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OCT 13 2020

WA State Department
of Ecology (SWRO)

Rich Doenges
Washington Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

October 9, 2020
RE: Kalama methanol plant

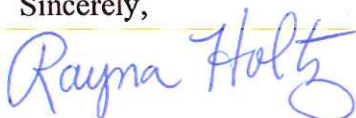
Dear Rich Doenges,

Thank you for this opportunity to give comments. After days of looking at the SSEIS for the proposed Northwest Innovation Works methanol plant at Kalama, and searching for additional research and information about relevant parts of the SSEIS, I have collected my responses and perspectives into the attached comment, and have additionally copied a model "Policy on Coastal Liquefied Natural Gas Facilities" written by Surfrider Foundation. It is one of the interesting related documents that surfaced as I was looking at background literature, and I think it has good science and sound reasoning behind it. Although it's not official Washington State law, it is consistent with the Shorelines Management Act intent, and I appreciate the way it gathers considerations and comes to conclusions.

Essentially, the importance of prioritizing the health of significant aquatic ecosystem sites outweighs all other considerations. No coastal site is good for a methanol plant, but the worst possible coastal site is at the inlet to one of the greatest river systems of the North American continent. Industries involved with handling toxic materials are too hazardous, and supply lines carrying toxic materials all the way across country, putting all the ecosystems and communities at risk as they pass through them, to deliver them to a highly sensitive site is foolish.

My personal background of volunteering as a beach naturalist on Vashon Island for over 15 years, learning about marine and shoreline ecosystems and teaching others during free public walks, has given me a front row seat to watch the effects of climate change on Salish Sea life. I have also volunteered for the University of Washington COASST program (Coastal Observation and Seabird Survey Team) for the past 13 years, and for the local Vashon Nature Center's Salmon Watch program. Reading related news stories on these subjects and observing what has been happening right here in front of me, I can tell you I feel great urgency about the need to sharply curtail all emissions of greenhouse gases, and there is nothing in NWIW's proposal that justifies adding a brand new source likely to operate for 40 years if their plans work out. We have seen warming spells that contributed to the vulnerability of local sea stars to a disease that they've successfully survived for years until recently. There have been a number of toxic plankton blooms that have caused the deaths of staggering numbers of marine mammals and birds in northern BC and Alaska especially. The earlier melting of snowpack and warming of salmon streams has literally killed fish that were swimming home to spawn, because the water was too warm to hold the oxygen they need to survive. Scientists say it will get worse before it gets better, no matter what we do. The time to act is now.

Sincerely,



Comment on the Second Supplemental EIS for the Proposed NWIW Kalama Methanol Plant rev. Oct. 8, 2020—from Rayna Holtz

My comments fall into two categories. First I look at the issue of greenhouse gas emissions that this study so wonderfully examined with considerable care and research, to see the greenhouse gas emissions results of various scenarios depending on whether the Kalama Manufacturing and Marine Export Facility (KMMEF) is built, versus results if it is not built. Second, I look at the context for this study, and for the Washington State governor's and legislature's 2020 progress on charting an effective path to comply with guidelines framed by the world's experts, the Intergovernmental Panel on Climate Change (IPCC). In both cases, I look at not only market forces, but at forces increasingly being mustered to counter market pressures with regulations and incentives that prioritize environmental health and the long term survival of human and other species over market trends driven by profit incentives.

- A. The depth and breadth of this SSEIS is impressive, as is the broad range of possibilities it must contend with. However, it suffers from errors, omissions, assumptions.
 1. One unknown is how the methanol will be used. We do know that Northwest Innovation Works (NWIW), which is Chinese backed, told the Port of Kalama that the Kalama plant would primarily sell its methanol to markets for olefins in Asia, but when presenting the project to potential funders it emphasized profits from selling the methanol for use as fuel. This behavior does not inspire confidence, but does warn that NWIW will manipulate to achieve a for-profit goal rather than speak out of a confirmed set of ethical guidelines incorporated into the operations of its business. (Why then should we assume that NWIW will follow through with its promised voluntary mitigation plan?)
 2. To account for the uncertainty about intended uses, the range of models in the SSEIS includes both use as fuel and MTO (methanol to olefins), but looking at Fig 3.5.3 on p.65 we see that the Chinese use of methanol for fuel quintupled from 2006 to 2016 and it continues to rise. Isn't it likely then that the use of fuel will overtake the use for olefins? Beyond this example the number and combination of variables far exceeds the capability of meaningful modeling. While we do not know precisely what the methanol will be used for, we do know that it will add GHGs to our overtaxed atmosphere starting in just a couple of years and continuing for 40 years (the projected life of the plant), including the next two decades when we it is **critical** that we **reduce** GHGs. What is not burned as fuel, will become a problem to the environment when it is discarded, since the uses for products derived from olefins do not break down and return to the soil, so they will present other problems.
 3. It is simplistic to want to partially justify the permitting of a facility that uses fossil fuels, emits GHGs in bringing its raw materials to its site, emits more in producing its product, and still more while conveying its product to Asia merely because it produces just slightly fewer emissions than other producers of its product!!
 4. This report is based on outdated science. It uses IPCC4 100-year GWP values to calculate CO₂e, despite the fact that the IPCC subsequently updated them to more accurately reflect the significantly enormous GWP of methane in its first 20 years. On p. 90 this report even acknowledges that: "GWP values are periodically updated to

3. Department of Ecology's Perry Lund states in his letter of October 9, 2019, to Dr. E. Elaine Placido, Cowlitz County, that "By law, Ecology must review all CUPs for compliance with the following: 1) The Shoreline Management Act (RCW 90.58)." Looking, therefore, at RCW 90.58.020, in "Legislative findings—State policy enunciated—Use preference", we find that the third paragraph lists "seven uses of state shorelines to guide the development of master programs for shorelines, "in the following order of preference which: (1) Recognize and protect the statewide interest over local interest; (2) Preserve the natural character of the shoreline; (3) Result in long term over short term benefit; (4) Protect the resources and ecology of the shoreline. . ."

