



FairfieldEnergy

**2021 Annual
Public Statement
Fairfield Energy Limited**





**For Further Information,
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1. Environmental Policy

It is the policy of Fairfield Energy Limited (Fairfield) to seek to conduct its business in a responsible manner that prevents pollution and promotes the preservation of the environment.

Fairfield appreciates that our activities can interact with the natural environment in many ways. We recognise that sustained development of Fairfield and our long term success depends upon achieving high standards of environmental performance. We are therefore committed to conducting our undertakings in an environmentally responsible manner.

This means that we will:

- Integrate environmental considerations within our business and ensure that we treat these considerations with at least equal importance to those of productivity and profitability;
- Incorporate environmental risk assessment in our business management processes, and seek opportunities to reduce the environmental impact of our activities;
- Continually improve our environmental management performance;
- Comply with all environmental laws, regulations and standards applicable to our undertakings;
- Allocate necessary resources to implement this policy;
- Communicate openly in matters of the environment with government authorities, industry partners and through public statements.

In particular, we will:

- Maintain an environmental management system in accordance with international best practice and with the BS-EN-ISO 14001:2015 standard, including arrangements for the regular review and audit of our environmental performance;
- Conduct environmental analyses and risk assessments in our areas of operation, in order to ensure that we understand the potential environmental impacts of our activities and that we identify the necessary means for addressing those impacts;
- Manage our emissions according to the principles of Best Available Techniques;
- Publish an annual statement on our public web site, providing a description of our environmental goals and performance;
- Maintain incident and emergency systems in order to provide assessment, response and control of environmental impacts.

Ultimate responsibility for the effective environmental management of our activities rests with the General Manager and the Board.

This policy shall be implemented by line management through the development and implementation of working practices and procedures that assign clear responsibilities for specific environmental activities with our employees and contractors.

In addition, each of our employees has a personal responsibility to conduct themselves in a manner that enables us to implement this policy and our environmental management system.



Alan Scott
General Manager

2. Overview

2.1. Background

Fairfield Energy (Fairfield) was established in 2005 and was created specifically as a UK focused independent company to participate in the realignment of North Sea asset ownership in this mature province.

Having concluded that Dunlin had reached the point of maximum economic recovery, particularly in the light of prevailing industry conditions, termination of production from the Greater Dunlin Area was announced by Fairfield on 15th June 2015. Approval for Cessation of Production (CoP) was received from the Oil & Gas Authority (OGA) on 15th January 2016 with CoP confirmed to have occurred on 15th June 2015.

Fairfield is an experienced, late-life asset and decommissioning operator. Our current project is the decommissioning of the Greater Dunlin Area incorporating Osprey and Merlin subsea satellite fields and associated infrastructure.

2.2. Our Operations

The Greater Dunlin Area is located in Blocks 211/23 and 211/24 of the UK Continental Shelf which is in the Brent oil province in the Northern North Sea (NNS). The Dunlin Alpha platform stands some 500km north-northeast of Aberdeen within the East Shetland Basin, and 11 km from the boundary line with Norway.

2.2.1. Dunlin Alpha

The main operations on the Dunlin Alpha platform in 2021 focussed on completing the Plug and Abandonment (P&A) of the forty five platform wells, and Make Safe and Handover (MS&H) activities required to support the removal of the Dunlin Alpha topsides, scheduled for Q2 2022.

All of the Dunlin platform wells have now been permanently abandoned as part of a large-scale P&A campaign which commenced in January 2016. In addition, external conductors have been removed from 39 of the wells; the remaining conductors will be removed by a construction support vessel (CSV) following successful removal of the Dunlin Alpha topsides.

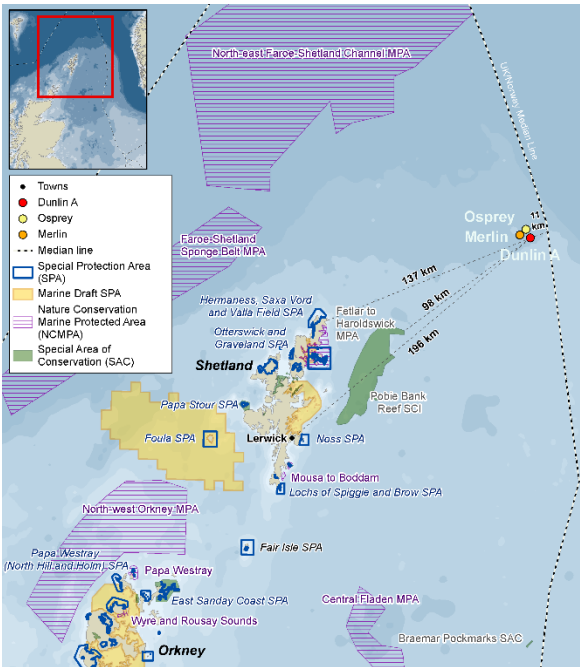
MS&H activities ensure that the topsides are hydrocarbon free in order to safely remove equipment and isolate modules prior to topsides removal. Activities that were successfully completed in 2021 include the following:

