

Guidelines for Aircraft Operators

Preparation of Monitoring Plans and
Emission Reports from the reporting year 2025



EU ETS 1

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Disclaimer: If there are differences between the German and English versions of the DEHSt Guidelines, the German version takes precedence.

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Editorial comments on version changes

No.	Date	Section	Page	Note
1	16/02/2022			First publication
2	11/01/2023	2.1.1.1		Extension of the CH ETS scope from 01/01/2023
		6		Update of the procedures for the use of mixed fuels, i.e. biofuels blended with fossil fuels
3	05/01/2024	Introduction		Amendment regarding the waiver of verification under certain conditions
		2.1.2		Updating the CORSIA scope
		3.2		Amendment to the allocation of aerodromes and regions in the FMS
		3.4		Additional options to use VPS without QES
		4.3.1		Updating the emission thresholds for the simplified procedure
		4.3.3		Amendments to the verification
		5.1		Amendments to special features for outermost regions
		5.3.9		Amendment to reporting based on airport pairs
		6.1		Updating the basic information on monitoring and reporting
		6.3		New chapter on the Proof of Sustainability
		10.5		New chapter on virtual site visits
4	06/03/2025	General		In accordance with the revised MVO and TEHG amendment, all references have been updated or supplemented with a footnote.
		Summary		Addition to the information about CORSIA in the guide.
		1.4; 11.2		Special instructions for verifiers
		2.1.2		Note: Reporting obligation for third country flights under CORSIA
		2.1.3		Updated visualisation of intersections between the application areas
		3.2		Notes on the publication of data
		3.3		Note on the use of separate forms for monitoring plan from 2025 and emissions report 2024
		4.1		Note on the submission of the monitoring plan for authorisation from 2025.
		4.2		Supplementary information on significant changes to the monitoring plan in accordance with amended Article 15 MVO
		4.3		Supplementary information for verification
		4.3.3		Supplementary information on the use of EMIS in CORSIA reporting
		4.6		Changes in line with the redesigned FMS application
		4.9		Special concerns. Determination of flights in accordance with Article 2 of the CORSIA Regulation
		6		New chapter on alternative and eligible aviation fuels. Notes on monitoring and reporting.
		7		New chapter on monitoring and reporting non-CO ₂ effects. Guidance on creating a monitoring plan
		10.4		New sub-chapter on the transfer of free allocation to the register account
		11.5.2, 11.5.3, 11.5.1 and 11.5.4		Updates on virtual site inspections in accordance with Articles 34a and 34b AVR

No.	Date	Section	Page	Note
5	22/01/2026	2.1.1.3	19	Updated presentation of the scope of non-CO ₂ effects
		2.1.2	20–21	Updated presentation of the CORSIA scope, including information on the new Delegated Regulation (EU) 2025/927 – CORSIA Regulation
		6	48	Updated information on the use of alternative and eligible aviation fuels
		6.2	52–53	Updated information on the monitoring and reporting of eligible aviation fuels Visibility requirements pursuant to Article 8 of Delegated Regulation (EU) 2025/723
		6.4	54–55	Information on amendments to Directive (EU) 2018/2001 (RED)
		6.4.1	55–56	Notes on changes to the ISCC Guidance Document Proof of Compliance, adjusting the requirements for proof of sustainability
		6.6	58–64	New notes on reporting alternative/eligible aviation fuels and CORSIA Eligible Fuels in the FMS application
		7.1.1	67	Info point on the SharePoint “NEATS User Group”
		7.1.3	70	End of the Pre-NEATs Phase
		7.2	72	Notes on reporting non-CO ₂ effects
		11.2	80	Notes for verifiers on scopes 12a and 12b
		11.5.4	83	Notes on the physical site visit in the 2025 reporting year



At the time of updating this guideline, the EHV is in the process of being amended. Once the amended version has been issued, operators will be informed separately through a newsletter. The references in this guideline will be adapted accordingly within the next revision.

Notes in the document



Attention, Special note .



Note for examples.



Note with further information.



Special instructions for verifiers.



Reference to innovation.



Reference to further information in other guides or documents.

