# **NON-TECHNICAL SUMMARY**

This Environmental Permit variation application has been made on behalf of SEDAMYL UK Ltd. (SEDAMYL) for their Wheat Processing Facility at Denison Road, Selby, North Yorkshire, YO8 8AN.

SEDAMYL operates a Potable Ethyl Alcohol, Refined Starch and Vital Wheat Gluten production plant which is reflected in the current Environmental Permit (ref: **EPR/KP3030TZ/V008**). The existing plant processes local wheat to produce Grain Neutral Alcohol, native and modified dry starch for the UK market, including co-products from dry milling (bran), wet separation (gluten) and distillation (stillage).

Locally sourced wheat is dry milled into flour, producing as a co-product bran which is pneumatically transferred and stored in dedicated storage where it is out loaded to be used within animal feed applications. The refined flour product is combined with water supplied from onsite boreholes (licence: NE/027/0024/021/R01), allowing extraction of starch and the wet separation of gluten.

Gluten is dried and segregated into dedicated vessels allowing for gluten to be loaded in bulk tankers or to be filled into 1 tonne bags within the dedicated ‘big bag filling station’, these products are used for food application within baking industries and also animal feeds.

Starch is graded for two uses; refined starch is dried, stored and out loaded into bulk tankers. Dried Native Starch is used within the paper industry, Modified Starch is predominantly used for applications such as corrugated cardboard. Residual starch; through the addition of enzymes and heat (steam jet cooker) is converted into sugar and further into alcohol with the addition of propagated yeast in a continuous fermentation process. Yeast is propagated within dedicated vessels with the induction of air and addition of nutrients. The resultant fermentation product is then distilled to obtain Potable Ethyl Alcohol, which is stored in dedicated bunded storages and sold within the spirits and liquor industry. Heads and tails of distillation are produced through distillation and stored to be sold within the refining industry. An evaporator is used to concentrate stillages produced through distillation, this co product is loaded into tankers, used for feed applications.

On site Waste Water Treatment Plant (WWTP) is a biological anaerobic digestion process operated to treat process wastewater, mainly condensate from stillage evaporator and ground water run off producing an effluent suitable for discharge to the River Ouse. The Biogas produced is flared locally. A cooling water system is used for process control, water chemistry is monitored and levels controlled in the way of blowdown which is mixed with the WWTP effluent and analysed before discharge to the River Ouse.

Onsite combined heat and power (CHP) units provide heat in the form of steam and electrical power for all onsite operations, back up emergency generators are in place to be used in the event of power grid failure in order to control critical operations safely.

This variation application covers the expansion of the production capacity of the existing processing facilities and installation of new product processing streams.

The key elements of the proposed plant expansion are as follows;

1. The creation of an additional wheat intake with precleaning section that allows for the screening of incoming raw product before storage in the 3 new additional storage silos for use in the dry mill process as outlined above. Located at Point 1 on Map SED-C2-5a-3 Proposed Site Layout – V4.
2. Additional fermentation tanks in line with existing fermentation process, will process starch also outlined above. Located at Point 2 on Map SED-C2-5a-3 Proposed Site Layout – V4.
3. The additional distillery will be fed using the increased fermentation output to facilitate the increased production of potable ethyl alcohol and associated heads and tails for the spirits and liquor industry. Located at Point 3 on Map SED-C2-5a-3 Proposed Site Layout – V4.
4. The additional distillery will produce an increase in stillage as a by product of the distillation process which will be concentrated using the existing evaporator installation and stored in 4 new storage vessels before loading into dedicated tankers. Located at Point 4 on Map SED-C2-5a-3 Proposed Site Layout – V4.
5. The additional distillery will be fed by the existing cooling tower infrastructure, which will be expanded with two further cooling towers added to the east of the current installation. All towers are registered with the local district council. Located at Point 5 on Map SED-C2-5a-3 Proposed Site Layout – V4.
6. Inclusion of Denatured Alcohol processing. Located at Point 6 on Map SED-C2-5a-3 Proposed Site Layout – V4.
7. Additional processing line for starch cooking within existing fermentation area allowing for increased throughput and a reduction in downtime for cleaning. Located at Point 7 on Map SED-C2-5a-3 Proposed Site Layout – V4.
8. The additional onsite capacity for increased yeast propagation within existing fermentation area. Located at Point 8 on Map SED-C2-5a-3 Proposed Site Layout – V4.

The above changes include the following air emission points (locations of which can be found on the diagram SED-C3-2-2 Monviso4\_Site Emissions\_A0\_1\_500\_rev01):

* A46, new wheat intake stack
* A47/48/49, new wheat storage silo’s
* A67, 2nd distillery and tank scrubber

Please also note that the above changes are the only changes taking place as part of V009, however, planning documents and Monviso 4 project descriptions provided as part of this variation may make reference to additional changes which will take place as part of a subsequent Variation. This includes maps of the site that will include all changes for the next several years. Please refer to SED-C2-5a-3 Proposed Site Layout – V4 where the V009 changes are numbered for more detail.