

September 5, 2023

Renee France
Partner
Radler White Parks & Alexander LLP
111 SW Columbia Street
Suite 700
Portland, OR 97201

Re: Responses to Submitted Additional Testimony
Portland Water Bureau Bull Run Filtration Facility Project

Renee,

Performance Based Fire Protection Engineering, PLLC (Consultant) submits this comment response letter to Radler White Parks & Alexander LLP (Client) in response to additional testimony for the Portland Water Bureau (PWB) Bull Run Filtration Facility Project. The additional testimony reviewed and addressed herein includes the following:

- Letter from Gresham Fire Chief Scott Lewis (Exhibit I.9) commenting on Bull Run Filtration Facility Fire Protection Strategy (Attachment 7 to Exhibit H.3)
- Rural Fire Protection District #10 (RFPD10) Supplemental Testimony (Exhibit I.10)

The purpose of our review was to provide our professional judgement and responses to statements provided in the above-referenced documents. The Consultant previously prepared the *Fire Protection & Life Safety Third-Party Consulting Review (Fire Protection Review)* (Exhibit I.91), which contains information relevant to several of the items re-introduced by the Gresham Fire Chief and RFPD10 and should also be referenced for our complete review of the project.

Letter from Gresham Fire Chief Scott Lewis

In his letter, Chief Lewis raises a concern with PWB's description of its overall fire protection strategy for the facility. It appears Chief Lewis' main concern is the possibility of the transmission of an alarm being delayed by facility staff, as they utilize tools and resources to investigate or determine emergency events. However, in our review of the fire protection strategy, and through discussions with the project design team, all installed fire alarm systems (code required and elected) will be monitored by a remote supervising station. It was not the intent of the fire protection strategy summary to infer that automatic transmission of fire alarms would not occur. The building and fire code both require monitoring at supervising stations in accordance with IBC/IFC Section 907.6.6 and NFPA 72 26.2.1.

There will be non-fire alarm systems at the facility that are monitored by the staff on-site 24-hours a day that are not required by the fire code and NFPA 72 to be transmitted to a UL listed monitoring station. For example, alarms will alert PWB's on-site operators in the event of low utility water pressure, low and high tank levels, and numerous other water treatment process-related conditions. The intent of PWB's fire protection strategy summary was simply to highlight that facility staff are monitoring the performance of all on-site systems, including both fire alarms and facility process alarms. By doing so, staff will have information that could assist the fire department and responders in cases that also include the fire alarm



system. For example, if a fire alarm condition comes in (monitored by fire alarm system and immediately transmitted) and a specific low-pressure alarm on process equipment is activating locally (not required to be monitored by fire alarm), on-site personnel could report the non-fire alarm condition to the responders to assist in their response. In conclusion, the fire alarm system will be monitored with no delay in transmission of alarms to a remote supervising station.

RFPD10 Supplemental Testimony

The majority of the additional comments from RFPD10 are related to transportation items, including specific to emergency response. Roadway conditions and corrective actions are outside of our area of expertise; however, we can respond to a few select items as they relate to emergency response and use.

Consultant Response to Item #1

The permit review process will not provide a direct translation to the availability, resources, and capability of a fire department; however, as the building and fire codes are concerned, the high-level items referenced on the Fire Service Agency review form, such as fire department access, available water supply, etc. are basic items for permit review purposes and set fundamental code basis for other requirements of the buildings. Our *Fire Protection Review* document (refer to pp. 7-11) describes the level of coverage and response capabilities to the facility, including the use of resources from other fire response agencies through automatic and mutual aid agreements. Agreements also exist for utilizing regional or state responses if required. Furthermore, our thorough plan review, as it pertains to fire protection and life safety, can be utilized to bolster the agency plan review process for code compliance.