List of abbreviations

AOC	Air Operator Certificate
APU	Auxiliary Power Unit
AVR	Accreditation and Verification Implementing Regulation (EU) 2018/2067
BGBL	Federal Law Gazette
Biokraft-NachV	Biofuel Sustainability Ordinance
BioSt-NachV	Biomass Electricity Sustainability Ordinance
BLE	Federal Office for Agriculture and Food
CERT	ICAO CORSIA CO ₂ Estimation and Reporting Tool
CEFs	CORSIA Eligible Fuels
CH ETS	Swiss Emissions Trading System
CH-CO₂-VO	Ordinance on the Reduction of CO ₂ Emissions under the CH ETS
CO₂	Carbon dioxide
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CORSIA-Regulation	Delegated Regulation (EU) 2025/927
DAkkS	German Accreditation Body
DEHSt	German Emissions Trading Authority
DG CLIMA	Directorate-General for Climate Action
eBA_{nz} AT	Electronic Federal Gazette Official Section
EC	European Community
EU ETS 1 Directive	EU Emissions Trading Directive (EU) 2003/87/EC
EHV	Emissions Trading Ordinance 2030 (German Law)
eI_{Na}	Austrian electronic proof of sustainability for biofuels
EMIS	Environment Management Information Service, follow up system of Eurocontrol's ETS Support Facility
EU	European Union
EU ETS 1	EU Emissions Trading System
EEC	European Economic Community
EEA	European Economic Area
E2E	End to End
FEETS	Fuels Eligible for EU ETS Support
FMS	Form Management System
HVO	Hydrogenated Vegetable Oils
ICAO	International Civil Aviation Organization

lit.	litera (letter)
MRR	Monitoring and Reporting Implementing Regulation (EU) 2018/2066
Nabisy	Sustainable-Biomass-System
NEATS	Non-CO ₂ Aviation Effects Tracking System
NCV	Net calorific value
PoC	Proof of Compliance
PoS	Proof of Sustainability
QES	Qualified electronic signature
RCF	Recycled carbon fuels
RED	Renewable Energy Directive (EU) 2018/2001
ReFuelEU	ReFuelEU Aviation Regulation (EU) 2023/2405
RFNBO	Renewable fuels of non-biological origin
SET	Small Emitters Tool
SLCF	Synthetic low-carbon fuels
TEHG	Greenhouse Gas Emissions Trading Act – German Law
UDB	Union Database
UK	United Kingdom of Great Britain and Northern Ireland
UK ETS	Emissions Trading Scheme of the United Kingdom of Great Britain and Northern Ireland
VET	Verified Emissions Table
VO	Ordinance
VPS	Virtual Post Office
XML	Extensible Markup Language

Summary

The requirements of the European Monitoring & Reporting Regulation (Implementing Regulation (EU) 2018/2066, MRR) form the basis for monitoring and reporting of greenhouse gas emissions in the European Emissions Trading System 1 (EU ETS 1). The Emissions Trading Directive (Directive 2003/87/EC) is the superseding standard for the adoption of implementing acts of MRR and the Accreditation and Verification Regulation (Implementing Regulation (EU) 2018/2067, AVR), both of which are directly binding on all aircraft operators, competent authorities and verifiers in the European Union (EU) Member States. In Germany, the Greenhouse Gas Emissions Trading Act (TEHG)¹ implements Directive 2003/87/EC into national law. TEHG and the German Emissions Trading Ordinance 2030 (EHV) contain supplementary specific procedural and concretising national rules for monitoring and reporting.

On this legal basis, aircraft operators with flights subject to emissions trading prepare a monitoring plan and submit it to the German Emissions Trading Authority (DEHSt) at the German Environment Agency, the competent national authority, for approval. Each year, aircraft operators prepare an emissions report in accordance with the methods approved in the monitoring plan, which must be verified by an independent verifier in accordance with the requirements of the AVR before it is sent to the DEHSt. According to the Emissions Trading Directive, the verification obligation can be waived if the emissions are relatively low, the emissions are determined using a standardised method across Europe and the emissions report does not contain any alternative fuel quantities or proportions that lead to a reduction and thus a change in the surrender quantity.

TEHG requires the aircraft operators to surrender the number of allowances in the Union Registry by 30th September through a transaction initiated by their authorised representatives that corresponds to the previous year's emission volume reported in the emissions report.

This guideline provides an explanatory overview of the individual process steps as well as the content and technical requirements for the monitoring and reporting of CO₂ emissions from aviation. For aircraft operators who report their emissions to DEHSt as part of the International Civil Aviation Organisation's (ICAO) CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) climate protection measure, reference is made to similarities and differences to EU ETS 1 at the appropriate points.