- Integrity maintenance activities
- Removal of 'Quikdeck' access system underdeck
- Removal of conductor clamps to facilitate full removal of conductor via platform rig
- Hydrocarbon pipework removal in preparation for Topsides Removal;
- Legs A, B, C & D debris and cut zone clearance;
- Installation of leg caps

2.2.2. Subsea Infrastructure Decommissioning

Subsea Infrastructure Decommissioning (SID) operations were successfully completed in 2019, and waste disposal and recycling of recovered subsea infrastructure was completed in 2020. Regulatory close-out of the Decommissioning Programme (DP) was accepted by the Department of Business, Environment and Industrial Strategy (BEIS) in 2021.

All activities associated with decommissioning the Dunlin Alpha to Cormorant Alpha Pipeline (PL5) were successfully completed in 2020. Regulatory close-out of the PL5 Decommissioning Programme was subsequently accepted by BEIS in 2021.



Dunlin Alpha

Location:
196 km north east of Lerwick

Block:
211/23

Water Depth:
151 m

Operator / Duty Holder:
Fairfield Betula Limited

Installation Type:
Four-leg, concrete gravity base multi-cell substructure with a steel box girder based topsides supporting the drilling deck, module deck and lower deck.

Platform Wells:
45

Production Commenced:
August 1978

Production Ceased:
June 2015

Estimated Total Recovery:
522 million barrels

Tie-backs:
The Osprey field is a subsea development located 6 km to the north-north west of the platform. The Merlin field is a subsea development located 7 km to the west-north west of the platform.

Infrastructure:

- 8" oil production pipeline from Merlin to Osprey crossover manifold
- 38" Osprey south production bundle
- 38"/31.5" Osprey north production bundle
- 10" water injection pipeline to Osprey
- 8" water injection pipeline to Merlin
- 16" oil import pipeline from Thistle Alpha
- 24" oil export pipeline to Cormorant Alpha
- 4" fuel gas import line from Thistle Alpha (10.3 km)
- Dunlin Power Import Cable from Brent Charlie (22.3 km)

3. Environmental Management System

Fairfield has a structured Environmental Management System (EMS) which communicates company policy and establishes the company standards for environmental risk management. The EMS provides a controlled and systematic approach to promoting best practice in environmental management as well as outlining the mechanisms through which compliance is maintained.

The EMS has been developed in accordance with current UK environmental legislation and is certified in accordance with ISO 14001:2015.

Progress against the key objectives / programmes within our 2021 environmental programme is summarised in Table 3.1.

Our 2022 environmental programme continues and builds upon our 2021 programmes and objectives. Specifically for 2022, targets and objectives have been set in the Environmental Management System within the following programmes.

- Audit / Inspection Programme;
- Continued support of the Dunlin Alpha Topsides Delivery Programme;
- Continual improvement of EMS.

| Objective / Programme | Summary of Progress |
|---|---|
| Audit / Inspection Programme | Due to COVID-19 restrictions on in-person audits, site visits were limited to essential personnel only. However, onsite monitoring through monthly platform-wide and weekly drilling package environmental inspections was undertaken on Dunlin Alpha throughout the year. |
| SID/PL5 Programme | Close-out reports submitted for each of the SID programme(s) were approved by the Regulator in Q1 2021. The close-out report submitted for the PL5 decommissioning programme was approved by the Regulator in Q1 2021. |
| Continual Improvement of the EMS | Highlights for 2021 included: <ul style="list-style-type: none"> • Full compliance with environmental regulatory requirements • Continued support of HSEMS integration, and alignment with project work scopes • Alignment with topsides and subsea decommissioning project aspect / impact register(s) and PLANC requirements |

Table 3.1 – 2021 Key Objectives and Summary of Progress

4. Environmental Performance

Given the nature of Fairfield's operations during 2021, the potential for significant environmental impact arose from:

- atmospheric emissions from power generation;
- chemical use and discharge;
- waste management; and
- accidental releases.

