

To: Tacoma.methanol.sepa@cityoftacoma.org

January 30, 2016

In re: EIS Scoping Comments: Tacoma Manufacturing and Marine Export Facility (TMMEF): "Proposed Methanol Plant": SEPA Lead Agency: City of Tacoma (File No. SEPA2015-40000260025).

Subject: Environmental health proximate TMMEF plant operating; consequently, Identify, evaluate, and require or implement, ... reasonable alternatives that would mitigate adverse effects of proposed actions on the environment or people within the environment. This comment will apply to environment---air, sky, birds, and hazard to birds.

My Comment: Applies to EIS Scope SEPA 2015-40000260025: Determination of Significance, Notice of Request for EIS Comments, and Notice of Public Scoping Meeting: (updated January 27, 2016): Words presented: "[A] flare system for the disposal of flammable gasses and vapors, ..." and prevention of flying bird(s) killed by flare system(s). And, since this Methanol facility will become the largest in the world it will have more than smaller Methanol plants byproducts to flare with the flare system(s).

Accord, Tacoma: "Puget Sound Energy Proposed Tacoma Liquefied Natural Gas Project Final Environmental Impact Statement ("FEIS")" presents: "Flare System The flare system would consist of an enclosed ground flare to be used for flaring of normal discharges. The ground flare system would be designed for high efficiency and smokeless operation. The ground flare would be approximately 40 feet in overall height and 10 feet in diameter. The flare system would also include an open flare, but it would be used only in non-normal situations; i.e., in the event that the refrigerant or process piping needed to be rapidly evacuated. Typically, this would only happen if a fire occurred in the process area. The open flare would produce a visible flame,

but only during non-normal situations. It would be approximately 2 feet in diameter and 85 feet tall." [See, 'PSE LNG FEIS Revised (11-9-2015).pdf' <[http://cms.cityoftacoma.org/planning/pse/PSE%20LNG%20FEIS%20revised%20\(11-9-2015\).pdf](http://cms.cityoftacoma.org/planning/pse/PSE%20LNG%20FEIS%20revised%20(11-9-2015).pdf)> [accessed 30 January 2016]

: LNG Final Environmental Impact Statement (FEIS) at p. 2-6]; as a result, we have potential of two or more above ground elevation (sea level) flare system(s) flaming into sky areas.

Specifically, Methanol facility and LNG facility flare(s) will exist to burn vapors and gasses as required; however, bird viewing area exists nearby: "West Hylebos Wetland Park Habitat: 120 acres of wetland, forest and riparian streams. WiLDLiFE: Spring-fall: red-legged frogs, northwest salamanders, painted turtles, banana slugs, northwest alligator lizards, muskrats, minks, weasels, beaver, Douglas squirrels, Townsend's moles, little brown bats, spring-fall. Year-round: various bird species. ViEWing: Follow interpretive trail into the forest for redlegged frogs in the peat sinkholes, pileated woodpeckers and great blue herons resting in the treetops. accEss: Federal Way city park. 1-5 Exit 142-B. Merge on SR 18 W. Go .5 mile. Continue west on S 348th St. Go .7 mile. South onto 4th Ave S into park." [See, 'Western Washington Interstate 5 Wildlife Viewing Map - wdfw00980.pdf' <<http://wdfw.wa.gov/publications/00980/wdfw00980.pdf>> [accessed 30 January 2016].

So, we have birds that frequent this area of Tacoma and within nearby proximity to the operating Methanol Facility and LNG facility both with flare system that extend skyward.

On occasion, there is documented bird(s) killed by LNG flare systems operating e.g., "Andrew Farnsworth, a research associate at Cornell University's ornithology laboratory, said there has been little study of bird mortality from oil and gas development, despite the fact that rigs and other facilities are, under certain conditions, a predictable source of harm to birds.

"People understand very well from experience on their own that moths are attracted to light. ... It's not that surprising that other animals are, too," Farnsworth explained. "It's a very ancestral response to light. Light is a beacon; light is an attractive force."

Farnsworth said that a natural gas flare stack -- or a communication tower, skyscraper, or any other facility that emits light at night -- can draw birds in and lead to collisions or dangerous disorientation. That is especially likely when other navigational cues they use, such as sight and sound, are obscured by bad weather conditions.

"When there's poor visibility, there are fewer things available to them to help them stay on track," he said. "Especially when there's light combined with poor visibility, whether it's lights from natural gas, or lights from a wind turbine, or lights on the Empire State Building, or from a city, that's a very dangerous situation for birds," he added. "There [have been] some pretty horribly gruesome incidents."

Farnsworth said an incident with 7,500 birds killed ranks as significant but far from the largest mass mortality ever seen. Anecdotal reports suggest some events killing off tens of thousands to a hundred thousand birds, even, though details are shoddy." [See, 'LNG: Gas Flare Draws Thousands of Birds to Their Deaths, and Ignites Questions -- Friday, October 11, 2013 -- [Www.eenews.net](http://www.eenews.net)' <<http://www.eenews.net/stories/1059988683>> [accessed 30 January 2016].

One solution positive-solution to mitigate bird kill causation from Methanol and LNG facility flare systems is this, e.g., Allow only, without any exception only: "Multi-Point Ground Flares" flare systems for all facilities operating with Tacoma Port of Tacoma property: "When highly variable volumes of waste gas must be flared smokelessly but exceed the practical design limits of a single steam assisted or air assisted flare, our Multi- Point Ground Flare may be the perfect solution. ZEECO [] Multi-Point Ground Flares are

designed and engineered to meet specific process requirements for pressure, flow, radiant heat, noise, and flame visibility control. Whether your plant is near a neighborhood, airport, or environmentally sensitive area such as a wildlife habitat, the seasoned team at Zeeco will assess, design, model, engineer, produce, and install a low-profile Multi-Point Ground Flare system that protects your plant, employees, reputation, and the environment." (presented a explanation what is a ground flares system and how does it work for what benefit to who) [See generally, 'Multi-Point-Ground-Flare.pdf' <<http://www.zeeco.com/pdfs/Multi-Point-Ground-Flare.pdf>> [accessed 30 January 2016].

Also, this Methanol Plant failed to list all air inventory chemicals created by Methanol Plant "flare system": chemical name and also amount of chemical released into air inventory, and let's not forget is it: sweet- or sour-natural gas feeding the Methanol facility process? What is the combustion airborne chemical inventory contributed by this Methanol facility and all flare system(s) proposed and impact on local or migratory birds that fly into- and out-bird habitat Port of Tacoma area(s)?

Thank you for taking my Tacoma SEPA EIS comments under environmental hazards impact to environment and birds flying in the Tacoma Washington areas of the sky.

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