If you have any questions regarding the interpretation and application of legal norms and the explanations in this guideline, please contact the **DEHSt customer service**:

Telephone: +49 (0) 30 8903 5050

E-Mail: emissionstrading@dehst.de

¹ The revised TEHG entered into force on 6 March 2025: www.recht.bund.de/bgb1/1/2025/70/VO.html

1

Stakeholders and their tasks

Monitoring, reporting and verification of emissions play a key role in the integrity and robustness of an emissions trading system, as they ensure that for every tonne of CO₂/CO₂ equivalents emitted, one tonne is reported.

In Germany, in addition to aircraft operators, the stakeholders include the German Emissions Trading Authority (DEHSt) at the German Environment Agency which is the competent authority, as well as the verifiers and the German Accreditation Body (DAkkS) which is responsible for verification. The following figure shows the tasks of the most important stakeholders before the start of the trading period and the regularly recurring tasks of the annual “compliance cycle”.

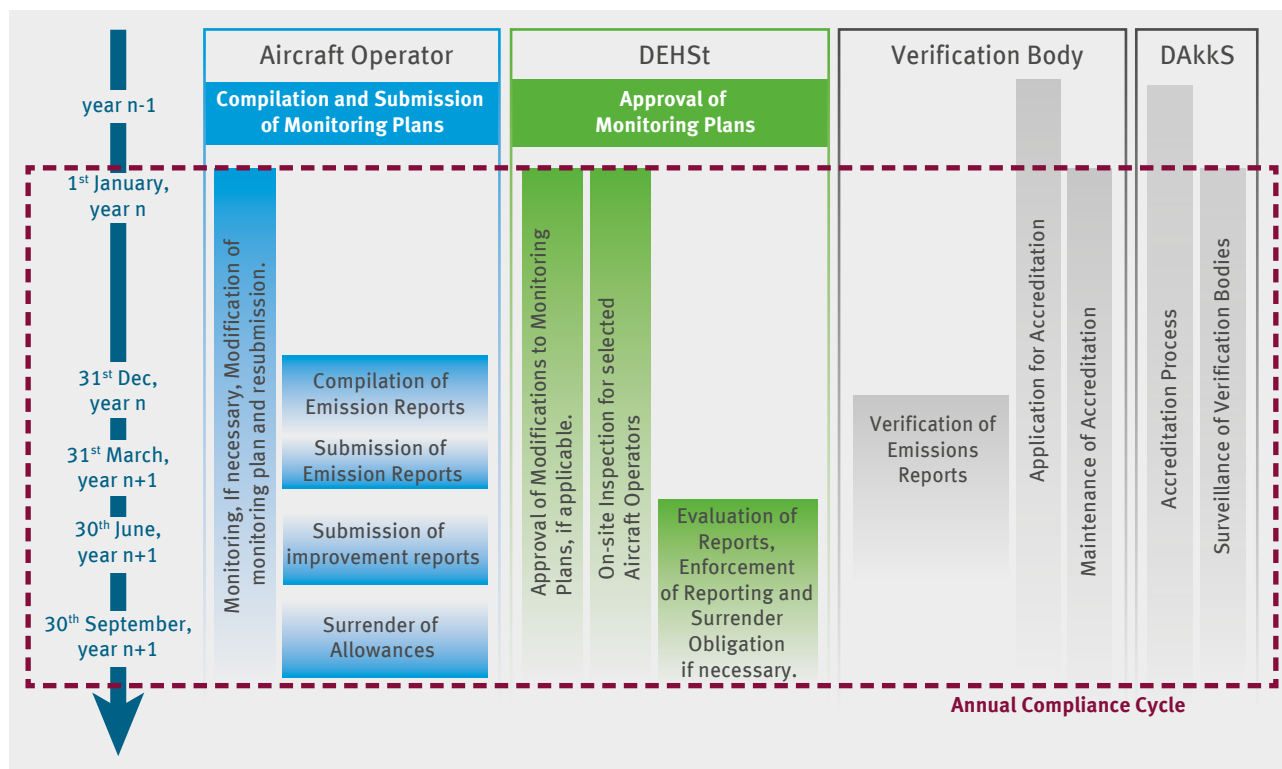


Figure 1: Distribution of tasks between stakeholders in the annual compliance cycle

The tasks of the stakeholders are described in detail in the following.

