Penny Gedeon

October 25, 2018

Mr. Grant Pfiefer
Regional Director, Eastern Regional Office
Washington Department of Environmental Quality
4601 N Monroe Street
Spokane, Washington 99205-1295

Dear Mr. Pfiefer:

Please find below my scoping comments and questions for the proposed PacWest Silicon Smelter Project very near the towns of Newport, Washington and Oldtown, Idaho. I trust that you and your department will give these and all comments and questions you receive the utmost consideration, applying the highest level of academic research expertise to them. Given the broad range and considerable depth of the potential impacts of the placement of this proposed smelter in this area, it is incumbent on your department to perform the highest level of due diligence in this scoping process. I respectfully request and and fully expect this from you.

Sincerely,

Penny Gedeon
Sandpoint, Idaho

QUALIFIERS:

Please apply the following qualifiers to each study item requested:

a) Project out to 30 years of PacWest smelter operation to understand cumulative effects.

b) Study at both initial level of PacWest smelter capacity and the proposed future doubled capacity.

c) Study out to a radius of 100 miles from smelter in all directions, in 10-mile radius zone increments (Note: it is known that the pollutants are predicted to disperse beyond a 100-mile radius).

d) Studies should be designed, conducted, analyzed, and reported at the highest level of academic toxicological research standards.

e) Health effects data should be analyzed and reported in demographic toxicological study categories of age and health status, including infants, children, elderly, and sensitive groups.

f) Enumerate the number of citizens that are in the 100-mile radius, using the most current state (or provincial) and federal population statistics. Break this number down into infants, children, adults, elderly, and disabled, and chronically ill.

Study of Air Pollutant Deposition from Combined Plant Operation and Truck and Train Traffic Required for Plant Operation:

1) Expected PPM deposition of lead, mercury, cadmium, arsenic, zinc, copper and other metals;

and other pollutants including sulfuric acid from sulfur dioxide emissions, nitric acid from nitrous oxide emissions, fluorides, and formaldehyde in soil. Base on historical and current data from other comparable smelters.

Study Uptake of Pollutants by Food Sources and Health Effects of Consuming Such Foods:

1) Uptake of all the above named metals and pollutants by all food plants in these zones, both edibles that are growing wild (to include huckleberries, service berries, blackberries, buffalo berries, lambs quarters, watercress, mushrooms) and cultivated (farmed or gardened) plants, including tree fruits, tree nuts, berries, vegetables and grains. (both human food and livestock feed, to include pasture and hay). What are the health effects of these pollutants for each different crop or plant?

2) What will be the uptake in wild game animals to include deer, elk, bear, moose, and waterfowl? What will be the health effects to the game animals?

3) Health effects of livestock consuming these plants from the radius zones, broken down by all type of livestock currently reared as well as types likely to be reared. (With consideration that most or all of their diet will come from within a 0-100 mile radius.)

4) Health effects of people consuming these plants and animals and animal products from the radius zones, with consideration for various percentages of their diet coming from within a 0-100 mile radius. Give consideration to the highly vibrant local farm economy here, the local food movement, and the practice of a significant number of people consuming a large percentage of their diet in locally grown food, both wild and domestic.

Public Health Effects

The adverse effects on human health of air, water, and sensory (noise, vibration, light and glare, odors, decreased visibility) pollution. To include the pollution generated by truck and train traffic required for materials transport in, around, and out of plant.

How much more particulate pollution can be expected, broken down into PM10 and PM2.5? How many more days of poor air quality in each of the following categories will occur annually: "moderate", "unhealthy for sensitive groups", "unhealthy", "very unhealthy" and "hazardous"? How many fewer days of air quality in the "good" range will occur annually? How will visibility be affected? How many fewer clear visibility days can be expected annually? How many more low visibility days can be expected?

