and should not be considered to produce clean or renewable energy. Biogas projects

² *Id.* at 36; U.S. EPA, Toxicological Review of Hydrogen Sulfide, CAS No. 778-06-4 10 (Jun. 2003).

³ Donham, Kelly J. et al., Community Health and Socioeconomic Issues Surrounding Concentrated Animal Feeding Operations, *Environmental Health Perspectives* Vol. 115, Iss. 2 317-18 (Feb. 2007).

⁴ U.S. Gov’t Accountability Office, Concentrated Animal Feeding Operations, GAO-08-044 7 (Sept. 2008).

⁵ U.S. EPA, Ground-Level Ozone Pollution, <https://www.epa.gov/ground-level-ozone-pollution>.

⁶ American Lung Ass’n, State of the Air 2019, Report Card: Oregon, <https://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/states/oregon/>.

⁷ Oregon Dairy Air Quality Task Force, Technical Support Document for Dairy Air Quality Task Force Report at 41-42; Oregon Dairy Air Quality Task Force, Final Report to the Department of Environmental Quality and Department of Agriculture 6-7 (2008).

⁸ Robert Bachman, USDA Forest Service, A summary of recent information from several sources indicating significant increases in nitrogen in the form of ammonia and ammonium nitrate in the Eastern Columbia River Gorge and the Columbia Basin, at 2 (June 24, 2005).

⁹ Oregon DEQ, Oregon Regional Haze Plan: 5-Year Progress Report and Update i, 21 (Feb. 2016).

¹⁰ See Nat’l Ass’n of Clean Air Agencies, Comment on Proposed CERCLA/EPCRA Reporting Exemption, Docket ID No. EPA-HQ-SFUND-2007-0469 3 (Mar. 27, 2009), <http://www.4cleanair.org/Documents/CAFOLetter32708.pdf>.

are a false solution to climate change, and permits that authorize mega-dairies like Threemile Canyon to connect their digesters to existing gas pipeline infrastructure undermine real solutions.

The Permit is a key part of Threemile Canyon’s plan to effectively transition from an industrial dairy that utilizes some of its methane to power part of its operations into a gas production facility that raises animals as a means to produce liquefied manure for the purpose of methane production. This new source of revenue will incentivize expansion, leading to increased emissions, including greenhouse gases, from the facility over time. Moreover, the digester and gas treatment facility will do nothing to abate the water pollution, unregulated air emissions, uncaptured enteric methane emissions,¹¹ or other adverse impacts from the facility.

The Permit will also undermine other efforts to address climate change by increasing reliance on fossil fuel infrastructure and making it easier for other polluters to avoid emissions reductions. By piping biogas south for use in California, Threemile Canyon’s biogas project will enable other industrial polluters to claim credit for use of “renewable” energy, rather than reducing their emissions through the use of actual renewable energy or improvements in energy efficiency. Moreover, because Threemile’s biogas will be mixed with fossil fuel-derived natural gas in the pipeline, the effect of this approval will be to further reinforce Oregon’s and the entire West Coast’s reliance on fossil fuels when we must instead prioritize rapidly decarbonizing our energy system.

Mega-dairy methane digesters are also notoriously inefficient, uneconomical, and difficult to operate.¹² Because they are not profitable on their own, they are typically heavily subsidized. Threemile Canyon is no exception. Threemile has long been the beneficiary of a host of public and private funding streams, and now intends to use tax-exempt bonds intended for publicly beneficial initiatives for a dirty biogas project that will undermine, rather than serve, the public interest.¹³

DEQ should deny this Permit and any other permit that entrenches both this unsustainable model of dairy production and Oregon’s reliance on fossil fuel pipeline infrastructure.

II. DEQ Must Consider all of Threemile Canyon’s Facilities as a Single Source for purposes of Title V

Oregon regulations define a “source” as “any building, structure, facility, installation or combination thereof that emits or is capable of emitting air contaminants to the atmosphere, is located on one or more contiguous or adjacent properties and is owned or operated by the same

¹¹ Research indicates that “enteric emissions are normally the largest source of greenhouse gas on a dairy farm.” C. Alan Rotz, Modeling Greenhouse Gas Emissions from Dairy Farms, *Journal of Dairy Science* Vol. 101 Iss. 7 6677 (Jul. 2018).

¹² Food & Water Watch, *Hard to Digest: Greenwashing Manure into Renewable Energy* (Nov. 2016), https://www.foodandwaterwatch.org/sites/default/files/ib_1611_manure-digesters-web.pdf.

¹³ *See, e.g.*, Tracy Loew, Salem Statesman Journal, Manure is big business at Oregon’s largest dairy with conversion to natural gas (Mar. 31, 2019), <https://www.statesmanjournal.com/story/tech/science/environment/2019/03/31/oregon-threemile-canyon-farms-dairy-natural-gas-manure/3247197002/>.

person or by persons under common control. The term includes all air contaminant emitting activities that belong to a single major industrial group, i.e., that have the same two-digit code, as described in the Standard Industrial Classification Manual, U.S. Office of Management and Budget, 1987, or that support the major industrial group.” OAR 340-200-0020(166). The entire Threemile operation, including the dairies and the existing and proposed digester infrastructure, is a single source under this definition.

As discussed above, Threemile Canyon emits, and its new infrastructure will emit, air contaminants into the atmosphere. Moreover, the dairies and the digester infrastructure are on contiguous property. The Permit lists the plant site location as 75906 Threemile Road, which is the same address as the dairy facility¹⁴ and adjoins the rest of the dairy operation.