The environmental performance of Fairfield's operations in 2021 are summarised in the sections that follow, and has been reported to the Department for Business, Energy & Industrial Strategy (BEIS) via the UK Environmental Emissions Monitoring System (EEMS).

4.1. Atmospheric Emissions

Atmospheric emissions from the Dunlin Alpha are derived from the generation of power required to support well plug and abandonment operations, as well as making the topsides safe prior to removal.

In 2021, 100% of the power generated by Dunlin was from diesel combustion, as fuel gas is no longer available.

A summary of the atmospheric emissions generated from the Dunlin Alpha in 2021 is given below.

| Emissions in tonnes | CO ₂ | NO _x | N ₂ O | SO _x * | CO | CH ₄ | VOC |
|---------------------|-----------------|-----------------|------------------|-------------------|-------------|-----------------|------------|
| Power Generation | 7,770.00 | 144.00 | 1.0 | 0.5 | 38.0 | 0.4 | 4.9 |
| Total | 7,770.0 | 144.0 | 1.0 | 0.5 | 38.0 | 0.4 | 4.9 |

*Diesel used for power generation has 0.1% sulphur content.

Table 4.1 – Summary of Atmospheric Emissions Generated From Dunlin Alpha in 2021.

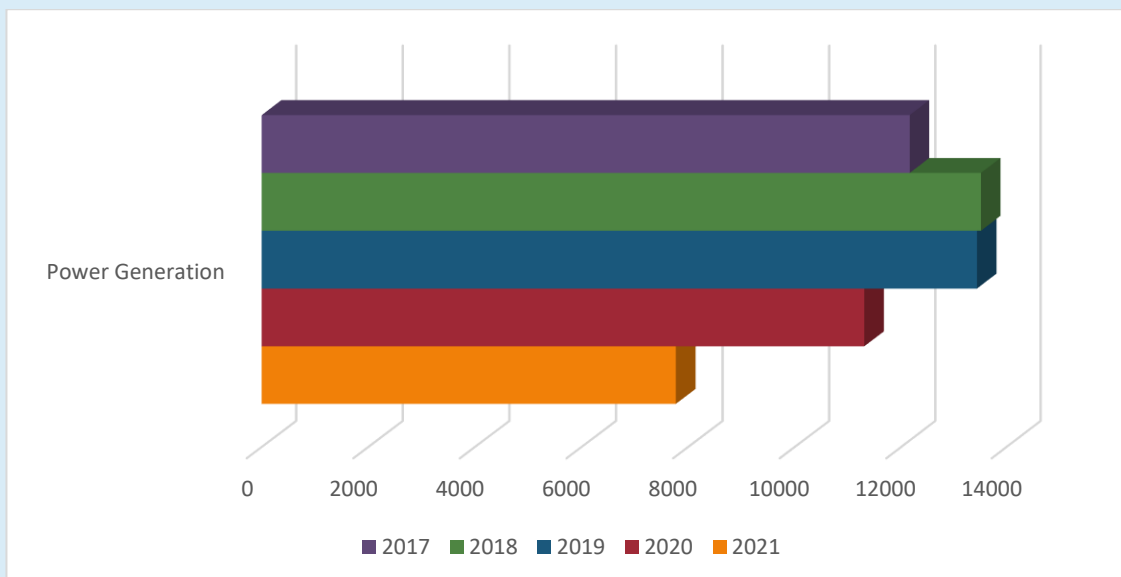


Figure 1 – Year on year CO₂ Emissions (mT)

4.2. Accidental Releases

The prevention of oil and chemical releases is of the highest priority during Fairfield operations, and consequently we maintain procedures, training and awareness campaigns in order to minimise the risk of release and to ensure a rapid response to any such event.