1.1 Aircraft operators

Aircraft operators are required to monitor their CO₂ emissions and non-CO₂ effects and report them to DEHSt in accordance with the requirements of the European MRR, the national regulations set out in the TEHG (Sections 5 and 6) and in the EHV (Sections 4 to 6).

Aircraft operators describe the chosen methods for monitoring CO₂ emissions and non-CO₂ effects in their monitoring plans. The monitoring plan is the basis for monitoring and reporting as it specifies the requirements of the MRR and national legislation for individual monitoring of the aircraft operator. Aircraft operators submit the monitoring plan to the DEHSt for approval. Based on the approved monitoring plan and the monitoring methods described therein, aircraft operators shall determine their CO₂ emissions and non-CO₂ effects and compile the annual emission report after the end of the reporting year. The reports, generally verified by verifiers, must be submitted to DEHSt no later than 31st March in the following year.

Aircraft operators must surrender the number of allowances corresponding to the CO₂ emissions in the emissions report to the Union Registry by 30th September of the following year (Sections 7(1) and 3(3) TEHG).

1.2 German Emissions Trading Authority (DEHSt) at the German Environment Agency

The DEHSt is the competent authority for all aircraft operators in emissions trading who are either assigned to Germany on the Administering Member State list or who have a valid German operating licence as per Article 3 of Regulation (EC) 1008/2008 (cf. Section 29(2) TEHG).

DEHSt's tasks include the approval of monitoring plans and the final evaluation of aviation emission reports (cf. Section 11(1)(4) TEHG).

If no emission report that meets the Section 5 TEHG requirements – and thus also Section 31(6) TEHG and the regulations of MRR – has been submitted to DEHSt by 31st March or if the surrender obligation was not met by 30th September² of the year following the reporting year, DEHSt is required to enforce the reporting and surrender obligations (cf. Sections 45, 46 and 48 TEHG).

The DEHSt is also entitled (Section 12 TEHG) to carry out on-site inspections to ensure the quality of monitoring and reporting.

1.3 Verification Bodies

Verifiers are independent stakeholders that must be commissioned with the verification of emission reports in accordance with Article 68(1) MRR and Section 5(2) and 14(1) TEHG before aircraft operators can submit the reports to DEHSt.

The tasks of verifiers are regulated in detail in AVR. According to this regulation, the main task of the verifier is to check the emission report and the data on which it is based for correctness and completeness. The aim of the verification is to determine whether the aircraft operator's emissions report is free from material misstatements with reasonable assurance. Further information on verifiers can be found on the DEHSt website.

In addition to verifying the emissions report and the permits and evidence on which it is based, the verifier is responsible for confirming the accuracy of an aircraft operator's emissions entered in the registry, in accordance with the terms of use of the Union Registry in conjunction with Article 31(4) of the EU Registry Regulation (Delegated Regulation (EU) 2019/1122).

1.4 Accreditation body

Verifiers must be accredited at the time of issuing the verification report and the verification opinion, i. e. approved by an accreditation body in Germany or another EU Member State for the corresponding verification activity. The verifier must be specifically accredited for the aviation accreditation scope (Annex I Activity group No. 12a and 12b AVR³) in order to be authorised to verify aircraft operators' emission reports.

The national accreditation body in Germany is the German Accreditation Body (DAkkS). The national accreditation bodies decide on requested accreditations after the assessment of the verifier and its personnel performing verification activities. The focus is on technical competence, independence, impartiality and the assessment of the verifier (documentation, office and verification activities) based on the regulations in Chapter IV AVR. The accreditation certificate is valid for a maximum of five years. During this period, the accreditation body shall monitor the verifier annually by means of specified measures pursuant to Article 50 AVR.

² From 2024 amended to 30th September (Section 7(1) TEHG).

³ Since the 2025 reporting year, the verifier has also been required to have accreditation for the verification of non-CO₂ effects.

2

General aspects of monitoring and reporting

2.1 Scopes

Depending on the location of the departure and destination airports, a flight may fall within one or more scopes (EU ETS 1, CH ETS and/or CORSIA) or lie outside the scopes. These constellations are explained in detail in the following chapters.

2.1.1 The scope of the EU ETS 1

The European Emissions Trading System 1 (EU ETS 1) in principle covers flights that take off or land in the territory of the European Economic Area (EEA; territory of the EU Member States and Iceland, Norway and Liechtenstein). In principle, flights from Switzerland and from the United Kingdom of Great Britain and Northern Ireland (hereinafter UK) to the EEA are excluded from this as these flights fall under the CH ETS and the UK ETS, respectively. However, these flights are included in the assessment of an aircraft operator's emissions trading obligation (extended full scope).

