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**To:** Tacoma.methanol.sepa

**Subject:** additional question to add to scope of work for EIS for NWIW

## **Items to add to the EIS Draft Scope of Work for NWIW Proposed Methanol Facility**

### **GENERAL QUESTIONS:**

1. Why is the City of Tacoma the lead agency on the EIS?
  - a. Why isn't a federal agency the lead on the EIS?
  - b. Why not PHMSA (government agency that governs pipelines and hazardous materials)
2. Does this project need a 404 permit (for filling of wetlands)?
3. Any Corps of Engineers permits required or applicable for this project?

### **Section 2.1 – Proposal**

#### **Concerns Regarding Design, Construction, and Operation of the Facilities:**

1. What is the track record of the Chinese entity involved?
2. Who will be designing these facilities?
3. Who will actually complete the construction? Who is providing construction oversight?
4. Who will be the actual operator(s) of the facilities?
5. How many of the jobs will be given to "guest workers" from other countries? Who will ensure these guest workers receive proper training and oversight for full compliance with U.S. environmental, safety, health, and construction regulations and standards?
6. Please provide the public with a complete and thorough report on the track record of the Chinese company involved.

Note: Many Chinese companies don't traditionally follow environmental requirements.

There are many issues regarding Chinese-made metal (poor quality, dangerous piping materials, etc.)

There have been many industrial accidents in China (and around the globe) related to:

- a. Contractors cutting corners in construction
- b. Lack of adequate oversight during construction
- c. Cutting corners or not completing proper maintenance during operations
- d. Inadequate operating and emergency procedures
- e. Unsafe storage of hazardous materials, chemicals, and wastes

- f. Lack of proper reporting of quantities and types of hazardous materials, chemicals, and wastes
- g. Lax or poor safety management programs
- h. Inadequate process safety and/or site safety training and recertification programs (for training of site personnel)

Recent industrial disasters in China:

- a. Tianjin Explosion, Aug. 13, 2015  
([https://en.wikipedia.org/wiki/2015\\_Tianjin\\_explosions](https://en.wikipedia.org/wiki/2015_Tianjin_explosions))
- b. Qingdao Pipeline Explosion: 2013  
([https://en.wikipedia.org/wiki/2013\\_Qingdao\\_oil\\_pipeline\\_explosion](https://en.wikipedia.org/wiki/2013_Qingdao_oil_pipeline_explosion))

### **Section 5 – Air Quality:**

Please include what the expected emissions will be:

1. Constituents and quantities of emissions? Mercury, heavy metals, other particulates, ozone, Naturally Occurring Radioactive Materials (NORMs)?
2. Drift, dispersion modeling, estimate of air particulates, contaminants, settling of dust particles and contaminants onto residential areas.
3. Information/analyses on constituents of source gases; levels of mercury, lead, sulfur and other contaminants.
4. Flaring
  - a. Will there be ongoing flaring for these facilities?
  - b. What is the plan for dealing with flaring of gas during a “process upset,” “plant shutdown,” or “plant turnaround?”
  - c. How much gas would be flared? What are the permitted and expected emissions related to such flaring events? Estimated contaminants release into environment during such event (mercury, sulfur dioxide, nitrous oxide, ozone, other metals?)

### **Section 5 – With respect to a no-action alternative:**

Not appropriate to just consider alternative of China building a coal-fired power plant. China might instead build a large solar array, or take power from a new hydroelectric plant. Or they may take source gas, methane, or methanol from another provider, e.g. LNG from Australia’s vast West Coast natural gas resources currently being developed (and generally much cleaner than U.S. natural gas from hydrofracking wells). Or from Canada from the Kitimat LNG project. Or a vast number of other producers.

### **Section 6: Environmental Health and Safety:**

#### **Constituents of Source Natural Gas:**

1. Need thorough evaluation and review of the constituents of the source gas wells. What are the contaminants?

How much mercury, H<sub>2</sub>S, heavy metals, other contaminants?

1. Need to understand how much NORMs (Naturally Occurring Radioactive Materials) expected to be passing through the plant, released into the air and water, exposures to personnel working on site and to local communities.

### **Section 6.1 – Emergency Response:**

#### **Blast Zone/Fallout delineation and potential impacts:**

Need to factor in the Proposed LNG plant and the existing Targa Terminals petroleum tank farm, in the assessment of emergency response, as both are potentially within the blast zone in event of major explosion within the proposed methanol plant.

This is a priority and significant issue, risk, and concern! Should be at top of the list and fully evaluated.

1. Thousands of people living in residential areas within potential blast zones: Is this considered an acceptable risk?
2. What is the social risk level being used: 10<sup>-4</sup>? Other?

