
Requests 490 and 474 – supplementary question on meteorological data, permit application Cornwall Energy Recovery Centre, St Dennis, Cornwall.

1.0 Introduction

1.1 The National Permitting Service (NPS) received a public consultation response questioning to the validity of the meteorological data used in the Cornwall Energy Recovery Centre (CERC) air quality and human health impact assessments. NPS asked the National Air Quality Modelling and Assessment unit (NAQMAU) to comment on the validity of the met data.

2.0 General Comments

2.1 The applicant has provided an explanation of their selection of meteorological data in Annex E4 of the application. CERC carried out sensitivity analysis to an early plant design using met data from St Mawgan, Camborne and St Dennis School. CERC states that St Mawgan (at only 12km from the proposed plant) was initially the preferred met station but they claimed that local terrain features make the data un-representative. They claim that although Camborne is 35km away, the prevailing winds are more representative of the local wind-flows at St Dennis. The St Dennis School data was recorded for the year 2006 only but CERC claims that the single year is shows a similar directional signature to Camborne and hence returned similar modelling predictions. The applicant chose Camborne rather than the more local St Dennis met data because a minimum of three (preferably 5) years of met data should be used for a detailed impact assessment and the predictions using St Denis are similar to Camborne.

2.2 We agree that a minimum of three met years should have been used and therefore a single year of St Dennis data would not have been appropriate. However, the omitting St Mawgan data on the grounds of comparison with that single year (of the local St Dennis data) might not be justifiable. We checked sensitivity analysis to Camborne and St Mawgan meteorological data using only data owned by the Environment Agency. Similar to the applicant, we found that St Mawgan data generates the highest modelling predictions. We therefore conservatively used the peak St Mawgan year to test the model and make our check predictions. As stated in our report, despite using met data that generated higher predictions, and the other issues identified in our audit, we agree with the applicant's conclusions that exceedences of the air quality objectives are not likely. We also used the more precautionary met data in our check modelling and calculations of the human health intake and habitats assessments.

3.0 Conclusion

3.1 The applicant took the local St Dennis met data into account in their sensitivity analysis predicting that St Dennis provides similar predictions to Camborne but lower than St Mawgan. However, we did not agree that the St Mawgan data should necessarily have been excluded. Using the most conservative from St Mawgan and Camborne we agree that exceedences are not likely as a result of the proposed plant.

**National Air Quality Modelling and Assessment Unit
Compliance and Technical Services
Tŷ Cambria
Cardiff**

23rd March 2009