EU ETS 1 scopes

- ▶ **Extended Full Scope:** includes all flights taking off or landing in the EEA. The extended scope should be used to assess an aircraft operator's emissions trading obligation. The thresholds specified in Annex I of the Emissions Trading Directive of:
 - ▶ 10,000 tonnes of CO₂ for annual emissions
 - ▶ 243 flights in the three consecutive four-month periods of January to April, May to August, and September to December for commercial aircraft operators

and the threshold of:

- ▶ 1,000 tonnes of CO₂ for annual emissions by non-commercial aircraft operators
- ▶ refer to the extended scope.
- ▶ **Full scope:** includes all flights that take off or land in the EEA, with the exception of flights **from** Switzerland and **from** the UK to the EEA (these flights are subject to the emissions trading systems of the respective countries). The full scope should be used for the classification of an aircraft operator as a small emitter. The threshold of 25,000 tonnes of CO₂ in annual emissions according to Article 55 MRR (using an estimation tool) or Article 28a(4) EU ETS Directive refers to this scope
- ▶ **Reduced Scope:** includes all flights taking off **and** landing in the EEA (except for national flights where at least one airport is located in an outermost region) as well as flights from the EEA to Switzerland and **from** the EEA **to** the UK (excluding flights **from** Switzerland or the UK to the EEA). The reporting and surrender obligation of the EU ETS 1 currently refers to the reduced scope. The reduced scope also applies to the threshold of 3,000 tonnes of CO₂ for annual emissions under Article 55 (2) MRR or Article 28a(4) EU ETS Directive.



“Privileged flights” are also not covered by the EU ETS 1 (cf. Annex Part A(2)(33) TEHG, Annex I of EU ETS Directive and Delegated Regulation (EU) 2021/1416). The European Commission also specified in its [Decision 2009/450/EC](#) on the precise interpretation of the aviation activities listed in Annex I of EU ETS Directive, which conditions must be met in order for the flights listed in Annex I(6) and not covered by the aviation activity to be considered privileged.

The privileged flights or flights not subject to emissions trading are:

- a) flights for the transport of reigning monarchs and close family members or people on official state mission of a non-member state,
- b) military, customs and police flights,
- c) flights on humanitarian and rescue missions, fire-fighting flights etc.,
- d) flights conducted under visual flight rules as defined in Annex 2 of the Chicago Convention,
- e) circular flights (returning to the take-off airport without a stopover),
- f) training flights for the purpose of obtaining a pilot’s license or cockpit crew rating etc.,
- g) flights for scientific research or inspection, testing or certification of aircraft,
- h) flights by aircraft with a maximum take-off mass of less than 5,700 kilograms,
- i) flights performed under public service obligations pursuant to Regulation (EEC) 2408/92,
- j) flights operated by a commercial operator that operates fewer than 243 flights in each of the three consecutive four-month periods January to April, May to August and September to December, or whose total annual emissions from all flights are less than 10,000 tonnes of CO₂ in each case based on the extended scope,
- k) from 01/01/2013 to 31/12/2030: flights operated by a non-commercial operator whose total annual emissions from all flights are less than 1,000 tonnes of CO₂ based on the extended scope,
- l) flights taking off from airports in Switzerland and landing on airports in the EEA (see [Chapter 2.1.1.1](#)),
- m) flights taking off from airports in the UK and landing at airports in the EEA (see [Chapter 2.1.1.2](#)).

According to Article 28a (1) EHRL, the reporting and surrendering obligation only covers flights that take off and land in the territory of the EEA and flights from the EEA to Switzerland or the UK (reduced scope) up to and including 2026, with exceptions for national flights that take off or land in outermost regions (see Section 31 (4) and (5) TEHG)



When compiling and, if necessary, reviewing the reports, care must be taken to ensure that privileged and non-privileged flights are correctly distinguished. The verifier shall also take into account available air traffic data, such as EUROCONTROL data, for the verification of this information.

For preparing and reviewing the reports please in particular refer to answers [No. LV 004](#), [No. LV 005](#) and [No. LV 006](#) (transfer flights), which can be found as FAQs on the DEHSt website.

2.1.1.1 Linking with the Swiss Emissions Trading System

On 07/12/2017, the European Union and Switzerland concluded an agreement on the linking of their emissions trading systems ([Linking-Agreement](#)), which entered into force on 01/01/2020.