What percent increase in morbidity and mortality is expected in the following disease categories: acute and chronic respiratory conditions including upper respiratory illness, acute and chronic sinusitis, acute and chronic bronchitis, asthma, emphysema, chronic obstructive pulmonary disease, respiratory failure, pneumonia, pneumonitis, bronchiectasis, bronchiolitis, silicosis, lung cancer; cardiovascular conditions including hypertension, coronary artery disease, congestive heart failure, cardiomyopathy, acute mycocardial infarction, chronic angina; circulatory diseases including peripheral vascular disease, cerebrovascular disease; immune system diseases including infectious diseases, allergies, autoimmune illnesses, type I diabetes, lupus, scleroderma, rheumatoid arthritis; neurodegenerative diseases and neurocognitive disorders, including Parkinson's and Alzheimer's disease and all forms of dementia, multiple sclerosis; neurologic diseases including stroke,

migraines, chronic headache; metabolic conditions including hyper- and hypothyroidism, type II diabetes; neuropsychiatric conditions including ADHD and autism; all forms of cancer; pregnancy complications including miscarriages, low birth weight, premature birth, diabetes of pregnancy, and birth defects? What percent of IQ decreases can be expected? Project these effects out over subjects' lifetimes.

How many more traffic collisions leading to injury, disability and fatality will occur due to increased truck traffic? How many more wildlife collisions will be caused by the increased truck traffic? How much will auto insurance premiums increase due to higher collision rates in the area? How much more in personnel and equipment resources will emergency respondents require to cope with increased traffic enforcement and collisions? What will be the tax liability for this increase in resources?

Economic Effects and Community Vitality Effects

Study the area within the 100-mile radius of smelter, broken down by individual towns and counties.

How much will water rates rise due to the need for more extensive water treatment? How much will electricity rates rise due to the high power demands of the PacWest smelter? How much will property and state income taxes rise due to the need for infrastructure required to build and operate the PacWest smelter, including roads, bridges, water and, sewer. How much will building and ongoing maintenance of the infrastructure cost?

What percentage of the population will move away from the area if the PacWest smelter is built? How much will real estate values decline? How will rental vacancies be affected?

How many people who planned to relocate to this area will not come if the PacWest smelter is built? How many people who planned to retire to this area will not come?

How many fewer tourists will visit and recreate in the area annually? (to include shoppers, sightseers, various art and music festival attendees, bicyclists, paddlers, sailors, motorized water sport enthusiasts, hikers, backpackers, downhill and cross-country/Nordic skiers, photographers) What is the projected revenue loss to businesses from tourism loss, including those that serve tourists directly and indirectly? How many businesses will downsize or close due to this revenue loss?

How many businesses will close due to business owners leaving the area? How many non-profits will dissolve due to leadership moving from the area? What is the projected job loss resulting from business downsizing or closures, and non-profit closures? What is the projected economic multiplier of these losses?

How many companies that might have relocated to this area will not relocate to this area if the PacWest smelter is built? How many new businesses that would have considered coming to this area will not start up in this area, and will instead choose another area, if the PacWest smelter is built? What is the projected job loss from these two scenarios?

How much sales and income tax revenue will the towns, cities, counties and states or provinces lose from projected job and population losses?

Enumerate health care expenditure increases the area can expect due to the PacWest smelter operation? What percentage of these costs will be covered by private or federal health insurance and

what percentage will be paid for by state and county funds and local charities? What percentage will not be covered by any insurance? How many individuals will suffer significant financial loss (loss of home, loss of employability, bankruptcy) as a result of this increased population morbidity?

Are local hospitals prepared for increased utilization due to increased population morbidity? Can they absorb the projected rates of uninsured patients without financial harm to the hospital?

How many more primary care visits will occur annually for the expected increase in illness in the population? Do the individual localities within the 100-mile radius have enough primary medical providers to absorb this increase? If not, how many more primary medical providers will be needed? How will they be recruited? Will the recruitment of new providers be made more difficult by the presence of the proposed PacWest smelter?

How many more and what type of medical specialist will be required? Which medical specialties will experience the largest increase in demand? How will they be recruited? Will their recruitment be made more difficult by the presence of the proposed PacWest smelter?

Thank you for your full consideration of these questions.