

Annex EF50 of Dr E J Fordham Interested Party – Unique Reference: 20030698
EN010106 – Sunnica Energy Farm

**Consideration of the Planning and Hazardous substances Consent for Kells
Battery storage Facility, May 2022**

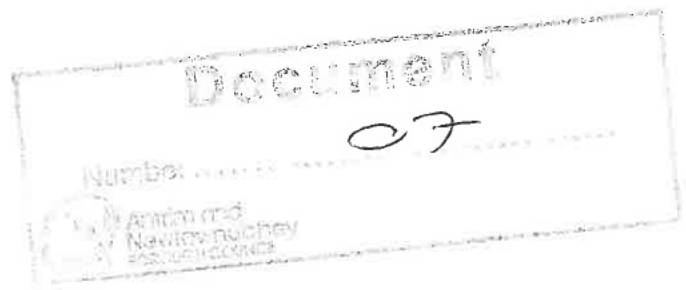
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Institution: Golder Associates

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Reference: Planning portal, Antrim and Newtownabbey Borough Council

Received: 19 December 2022

**TECHNICAL MEMORANDUM****DATE** 14 December 2022**TO** John Dundee, SYNERGY Engineering and Environment**CC****FROM** Dale Haigh**CONSIDERATION OF THE PLANNING AND HAZARDOUS SUBSTANCES CONSENT FOR KELLS BATTERY STORAGE FACILITY, MAY 2022**

The following memorandum provides a summary of a review of the proposed development in relation to the Planning (Hazardous Substances) (No. 2) Regulations (Northern Ireland) 2015 (hereafter, referred to as PHSC) and the Control of Major Accident Hazard Regulations (COMAH).

Background

The batteries proposed for this site are Lithium-ion batteries and the whole Site contents (from all 13 containers) include the following, based on information provided to us:

- Cobalt Oxide (CoO), 5.1 tonnes held on site.
- Manganese Dioxide, 5.1 tonnes held on site in total.
- Nickel Oxide, 40.7 tonnes held in total.
- Carbon 40.7T of carbon held on site.
- Electrolyte (proprietary), 40.7 tonnes in total on Site.
- PVdF (Polyvinylidene fluoride or polyvinylidene difluoride), 10.2T of PVdF on site.
- Aluminium foil, 20.4T of aluminium foil on site.
- Copper foil, 40.7 tonnes held on site.
- Mineral Oil, 27.495 tonnes held on site.
- Ethylene Glycol, 0.239 tonnes held on site
- R134A, 0.39 tonnes held on site
- Propane 1,2 diol, 2.84 tonnes held on site

Summary

A review of the chemicals used within the batteries (and associated materials) indicates that none of the species are above the threshold values in the Planning and Hazardous Substances Consent (or lower tier thresholds within the Control of Major Accident Hazard regulations). This assumes that the Cobalt Oxide present is not present in inhalable powder form, which has been confirmed by the client to be the case.

Some species are present at a percentage of the relevant thresholds including health hazards (81.4% of lower threshold), physical hazards (2.12% of lower threshold), environmental and other hazards (52% of lower threshold) and petroleum products (1.1% of threshold). At these levels a PHSC or COMAH application would not be required. We also note that the selection of Hazard phrases has resulted from a web search of relevant MSDSs for the chemicals identified as present in the battery storage system. We have conservatively added phrases if they were present in one MSDS but not present in all MSDSs.



This note has focused on determining the volumes of hazardous substances stored at the site within the Battery Storage facility and associated equipment. It has compared stored masses with thresholds in the Planning (Hazardous Substances) (No 2) Regulations (Northern Ireland) 2015 and COMAH Regulations. None of the chemicals alone (or as a group) are above the thresholds in the Planning (Hazardous Substances) (No 2) or COMAH Regulations.

Dale Haigh

EHS Consultant

