

Molvik Engineering

Patrick M. Molvik, P.E.

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404 N. Spokane Ave

Newport, WA 99156

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Grant Pfeifer, Regional Director

Department of Ecology, Eastern Regional Office

4601 N. Monroe St.

Spokane, WA 99205

Subj: Pac-West Silicon Project Scoping Questions/Comments

Dear Mr. Pfeifer,

Please find listed below, in no particular order, my input to the Pac-West smelter scoping questions/comments.

1. In the site plan that Pac-West has forwarded to DoE, there is a large rail loop that will perform the function of a storage yard for many tens of rail-cars. As coal cars are open top, the coal in any car stored on this loop will be subject to rain, snow, and other weather. This will wash coal dust out of the cars and onto the ground. Over the long term, this poses a risk of leaching heavy metals and other contaminants into the surrounding soil and groundwater. Please evaluate this risk.

2. Furnace slag will be produced as a byproduct of this process. While mostly made of glassy silica, much of the byproducts of coal burning end up in this material, including heavy metals. If exposed to the weather, the heavy metals and other contaminants may leach out of the slag and into the surrounding environment. Where is this material to be stored prior to disposal? What controls will be placed on the crushing plant to prevent the spread of fugitive dust?

3. In their PSD document submitted as High Test Sands, Pac-West stated that pollution control technology was neither available nor practical for their industry. In fact, many different processes are available to control flue gas emissions. Wet scrubbing would effectively eliminate SO_x emissions; unfortunately, the site that has been selected does not have enough water available for this process. It should be evaluated whether or not the lack of available water for proper scrubbing should force relocation of the smelter to a more suitable location. I would submit that a site without sufficient water is exactly the wrong place to build a smelter. Why should Pac-West be allowed to build the wrong project in the wrong location?

4. Pac-West has stated that they are going to spray water into the flue gas stream to cool the gas prior to entry into the baghouse. They also have made the claim that they will recover this water to minimize water loss. To do so, the flue gas temperature must be lowered below the saturation temperature corresponding to the flue pressure. Since the flue upstream of the main exhaust fans operates at a pressure below atmospheric pressure, the only time they would be able to actually condense the water from the flue gas would be when outside temperature is significantly below dew point. As an engineer, I am highly skeptical of their claim to keep the cooling water makeup requirement to 2000 gallons per day or less. Pac-West should be forced to release these engineering

calculations and plans for review as part of the PSD.

5. Our region experiences, sometimes for many days or weeks, temperature inversions which cause pockets of still air to be held close to the ground. As I'm sure you know, this phenomena will tend to cause pollution to concentrate in low lying areas frequently reducing air quality significantly. Will/should Pac-West be forced to shut down if air quality drops below a given level? As has been the case in Iceland, won't rapid, unplanned shutdowns cause protective functions to activate releasing unprocessed flue gas to be released directly?

6. Closed loop cooling systems, as Pac-West intends to use, require corrosion inhibitors to be added to the system to increase system life. One of the most common additives is still hexavalent chromium based. Chrome-6 is a strong mutagenic carcinogen that will easily find its way to the water table. The proposed site is near municipal wells for the city of Newport, as well as many domestic wells. Bad housekeeping and leaky pipes at plants like the one proposed have a history of contaminating the areas around them with these corrosion inhibiting chemicals. Why should the people of Newport, and the surrounding area, take on the risk and consequences associated with these chemicals when they are spilt? Citizens of Newport and the surrounding area should be made aware of the risks that these chemicals pose and be given more opportunity to make informed decisions.

7. Pac-West's choice of Deer Park as the monitoring station for the collection of historical weather data is completely inappropriate. The terrain around Deer Park is vastly different than Newport and does not experience the same air stagnation issues.

As an outsider, Pac-West is asking the locals to trust them and put the community's health and environment in their hands. It should be incumbent on Pac-West to prove that they absolutely will not cause harm. Thus far they have failed to do this in every way. Expecting the general public to be able to make informed decisions based on what little information Pac-West has presented is ridiculous at best. While I don't hold you or your staff personally responsible, this whole process is devoid of any true educational value for the public and would appear to be geared toward developing the right of the applicant to pollute and not the right of the people to self-determination and governance.

Thank you for the opportunity to express my concerns. I have more, but these are the major ones. Should you have and further questions for me, please feel free to contact me at any time.

Sincerely,

Patrick M. Molvik, P.E.