According to the agreement, since 01/01/2020 flights from the EEA to Switzerland are subject to the EU ETS 1, while flights from Switzerland to the EEA and within Switzerland are subject to the CH ETS. Since 01/01/2023, in addition, flights from Switzerland to the UK are subject to the CH ETS. For all these flights, CO₂ emissions have to be monitored and reported since 01/01/2020 and 01/01/2023 respectively. However, the exceptions for flights for medical care also apply here. The surrender of the corresponding amount of allowances is mandatory for reportable flights.

To avoid additional administrative work for aircraft operators, the principle of the “one-stop shop” was implemented. Aircraft operators whose flights fall under both emissions trading systems are only administered by one state. This means that all previously used IT systems or communication channels are retained and duplication of work is avoided. Monitoring plans or emission reports also only have to be submitted to one authority and allowances only have to be surrendered to one registry. The allocation of emissions and allowances to the two emissions trading systems is carried out by the respective competent authority, in Germany by DEHSt.

2.1.1.2 Interlinking with the Emissions Trading System of the United Kingdom of Great Britain and Northern Ireland (UK ETS)

Due to the [trade agreement](#) between the EU and the UK, flights to the UK are covered by the EU ETS 1, while flights from the UK to the EEA and within the UK are covered by the UK ETS.

Since, unlike with Switzerland, no agreements have yet been concluded to link the two systems, DEHSt is not the point of contact for the administration of flights covered by the UK ETS⁴.

2.1.1.3 The scope of non-CO₂ effects

From 2025 onwards, the monitoring and reporting of non-CO₂ effects of aviation in EU ETS 1 will cover all included non-CO₂ effects arising from aviation activities listed in Annex I of EU ETS Directive that affect an aerodrome in the EEA.

In 2025 and 2026, however, such reporting is only mandatory for routes within the reduced geographical scope of EU ETS 1 and also on national flights with an origin and/or destination in an outermost region of an EEA state. Additional non-CO₂ effects within the full geographical scope of EU ETS 1 can be reported on a voluntary basis.

For flights covered by the CH ETS, there has also been an obligation to monitor and report non-CO₂ effects from 01/01/2025.

Further information on non-CO₂ effects can be found in [Chapter 7](#).

Update

⁴ Further information can be found on the European Commission's website: https://ec.europa.eu/clima/sites/default/files/transport/aviation/docs/policy_transport_aviation_faq_aviation_brexit_en.pdf

2.1.2 The scope of CORSIA (relevant for German aircraft operators only)

Aircraft operators are subject to reporting to DEHSt under CORSIA if they fulfil the following criteria (see Annex Part A(4)(1) TEHG):

- ▶ The aircraft operator holds an Air Operator's Certificate issued by the Federal Republic of Germany or is registered in the Federal Republic of Germany.
- ▶ The aircraft operator generates annual CO₂ emissions of more than 10,000 tonnes from the operation of aircraft with a maximum certified take-off mass of more than 5,700 kilograms on flights that do not take off and land in the same Member State, including the outermost regions of the same Member State.

The following flights must be reported (see Section 33(1) and Annex Part A(4)(1) TEHG):

- ▶ Flights between aerodromes in two different countries listed in an implementing act issued pursuant to Article 25a(3) of the EU ETS Directive
- ▶ flights between Switzerland or the United Kingdom and the countries listed in an implementing act issued pursuant to Article 25a(3) of the EU ETS Directive, and
- ▶ (for the purposes of Article 12(6) and (8) and Article 28c of the EU ETS Directive) all other flights between aerodromes in two different third countries operated by aircraft operators.

The following flights should not be considered with regard to the aircraft operator being subject to reporting and the flights to be reported (Annex Part A(4)(2) TEHG):

1. flights on behalf of the state,
2. military flights,
3. humanitarian flights,
4. medical flights,
5. fire-fighting flights,
6. Flights before or after a flight referred to in items 3 to 5 using the same aircraft, provided that these flights were necessary for the performance of the activities referred to in items 3 to 5 or for the subsequent transfer of the aircraft for its next mission.

In summary, **under CORSIA**, German aircraft operators will be **subject to reporting** to DEHSt if **their international flights** (by aircraft with a maximum permitted take-off mass of more than 5,700 kilograms) exceed **annual CO₂ emissions of 10,000 tonnes**.

