ENVIRONMENTAL REPORT 2003

CONTENTS

PREAMBLE

Concern for the environment was a decisive factor in the French and British governments' choosing the Eurotunnel scheme

- The Channel Tunnel runs entirely underground and does not interfere in any way with the marine environment
- The environmental advantages of rail transport are undisputed, since it uses electricity as its main source of locomotive power: it is safer, takes up less space, creates minimal atmospheric pollution and emits virtually no greenhouse gases.

In line with the spirit of this original choice, Eurotunnel has always shown concern for the need to respect and enhance the environment, making it a priority, because it is crucial to the long-term future of its business and the future of all the sites involved in the operation of the Channel Tunnel. During the bidding, study and construction phases, Eurotunnel sought and opted for environment-friendly solutions, an initiative that has been voluntarily and resolutely pursued since commercial services started up.

An organisational structure dedicated to environmental protection has been set up. As part of the implementation of our environmental policy, an Environmental Management System (EMS) has been put in place and we work to control our impact on the environment in terms of:

- Monitoring and prevention of water pollution
- Monitoring and prevention of atmospheric pollution
- Energy management
- Management of waste and hazardous substances.

Going beyond the mere fulfilment of our obligations, the results of our efforts show that the ecological balance of these sites is being satisfactorily maintained.

But Eurotunnel will not rest on its laurels and continues in the pursuit of excellence in environmental matters with the same level of commitment. The company intends to develop a real 'environmental culture', on the one hand by encouraging all its personnel to develop an awareness of environmental aspects in their day-to-day working and personal lives, and on the other hand by encouraging initiatives capable of extending the scope of environmental protection and renewable energy use beyond regulatory requirement levels and the strict geographical limits of the company.

1 INTRODUCTION

1.1 Eurotunnel's activities

Eurotunnel is a bi-national (Anglo-French) company which has a Concession to manage and operate the Channel Tunnel until December 2086. As a transport operator, Eurotunnel operates its own shuttles: 9 car and coach shuttles and 16 truck shuttles. As an infrastructure manager, Eurotunnel ensures the safe, efficient passage of trains belonging to various rail operators: passenger trains (Eurostar) and goods trains (SNCF, EWS).

In 2003, an average of some 350 trains and shuttles travelled through the Channel Tunnel every day, carrying some 45,000 people, 6,300 cars and 3,500 trucks. The Group employs 3,300 people directly and its activities create jobs for a huge number of sub-contractors at the Terminals.

1.2 An environment-friendly design concept

The environmental dimension was a decisive factor in the French and British governments' choosing the rail tunnel project put forward by Eurotunnel: the Channel Tunnel consists of an entirely underground link that does not interfere with the marine environment in any way and does not involve any kind of structure either above or below the sea.

1.3 Building with conservation in mind

During the study and construction phases, Eurotunnel was anxious to ensure that the work had a positive impact on the environment. The only visible legacy of the construction phase is the places where the chalk extracted during boring has been used to form new landscapes.

In France, the Fond Pignon site, a barrage formed from 5 million cubic metres of earth extracted by the tunnel borers during construction, has been replanted by Eurotunnel and is now a nature reserve, fully integrated into the landscape of Cap Blanc-Nez. The site is popular with migratory birds and ecological management has been entrusted to the French coastal conservation authority, the Conservatoire du Littoral.

Fond Pignon

Shakespeare Cliff

Similarly, in England, Samphire Hoe, a tract of land formed from 5 million cubic metres of chalk extracted during the Tunnel's construction and added to the British landmass, has been turned into a nature reserve extending over more than 30 hectares between Dover and Folkestone. The site forms part of the White Cliffs Countryside Project and now provides a habitat for around 120 species of plants, 80 species of birds and over 200 species of invertebrates. It is a major tourist attraction in itself and receives more than 120,000 visitors a year.

Archaeological digs led to the discovery of thousands of objects and remains indicating a human presence between the Neolithic Age and the Middle Ages.

The prehistoric Biggins Wood in Kent was entirely relocated, the route of the Tunnel was changed to preserve the geological interest of the hill near Holywell Coombe, over 250,000 trees and shrubs were planted on the sites, and somewhere in the region of a hundred technical studies were carried out on the fauna, flora and geology.

In parallel, looking ahead to the operational phase, Eurotunnel undertook numerous environmental studies and forged close links with the various organisations responsible for environmental protection, as well as the local authorities and all parties concerned.

Architectural studies were carried out prior to the construction of the Terminals, the aim of which was to reduce their visual impact by seeking to balance built areas and green spaces.

Eurotunnel's French terminal is part of an integrated development zone, or Zone d'Aménagement Concerté (ZAC), and the English terminal is next to a Site of Special Scientific Interest (SSSI). This is why the company has made every effort to integrate the transport system and related activities into the landscape and protect the local environment by limiting noise pollution as far as possible.

← In France: Coquelles (Pas-de-Calais) = 700 hectares in an integrated development zone (ZAC)

→ In England: Folkestone (Kent) – over 170 hectares next to a Site of Special Scientific Interest (SSSI)

EUROTUNNEL ET L'ENVIRONNEMENT

Cover of a brochure published during the construction in 1992

Eurotunnel has dealings with a large number of organisations and groups around its sites on both sides of the Channel. The company has undertaken to engage in active dialogue with all parties involved (public authorities and residents in particular) and accepts its responsibilities as far as the environment is concerned. Eurotunnel's involvement in environmental matters through its construction and development activities was envisaged from the start of the project.

The decision to have the French site officially classed as a ZAC was taken voluntarily to ensure that the infrastructures connected directly or indirectly with the Channel Tunnel were beyond reproach in terms of both technical quality and integration into the environment around Boulogne and Calais.

- The 1992 ZAC application dossier includes a section dealing with environmental issues, thus anticipating the notion of sustainable development.

  The in-depth environmental impact study was therefore preceded by the ZAC application dossier for which a full report on the hydro-geological environment, vegetation and wildlife was required.

  Investigations were carried out into the water system, vegetation, wildlife and landscape.

