STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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September 11, 2015

Mr. Paul Liner
Graymont Western US, Inc. – Tacoma Plant
1220 Alexander Avenue
Tacoma, WA 98421

Re: Graymont Tacoma Plant – Feasibility Study/Engineering Report and Addendum

Dear Mr. Liner:

The Department of Ecology (Ecology) received the Graymont Western US, Inc. – Tacoma PCC Plant – Effluent Treatment System Upgrade and Replacement Outfall Project Engineering Report on July 10, 2015 (one hardcopy) and July 21, 2015 (second hardcopy). Ecology also received Graymont Western's ETS Upgrade Engineering Report Amendment on August 31, 2015 (August 27, 2015 via email). The project involves upgrading the pond effluent transfer pumps and effluent treatment system to provide for an increased maximum 1,000 gpm discharge. The project also involves constructing an upgraded outfall with larger diameter pipe and 3-port diffuser with check valves to provide for better mixing in the Blair Waterway.

The Engineering Report and Amendment has been reviewed by John Y. Diamant, P.E., a registered professional engineer at the Southwest Regional Office. In accordance with RCW 90.48.110 and Chapter 173-240 WAC, the subject documents are hereby **APPROVED** as meeting the intent of an Engineering Report. Please proceed with your plans towards completion of your project.

This office is to be notified immediately of any proposed changes or revisions to the approved document. Any such changes or revisions must be issued in the form of addenda, technical appendices, or supplemental reports to the original approved documents and must be approved in writing by Ecology.

Ecology's review and approval of this document is to assure compliance and consistency with the appropriate rules, regulations, guidelines, planning and design criteria, and/or other similar documents. The Department of Ecology's review shall not be construed as a quality control check or as approval with respect to the completeness, accuracy, or adequacy of this document.

This approval **does not** relieve the owner(s) of the proposed facilities from any other approvals as may be required by other governmental reviewing agencies. In addition, this approval **does**

not relieve the owner or the owner's engineer from the responsibilities and liabilities that result from noncompliance with water pollution laws and regulations during the design, construction or operation of the proposed facilities. Also, this approval **does not** relieve the owner or the owner's engineer from the responsibilities for the technical adequacy and/or accuracy of the contents of this document.

If you have any questions or need any additional information, please don't hesitate to contact John Diamant, P.E. at (360) 407-6289.

Sincerely,

Richard Doenges
Southwest Regional Manager
Water Quality Program

Enclosure: Copy of the stamped ER and Amendment

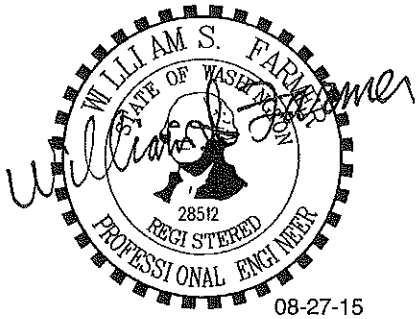
cc: Steve Eberl, Ecology
John Diamant, Ecology
Marc Pacifico, Ecology

CERTIFIED MAIL: 7014 0150 0000 9188 7838

MEMORANDUM

Graymont ETS Upgrade Engineering Report Amendment

PREPARED FOR:	John Diamant/Ecology
COPY TO:	Paul Liner/Graymont Hal Lee/Graymont Moo Han/Graymont Rachel Chang/CH2M
PREPARED BY:	Bill Farmer/CH2M
DATE:	August 26, 2015
PROJECT NUMBER:	656460



08-27-15

This memorandum serves as an amendment to the July 2015 Engineering Report for the Graymont Western (Tacoma Plant) Effluent Treatment System Upgrade and Outfall Replacement Project submitted for review to Department of Ecology (Ecology). This amendment specifically addresses Ecology's July 24, 2015 email comment regarding the potential impact of groundwater pumping on the capacity of the new Effluent Treatment System (ETS).

An analysis of the upgraded ETS treatment capacity relative to the volumes of stormwater, process water and pumped groundwater under varying conditions was conducted. The results of the analysis indicate that the Graymont Tacoma plant with the upgraded ETS would have sufficient treatment capacity for handling all process water, pumped groundwater, and storm runoff flows for the conditions considered while achieving the goal of minimizing stormwater ponding at the plant site. Details of the analysis are presented below.

An updated Treatment Process Flow Diagram and a Plant Water Usage Diagram that incorporate the groundwater pumping are also attached to this memorandum. These updated figures were previously submitted to Ecology in December of 2012 as part of the NPDES permit renewal application package. These figures are intended to replace Figures 1-3 and 1-4 of the July 2014 Engineering Report.

Background Information

The upgraded ETS will treat the same quantities of process and stormwater discharges at the Graymont Tacoma plant that are currently handled by the existing ETS but will be upgraded to treat up to 1,000 gallons per minute (gpm). These flows are intercepted within the plant and initially routed through Primary and Secondary Settling Ponds to settle and remove solids from the plant discharge. The ETS further processes the effluent to adjust pH to within permit limits prior to discharge to the Blair Waterway and will include a new outfall installed as part of the same upgrade project. A below-grade slurry wall was installed to the south of the secondary pond in 2012 to restrict potential migration of groundwater through the subsurface and includes a groundwater pumping system on the up-gradient (pond) side of the slurry cutoff wall. Three groundwater pumping wells are distributed along the length of the slurry wall and discharge directly into the Secondary Settling Pond to provide a measure of hydraulic containment across the wall.