#### **Process Safety Risk, Blast Modeling, Fire & Explosion Modeling:**

Explosion risk is one of the biggest concerns and issues with respect to these plants and their proximity to residential areas. It does not seem appropriate or prudent to site such facilities in such close proximity to large residential areas:

1. Need to provide a “Quantitative Risk Assessment” for explosion risks for the plant for immediate public review.
2. Need a copy of the “Blast, fire & explosion modeling methodologies, analyses, and results”, for immediate public review.
3. Make available the assumed risks and risk tolerances, for immediate public review.
4. Provide fire and blast-proofing design for the actual plant.
5. Provide contact names of the regulatory agencies involved in reviewing such documents and ensuring public safety.

Note: There are gaps in the federal system, and in the State systems as well. For example, a recent disaster in Texas that claimed the lives of a 15 persons and injured 160 living near a facility that was storing large quantities of ammonia nitrate. Both the residents and the emergency response departments were unaware of what was stored in their neighborhood due to inadequate reporting laws in Texas as well as inadequate federal enforcement of federal reporting requirements: ([https://en.wikipedia.org/wiki/West\\_Fertilizer\\_Company\\_explosion](https://en.wikipedia.org/wiki/West_Fertilizer_Company_explosion))

Another example within WA State (Tri Cities area) of how gaps in Federal rules allow for incomplete reporting and creating false safety records, as well as lack of appropriate oversight, and lack of transparency to the public

[http://www.sightline.org/2016/02/08/how-industry-and-regulators-kept-public-in-the-dark-after-2014-Ing-explosion-in-washington/?utm\\_source=Sightline%20Institute&utm\\_medium=web-email&utm\\_campaign=Sightline%20News%20Selections](http://www.sightline.org/2016/02/08/how-industry-and-regulators-kept-public-in-the-dark-after-2014-Ing-explosion-in-washington/?utm_source=Sightline%20Institute&utm_medium=web-email&utm_campaign=Sightline%20News%20Selections)

1. Need technical experts (scientists, engineers, technology, environmental, earth sciences, chemical sciences) to review these documents in detail and look at gaps, assumptions, issues of concern.
2. In some other countries, there is a requirement for development of a “Safety Case” to include evaluation of process safety risk; blast, fire and explosion modeling; etc. What is the U.S. equivalent?
  - a. Does the State/County/City/Port plan to relocate all of the people living within these areas?
  - b. Need to determine population of people living within the different blast zones and “exclusion zones”
  - c. Emergency Response:
    - i. Who will respond to a major release or explosion?
    - ii. Who will be paying for beefing up local emergency responders to support a major event? Is it expected that taxpayers will be footing the bill? Please ensure that NWIW bears the majority of the costs.
    - iii. How will public be assured that local emergency response will be adequate? A major emergency or release would quickly overwhelm local resources.
    - iv. Contact local fire departments, Port of Tacoma, City of Tacoma, County, and State to determine how they plan to respond to a major release or explosion from these facilities.

## **Section 6.2 – Worker and Resident Health and Safety:**

1. The presence of Naturally Occurring Radioactive Materials (NORMs) are very common in natural gas from fracking. What levels are expected and how will the facility ensure protection of workers, local residences and community from exposure?

## **Chemicals to Be Used and Waste Products Generated and Disposed**

1. Natural Occurring Radioactive Materials (NORMs) – Found in some oil and gas reservoirs and associated oil and gas operations (wells, pipelines, trucking, distribution, trucking). NORMs have been found to be present in most natural gas operations associated with fracking. Note also that the constituents of natural gas wells change over time and thus the numbers and data presented initially are likely to be different in the future:

- a. What levels expected in the natural gas feeds into the methanol plant facility?
  - b. What are expected exposures for personnel working at the methanol plant? Exposures to community and environment?
  - c. What levels of NORMs are expected to be present in wastewater generated?
  - d. What levels of NORMs expected to be disposed via local wastewater treatment plants and released into Bay during operations of the facility?
  - e. Who will be monitoring and regulating the NORMs?
2. Need full disclosure of chemicals to be used in operations. Plant owners and operators may try to hide some data behind veil of secrecy (i.e. proprietary data). However, public has a right to know what environmental, health, and safety risks they may be exposed to.
  3. Is there a plan to use oxidizers at the plants? If so, what types and what quantities? Most oxidizers are very dangerous and explosive.

### **Section 6.3 - Industrial Facilities Proximate to the Site:**

1. Assessment must include the Targa Terminals petroleum tank farm in the assessment of safety concerns and impacts, as it is potentially within the blast zones of both the proposed methanol plant and the proposed LNG plant.
2. There are residential homes within the potential blast zones for the methanol plant, which would likely also be within the blast zone for the LNG plant. How many thousand people would be killed by a blast in the middle of the night when everyone is home sleeping, for example? Having a plan in place to ensure immediate evacuation in an emergency situation doesn't save lives if the event is unexpected and catastrophic, like the recent Tianjin explosion in China.
3. Are these people being considered as "acceptable losses?"