  The progress of work inside the Tunnel and its necessary impact on the surrounding area were closely monitored by the French government department concerned.
- When the ZAC was created, sizeable areas of land (e.g. Fond Pignon) were made available to the Conservatoire du Littoral by way of compensation for the land occupied by Eurotunnel's activities:
  - Landscaped areas (Carrefour de La Laubanie)
  - Almost 40% of the ZAC is occupied by green spaces.
- On the ecological front, the Jardins du Point du Jour were created, serving as a conservation area for hawthorn and willow plantations, with man-made lakes, watergangs (drainage ditches), newly planted reed beds, 'mature' meadow and a wealth of plantlife. The gardens help to increase the population of nesting water birds, maintain a diversity of birdlife and provide a stopover site for migratory birds.
- Sustainable development concerns were taken into account in the building of facilities and superstructures:
  - Environmentally-sound building (Habitat head office 62/59)
  - Solar heating in Accor hotels.
- As far as new development projects are concerned, the architect of the golf course to be sited in the new Sangatte leisure area will be required to apply the ISO 14001 'Commitment to Green' standard.

1.4 Key environmental issues

Rail transport, Eurotunnel's core business, does not directly generate greenhouse gases. That said, Eurotunnel has to comply with specific environmental regulations that apply to its maintenance activities, particularly rolling stock maintenance and repair and cooling of the Channel Tunnel. Eurotunnel also endeavours to optimise waste management.

Eurotunnel has formed many contacts in the areas around its sites on both sides of the Channel, evidencing its commitment to work together with all interested parties, particularly institutional bodies and local residents.

1.5 Environmental achievements

Eurotunnel and the White Cliffs Countryside Project (WCCP) work in partnership to manage and develop Samphire Hoe and the Folkestone Escarpment. This joint venture has been recognised by a number of awards:

- Property Awards (Environment category) sponsored by *Property Week*.
- Environmental Awards for Kent Business (Site Management and Nature Conservation category) sponsored by Kent County Council.
- National RICS Award for Countryside & Coastal Regeneration sponsored by the Royal Institute of Chartered Surveyors.
- Site of Special Scientific Interest Award sponsored by English Nature.

Eurotunnel's environmental efforts have been recognised in the UK where it is listed in the FTSE4Good Index, the ethical stock market index.

2 ORGANISATIONAL STRUCTURE

Eurotunnel has a clearly defined organisational structure to effectively manage environmental issues.

2.1 Board of Directors

The Board of Directors supervises environmental issues through the Safety, Security and Environment Committee, comprising five of the non-executive directors. It is the responsibility of this committee to keep under review matters that may have a significant impact on environmental management.

2.2 Safety, Quality, Health and Environment Division

Within the management structure, the Safety, Quality, Health & Environment Division reports to the Chief Executive and is responsible for environmental policy implementation and monitoring. An Environmental Management System based on the ISO 14001 standard provides the framework for planning, implementing and monitoring environmental protection initiatives.

2.3 Health and Environment Committee

A Health and Environment Committee reviews the monitoring of air and water quality (both in the tunnels and on the terminals); the prevention of air and noise pollution; waste treatment and disposal.

2.4 Environmental Co-ordinator and Correspondents

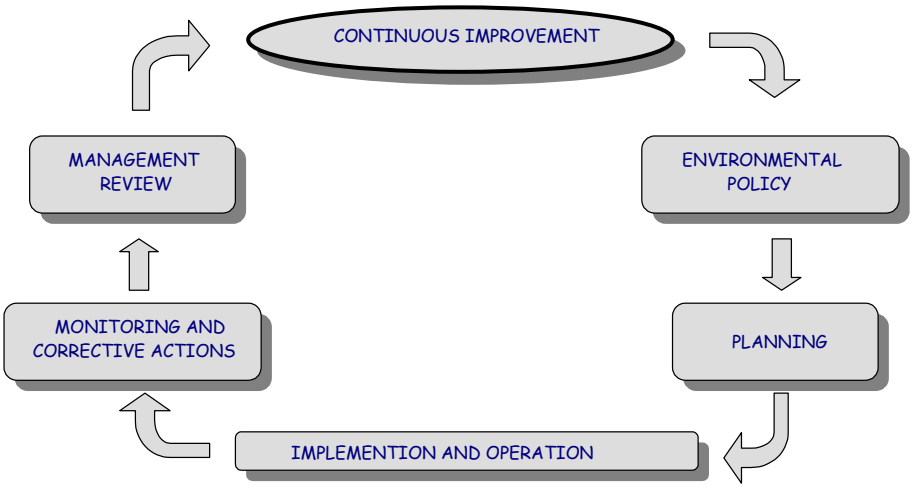
An Environmental Co-ordinator is responsible for the implementation of the environmental management system across the company through a network of Correspondents.

Every member of staff is made to feel a part of this organisational structure to encourage them to develop an awareness of environmental aspects in their day-to-day working lives and extend the scope of this awareness into their personal lives too, going beyond the regulatory requirement levels and the strict geographical limits of the company.

3 ENVIRONMENTAL MANAGEMENT SYSTEM AND APPROACH

Eurotunnel has set up an Environmental Management System (EMS) based on the requirements of the ISO 14001 standard, with the aim of continually improving environmental performance and controlling the actual or potential environmental impact of its operations.

Action is currently underway to integrate the company's environmental approach into its quality management and safety approach.



3.1 Environmental policy

The aims of Eurotunnel's environmental policy are:

- Continuous improvement of environmental management and the SME
- Regulatory compliance
- Pollution prevention
- Voluntary communication with the public.

3.2 Planning

The Environment and Health Committee has carried out an initial environmental analysis to identify the activities that could have an impact on the environment and has laid down priorities.

3.2.1 Environmental priorities

In 2001, the Health & Environment Committee identified seven key environmental objectives for Eurotunnel:

1. Compliance with regulations for discharges into water
2. Selective sorting of waste
3. Minimising noise disturbance in the local vicinity
4. Identifying and centralising activities governed by regulations on environmental protection
5. Monitoring halon and HCFC emissions
6. Improving storage conditions for hazardous substances and waste
7. Identifying and tracing ionising radiation sources

By the end of 2003, priorities 1, 2, 5, and 7 were 100% complete, and average levels of achievement of the remaining priorities reached 80%. A programme is in place to fully achieve these priorities in 2004/2005. It also includes initiatives aimed at reducing energy consumption and minimising the environmental impact of development plans.