Oil and chemical release incidents are reported to BEIS in accordance with the Petroleum Operations Notice 1 (PON1) system. Fairfield was responsible for the occurrence of three such incidents in 2021, a summary of which is provided in Table 4.2 below.

| Reference | Date | Nature of Incident | Type of Spill | Estimated Maximum Quantity Released (kg) | Location |
|------------|------------|---|---------------|--|----------|
| PON1/10119 | 26/02/2021 | Pinhole leak in bulk hose during backload of drilling slops | Chemical | 1.176 | Dunlin |
| PON1/10190 | 27/03/2021 | Diesel leak from transfer hose | Oil | 0.021 | Dunlin |
| PON1/10429 | 02/07/2021 | Release of displaced annulus fluid due to gauge tank overflow | Chemical | 438 | Dunlin |

Table 4.2 – 2021 Oil and Chemical Release Incidents



4.3. Waste

In total, 4,778 tonnes of waste was generated from Dunlin Alpha operations in 2021. Of this, 1,565 tonnes consisted of drilling ‘slops’ that was shipped to shore after the platform disposal well was plugged and abandoned. This waste was sent for treatment and discharged under an approved consent.

Of the remaining waste, approximately 89% was reused or recycled, which is consistent with the waste performance in 2020.

| Total Waste (tonnes) | Reused / Recycled (%) | Landfill (%) |
|----------------------|-----------------------|--------------|
| 3,213* | 89.0 | 11.0 |

* Figure does not include drilling slops sent for treatment

Table 4.3 – Fate of Waste Generated from Fairfield Operations in 2021

4.4. Chemical Use and Discharge

Offshore use and discharge of operational chemicals is regulated by the Offshore Chemical Regulations 2002 (as amended), where the word “chemicals” refers to fully formulated products used offshore, whether these are comprised of one or more distinct chemical substances. Such chemicals must appear on both the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) Definitive Ranked Lists of Registered Products and on the relevant Chemical Permit application.

All chemicals are tested and classified by CEFAS according to their potential to cause harm. The assessment relates to a combination of the rate of biodegradation, toxicity and potential to bio-accumulate. Environmental data are provided below according to those which are:

- Environmentally benign i.e. labelled as **Pose Little Or NO Risk (PLONOR)**;
- Low risk i.e. listed in the CEFAS lowest risk categories (‘E’ or ‘Gold’ (excluding PLONOR));
- Higher risk i.e. listed in the CEFAS higher risk categories.

Products identified by CEFAS as containing chemicals marked for substitution with a more environmentally friendly alternative are flagged with a “SUB” warning. Use and discharge of such chemicals is included in the following sections.

As previously stated, production at Dunlin Alpha was ceased in June 2015 which means the use of chemicals relating to production operations has now ceased.

Fairfield continually work with chemical suppliers to evaluate the potential environmental hazards of chemicals used, and to select less hazardous alternatives where practicable.

**4.4.1. Wells Activities (DRA, WIA)
Chemical Use and Discharge**

In 2021, Fairfield used approximately 829 tonnes of chemicals during Wells Activities. This figure represents a slight reduction from 2020 (831 tonnes). Of the total amount of chemicals used for wells activities, around 6.8% were discharged to the marine environment.

In terms of environmental performance, 100% of chemicals discharged during 2021 were "E" or "Gold" category chemicals. 97% of the chemicals discharged were PLONOR. Approximately 0.01% of the chemicals discharged were "SUB" chemicals, and are no longer required.

| Products by CEFAS Classification | 2021 Chemical Use / Discharge (kg) | |
|----------------------------------|------------------------------------|-----------------|
| | Use | Discharge |
| A | 0.00 | 0.00 |
| B | 0.00 | 0.00 |
| C | 0.00 | 0.00 |
| D | 0.00 | 0.00 |
| E | 792,544.8 | 54,043.2 |
| Purple | 0.00 | 0.00 |
| Orange | 0.00 | 0.00 |
| Blue | 0.00 | 0.00 |
| White | 0.00 | 0.00 |
| Silver | 0.00 | 0.00 |
| Gold | 36,763.9 | 2,185.9 |
| Total | 829,308.7 | 56,229.0 |

Table 4.4 – 2021 Wells Activities Chemical Use / Discharge by CEFAS Classification



| Chemical Label Code | 2021 Chemical Use / Discharge (kg) | |
|---------------------|------------------------------------|-----------|
| | Use | Discharge |
| PLONOR | 797,564.7 | 54,323.3 |
| SUB | 7,782.3 | 577.1 |

Table 4.5 – 2021 Wells Activities PLONOR / SUB Chemical Use / Discharge

4.4.2 Decommissioning Activities (DCA) Chemical Use and Discharge

In 2021, Fairfield used approximately 25kg of chemicals during Make Safe and Handover (MS&H) activities. This is a significant decrease on the figure for 2020 (6.56 tonnes) due to the limited activities required. All of the chemicals were discharged to the marine environment.

