DOC19/952740

Bianca Thornton
Planning Officer
Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2000

11 November 2019

Dear Ms Thornton,

Modification Application for Spring Farm Advanced Resource Recovery Technology Facility (MP 05_0098 MOD 6) – Liquid Waste Water Treatment Plant Management Plan.

On 18 October 2019 the NSW Environment Protection Authority (**EPA**) wrote (DOC19/889378-1) to the Department of Planning, Industry and Environment (**DPIE**) providing further comments on the Response to Submissions on the modification application for Spring Farm Advanced Resource Recovery Technology Facility (**MP 05_0098 MOD 6**) at Barrow Rd Spring Farm (**the Premises**).

In DOC19/889378-1 the EPA advised that the applicant had not provided sufficient information to make an adequate assessment. However, the EPA noted the applicant has provided sufficient information regarding the following proposed industrial liquid wastes:

- Surface active agents (J120);
- Waste Oil / water emulsions (M250); and
- Waste from production of resins (F110) – Hospitals.

On 23 October 2019 the applicant provided a list of additional industrial liquid wastes than those detailed in the applicant's previous correspondence (see EPA ref DOC19/889378-1). The processing of and interaction between these liquids requires detailed consideration including final disposal.

The EPA has received successive documents produced by the applicant providing components of the total proposal. In a number of instances these documents seek to clarify information provided in previous documents. The EPA has not received sufficient information to make an adequate assessment of the proposal and requests the applicant submit a single document consolidating the information previously provided that clearly addresses the information detailed in Attachment 1.

Should you have any questions regarding this matter or wish to arrange a meeting, please contact Damien Rose on 9995 5586.

Yours sincerely

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Attachment 1

Information to be included in the one consolidated document for review.

1. Details of siting of the Plants major components
Information is required to demonstrate the place and siting of the waste processing plant and its components is suitable from an operational, environmental and safety management perspective.

2. Detailed information on the plant design and operation
Is the treatment plant appropriate for the proposed liquids?
Information is required on:

a. the vessels used to store, treat and filter wastewater;
b. the number, type and sizing of each significant item of plant;
c. the type and capacity and potential filter rate of each deep bed filter;
d. how wastewater and regents will be transferred, added, mixed and removed; and
e. contingency measures, for relevant likely and potential scenarios, including where the treatment fails.

3. Information on wastewater influent and treated effluent.
Industrial liquid wastes can be highly variable in nature, depending on factors such as source, prior use/treatment, type, etc.

The industrial liquid wastes proposed have the potential to contain problematic or difficult to treat chemicals. For example, waste such as those under the waste codes N140, N205, M250 sourced from contaminated groundwater and industrial waters, frequently contain surfactants such as PFAS. PFAS is required to be treated to a very high level (generally to non-detect), due to its persistence, bio accumulative properties, and mobility in soils and water. F100 and F110 wastes may contain high levels of organic compounds, depending on where they are sourced, and risks associated with their handling and management must be considered and assessed.

Information is required on:

a. The expected maximum and estimated average volume of liquids to be treated.
b. The proposed/expected maximum and average flow rates through the pre-treatment and PFAS treatment units.
c. The likely treatment duration, or factors that may affect treatment duration and effectiveness.
d. Wastewater influent must be well characterised, both chemically and physically, to ensure the plant is appropriately designed and fit for purpose to treat such waters;
e. treated water specifications must be clearly defined, to demonstrate the treatment plant will be able to meet discharge criteria requirements for all likely and potential treatment scenarios; and
f. the type and level of sampling and analysis that influent and effluent waters will be subjected is critical to ensure effective treatment and to demonstrate required treatment outcomes have been met.
g. details of the sampling and analysis and other screening that will be undertaken on influent and effluent waters;
h. influent water (concentration) specifications or ranges as appropriate, including for each chemical type, and other relevant physical and chemical properties; and
i. treated water specifications, to demonstrate the mobile plant will be able to meet discharge criteria requirements for all likely and potential treatment scenarios.

4. Information on project design and management relevant to mitigating environmental impacts.
Information is required on:

a. The mitigation measures proposed to be implemented to prevent and mitigate leaks and spills from the treatment plant and other project operations and activities.
    i. Appropriate primary and secondary containment systems should be included as a part of the proposal.

   ii. Details of bunding, isolation, overflow prevention and other controls should be provided to demonstrate spill and leak related risks have been appropriate considered and addressed.

b. Details of plant other than the treatment system such as:
   i. Treated and contaminated water tank(s): volume, location, bunding, and other relevant parameters.

c. Details of the reagents required for the project such as:
   i. The types and amounts of reagents required and any potential associated hazards.
   ii. How and where the reagents will be stored, transferred and handled, including what controls (bunding etc) are required and will be implemented to ensure operations will be conducted in an environmentally sound manner.

d. Details of wastes to be managed and relevant matters such as:
   i. The amounts of wastes generated from the treatment process, and their likely generation rates.
   ii. How each waste stream will be managed, including how each waste will be stored, handled, transferred, processed, collected and disposed of.

e. Details of any waste dewatering process, if proposed.

6. Process monitoring.

Details on the process monitoring that will be used to ensure the treatment plant will operate in an effective and efficient way.