A common computer platform for management was created in 2003 for environmental analysis, monitoring of enquiries from outside the organisation and the Environmental Management System, with a view to making environmental analysis more comprehensive.

The priorities have been to optimise the management of waste (generated by Eurotunnel's activities or by customers) and control discharges into the water.

3.2.2 Regulatory compliance

Eurotunnel has a system in place to monitor compliance with existing statutory requirements and to anticipate the impact of future requirements.

The SQHE Department is responsible for ensuring regulatory compliance in the UK and in France.

3.3 Implementation and functioning

3.3.1 Employee awareness

Everyone involved in the company has a role to play in our environmental initiative. All employees have access to the Environmental Report and subcontractors too are informed of the environmental requirements applicable on-site.

Environmental information is disseminated by various different means:

- Intranet site

  Eurotunnel has developed an environment Intranet site, a communication tool to inform all staff about ongoing initiatives in order to increase awareness of the various environmental issues affecting the Group.

  The information included on this site includes:
  - Minutes of Health and Environment Committee meetings
  - Environmental presentations
  - Environmental resources (organisational structure, tip of the month, annual report, etc.)
  - Information to encourage environmental awareness

- In-house newsletters

  The Environment and Health Committee regularly publishes articles on environmental topics in the company's newsletters.

  The following articles appeared in 2003:
  - Butterfly and orchid species return to Folkestone
  - Eurotunnel comes to the aid of birds affected by oil pollution
  - Return of a rare species of butterfly
  - Everything you always wanted to know about orchids
  - Putting the environment first
  - Wind farm project
  - Flora and fauna in the yard on the UK side
  - Waste sorting campaign at the Coquelles Terminal

- Training

  An environment module has been included in Eurotunnel's induction training course for all new recruits since 2000.

  In 2003, employees involved in environmental issues took part in courses offered by outside organisations.

3.3.2 External relations

- Relations with the Environment Agency and the DRIRE

  Eurotunnel has forged links with external bodies such as the Environment Agency which has carried out inspections on the UK Terminal and the Nord-Pas-de-Calais subdivision of the DRIRE, the French regional authority concerned with industry, research and the environment.

➢ Relations with neighbouring communities

Eurotunnel has taken part in a number of initiatives to foster relations with neighbouring communities, the main ones being:

- Installation of equipment to measure wave crest lines at Samphire Hoe (a European research project), as well as improving access and establishing new footpaths
- Active participation in monitoring noise levels generated by Eurotunnel activities affecting residents (self-monitoring, surveys of sound levels around the Terminals, etc.)
- In the Folkestone Escarpment and Holywell areas, introduction of a management plan to improve public access and promote the site's ecological value
- Adoption of environmentally-friendly farming methods in the Farthingloe area.

➢ Club ISO 14001

Eurotunnel has opted to play an active part in local business by joining the ISO 14001 Club set up by the Boulogne-sur-Mer and Saint-Omer Chambers of Commerce and Industry. The Club provides an opportunity for companies to exchange information and is a useful source of feedback.

The following working groups were organised in 2003:

- Emergency situations
- Operational control
- Visit to Les Enrobés de Marquise, a company in Nord-Pas-de-Calais implementing an environmental management policy

➢ Participation in the debate on the French Environment Charter

Consultation Nationale pour la CHARTE DE L'ENVIRONNEMENT

2003 also saw Eurotunnel participating in the big democratic debate on the Charte de l'Environnement launched by the French Ministry of the Environment and Sustainable Development. The initiative was an opportunity for experts and citizens to put heads together and lay new foundations for a humanistic form of environmentalism and a new relationship between humans and nature.

➢ Environmental Report and Annual Report

Eurotunnel published its first Environmental Report on its web site in 2003.
An Environment section is also included in the Group's Annual Report. Press releases dealing with environmental matters are also available on the web site.

3.3.3 Documentation system

The specification of the documentation part of the EMS was completed by the end of 2003. The next step will be to ensure that all staff give the EMS more consideration in their operational documentation.

3.4 Monitoring and corrective action

The main operations and activities that have a significant environmental impact are monitored especially carefully. Monitoring environmental performance enables us to judge the performance of the EMS.

A system for managing and ultimately eliminating environmental shortfalls was implemented in the last quarter of 2003.

3.5 Management review

An important step in the implementation of the EMS will be the introduction of a management review process. This will provide management with a tool to periodically review the performance of the EMS and make it part of a process of continuous improvement. In particular, it will be a means of ensuring that the objectives and targets set are in line with the policy adopted and of suggesting improvements to the EMS.

4 REGISTRATION UNDER FRENCH ENVIRONMENTAL PROTECTION LAW

In France, a number of facilities at the French Terminal and at the Sangatte site are registered under the French law relating to facilities registered for environmental protection purposes (ICPEs) (Law no. 76-663 of 19 July 1976). Originally Eurotunnel France was divided into two ICPE sites for administration purposes: the French Terminal and the Sangatte site.

The facilities affected are:

- Tunnel cooling plant
- Repair and maintenance workshops for vehicles and power-driven equipment
- Preventive maintenance workshop for its compressed air facility
- Storage and use of CFCs
- Liquefied combustible gas stores
- Battery charging workshops

Eurotunnel has, at the appropriate time, made the necessary declarations or obtained the required permits for these facilities.

In addition, Eurotunnel has put in place a system to identify and manage any modifications to existing registered facilities or the creation of new facilities or activities requiring registration under this legislation.

These regulations do not apply to the UK Terminal.

4.1 Consolidation on the French Terminal site

In 2001, given:

- what has happened in the past with some of its activities affected by French environmental protection regulations (closing down, expansion) and what could happen with them in the future, and
- the changes in the regulations affecting registered facilities,

Eurotunnel wanted to work with the DRIRE to put forward a case for consolidating its activities that are subject to these regulations.

The case was prepared in 2002 and submitted to the Préfecture du Pas-de-Calais for consideration in early 2003.

In late 2003, the Eurotunnel Health, Safety and Working Conditions Committee was consulted and a public inquiry carried out. This will result in a single bylaw to include the modifications that Eurotunnel proposes to make to its registered facilities.

