

Southampton to London Pipeline Project

Construction Environmental Management Plan
(CEMP)

Appendix D: Dust Management Plan

Revision No. 2.0

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Surrey Heath Borough Council





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Acronyms and Abbreviations

Acronym	Definition
CEMP	Construction Environmental Management Plan
DCO	Development Consent Order
DMP	Dust Management Plan
ES	Environmental Statement
Esso	Esso Petroleum Company, Limited
SSSI	Site of Special Scientific Interest
SPA	Special Protection Area
SAC	Special Area of Conservation
SANG	Suitable Alternative Natural Greenspace
SNCI	Site of Nature Conservation Importance



1 Introduction

1.1 Overview of the Project

- 1.1.1 Esso Petroleum Company, Limited (Esso) has been granted a Development Consent Order (DCO) by the Secretary of State to replace 90km (56 miles) of an existing pipeline with 97km of new pipeline to transport aviation fuel between Boorley Green in Hampshire and the Esso West London Terminal storage facility in Hounslow. The replacement pipeline is 97km long, taking into account that it cannot follow the line of the existing pipeline along its whole length due to new developments and environmental constraints.
- 1.1.2 Esso has already replaced 10km of pipeline between Hamble and Boorley Green in Hampshire. The replacement pipeline starts near Boorley Green at the end point of the previously replaced pipeline. The route runs generally in a northeast direction via Esso's Pumping Station in Alton. It terminates at the Esso West London Terminal storage facility. The areas of land to be permanently or temporarily used for the project are known as the Order Limits.
- 1.1.3 The project within this local authority area is broken down into 10 stages. These are based on geographical areas. Surrey Heath Borough Council is host to 16km of the 97km pipeline route. This Dust Management Plan (DMP) specifically applies to the section of works between (487 672E, 157 236N) and (498 999E, 164 608N), in the Borough of Surrey Heath. This is shown on Sheets 9, 10 and 11 in the Stages of the Authorised Development.
- 1.1.4 It is anticipated that works to install the pipeline will start in 2021 and be completed in 2023. The installation of the pipeline is planned to be completed within a two-year construction period. On completion of the installation works the contractor will hydrotest the pipeline and any post-construction monitoring required will be carried out.
- 1.1.5 The development authorised by the DCO must be undertaken in accordance with the Construction Environmental Management Plan (CEMP) pursuant to Requirement 6 of the DCO.

1.2 Purpose of the Dust Management Plan

- 1.2.1 This DMP has been produced as Appendix D to the CEMP and is applicable to all works through Surrey Heath Borough. It has been developed in accordance with the Outline DMP. Esso and its contractors will adopt the control measures set out in this DMP when undertaking the construction of the project.
- 1.2.2 The DMP should be read alongside the Soil Management Plan (Appendix F of the CEMP), which contains the commitments relating to soil management including stripping, storage and reinstatement.



1.3 Aims and Objectives

- 1.3.1 The overarching aim of the DMP is to reduce the impact on air quality and reduce dust impacts at local receptors during the construction of the pipeline and to maintain positive working relationships with local communities and the relevant planning authorities.
- 1.3.2 The objectives of the DMP are to define good practice measures in relation to dust management, which are to be adhered to during construction of the project. The DMP relates only to the construction of the project, as there are no significant effects during operation.

1.4 Roles and Responsibilities

- 1.4.1 Overall roles and responsibilities for the project will be presented in the CEMP. The main roles and responsibilities specific to the DMP are set out in Table 1.1.

Table 1.1: Roles and Responsibilities

Roles and Specification	Responsibilities
Environmental Manager	The Environmental Manager will be responsible for the maintenance of all environmental plans and registers, including monitoring that the environmental measures and mitigations are implemented on site and as recorded within the CEMP. They will be the main point of contact for all environmental matters on the project. They will also develop good working relationships with key external stakeholders such as the Environment Agency, Natural England and the local authorities.
Works Supervisor	Responsible for delivering the site works in accordance with the requirements of the CEMP and implementing good environmental practices required by the Environmental Manager. They are responsible for managing operatives, plant and their areas of work in accordance with the principles of good environmental practice.

