



Dover District Council

Local Air Quality Management

SO₂ Eastern Docks

Action Planning Progress Report

April 2009

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Introduction

As part of the first round of the Air Quality Review & Assessment process, Dover District Council declared an Air Quality Management area for sulphur dioxide in the Port of Dover. The AQMA came into force on 20th June 2002. Further to the declaration, a final Air Quality Action Plan (2005) was completed following consultation which has subsequently been adopted by the Council.

In accordance with Policy Guidance LAQM.PG (09) sect. 5.28 Local Authorities have a requirement to submit annual action planning Progress Reports once the final action plan has been drawn up. The last Progress report was completed by the Council in December 2007 and reported on monitoring emissions from shipping activities from the Port and further progress on public consultation and participation in Stakeholder Group meetings.

This report provides a further update on original measures identified to improve levels of sulphur dioxide in the area of the Port of Dover and additionally updates on the monitoring programme implemented since the previous report.

1. Air Quality Action Plan Progress

1.1 Monitoring

Since the adoption of the Action Plan the Council continued to maintain the two continuous monitoring sites at Langdon Cliff (ZD3) and within the Eastern Docks complex (ZD6). The original Eastern Dock site (Public Services Central Building) was de-commissioned in February 2008 due to re-development in the docks. A new site close by was identified and set up. This site contains the SO₂ analyser from the East Cliff and a new continuous nitrogen dioxide monitor. Monitoring results from the site were analysed to provide data for the Detailed Assessment report which was published separately (2007 Detailed Assessment NO₂ Eastern Docks).

In respect of the existing AQMA for sulphur dioxide, recent results from both ZD3 and ZD6 in respect of SO₂ Objectives are included in this report and shown in Figure 1.

Figure 1. Air Quality Objectives – Langdon Cliffs Monitoring Site

Location	Within AQMA?	Description	Annual mean concentrations (µg/m ³)		
			2006	2007	2008
Dover Langdon Cliff	Yes	15 Minute mean > 266 µg/m ³ for more than 35 15-minute periods	14	4	1
		Hourly mean > 350 µg/m ³ for more than 24 hours	1	1	0
		Daily Mean > 125 µg/m ³ for more than 3 days	0	0	0
		% Data Capture	96	(79)	(85)
Dover Docks	Yes	15 Minute mean > 266 µg/m ³ for more than 35 15-minute periods	79	30	8
		Hourly mean > 350 µg/m ³ for more than 24 hours	1	0	0
		Daily Mean > 125 µg/m ³ for more than 3 days	2	0	0
		% Data Capture	(12)	95	(49)

*Data for all years has been fully ratified.

Exceedences are highlighted in bold. Data capture below the recommended 90% is shown in brackets.

The above results indicate that the SO₂ 15 minute objective have reduced significantly since 2006 and was not exceeded at either site in the past two years.

Policy guidance LAQM.PG (09) sect. 3.9 allows local authorities to amend or revoke existing AQMAs where it considers it necessary. Results at the Langdon Cliff site have indicated that since the introduction of lower sulphur fuels there have been no exceedences of the sulphur dioxide objective and only one recorded exceedence of the 15 minutes mean at this site. Updated details on shipping within the district is also assessed in the Council's Updating & Screening Assessment April 2009, which concludes that in view of the recent monitoring results the Council should closely monitor exceedences of the 15 minute SO₂ Objective within the Eastern Docks AQMA area with a view to amending or revoking the AQMA once sufficient evidence is obtained.

In view of the above, the Council is satisfied that results from the Langdon Cliff site have demonstrated that the introduction of low sulphur fuels has had a beneficial effect of local SO₂ levels. It is the intention therefore to de-commission this site at the end of 2009. Monitoring equipment will remain at the Eastern Docks site.

1.2 Consultation with Stakeholder Groups

The Council have continued to publicise all air quality reports on the Council website, and consulted directly with local stakeholders including shipping operators and the Dover Harbour Authority.

1.1 Update on European Legislation EU Directive 2005/33/EC

International legislation governing the reduction of SO_x and NO_x emissions from shipping is being enforced, and both the European Union and the USA are planning to introduce further additional regional laws to reduce emissions. In April 2005 the European Union finalised legislation limiting sulphur in marine fuels and the USA are planning to introduce additional laws to reduce emissions to air from ships. The proposal is to reduce the level of sulphur in fuel to 1.0% in 2010, and 0.5 % in 2015

From 19th May 2006 the Baltic Sea has become the first SECA (Sulphur oxide Emission Control Area). Ships sailing in SECAs must either use fuel oil with a maximum sulphur content of 1.5% m/m or fit an approved exhaust gas cleaning system or other technological method to reduce the emission of sulphur oxides to 6.0g SO_x/kWh or less. The North Sea and English Channel have now been included as a SECA although sulphur fuel <1.5% has been in use on the cross channel routes since August 2006.

It is clear that with the implementation of EU Directives substantial improvement in local sulphur dioxide ambient levels at receptor locations have been achieved and is illustrated by the reduced number of exceedences at the Langdon Cliff site. There are, however, still a significant number of exceedences still within the Eastern Dock area.

A summary of the Action Plan progress points shown in Table 2.1.

Table 2.1 Update on Action Plan Measures

Action	Action Plan Description	Organisation responsible	Original Timescale	Progress with measures	Outcome to date	Comment
1	Dover DC is committed to maintaining the two continuous air quality monitoring stations currently situated at Langdon Cliff and within the AQMA at Eastern Docks.	DDC	Ongoing – new monitoring site now established in Eastern Docks	<p>1. Dover DC has reviewed the monitoring results from Langdon Cliff. Site to be de-commissioned at the end of 2009.</p> <p>2. East cliff monitor now re-located to new site within the AQMA in the Eastern Docks</p>	2008 results showed no exceedences of the Objectives at both monitoring site and a reduction in 15 min exceedences.	Data capture of 85 achieved at Langdon Cliff site and 49% at Eastern Docks
2	Dover DC is committed to regular ongoing attendance at Stakeholder Group meetings with the Port of Dover ferry operators and other stakeholders transparent public consultation at all stages of its review and assessment.	DDC	Ongoing	Dover DC continues its commitment to regular ongoing attendance at Stakeholder Group meetings. Meetings held Dec 2006, June & Sept 2007, April 2009	Consultation with Port of Dover, ferry operators.	<p>1. All information posted on DDC web pages</p> <p>2. Continued consultation & dialogue with Port of Dover & stakeholder agencies on local AQ issues</p>
3	Compliance with EU Directive 99/32 relating to the use of Heavy Fuel Oil (HFO) use of low sulphur fuel	Ferry Operators	2008	EU Directive 2005/33 came into force on 11 th August 2006	All Dover ferry operators using low sulphur fuels	