4.2 Inspection by the DRIRE

As part of a national campaign, the DRIRE inspected Eurotunnel's cooling facilities on the Sangatte site on 24 May 2002. The inspection report concluded that these facilities were compliant with the regulations concerning refrigerants (Decree 92-1271 of 7 December 1992) and the bylaw relating to Eurotunnel's operations on this site.

In 2003, Eurotunnel carried out an audit of the subcontracting operation responsible for maintaining its rolling stock air conditioning systems using the method used previously by the DRIRE.

4.3 Nitrite storage capacity at the Sangatte site

Cooling at the Sangatte site is subject to a permit.

Following the letter from the DRIRE dated 25/07/02 requesting that our nitrite storage capacity be brought into line with the regulations, modifications were made to the storage tank early in 2003.

5 MONITORING AND PREVENTION OF WATER POLLUTION

5.1 Stormwater

On the French side, Eurotunnel actively contributes to the preservation of the hydraulic 'wateringues' system, a local drainage system for protecting the Calais/Dunkerque/Saint-Omer coastal plain, which is below sea level at high tide.

The network of 'wateringues' (from 'water' and 'rings'), created in 1169 by Philippe of Alsace and perfected over the centuries, controls the flow of water by:

- Making dams to prevent the entry of sea water at high tide
- Draining the land via channels (watergangs)
- Allowing surface water to flow into the sea
- Retaining fresh water in dry periods.

Eurotunnel took this historical local feature into account in the design of the French Terminal: watergangs (drainage ditches) and streams were created following a hydraulic survey (according to wastewater discharge bylaw of 28 July 1988). The hydraulic systems put in place by Eurotunnel control the flow of water on and off the Terminal.

Eurotunnel continuously monitors the pH, temperature and ratio of suspended solids in the wastewater discharged in order to ensure compliance with water quality standards.

At the UK Terminal, in 2002 Eurotunnel employed a laboratory to conduct a full analysis of surface water at the discharge point and the results were satisfactory. Stormwater and wastewater drainage systems have been mapped for the entire site.

During 2003, a monthly water quality check was introduced at the stormwater discharge point at the UK Terminal and discharges into the sea were monitored by the Environment Agency.

Eurotunnel also made further improvements to the monitoring of its water quality self-regulation systems in 2003, affecting two of the four storage reservoirs designed to regulate the flow rate and control the quality of surface water discharged into the sea.

In addition, a project looking into recycling the water used by Eurotunnel's cooling plants in the UK and France was initiated. It is estimated that between 5,000 and 10,000 cubic metres of water a year would be saved by such a scheme. A feasibility study looking at the technical and financial aspects of the project is currently underway and the results are expected in 2004.

5.2 Wastewater

The urban biological purification plant built by Eurotunnel in France has a nominal capacity equivalent to a population of 13,500 people. This plant treats the wastewater from the Eurotunnel Terminal as well as from Coquelles and the nearby development area. An agreement was signed on 9 January 1996 to treat wastewater from the Coquelles commune, particularly that produced by the Cité Europe development.

In 2003, wastewater discharge quality at the plant was in compliance with the regulations. Performance data is available on the Agence de l'Eau Artois–Picardie website: www.eau-artois-picardie.fr

In view of the ongoing development of the ZAC, Eurotunnel has also carried out a long-term study of the plant's processing capacity. This has established that the plant, as it stands at the moment, will be capable of collecting wastewater from Eurotunnel's French Terminal, part of the Coquelles commune and the neighbouring development area until 2007, taking into account the development plans already tabled.

5.3 Sludge

The sludge extracted from the purification plant amounts to some 150 tons of dry matter per year before the addition of lime to stabilise it (at the level of 28% of the dry matter), i.e. 800 tons of raw sludge per year.

In early 2003, Eurotunnel was given the go-ahead to spread sludge from the purification plant on:

- Three farms with land falling within the communes of Coulogne, Sangatte, Peuplingues and Coquelles, representing a total area of 177 hectares
- Temporary meadows on Eurotunnel's land representing an area of 19.5 hectares (this land can be used to spread liquid sludge as opposed to limed sludge, so helping to reduce the amount of chemical fertilizers in the soil).

5.4 Truckwash at Eurotunnel's Ashford Truckstop

The Eurotunnel Truckstop at Ashford, used by both cross-Channel and local transport operators, welcomed more than 200,000 vehicles in 2003.

A truckwash equipped with electronic sensors, for all commercial vehicles from vans up to 44-ton trucks 4.7 metres high, was opened at the Truckstop in October 2003. The 4-minute wash cycle entails a combination of high-pressure jets and rotary brushes. This environment-friendly, state-of-the-art truckwash is capable of washing up to 15 trucks an hour and recycles 75% of the water used; the suspended solids are filtered by gravity in a 3-stage process resulting in 15-micron particles. The water is then recycled in the washing process and running water is used only for the final rinse.

6 MONITORING AND PREVENTION OF ATMOSPHERIC POLLUTION

6.1 Electric vehicle fleet

Eurotunnel's electric vehicle fleet has grown and in 2003 comprised thirty or so vehicles. These vehicles are mainly used in the service tunnel to minimise exhaust emissions.

6.2 Noise pollution

Measures to protect residents from noise nuisance were taken during construction and have continued since the Tunnel was opened. These include:

- Building a covered loop at the UK terminal
- Building an embankment around the Sangatte site
- Soundproofing dwellings on the UK side.

Noise surveys designed to minimise noise pollution are carried out for every new project or modification to existing facilities (e.g. truck shuttle capacity expansion project).

In France, the Côte d'Opale Flandre SPPPI (Permanent Secretariat for Industrial Pollution Prevention) commissioned a study in 2001 to assess the level of noise nuisance to which the populations of neighbouring Fréthun, Coquelles and Peuplingues were exposed. The study concerned Eurotunnel, DDE (French regional government department which manages large urban development, road and rail projects), SNCF (French national railways) and EDF (the French national electricity company).

The report from this study, published in late 2001, indicated that Eurotunnel's installations were within the regulations for permitted noise levels at the boundary of residents' properties and at the boundary of territory occupied by Eurotunnel's road and rail facilities.

Eurotunnel has nonetheless continued to explore ways of further reducing noise levels.