These parts of the Threemile facility are also operated by the same person and are under common control. The Permit lists Marty Myers as WFO PNW Threemile Project, LLC’s CFO and General Manager, and the Oregon Secretary of State lists WOF PNW Threemile Project, LLC’s principal place of business as “C/O TMF Biofuels LLC,” 759 Threemile Road, Boardman, OR 97818.¹⁵ TMF Biofuels LLC, in turn, is managed by Marty Myers.¹⁶ Marty Myers also manages Threemile Canyon Farms.¹⁷ Furthermore, the anaerobic digester operated by WFO PNW Threemile Project, LLC receives manure from the dairy operation as a feedstock, and then returns digestate to the dairy operation for use as a fertilizer.¹⁸ The gas treatment system, digester, and dairies are thus a single source for purposes of Title V permitting, and DEQ should not allow Threemile to avoid comprehensive permitting by dividing its facility into multiple corporate entities. DEQ has failed to provide a source determination in the proposed permit, and as discussed above, the source for permitting under Title V is the entire dairy operation including every component of its manure management system.

III. When Properly Considered as a Single Source, Threemile Canyon Farms is Likely a CAA Major Source

DEQ does not appear to have considered whether Threemile Canyon Farms as a whole is subject to any other CAA requirements, as the Permit considers the gas treatment facility in isolation and makes no mention of Threemile Canyon’s other emissions. Emission factors developed by the San Joaquin Valley Air Pollution Control District in California, a region where numerous industrial dairies have contributed significantly to very poor air quality, indicate that Threemile is a major source of VOCs. The Air Pollution Control District has calculated that dairy confinements emit approximately 20 pounds of VOC emissions per head per year, not including emissions from feed storage facilities and feed available for consumption in feed

¹⁴ Oregon Secretary of State, http://egov.sos.state.or.us/br/pkg_web_name_srch_inq.login (search “Threemile Canyon Farms LLC”).

¹⁵ *Id.* (search “WOF PNW Threemile Project LLC”).

¹⁶ *Id.* (search “TMF Biofuels LLC”).

¹⁷ Tracy Loew, Salem Statesman Journal, Manure is big business at Oregon’s largest dairy with conversion to natural gas.

¹⁸ George Plaven, East Oregonian, Boardman: State’s largest dairy runs on closed loop (Oct. 21, 2016), https://www.eastoregonian.com/news/local/boardman-state-s-largest-dairy-runs-on-closed-loop/article_f8ba13bc-6373-5ea8-bc89-15cc521be618.html.

lanes.¹⁹ According to this emission factor, a dairy confinement housing more than 25,000 dairy cows is likely a major source and subject to permitting under OAR 340-218-0020(1)(a).

Uncontrolled Per Cow Dairy VOC Emission Factors	
Process or Constituent	Emissions (lb/hd-yr)
1. Enteric Emissions from Cows	4.3
2. Milking Parlor(s)	0.04
3. Freestall Barns	1.9
4. Corrals/Pens	10.0
5. Liquid Manure Handling (Lagoons, Storage Ponds, Basins)	1.5
6. Liquid Manure Land Application	1.6
7. Solid Manure Land Application	0.39
8. Separated Solids Piles	0.06
9. Solid Manure Storage	0.16
Total not including Feed	20.0

With approximately 70,000 total cows, Threemile Canyon far surpasses this size,²⁰ and the VOC emissions from the proposed gas treatment system (6.99 tons per year) in combination with the VOC emissions from the existing dairy infrastructure that it is being built to support exceed the CAA’s major source threshold. DEQ must consider these dairy emissions and determine whether Threemile Canyon is a major source subject to additional CAA requirements.

IV. DEQ Must also Consider any Potential Expansions at Threemile Canyon in Calculating its Potential to Emit

Because it only considers the digester-related emissions, the Permit also fails to consider the increase in emissions that will occur if and when Threemile Canyon increases its herd size to feed the digester and gas treatment system. The proposed gas treatment facility and connection to existing pipeline infrastructure appears to indicate that Threemile Canyon has a larger plan to become, in effect, a gas company first and a dairy second. Once Threemile is connected to pipelines and can sell its biogas off-site, it will have a far greater financial incentive to expand as much as possible to profit from its gas sales, despite slumping dairy prices. Consequently, even though DEQ and the Oregon Department of Agriculture have not yet authorized Threemile Canyon to expand its herd size through a revision to the facility’s Clean Water Act National Pollutant Discharge Elimination System permit, DEQ should consider the maximum emissions the digester and gas treatment facility could emit based on the maximum herd size the biogas

¹⁹ San Joaquin Valley Air Pollution Control District, Air Pollution Control Officer’s Revision of the Dairy VOC Emission Factors 5 (Feb. 2012), [https://www.valleyair.org/busind/pto/emission_factors/2012-Final-Dairy-EE-Report/FinalDairyEFReport\(2-23-12\).pdf](https://www.valleyair.org/busind/pto/emission_factors/2012-Final-Dairy-EE-Report/FinalDairyEFReport(2-23-12).pdf).

²⁰ Tracy Loew, Salem Statesman Journal, Manure is big business at Oregon’s largest dairy with conversion to natural gas.

facility could support, and also consider all of the VOC, methane, particulate matter, and other emissions the dairy would emit at that size.

Mega-dairy methane digesters and manure-to-gas facilities, and specifically Threemile Canyon's proposal, do not address the many environmental and other problems these facilities cause, are a false solution to climate change, and are contrary to the public interest. In fact, the Permit will likely lead to overall emissions increases of methane, VOCs, and other harmful air pollutants by Threemile Canyon over time. Moreover, the proposed Permit fails to address the vast majority of Threemile Canyon's VOC emissions, impermissibly ignoring most of the relevant source for purposes of Title V permitting. Commenters therefore urge DEQ to deny the requested Permit.

Thank you for the opportunity to comment.

Sincerely,

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