1.5 Structure of the Dust Management Plan

- 1.5.1 The DMP includes:
 - Section 2: This contains a summary of the geographical context based on the details set out in Environmental Statement (ES) Chapter 13: People and Communities (**Application Document [APP-053](#)**) and Appendix 13.2: Air Quality Technical Note (**Application Document [APP-120](#)**);
 - Section 3: This includes the main body of the DMP, with the generic commitments and details about methods that will be employed to prevent or reduce dust emissions during construction; and
 - Section 4: This outlines the site checks and reporting that will be undertaken in respect of dust and air quality.



2 Geographical Context

- 2.1.1 This DMP applies to the installation of the pipeline in the Borough of Surrey Heath between (487 672E, 157 236N) and (498 999E, 164 608N). The works include seven trenchless crossings, and a mixture of open field, semi-rural, and urban work sites. Semi-rural locations include Pine Ridge Golf Course, Dean's Bottom, Turf Hill, and Windlemere Golf Centre. Urban works in roads include Balmoral Drive/ St Catherine's Road/Frith Hill Road, and Red Road.
- 2.1.2 The air quality and dust assessment considered potential air quality and dust effects on both human receptors and ecological receptors. Further details can be found within ES Chapter 13 (Application Document APP-053) and in ES Appendix 13.2 (Application Document APP-120).
- 2.1.3 ES Appendix 13.2 assessed the potential impact to human receptors caused by earthworks, construction and trackout, and with the implementation of the good practice measures defined in Table 3.1, considered there to be a low risk of impact. Specific locations with human receptors include residential areas. Examples within or adjacent to the Order Limits, which are sensitive, but still of low risk, to dust include:
- residential properties in Henley Drive, Balmoral Drive, The Maultway, Red Road;
 - residential properties in Colville Gardens and Heronscourt; and
 - residential properties on Blind Lane and in Windlesham Road.
- 2.1.4 Ecological receptors include the following:
- Chobham Common SSSI and SAC;
 - Colony Bog and Bagshot Heath SSSI;
 - Thames Basin Heaths SPAs
 - Frimley Hatches SNCI;
 - Frith Hill SNCI;
 - Windlemere SANG;
 - St Catherines SANG and
 - Frimley Fuel Allotments SNCI.



3 Dust Management Plan

3.1 Good Practice Measures

3.1.1 Esso has made a number of good practice commitments which will reduce dust and air quality impacts. The commitments are indicated by a reference number, for example 'G21'. The ones relating to methods that will reduce dust and air quality impacts are listed in Table 3.1. Other commitments to reduce dust and air quality impacts relevant to this DMP are also set out within the Soil Management Plan, Water Management Plan and the Construction Traffic Management Plan.

Table 3.1: Good Practice Commitments Relevant to the DMP

Commitment Number	Commitment
G13	Protection of earthworks and soil would be managed by methods such as covering, seeding or using water suppression where appropriate.
G14	An appropriate speed limit would be imposed on vehicles travelling on site.
G15	Wheel washing would be provided at all logistics hubs and large compound access points on to the highway. An adequate supply of water would be made available at these locations at all times.
G16	Compound access points to the public highway would be constructed with temporary hard surfacing.
G18	Bonfires and the burning of waste material would be prohibited.
G19	When loading and unloading materials from vehicles, including pipes and excavated materials, drop heights would be limited.
G20	Water assisted road cleaners would be deployed on public roads where necessary to prevent excessive dust or mud deposits.
G21	Vehicle loads would be sheeted during the transportation of loose, potentially dusty or contaminated excavation material.
G23	All plant and vehicles would be required to switch off their engines when not in use and when it is safe to do so.
G25	Any activity carried out or equipment located within a logistics hub or construction compound that may produce a noticeable nuisance from dust, noise, lighting etc would be located away from sensitive receptors such as residential properties or ecological sites where practicable.
G30	A dust management plan would be produced, including the following measures to be implemented where relevant: <ul style="list-style-type: none"> • control runoff of water or mud to reduce the spread of particulates that could subsequently be disturbed and become airborne; • return subsoil and topsoil at the earliest suitable time of year after construction has been completed; • manage earthworks and exposed areas or soil stockpiles to prevent wind borne dust. Use methods such as covering, seeding or using water suppression; • limit de-compaction of the sub-soil in windy conditions during reinstatement; • construct compound access points to the public highway with temporary hard surfacing; • enforce an appropriate speed limit for vehicles travelling on site to limit dust generation; • make an adequate water supply available for effective dust/particulate matter suppression/mitigation; • protect sand and other aggregates from drying out;