The following steps have been taken on both sides of the Channel to control the way messages are delivered by loudspeaker:

- The public address (PA) system is no longer used between 22.00 and 07.00 except in emergencies
- Care is taken to ensure that messages delivered inside the Passenger Building are not simultaneously delivered outside.
- The PA system is not used even during the day when there is a strong wind blowing, since announcements are generally inaudible in such conditions.

In August 2003, the Administrative Court in Lille, at the request of a local resident, appointed an expert to assess noise levels in the vicinity of the motorway slip road leading to the freight terminal in the Dunkerque/Calais direction. The assessment is currently in progress.

Eurotunnel also organised meetings to inform residents about proposed plans to site a multimodal container terminal at the existing Folkestone Terminal.

6.3 Greenhouse gas emissions

Eurotunnel uses electricity for locomotive power and makes only minimal use of fossil fuels, the principal cause of greenhouse gas emissions. Despite this, Eurotunnel is continuing its programme of monitoring and reducing greenhouse gas emissions (halons and hydrochlorofluorocarbons (HCFCs)).

6.3.1 Halon

Halon is used as a fire extinguisher on the passenger rolling stock fleet and in certain technical equipment rooms.

Owing to the specific nature of its activities, Eurotunnel has a special dispensation under Regulation (EC) No. 2037/2000 of the European Parliament and the Council of 29 June 2000, to continue using halon in the Tunnel, related facilities and rolling stock.

A decision of the European Commission of 7 March 2003 amending Regulation (EC) No. 2037/2000 of the European Parliament concerning the use of halon 1301 confirms that Eurotunnel retains its status as a critical user of halon "in the Channel Tunnel, related facilities and rolling stock".

Since March 2000, Eurotunnel has been systematically monitoring unintended releases of halon, identifying the causes and taking action to reduce such discharges.

The results continue to be encouraging since the number of discharges was reduced significantly in 2003 compared to 2001 and 2002.

Eurotunnel is already using substitute products, such as HFCs (Inergen), for new equipment.

Every halon cylinder was checked for compliance with UK and French regulations during 2003.

6.3.2 Freon

Freon (HCFC.R22) is a greenhouse gas used in the Tunnel cooling systems, rolling stock air conditioning units and air conditioning in buildings.

Eurotunnel's refrigeration experts ensure compliance with EC Regulation No. 2037-2000 and the French Decree 92-1271 of 7 December 1992 (amended), relating to certain refrigerants used in cooling and air conditioning equipment, focusing on our cooling plants in France and the UK, buildings and air conditioning units in buildings and on rolling stock.

In 2003, Eurotunnel carried out an audit of the subcontracting operation responsible for maintaining the air conditioning units on its trains, in accordance with French Decree No 92-1271.

Eurotunnel is already using substitute products, such as HFCs (R134a and R147c), for new equipment.

7 ENERGY MANAGEMENT

Eurotunnel carried out a study of its projected energy requirements in the early stages of the Channel Tunnel project and is committed to reducing or limiting energy consumption and encouraging the use of renewable energy sources.

Total annual energy consumption for Eurotunnel's operations in 2003 stood at around 590 GWh (of which 78% in locomotive power) and peak demand at around 75 MW.

7.1 Energy efficiency

7.1.1 Existing installations

Eurotunnel analyses electricity consumption with a view to controlling it more effectively. Particular improvements have been made in the following areas:

- Terminal lighting
- Cooling and pumping regulation
- Research into new lamps and lighting equipment
- Better control of ambient lighting
- Installation of electricity meters

These measures have led to reductions in energy consumption over the last three years.

7.1.2 New projects

When new building projects require heating and lighting, Eurotunnel ensures that:

- The departments that will be responsible for running the buildings define the operating criteria precisely so that the optimum heating and lighting solutions are selected
- Performance obligations are included in supply and maintenance contracts to ensure that the temperature and the consumption curve are maintained.

7.1.3 Energy saving

Eurotunnel has continued to implement its energy saving policy.

The progressive upgrade of part of its locomotive fleet to 7 MW to improve performance has also resulted in improvements in energy efficiency.

A survey of the lighting at the French Terminal (which has 10,000 light fittings) was carried out in 2002 to determine how energy consumption could be reduced. Another aim of the survey was to check whether the lighting in certain areas was brighter than originally specified and set it to a lower level if necessary.

The following steps were taken in 2002 and 2003:

- Installation of twilight sensors to optimise the switching on and off of lighting, saving one hour's worth of energy per operating cycle
- Fitting of different types of lamps as part of a 2-year comparative study
- Research into the use of voltage regulation techniques in certain areas.

In 2003 Eurotunnel continued with the installation of twenty or so meters on the main 21,000-volt feeders to improve flow control.

As part of the expansion of one of the rolling stock maintenance workshops in France, a centralised control system is to be installed in 2004 to save energy by turning the electric heating on only when the building is occupied.

7.2 Purchasing electricity

When the latest electricity supply contract was drawn up, the supplier agreed to participate in the development of software to refine Eurotunnel's power consumption forecasts.

7.3 Developing renewable sources of energy

In 2003, Eurotunnel signed an agreement relating to the installation of a wind farm at the Coquelles Terminal in France. Subject to the necessary planning consents, six 2MW wind turbines are to be installed and operated by outside companies specialised in wind farm design and operation, on land owned by Eurotunnel near the passenger entrance to the Terminal. The electricity generated, sufficient to supply a population of 11,000 people, would be purchased by the French electricity company, EDF, and integrated into the national grid. The wind farm project is evidence of Eurotunnel's commitment to sustainable development and the use of renewable sources of energy.

Wind farm project in France (Photo-montage)

Key figures:

- Power rating of each turbine: 2MW
- Total electricity generated equivalent to power requirements of 11,000 people.
- 3-blade rotors.
- Can withstand wind speeds of up to 300kmph.
- Tower height: approx. 65m

8 WASTE MANAGEMENT

Eurotunnel seeks to continuously improve its performance in terms of environmental management and to this end an industrial waste management programme has been developed to deal with special industrial waste (batteries, solvents, brake pads, fluorescent tubes, asbestos, etc.) and ordinary industrial waste (scrap metal, vegetation, paper, rubble, tyres, etc.). A central waste storage area has been created at each Terminal and waste registers have been set up to monitor performance.

