

Responses to Comments in Letter 143 from Mark Porter, Sumas Resident

Note: The responses listed below are numbered to correspond to the numbers shown in the right-hand margin of the preceding comment letter.

1. Please see Letter 3, Response to Comment 2 for discussion of air quality impacts in Canada and the Fraser Valley.
2. The actual amount of water that would be required for S2GF would average 635 gallons per minute (based on an allocation of 1,025 acre-feet per year), which is somewhat less than that shown in the Draft EIS because SE2 has reconfigured the cooling tower design to recycle cooling water. This change is based on information provided by a partial stipulation agreement between the City of Sumas and SE2 (Volume 1, Appendix G, Exhibit 4). This average value equates to approximately 915,000 gallons per day rather than the 2 million gallons indicated in the comment. See General Response D for response to your concern regarding impacts to the availability of water to farmers. Also see Letter 137, Response to Comment 29 for a discussion of the availability of water for future industries.
3. See General Response I, which discusses the quantity and quality of wastewater that would be sent to the JAMES sewage treatment plant in Abbotsford.
4. The 115 kV power lines are no longer part of the project in Whatcom County. See Letter 3, Response to Comment 4 regarding EMF health effects.
5. Sand and gravel used for the fill pad at S2GF would come from existing, permitted gravel pits. Environmental impacts associated with the gravel source would be addressed as part of the permitting process for the gravel pit, and not under EFSEC jurisdiction.
6. See General Response J, which discusses impacts of the proposed plant construction on flooding.
7. Based on the current understanding of earthquake hazards in Washington State, an estimated peak acceleration of 4.0 g at the site from a subduction earthquake has a very small chance of occurring during the lifetime of the plant. Strong and prolonged earthquake shaking at the site could result in liquefaction and lateral spreading of the soils underlying the site. Although such an event could be catastrophic without proper design, this level of shaking can be accommodated within the current level of design practice.

As described in the Application for Site Certification (page 2.15-2) and in the Adjudicative Hearing Transcript (pages 1887-1889, inclusive), the potential for damage from a large earthquake would be mitigated in several ways. Subsurface explorations would be accomplished to identify liquefiable soils, such soils would either be densified in place or removed and replaced with appropriate soils, and the tank would be designed to seismic Zone 3 standards to prevent it from tipping over or collapsing during an earthquake. The containment area and berm would also be designed to withstand an

earthquake.

Given these mitigation measures, the concern about catastrophic failure of the tank from an earthquake appears to be unwarranted. Nevertheless, other factors, including additional safety measures, would provide protection against a spill from the diesel tank; these are discussed in General Response H.

8. As discussed in the Draft EIS, during normal operations, the turbines would be fired by natural gas. Although natural gas has been selected as the base operating fuel, the project would provide for oil-firing during periods of possible gas shortage. The applicant's proposed design provides for a maximum of 15 days of potential oil firing during the winter months of December through February; in many years there may be no oil-firing at all. Oil firing was included in the air quality modeling for the project and is discussed in the Draft EIS, as well as in Letter 3, Response to Comment 2.

Assuming a maximum of 15 days per year of oil firing, emissions associated with the proposed facility would not exceed National Ambient Air Quality Standards (NAAQS). In addition, the applicant has stipulated that they would further limit oil-firing to 10 days per year averaged over a 10-year period (Exhibit 154.6, page 2). As a result, the incremental air emissions associated with the 15 days of oil-firing would be less than those reported in the Draft EIS.

9. Thank you for your comments.