In terms of environmental performance, 100% of chemicals discharged during 2021 were "Gold" category chemicals, and no "SUB" chemicals were used or discharged during make safe and handover operations at Dunlin Alpha in 2021.

| Products by CEFAS Classification | 2021 Chemical Use / Discharge (kg) | |
|----------------------------------|------------------------------------|-----------|
| | Use | Discharge |
| A | 0.00 | 0.00 |
| B | 0.00 | 0.00 |
| C | 0.00 | 0.00 |
| D | 0.00 | 0.00 |
| E | 0.00 | 0.00 |
| Purple | 0.00 | 0.00 |
| Orange | 0.00 | 0.00 |
| Blue | 0.00 | 0.00 |
| White | 0.00 | 0.00 |
| Silver | 0.00 | 0.00 |
| Gold | 25 | 25 |
| Total | 25 | 25 |

Table 4.6 – 2021 Decommissioning Activities Chemical Use / Discharge by CEFAS Classification



| Chemical Label Code | 2021 Chemical Use / Discharge (kg) | |
|---------------------|------------------------------------|-----------|
| | Use | Discharge |
| PLONOR | 0.00 | 0.00 |
| SUB | 0.00 | 0.00 |

Table 4.7 – 2021 Decommissioning Activities SUB Chemical Use / Discharge

4.4.3 2021 Chemical Use and Discharge: Aggregated Assessment

Combined, Fairfield operations used around 829.3 mT of chemicals during 2021. Of this figure, around 6.8% of chemicals were discharged to the marine environment.

In terms of overall environmental performance for operational chemical use and discharge, 100% of chemicals used and discharged during 2021 were "E" or "Gold" category chemicals.

The total quantity of chemicals discharged was 56.2 tonnes, of which 97% was classed as PLONOR.



| Products by CEFAS Classification | 2021 Chemical Use / Discharge (kg) | |
|----------------------------------|------------------------------------|-----------------|
| | Use | Discharge |
| A | 0.00 | 0.00 |
| B | 0.00 | 0.00 |
| C | 0.00 | 0.00 |
| D | 0.00 | 0.00 |
| E | 792,544.8 | 54,043.2 |
| Purple | 0.00 | 0.00 |
| Orange | 0.00 | 0.00 |
| Blue | 0.00 | 0.00 |
| White | 0.00 | 0.00 |
| Silver | 0.00 | 0.00 |
| Gold | 36,788.9 | 2,210.9 |
| Total | 829,333.7 | 56,254.0 |

Table 4.8 – 2021 Aggregated Chemical Use / Discharge by CEFAS Classification

| Chemical Label Code | 2021 Chemical Use / Discharge (kg) | |
|---------------------|------------------------------------|-----------|
| | Use | Discharge |
| PLONOR | 797,564.7 | 54,323.3 |
| SUB | 7,782.3 | 577.1 |

Table 4.9 – 2021 Aggregated PLONOR / SUB Chemical Use / Discharge

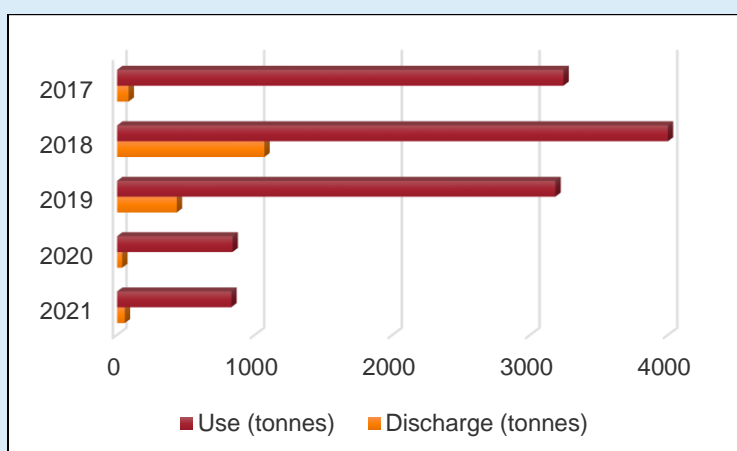


Figure 2 – Annual Chemical Use and Discharge