These initiatives have led to a reduction in the amount of waste generated.

8.1 Waste sorting

In 2002, Eurotunnel introduced the selective collection of special and ordinary industrial waste at the two Terminals.

Selective collection has necessitated an overhaul of all equipment and facilities, the modification of waste flows, the creation of a waste collection centre at the French Terminal and the modification of the existing water collection system in the waste storage area at the UK Terminal.

At both Terminals, all waste is collected and stored before being removed by specialist companies. Special industrial waste (paints, solvents, bulbs, batteries, etc.) and ordinary industrial waste are stored in a special holding area before being removed to specialist facilities for disposal. Industrial waste tracking notes provide evidence that the waste has been properly disposed of.

Since the system was first introduced, the results have been encouraging, the quantity of waste disposed of to landfill having been reduced by nearly half. The waste not sent to landfill is recycled or incinerated.

In 2003, Eurotunnel continued its drive to further optimise waste management, reduce the amount of waste produced and improve recycling.

8.2 Survey to measure the efficiency of waste sorting at the French Terminal

In June and September 2003, Eurotunnel's main subcontractor for waste disposal carried out a survey to measure the efficiency of waste sorting on three of the site's ordinary industrial waste compactors, located near the passenger building, the store and on the waste loading/unloading platform. The percentages of waste incorrectly sorted were as follows:

- Passenger building: 2%, consisting mainly of packaging film, was suitable for recycling
- Store: 5% was suitable for recycling (paper, board, packaging film)
- Waste loading/unloading platform: none was suitable for recycling.

These results are satisfactory, not to say excellent where the compactors are located in supervised areas (passenger building, waste loading/unloading platform).

In November 2003, action was taken:

- In the passenger building area, to salvage at source plastic film that should not be in the compactor
- In the store area, to make staff aware of the need to observe the existing sorting system.

8.3 Waste sorting publicity campaign at the Coquelles Terminal

In late 2003, a publicity campaign aimed at Eurotunnel personnel and subcontractors focusing on the sorting and processing (reuse, recycling, etc.) of waste was conducted in France in partnership with Eurotunnel's main waste disposal contractor.

First, all personnel were invited to see an exhibition on the processing of different types of waste organised in different buildings over a 7-week period. This was followed by a poster campaign focusing on successes, responsibilities and future progress. The same themes were covered in more detail on the Environment Intranet site which staff were encouraged to visit.

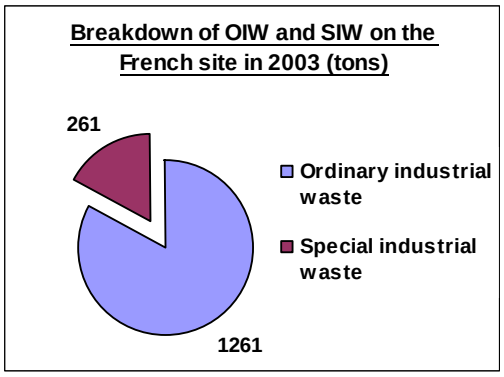
8.4 Waste register at the UK Terminal

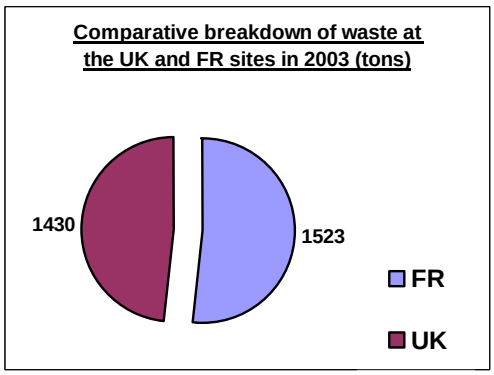
Waste flow plans were put in place in all buildings on the French side in late 2002 to help staff to improve waste sorting. These plans were extended to the UK during 2003.

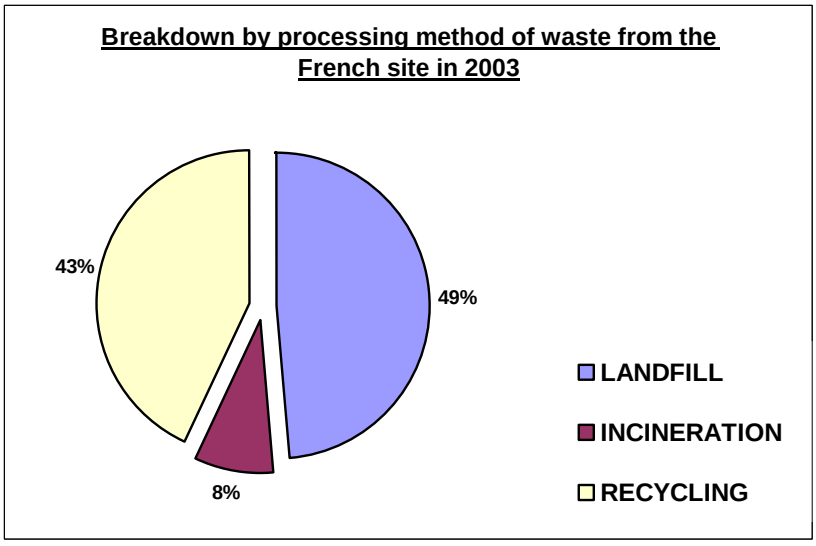
Also during 2003, a waste register in line with the European waste listing, identical to the one used in France, was introduced at the UK Terminal. Details of waste processing solutions at the UK Terminal will be available in 2004.

A common waste management procedure has been available since late 2003.

8.5 Breakdown of waste







9 MANAGEMENT OF HAZARDOUS SUBSTANCES

9.1 Assessment of hazardous substances

All hazardous substances are controlled from the time they are purchased until such time as they are disposed of.

Authorisation to use any new substance is systematically validated by:
- the Safety Department
- the Occupational Health Department
- the Environmental Department.

Assessment is carried out with a view to:
- Defining the environmental standards applicable to Eurotunnel (e.g. fire, smoke and toxicity aspects in the Tunnel)
- Laying down guidelines for the handling and storage of hazardous substances.