Commitment Number	Commitment
	<ul style="list-style-type: none"> • limit drop heights when loading and unloading materials from vehicles including pipes and excavated materials; • control the number of handling operations to ensure that dusty material is not moved or handled unnecessarily; • where there is a risk of dust nuisance when using cutting, grinding or sawing equipment, use in conjunction with suitable dust suppression techniques; • keep equipment readily available to clean any dry spillages; • clean up spillages as soon as reasonably practicable after the event using wet cleaning methods; • limit dry sweeping of large areas; • no bonfires or the burning of waste materials; • provide adequate wheel washing facilities at access points on to the public highway; • deploy water assisted road cleaners on public roads when necessary to prevent excessive dust or mud deposits; • sheet vehicle loads during the transportation of loose or potentially dusty material or spoil; and • undertake inspections to monitor dust and record results in the inspection log. The frequency of inspections to be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

3.2 Construction Programme

3.2.1 It is anticipated that works to install the pipeline will start in 2021 and be completed in 2023. Within Surrey Heath Borough the programme is anticipated to follow the phasing, shown on in the Stages of Authorised Development.

3.3 Description of Works

3.3.1 A project description is set out within ES Chapter 3 (Application Document APP-043). This describes the main works that will be undertaken before, during and after installation of the pipeline.

Compound Construction and Operation

3.3.2 There are ten compounds within Surrey Heath Borough. These dedicated areas will act as welfare facilities, storage and short-term offices for site-based staff:

- Compound CO-5A: west of B3411 Frimley Green Road and south of SC Johnson Offices;
- Compound CO-5B: south of Balmoral Drive at Buckingham Way;
- Compound CO-5C: northern intersection of St Catherine's Road and Frith Hill Road;
- Compound:CO-7A: west of B3015 Deepcut Bridge Road adjacent Mindenhurst Tomlinscote;
- Compound CO-5D east of B3015 The Maultway between Old Bisley Road and Yockley Close;
- Compound CO-5E: south of Guildford Road, Turf Hill;



- Compound CO-5F: west of Halebourne Lane at Blind Lane;
- Compound CO-5G: west of Windsor Road at Staple Hill;
- Compound CO-5H: Chobham Common West; and
- Compound CO-5I: Chobham Common East.

3.3.3 At these compound locations particular attention will be given to good practice measures G14, G15, G16, G19, G23 as described in Table 3.1. In accordance with commitment G25, the layout of the site compounds will be planned to locate activities or equipment that may produce a noticeable nuisance from dust away from sensitive receptors such as residential properties or ecological sites where practicable.

Trenchless Crossings

3.3.4 As with the compound locations, while all good practice measures will be adhered to during construction, at these crossing locations, particular attention will be given to good practice measures G13, G14, G19, G20 and G23 as described in Table 3.1. The following seven trenchless crossing sites will be located within Surrey Heath Borough:

- TC020 - Blackwater Valley;
- TC021 - A322;
- TC022 - Windle Brook;
- TC023 - Windlesham Road; and
- TC024 - TC025 and TC026 - Chobham Common.

Earthworks

3.3.5 Earthworks activities will take place throughout the site, when mobilising the compounds, trenchless crossings and during construction of site haul roads and the open cut trench works. The good practice measures G13, G14, G19, G20, G21 and G23 detailed in Table 3.1, will be adhered to during all earthworks activities.

3.3.6 The CEMP Appendix F: Soil Management Plan outlines the measures for handling soil on the project, including methods to be taken during soil management (stripping, storage and reinstatement). The below measures will be implemented to reduce dust.

3.3.7 Monitoring of weather forecasts and registration to weather warnings will aid preparation for large earthwork operations. In dry conditions, appropriate water and dust suppression equipment will be available. In wet conditions, the site will be prepared with suitable cleaning equipment and silt controls.

3.3.8 Large earthworks and exposed areas or soil stockpiles will be managed to prevent windborne dust. For example, this could include covering, sealing with an excavator bucket or using water suppression.



- 3.3.9 During reinstatement, methods such as loosening the top of subsoil will be used to limit decompaction of the subsoil; this activity will avoid windy conditions and use water to damp down the surface.
- 3.3.10 The programme of works has been sequenced to allow subsoil and topsoil to be returned at the earliest suitable time of year after construction has been completed. In the circumstances that work is delayed due to an unforeseen event, the measures listed above will be implemented.
- 3.3.11 The CEMP Appendix B: Water Management Plan outlines the methods to control runoff of water or mud to reduce the spread of particulates that could subsequently be disturbed and become airborne.