Although a Kalama methanol plant may bring jobs and an economic boost to the local folks, the *broader statewide interest* will be better served with less GHGs and a healthier shoreline. The *long term benefit* will be much better served by NOT siting an enormous methanol plant where it can jeopardize "the resources and ecology of the shoreline."

This shoreline is part of the magnificent Columbia River estuary, whose health and water quality affect large communities of marine life both locally and downstream, extending to shorelines north and south along the Washington and Oregon coasts. Further, this ecosystem lies at a critical bottleneck for a majority of Washington's vital salmon runs, which travel from the Pacific Ocean back up the Columbia to numerous feeder rivers draining both the eastern Cascades and the western Rockies, spanning all of eastern Washington and part of British Columbia. These waters must be protected for the sake of innumerable beleaguered salmon stocks that have already been decimated by dams and premature melting of snowpack causing excessive warming of spawning streams that consequently cannot hold adequate oxygen to keep spawning salmon alive. On these salmon runs depend not only fisheries that have supported indigenous fishermen since time immemorial, and more recent commercial and recreational fisheries, but also the iconic Southern Resident Killer Whales of Puget Sound, now unable to find sufficient forage year-round to sustain healthy reproductive adults. It is unwise to allow any more dangers to further transform one of their key habitats into a gauntlet beset with hazards. (Further detail: see "Policy on Coastal Liquefied Natural Gas Facilities," attached.)

RCW 90.58.020 also states, "Uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the state's shoreline." There is no industrial plant that is immune to accidents. The siting of a large methanol facility in such a sensitive shoreline with the potential to cause lethal harm to so many already struggling species with both extremely high economic value and incomparable iconic northwest significance poses unacceptable risks of the sort this law warns against.

In summary, the backdrop of climate change against which this methanol plant is proposed dwarfs all other considerations with its multiple threats and exigencies. We must look at this decision with eyes wide open, and make a decision that will help slow the unraveling of the planetary systems on which biological life depends. **Deny the conditional use permit.**

Sincerely,
Rayna Holtz

POLICY ON COASTAL LIQUEFIED NATURAL GAS FACILITIES

Approved by the Surfrider Foundation Board of Directors on February 6, 2010

Whereas, the Surfrider Foundation advocates for the conservation of coastal and ocean resources and the use of renewable energy sources over fossil fuels;

Whereas, recent reports suggest that domestic supplies of natural gas are growing and there is nearly a century's worth of production at current rates;

Whereas, energy interests are proposing and applying for licenses to build thirty new liquefied natural gas (LNG) port terminals in U.S. waters;

Whereas, all of the proposed LNG port terminals and 75% of the approved LNG port terminals are designed for exporting U.S. sourced LNG;

Whereas, energy industry outlooks project that the U.S. will become the second largest LNG exporter in the world (after Australia);

Whereas, new coastal LNG terminals require infrastructure development that creates upland environmental impacts that adversely affect coastal resources, including shoreline alteration, coastal erosion, and water quality impairment.

Whereas, the processing and shipment of LNG produces greenhouse gas (GHG) emissions that are much greater than domestic natural gas;

Whereas, the process of turning natural gas into LNG is highly energy intensive, and in total, LNG is estimated to be the largest source of GHG emissions growth from the oil and gas industry by 2025;

Whereas, the drilling and extraction of natural gas results in large amounts of fugitive emissions of the world's most potent GHG, methane, which has 84 times the global warming potential of carbon dioxide in the short term;

Whereas, the Surfrider Foundation, through its Policy on Climate Change, has recognized climate change is a scientific reality that will include dangerous changes in the characteristics of the ocean including warmer waters, higher acidity, rising sea levels and increased storm severity that threaten coastal communities, beaches, and coastal and ocean ecosystems;

Whereas, Surfrider Foundation has resolved to support efforts to reduce carbon and other GHG emissions;

Whereas, the known and anticipated environmental impacts of LNG facility development and operation include marine life mortality associated with continuous water uptake; discharge of both cold and chlorinated water to marine environment; air quality degradation, including carbon dioxide emissions; high energy consumption

rate; introduction of invasive species, including those discharged in ballast water; benthic habitat disturbed in mooring and transmission pipeline installations; and light pollution;

Whereas, the unknown environmental impacts of coastal LNG facility development and operation present significant risks to the marine environment that are difficult, if not impossible, to adequately address through adaptive management protocols under existing regulatory authorities;

Whereas, the siting of LNG facilities and related infrastructure is an applicant-driven process that requires regulatory agencies to conduct environmental review and consider input from affected communities and the public.

This policy is general in nature; the Surfrider Foundation recognizes that every specific case must be evaluated in the context of the local setting.

NOW, THEREFORE, BE IT RESOLVED that the Surfrider Foundation Board of Directors finds:

Coastal community members, the general public, local businesses, and recreational ocean users, including beach goers and surfers, are affected by the development of LNG facilities and associated infrastructure, and are key stakeholders in local, regional and national project proposals.

LNG facilities, due to their consumption of finite natural resources, generation of GHG emissions, and other harmful effects on the environment, are not a viable means of providing safe and sustainable energy. Given the availability of alternative renewable energy resources, LNG facilities are not consistent with successful overall strategies for addressing climate change.

Given the impacts to coastal and ocean ecosystems, air quality, including increased greenhouse gases, and coastal access, the Surfrider Foundation finds that siting LNG facilities in the coastal zone is not consistent with successful protection, conservation and access to coastal resources.

Surfrider Foundation
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