The above-mentioned **exempted flights** such as flights on behalf of the state, military flights etc., are **not included in the threshold consideration**.

However, not all international flights have to be reported under CORSIA. Both exempted flights and international flights that fall within the reduced scope of EU ETS 1 or the scope of the CH ETS are not subject to reporting in this context. The reason for this is that these emissions are already available to DEHSt from EU ETS 1 and CH ETS emissions reporting.

International flights between the UK and the EEA, however, must also be included in the report, although these flights are covered by the **UK ETS**. The reason for this is that these emissions are not otherwise available to DEHSt.

For the Federal Republic of Germany's reporting to the ICAO, DEHSt combines the reported international emissions under EU ETS 1 and CH ETS with the additional flights to be reported according to CORSIA (see Annex Part A(4)(1) TEHG). This comprehensive reporting of all international flights does not form the basis for calculating the offsetting obligation in accordance with Implementing Regulation (EU) 2024/1879: To prevent double burdens for aircraft operators based within the EEA, flights that are already covered by an emissions trading system are not considered again when calculating the CORSIA offsetting obligation.

Reporting of international flights under CORSIA using the ETS SF/EMIS

Aircraft operators who report their CORSIA emissions using the Eurocontrol ETS Support Facility (ETS SF) or EMIS are also obliged to report all international flights in full. In particular, flights outside the EEA may be missing or contain incorrect information in the data provided by Eurocontrol. The aircraft operator is obliged to compare and correct their actual flight activities with the data determined by Eurocontrol. If flights are missing in the EMIS data (e. g. between third countries), these must be added manually. Upon request to Customer Service, DEHSt will provide an Excel tool to facilitate the import of the corrected and supplemented EMIS dataset into the FMS application.

It should be noted that there is a verification obligation for emissions reports with emissions under CORSIA, as the exemptions as per Section 31(3) TEHG do not apply.

CORSIA Regulation

Delegated Regulation (EU) 2019/1603 (original CORSIA Regulation) was revised in 2025 and replaced by Delegated Regulation (EU) 2025/927. This updated CORSIA Regulation now regulates, in particular, the monitoring and reporting of CORSIA Eligible Fuels that are certified under a sustainability certification scheme listed in this Regulation in Article 5 and the reporting of offsetting using project credits in Article 7.

Information on CORSIA Eligible Fuels can be found in Subchapter 6.6 on FMS reporting. Even though Article 7 of the CORSIA Regulation establishes an additional basis for offsetting emissions for aircraft operators based within the EEA, the publication of an implementing act in accordance with Article 11a(8) of the EU ETS Directive on the precise definition of which project credits can be cancelled by aircraft operators based in the EEA is still pending.

Pursuant to Section 33(3) TEHG, aircraft operators are obliged to cancel the number of units notified by DEHSt for emissions in the 2024 to 2026 commitment period by the end of 31 January 2028. DEHSt will provide information in the usual manner through a newsletter.

The two new aspects in the CORSIA Regulation also require additional requirements for verifiers. These are listed in Article 6 and Article 8 of the CORSIA Regulation. Verifiers accredited by the German Accreditation Body will cover these additional requirements in the existing field of activity 12a. A new field of activity is not envisaged.

CORSIA consists of several phases: In the pilot phase (2021 to 2023) and first phase (2024 to 2026), countries can decide voluntarily whether to participate before binding criteria for mandatory participation take effect from 2027. At present, the vast majority⁵ of countries **have agreed** to participate voluntarily. These countries represent more than 80% of global air traffic on international routes. This includes all EEA states and therefore **incorporates Germany**. Since 01/01/2019, aircraft operators from all contracting states of the International Civil Aviation Organisation (ICAO) have been obliged to monitor their CO₂ emissions. This was necessary in order to determine the baseline emissions (which are required to determine the subsequent reduction obligations) as accurately as possible.

⁵ Exemplary clarification: 129 states for the 2025 reporting year, as at February 2025

2.1.3 Intersections between the scopes

The following table shows the different categories of flights and their assignment to a system. For the EU ETS 1, reference is made exclusively to the reduced scope described in [Chapter 2.1.1](#). The special features explained in [Chapter 2.1.1.1](#) and [Chapter 2.1.1.2](#) for the CH ETS listed here and the UK ETS not listed here must also be taken into account.