Training for Construction Staff

- 3.3.12 Training and toolbox talks for staff will be undertaken regularly and these will include subjects related to reducing dust impacts during works. This will be in accordance with commitment G28: 'Construction workers would undergo training to increase their awareness of environmental issues. Topics would include dust management and control measures'. Further details on training can be found within the CEMP.

Site Planning and Preparation

- 3.3.13 The activities within commitment G30 will be implemented across site to help reduce the risk of dust. These include the following:
- Preparing compound access points to the local highway with temporary hard surfacing and wheel-washing facilities.
 - Implementation of a site speed limit for vehicles travelling on site to limit dust generation, with a maximum of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas.
 - The use of water-assisted road cleaners around compounds and work site access points to local roads and within urban work areas, would typically be employed to prevent excessive dust or mud. Dry sweeping of large areas will be avoided.
 - Water will generally be delivered and stored within the site compounds, due to their relatively short durations of use. Where a mains connection is available at a compound, the connection will be considered depending on the longevity of the compound and ease of the connection. Visual checks to monitor dust during soil-handling activities will be implemented and results recorded on an inspection log. The frequency of inspections will be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
 - As detailed in CEMP Appendix C: Site Waste Management Plan, there will be no bonfires or burning of waste materials at the site (G18).



Construction Plant, Vehicles and Equipment

- 3.3.14 This section of the DMP should be read in conjunction with the CTMP, which sets out good practice measures relating to traffic management and construction vehicles, for example turning off engines when not in use to reduce emissions.
- 3.3.15 Daily plant check sheets will be undertaken on site prior to commencing each shift. These will include checks that vehicles and equipment plant conform to relevant applicable standards and that they have been correctly maintained and operated in accordance with manufacturer's recommendations.
- 3.3.16 Delivery of Toolbox talks will encourage plant operatives to use the plant in a responsible manner such as switching off engines when not in use and when it is safe to do so.
- 3.3.17 Plant used during cutting, grinding or sawing activities with the potential to generate dust, will use dust suppression systems such as water (e.g. addition of water spray at point of impact or cut) or extraction methods (e.g. the use of extractors at the point of cutting and breaking to collect dust).
- 3.3.18 When loading, unloading and transporting materials, good practice measures G19 and G21 within Table 3.1 will be adhered to, limiting drop heights of material and sheeting vehicle loads carrying loose or potentially dusty material or spoil.
- 3.3.19 Good practice with regards to material handling and housekeeping, including on-time delivery of materials wherever practicable, will assist in reducing the number of handling operations and movement of dusty material.
- 3.3.20 Good housekeeping principles will include keeping equipment readily available to clean any dry spillages, as soon as is reasonably practicable after the event, using wet cleaning methods.



4 Site Checks and Reporting

4.1 Site Checks

4.1.1 The contractor(s) will be responsible for record keeping and site checks during the construction period. Site checks and inspections will be undertaken regularly throughout the construction period as set out below, to monitor compliance with the requirements of the DMP. This will be in addition to the regular environmental inspections undertaken as identified in Table 3.2 of the CEMP.

4.1.2 Table 4.1 sets out the site checks that would be undertaken during construction.

Table 4.1: Site Checks

Action	Responsibility	Frequency
Visual inspections to monitor for visible dust emissions or deposition on site: identifying problems and undertaking corrective actions where dust may be generated or has been generated.	Works Supervisor	Daily during dry conditions and during activities at high risk of generating dust. e.g. soil handling, cutting
Monitoring weather conditions for dust management during soil works	Works Supervisor	Daily
Checking the use and condition of haul roads	Works Supervisor	Typically once a week

4.1.3

4.2 Complaints Procedure

4.2.1 The name and contact details for the project will be displayed at the entrance to all compounds. This will include an emergency telephone number (G27). In addition, details of the works including contact details will be provided to each community ahead of the work commencing. This will be as set out in the Community Engagement Plan.

4.2.2 Any complaints regarding environmental issues will be discussed with the construction manager and the environmental manager, and appropriate action will be taken, and the conclusion recorded. A record will be made of the incident for audit purposes.