Consultant Response to Items #2A through #2D

We have no specific response to these comments regarding road impacts and proposed road improvements. However, we have provided commentary at the end of this letter on the fire department response and how road work and partial closures should be considered. In addition, RFPD10 provided commentary on the transportation of hazardous materials on roadways; we recommend review of Section 3 (pp. 5-6) of our *Fire Protection Review* for clarity on the types of hazardous materials to be utilized at the facility, which demonstrates that most were conservatively classified originally by the design team.

Consultant Response to Item #2E

We have no specific response to these comments regarding the Transportation Demand Management Plan. However, we have provided commentary at the end of this letter on the fire department response and how road work and partial closures should be considered.

Consultant Response to Item #2F

It is our understanding that available fire flow (for manual firefighter efforts) will be available on-site during construction. The contractor will extend the existing water supply from the Pleasant Home Water District to provide fire service during construction. As the project nears completion, the facility will transition to a permanent fire service supply from the facility's clearwell.



Additional Commentary on Road Closures and Partial Road Closures

It is clear that a major concern for RPF10 is the availability of roadways for continued emergency response through construction areas. Maintaining emergency service access in areas with reduced availability of alternate emergency routes is of utmost importance. We recommend that this concern be addressed through preparation of an emergency coordination plan to be submitted with requests to approve lane/road closures during construction. The primary goal of this plan is to ensure that emergency response access through construction zones is considered and provided. For example, in the event that a roadway is down to a single lane of travel, responders need to know when these time periods of reduced lane availability will be provided. Construction crews need to be aware of the direction of approach for emergency responders and procedures to make sure passage is provided without delay. An available reasonable route always needs to be provided either through the main road, alternate emergency access road (temporary or permanent), or nearby street/roadway that will not increase response time.

We understand that the Portland Water Bureau will require their pipeline contractor to always make provision to provide access for emergency responders. It is our expectation that Dodge Park Boulevard and Cottrell Roads will be limited to a single lane closure, flagger controlled. Though other roads on the pipeline alignment can be fully closed by flaggers to through traffic, emergency vehicles must always be accommodated. Pipeline crossings of roads will be conducted such that one lane will always be open. Similarly, the “fix-it-first” pavement corrective actions will maintain one lane open. In the event a full closure is needed, the emergency coordination plan would ensure that adequate emergency routes are maintained. We recommend inclusion of the following elements in a final emergency coordination plan:

- 1) Satisfy the minimum requirements of the Manual on Uniform Traffic Control Devices for Streets and Highways
- 2) Dates and times of closure/partial closure
- 3) Name of contractor and emergency contacts (required on-site contact)
- 4) Purpose of closure
- 5) Location of closure and number of lanes
- 6) Work hours and times of road closures
- 7) Traffic control plan
 - a. Legend
 - b. North arrow
 - c. Street names within a certain distance of the site
 - d. Physical features such as medians, shoulders, etc.
 - e. Identified method for passage of emergency response vehicles (including temporary conditions/detour plan)
 - f. Location of significant construction items such as dumpsters and heavy equipment

Schedule updates with changes in the above-referenced information should be provided at least weekly unless alternative frequency is requested by the emergency responder.

An emergency coordination plan requires input and cooperation from the emergency responders. A final plan would go through a review process by all entities required to review and comment on the plan,



including county transportation, the primary fire response agency, police and sheriff's department, emergency medical services, and other emergency responders.

In terms of the Portland Water Bureau's commitment to improving the condition of identified area roads prior to commencing construction, we note that RFPD10 previously identified safety concerns created by the poor condition of roads in the area. The scope for roadway work for this project would improve infrastructure for future emergency response. A necessary impact of these improvements is the need to plan for lane closures for the work to be completed, but these improvements will only help the emergency response and the built environment.

Sincerely,

Performance Based Fire Protection Engineering, PLLC

David Stacy, P.E.



Principal & Founder

OREGON STATE BOARD OF EXAMINERS FOR ENGINEERING AND LAND SURVEYING
A temporary permit to practice in Oregon has been granted to David Stacy
valid only until official action is taken on 9/12/2023 for Oregon registration.