As a result of the assessment, recommendations relating to the use of such substances can be made.

9.2 Compliance of storage areas

Eurotunnel works to ensure that no hazardous substances are stored in buildings and makes it a rule that any accidental discharge or spillage of a hazardous substance is be handled by trained staff or skilled subcontractors.

In 2003, the flammable liquid storage facility in France was brought into line with the recommendations.

The process involved:
- Meeting with operators
- Consolidating hazardous substances in the flammable substances facility
- Consolidated stock brought into line with recommendations.

Also in 2003, a significant proportion of the hazardous substances in storage was transferred to special storage tanks in accordance with capacity and incompatibility guidelines.

9.3 European Directives relating to potentially explosive atmospheres (ATEX)

The aim of the ATEX Directives is to improve the health and safety protection of workers potentially at risk from explosive atmospheres.

Eurotunnel has implemented these Directives with the support of an accredited technical consultancy.

A maintenance building was chosen for the pilot study, which involved:
- Characterisation of substances
- Risk assessment
- Classification into zones.

Work began on ensuring compliance of all equipment on the premises in 2003, well in advance of the July 2006 deadline set by the EU.

The experience acquired will be used to deal with the other areas concerned in 2004.

9.4 CHSCT environmental visit

The Comité d'Hygiène, de Sécurité et des Conditions de Travail (CHSCT) in France and the Health and Safety Committee on the UK side are represented on the Eurotunnel Environment Committee.

In April 2003, the CHSCT committee visited the site to find out about the environmental aspects. The following areas were on their agenda:
- Waste storage area
- On-site service station
- Flammable substances storage facility
- Shuttle wash and paintshop.

A few minor comments were made in the CHSCT's visit report.

10 GREEN SPACES AND ECOLOGICAL BALANCE

When the construction period was over, Eurotunnel adopted a policy for managing the green spaces on its land and set up a system to monitor the flora and fauna at both Terminals, with the aim of:

- Gaining a clearer insight into how the ecological balance of the natural environment evolves
- Understanding how both protected and unprotected animal and plant species evolve in their natural environment.

The ecological monitoring that has been carried out for several years now has demonstrated the tremendous heritage value of the UK and French sites. The results show that the number and diversity of species actually increased as Eurotunnel's activities were ramped up and have since remained stable.

The results obtained at the UK site are particularly favourable, not to say exceptional, as borne out by the recolonisation of wild orchids and rare butterflies.

10.1 French Terminal

10.1.1 Monitoring wildlife at the French Terminal

The Groupe Ornithologique et Naturaliste du Nord-Pas-de-Calais (GON), a local nature and birdwatching group, has been responsible for monitoring flora and fauna in the vicinity of the French Terminal since 1993.

The group's main task is to monitor the development of the natural environment, drawing up an inventory of the birds encountered and potential sources of food.

They also measure water quality and help Eurotunnel to manage and improve the care of these habitats.

Ten years of monitoring have revealed a trend towards more common and urban species on the French Terminal site and this was confirmed by the 2003 survey. However, no link has been established with the clearance in 2002 of 50 hectares of bushes and undergrowth for security reasons to prevent asylum-seekers disrupting Eurotunnel's commercial services, this area not being included in the survey.

The ecological balance will continue to be monitored, chiefly by the GON.

10.1.2 Controlling species at the French Terminal

The French Terminal, because of the special nature of some of its infrastructures and its appearance, is an ideal place for certain species to proliferate. Some of them are however incompatible with the normal operation of the site or can pose a health risk and need controlling.

The main culprits in 2003 were:

- Pigeons around the Sangatte shaft
- Corvids (Jackdaw, a protected species) at the G2 electricity substation
- Rabbits on wasteland around the French Terminal, particularly alongside the tracks
- Muskrats destroying embankments and tunnelling under the site.

Other species, such as foxes, stone martens, polecats, feral cats and weasels, are sometimes found on the site.

They are controlled by staff volunteers and a number of local organisations such as the Pas-de-Calais pigeon-fanciers' and game-shooters' clubs, public and aviation safety bodies and specialist ornithologists.

The control methods used vary according to the species:

- Protected species of birds are scared off using a range of deterrents
- Some species are captured and transferred to another site
- Others are culled.

All interventions are systematically recorded to identify any changes and find the most suitable methods of control.

In 2003, the Sangatte shaft and all the associated fire, ventilation, drainage and cooling installations, after cleaning and repainting, were restored to a satisfactory sanitary condition. A bird-scarer similar to those used at airports was installed at the electricity substation and the birds have stayed away.

10.1.3 Upkeep of green spaces at the French Terminal

Eurotunnel is keen for the site to be perceived as a pleasant, ecologically sound environment, paying special attention to areas frequented or seen by the public.

These areas are managed differently according to their specific nature:

- One, covering 1,300 sq. metres, is planted with flowerbeds
- The other has a wilder, more conservation-oriented feel, limiting the visual impact of the concertina razor wire and perimeter fencing without compromising security.

The following key initiatives have been taken:

- The areas of pastureland on the site are cut by local farmers who thus benefit from good quality forage for their cattle. Before the grass is cut, wildlife checks are carried out, particularly to locate birds' nests.
- A scheme to spread sludge on agricultural land to reduce the amount of chemical fertilisers used is planned for 2004 in the vicinity of the French site.

In 2002, following a call for tenders, Eurotunnel decided to hand over the day-to-day upkeep of its green spaces (about 250 hectares) to a local training centre for the disabled. About fifteen of the centre's employees now work on the French site.

10.2. UK Terminal

Eurotunnel began active management of its land during the construction phase in 1988, including about 48 hectares on the Folkestone Downs near the UK Terminal and a further 48 hectares at the base of the White Cliffs of Dover (Samphire Hoe).

The main aim was to:

- Improve the plant and wildlife value and public enjoyment of the site
- Provide access for a broad cross-section of people and raise their awareness of environmental protection by encouraging them to take part in leisure pursuits such as walking, birdwatching and angling.

A joint co-operative venture called the White Cliffs Countryside Project (WCCP), involving Eurotunnel, local authorities, environmental bodies and local businesses, has been set up.