### **Section 7.2 - Waste Water Concerns and Questions:**

1. What levels of Natural Occurring Radioactive Materials (NORMs) are expected to be present in the 1.44 Million Gallons per Day discharge of wastewater through the Tacoma Waste Water treatment plant?
2. What levels of NORMs expected to be disposed via local wastewater treatment plants and released into Bay during operations of the facility?
3. Who will be monitoring and regulating the NORMS?
4. How will citizens be ensured of removal of all hazardous contaminants, including heavy metals and chemicals, before discharge to waste water treatment?
5. Local Waste Water treatment plants are typically not designed to deal with removal of NORMs. If Tacoma's waste water treatment facilities need to be modified/improved to handle the amount of waste water and contaminants in the waste water from the plant, will NWIW bear all of the costs, so these do not pass onto taxpayers?

Note: NORMs might be a non-issue for this gas, but testing of the feed gases must be performed and proven to the citizens that it's not an issue. It's not being well addressed nationwide and if they're not reinjecting NORMs contaminants underground near the wells, then it can make its way through wellhead piping and even into pipelines. How far through a pipeline network can NORMs travel? It tends to be present in the waxes common in oil and gas from wells. It can also be associated with the gas or water as well. These questions need to be answered.

**Additional questions needing answers:**

**Pipeline:**

1. Is City/County/State planning to use eminent domain for the 10-mile lateral pipeline (and/or other pipelines, roads, support facilities required) if landowners don't agree to sell/lease?

**Trucking:**

1. What are the plans and estimated quantities of trucks per day during operations, for bringing in chemicals and hazardous materials, and for removal and disposal of hazardous materials and other wastes?
2. Provide a map of expected trucking routes, cargo, quantities, types of trucks, and related information.
3. Conduct an assessment of the time and financial impacts to local traffic with an increase of truck and employee vehicle traffic, both during construction and operation.
4. What is the exposure of increased truck traffic to residential areas?
5. Local emergency response plans for spill or major release from trucking operations? Who will be supporting that? Who will pay for it?

**Noise and Light Pollution**

1. What will the noise impacts be and how are they being evaluated? Both for during construction and during operation. Provide impacts on quality of life for local residents, businesses and on property values for both.
2. What will the light pollution impacts be and how are they being evaluated? Both during construction and during operations. Impacts on quality of life for local residents, businesses and on property values for both.

**Transparency to the Public:**

1. When does public get an opportunity to review and comment on the following key documents?
  - NWIW Draft Process Safety Management Assessments
  - NWIW Draft Emergency Response Plans

The public and related agencies need these documents immediately to provide fully-informed feedback for this EIS scoping effort. We cannot provide you all of our input without enough details about the actual plant construction, processes, operations, contaminants, quantities, etc.

1. Another public comment period must be set up and held after these documents have been widely distributed and the public allowed to develop comments and questions for the EIS scoping effort.
2. How will public comments and concerns be addressed?
3. How will public be assured compliance with plans?
4. Who will be providing key regulatory oversight on all of these projects and different aspects? Need State support and not allow industry to self-regulate.
5. Invite the public to have a Citizen's Inspection Group on the ground during the project to inspect and ensure compliance with all regulations and plans. Allow the Group full access to entire site during construction, with appropriate training and security clearances to view all areas. Then they can work with the managers, state inspectors, and ensure compliance.

Note: Typically these projects keep people off the site in the name of secrecy, etc. However, relying on the regulatory agencies and industry's self inspectors will not be adequate. Typically there are many incidences of noncompliance by contractors including toxic releases during construction, spills to the environment that were unreported, litter, trash and other debris leaving the site and into the ocean or streams. Even with a Citizen's Inspector Team on the ground, the contractors and project owners will keep lots of things secret and hidden and they will want the public to stay out of the way.

**Status of Work that NWIW has Proceeded with:**

1. How much hiring has already been done and how much work has already been started/completed?

Such actions might support undue additional influence (political and other pressure) on results of EIS, especially if results of EIS recommend no action: i.e. do not build methanol plant here.

1. Have the proponents (NWIW, BP, China government, other subs) already proceeded with ordering/purchasing equipment and materials to support the project?
2. Has ground already been broken on parts of the project?
3. How many people have the proponents already hired or promised jobs to for this project? For example the engineers and scientists already working on this project in Federal Way.
4. If results of EIS recommend "No Action" (i.e. do not build plant here), will that decision stop the project?
5. If negative impacts far outweigh the benefits, and the impacts determined very significant, will that ensure the project will not proceed?
6. If not what will ensure that the project will not go forward?
- 7.

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