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22 January 2020

Melinda Wilson
Department of Ecology
Industrial Permit Administrator
Southwest Regional Office
PO Box 47775
Olympia, Washington 98504-7775

Re: Application for a New Wastewater Discharge Permit to a Publicly
Owned Treatment Works (POTW)

Dear Ms. Wilson,

Applied Plant Science (APS) is submitting this application for a wastewater discharge permit as requested by the Washington Department of Ecology (Ecology) in the letter dated November 13, 2019. Antea Group, on behalf of APS, has completed the permit application and attachments. This brief letter provides additional background not fully captured in the permit application.

Applicability to fertilizer manufacturing classifications:

The permit application request by Ecology indicated that APS is likely a categorical user per the United States Code of Federal Regulations (CFR) Title 40, Part 418, Subpart G - Mixed and Blend Fertilizer Production Subcategory. Mixed and blended fertilizer production are defined as: - *The term **mixed fertilizer** shall mean a mixture of wet and/or dry straight fertilizer materials, mixed fertilizer materials, fillers and additives prepared through chemical reaction to a given formulation.* - *The term **blend fertilizer** shall mean a mixture of dry, straight and mixed fertilizer materials.* Based on our understanding of APS's production methods, the most applicable category is Blend Fertilizer production. APS does not perform any chemical reactions when mixing their liquid or dry formulations. They do not drive any chemical reactions to change the chemical compounds present in their products, the various ingredients are simply combined or dissolved into hot water solutions.

Dry blending is a small part of APS's business. Based on 2019 production, dry products were less than 1% of the production by mass. Again, no chemical reactions are driven, only mixing to achieve set ratios of ingredients. While APS hopes to grow the dry product business, it is expected to be a minor part of the entire enterprise. APS would like to further discuss this classification to confirm that their operation falls under the categorical division as intended by the CFR. If not a Categorical User, APS is smaller than a Significant Industrial User (>25,000 gallons per day) and larger than a Non-Significant Categorical User (<100 gallons per day).



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Regarding Ecology Water Quality Permit Fee Classification:

Two classifications are listed in the Ecology water quality permit fee schedule (WAC 173-224-040) that apply to the fertilizer production operation at APS.

1. Inorganic Chemicals Manufacturing b. Fertilizer
2. Organic Chemicals Manufacturing a. Fertilizer

APS uses organic compounds and inorganic compounds to formulate the desired recipes. At the facility, they produce "organic" products from ingredients that are approved for certified organic agriculture. These "organic" ingredients plant meals, animal concentrates and guanos. From a chemistry perspective, the bulk of the non-water ingredients used at the facility are inorganic mineral salts. APS feels that their operation fits better in the inorganic classification. While they do use organic ingredients such as sugars, vitamins and vegetable meals, they do not perform any organic chemistry or reactions. Greater than 70% of the non-water ingredients are inorganic compounds.

Sewer Volume:

Presently, APS sends the third (final) rinse of clear wash water to the City of Woodland POTW. When APS is issued a wastewater permit, they will continue to refine their washing process and identify what other wash water can readily meet the discharge criteria. Approximate current wastewater discharge is identified in the water balance diagram included in the permit application. Future use may be higher as production increases and APS identifies more ways to segregate wash water and discharge acceptable wash water to the Woodland sewer system. The maximum daily and maximum monthly flows listed in C.3 on page 4 of the application reflect the potential for growth and a corresponding increased percentage of wash water sent to the POTW.

First rinses and other more concentrated wash water (floor cleaning, drip pans, and tank washouts, etc.) are sent to the waste tank for off-site disposal. The same is true for washes of colored products containing dyes and washes of dry fertilizer equipment. APS anticipates this segregation to continue in the future but will attempt to increase the ratio of washes that meet the wastewater discharge criteria listed in the Inspection report attached to the 2019 letter while maintaining compliance.

Currently, the wash water system at the facility has limited metering. Estimates of volumes and flow for this application were made using process knowledge. As additional metering equipment is installed and data is collected, the facility can more accurately quantify the waste water flows if required by the permit.

Analytical results:

APS analyzed a sample of their final rinse wash water in December of 2019. Compounds listed on page 3 of the 2014 Ecology Inspection Report were analyzed at ALS Laboratories in Kelso, Washington. A review of the analytical results indicates that the analyzed compounds are well below the limits referenced inspection report. Due to a miscommunication with the laboratory, the selected analytical methods did not meet quantitation and detection limits (QL/DLs) for all analytes as listed in the permit



application. If Ecology requires the lower QL/DLs, APS will re-sample to achieve the lower limits. Prior to permit issuance, additional sampling should be performed, regardless, to determine what degree of variability exists in the waste stream.

Confidential information:

APS uses several ingredients that they feel are important to the success of their fertilizer formulations. The ingredients fall into the classifications listed as Raw Materials in Section B.2 of the application. APS is willing to share the ingredients list with Ecology and the City of Woodland, if confidentiality can be maintained. If either organization needs further information, APS is willing to arrange a meeting to review the ingredients list.

Please do not hesitate to contact the undersigned if you need further information or have any questions regarding the application.

Sincerely,



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cc:
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