Rare species of orchids such as the Early Spider Orchid (Ophrys arachnitiformis) and butterflies like the Adonis Blue (Polyommatus bellargus) are now found on the Folkestone Downs and at Samphire Hoe.

10.2.1 The Folkestone Downs

The Folkestone Downs are one of the largest remaining areas of ancient chalk grassland in Kent and form part of the Kent Downs Area of Outstanding Natural Beauty (AONB). They are also designated a Site of Special Scientific Interest (SSSI) on account of the many rare species of plants and wildlife they support.

When Eurotunnel acquired the land it had not been managed for some 30 years. Areas were becoming invaded by scrub, and coarse tor grass (Brachypodium pinnatum) was rampant, choking out the more delicate species of flora. Fencing had become dilapidated and flytipping and abandoned vehicles were becoming commonplace. There were a number of public footpaths that had become overgrown or unusable.

Eurotunnel and WCCP have restored and maximised the diversity of habitats on the site without detracting from its unique components. This was achieved mainly by the introduction of grazing cattle that control the coarse grasses, allowing the more delicate species to thrive. The 'on the ground' management is undertaken by WCCP, which enlists the help of volunteers to keep the area in good order. WCCP also organises guided walks, wildlife conservation activities and Green Gang events for children.

These initiatives have led to an increase in the number of species of plants (Gladwyn or Stinking Iris, and particularly wild orchids such as Ophrys apifera (Bee Orchid), Dactylorhiza maculata (Spotted Orchid), Spiranthes cernua (Nodding Ladies' Tresses) and Ophrys arachnitiformis (False Spider Orchid), and butterflies like Polyommatus bellargus (Adonis Blue) and Hesperia comma (Silver-Spotted Skipper).

Thirty-one different species of butterfly can now be seen on the Downs during the year, more than half the number of species in the UK, making the Kent Downs one of the best places in the country to observe meadow butterflies.

Ongoing ecological monitoring confirms a constantly improving trend in the biodiversity of the area. At the same time, care is taken to preserve and improve use of the site for leisure activities, with a number of new footpaths being established to create circular walks.

With all these improvements, the public is provided with information in the form of bilingual leaflets and site interpretation panels. The local community is encouraged to become involved too.

Against this backdrop of biodiversity, a giant white horse has been carved out of the chalk downs behind Folkestone. This artistic creation, visible from a great distance, does not necessarily disturb the delicate ecological balance of the site because it is far enough away from the place where the orchids grow.

10.2.2 Samphire Hoe

Samphire Hoe is a 30-hectare piece of land situated at the foot of the White Cliffs of Dover. It was created from approximately 5 million cubic metres of chalk marl excavated during the construction of the Channel Tunnel.

The challenge for Samphire Hoe was to transform this conspicuous legacy of the Tunnel's construction into a place of environmental interest and make it available to the public for leisure activities such as walking, birdwatching and sea angling.

The day-to-day management of the site is the responsibility of the White Cliffs Countryside Project.

The landscaping of the site was designed to blend in with surrounding areas as far as possible, using natural shapes, local plants and non-intrusive seating and signs. Full-colour interpretation panels explaining the history, wildlife and plantlife of the site were also used. Special attention was paid to disabled access (ramps, good quality surfaces to footpaths, etc.).

Since it was opened to the public in July 1997, Samphire Hoe has proved extremely popular with those who appreciate the peace and tranquillity of this unique rural setting. The success of the site was recognised in its opening year with two Wildlife Conservation Awards.

Over 120,000 visitors take advantage of this magnificent site each year.

The site supports a rich biodiversity, including 180 plant species (the result of natural colonisation), 140 bird species, two of which are listed in the Red Data Book, 26 butterfly species, about 170 species of moth, including 5 featured in the Biodiversity Action Plan, and 13 species of dragonflies and damselflies.

In addition, the Hoe plays host to a sculpture workshop, a wave crest measuring station, and has its own web site.

10.3 Everyday environmental protection

In May 2003, a herring gull set up home in the middle of the shuttle maintenance area. Its nest contained three eggs and the sector was coned off to protect it.

The measures put in place a few years ago to protect a rare species of wild orchid that flowers in June on the Downs behind the UK Terminal have borne fruit. A few orchids have also sprung up between the rails in the shuttle maintenance area. An inspection of the site by the White Cliffs Countryside Project confirmed the presence of several orchids (the relatively rare Cattleya orchid, the Spotted Orchid and the Bee Orchid). The area has been designated a Site of Special Scientific Interest (SSSI) and fenced to avoid any accidental damage to the orchids.

Eurotunnel gave practical help to the RSPCA to send some 600 guillemots caught in the oil slick from the Tricolor off the Belgian coast for treatment at veterinary hospitals in Norfolk and Cheshire.

11 CONCLUSION

The issue of the environment has been an intrinsic part of Eurotunnel's activity from the outset. The principle behind the project as well as its operation are the embodiment of an ongoing policy of environmental responsibility.

Eurotunnel has always endeavoured to restore natural environments and create new ones to encourage the development of plants and wildlife on its sites. Despite its proximity to a number of conservation areas and Sites of Special Scientific Interest (SSSI), Eurotunnel has successfully integrated its infrastructure and transport operations into the natural surroundings.

Eurotunnel, in a voluntary process, is gradually improving its environmental management system and establishing frames of reference to measure the results of its efforts.

In 2003, Eurotunnel continued to play an active role in environmental management through the work of its Environment Committee and approval of a formal environment operational structure within the organisation. The Environmental Management System (EMS) is largely operational and Eurotunnel has a satisfactory system in place to ensure regulatory compliance. Improvements in environmental performance, notably in areas such as wastewater discharges, the reduction of greenhouse gases and waste treatment, have been sustained. The number of employees specialised and trained in environmental matters has been increased.

In spite of these positive results, Eurotunnel is convinced that the situation can be further improved and has defined new objectives, some of them focusing on the next few years, as part of its environmental protection action plan.

The Company intends to pursue its efforts to minimise the impact of its operations on the environment and is committed to monitoring and improving its environmental performance, particularly in terms of waste processing and energy management. Eurotunnel's actions, extending far beyond simple compliance with environmental standards, are intended not only to motivate all personnel but also to improve relations with local communities and residents.