Table 1: Scope of EU ETS 1/CH ETS (reduced scope) and CORSIA⁶ for different categories of flights

Category	Covered by	Surrendering of allowances	Compensation in CORSIA through project credits
EEA national	EU ETS 1	x	
From EEA to EEA	EU ETS 1 and CORSIA ⁷	x	
From EEA to Switzerland / from EEA to UK	EU ETS 1 and CORSIA ⁶	x	
Switzerland to UK (since 01/01/2023)	CH ETS and CORSIA ⁶	x	
Switzerland national	CH ETS	x	
From Switzerland to EEA	CH ETS and CORSIA ⁶	x	
UK to Switzerland / UK to EEA	UK ETS and CORSIA ⁶	x	
Non-EEA national	–		
From EEA to Non-EEA	CORSIA		x
From Non-EEA to EEA	CORSIA		x
From Non-EEA to Non EEA	CORSIA		x



Figure 2: Diagram of the EU ETS 1 and CORSIA scopes and their intersections

⁶ Description in accordance with the EU implementation of CORSIA, therefore only relevant for EEA aircraft operators.

⁷ Only emissions reporting and no offsetting with project credits under CORSIA, as emissions are already addressed by surrendering emission allowances in an emissions trading system.

2.2 Relevant legal basis

In principle, MRR specifies the rules for monitoring and reporting of emissions. In addition, the requirements for determining emissions are regulated in Sections 5 and 6 TEHG and in the EHV.

This legal basis applies both to the EU ETS 1 (including flights from the EEA to Switzerland and to the UK) and to CORSIA (Section 33 TEHG).

Delegated Regulation (EU) 2019/1603 (CORSIA Regulation) implements CORSIA reporting requirements in the European Union and refers to the MRR as the legal basis for monitoring and reporting of emissions from international flights under CORSIA.

2.3 Units and conversion

All emissions data in the reports are to be presented in the metric base units kilometre (km), tonne (t) and gigajoule (GJ). If units from purchase records or other specific aircraft operator data are converted to the stated base units, care must be taken to ensure that the conversion is accurate, including the correct application of conversion factors.

Emission data shall be rounded so that the values used for emission calculations in reporting contain only significant digits (see Article 72(2) MRR).

3

Electronic preparation and submission of monitoring plans and emission reports

3.1 Mandatory electronic communication

Monitoring plans and emissions reports must be prepared in electronic templates (Form Management System, FMS), which are available on the related [DEHSt website](#).

The submission of monitoring plans and emissions reports and their signature must be carried out electronically via the Virtual Post Office (VPS).

The use of FMS, VPS and the electronic signature is obligatory as detailed in Section 15 TEHG and Article 74(1) MRR in conjunction with the announcement in the electronic Federal Gazette (BAnz AT 30.06.2025 B8).

3.2 Publication of Data

Since 2023, the European Commission is required under Article 14(6) of EU ETS Directive to publish aggregated annual emissions data related to aviation activities reported to Member States in accordance with the MRR. For this purpose, the Member States submit data from the emissions reports to the European Commission. However, aircraft operators can request in their emissions report that all or only certain data be published at a higher level of aggregation than in Article 14(6) of EU ETS Directive if their data is to be treated confidentially, in particular due to the existence of trade or business secrets (Section 34 TEHG).

The relevant application can be found in the “Emissions report” section of the FMS application. Aircraft operators must submit a comprehensive and detailed justification for the respective individual case in order to process the application. DEHSt provides a separate document for this purpose, which can be found on the [DEHSt website](#). Applications can only be approved if the administering Member State and ultimately, the European Commission, consider the reasons given to be sufficient. Further information on the application requirements can be found in the FMS.



3.3 Form Management System

FMS is a server-based web application that users can access via the internet. It implements reports, notifications and applications within the framework of emissions trading as required, and supports the aircraft operator in creating them. Operators and verifiers receive instructions on how to complete the form and can use present lists.

In addition, input validations (including checking logical dependencies) help to submit data sets that are as error-free and complete as possible.

Individual FMS applications are available for creating the monitoring plan and the emissions report.

Please note that the requirements for reporting non-CO₂ effects in the FMS for 2025 could not be fully incorporated due to delays at the European level.



In the aviation sector, software is generally available in both German and English versions. The use of FMS applications and the accompanying documents provided is mandatory (Section 15 TEHG and BAnz AT 30.06.2025 B8).





Monitoring plan

FMS enables users to create monitoring plans efficiently. In addition to direct data entry, FMS also supports the import of monitoring plans previously created with the software and saved locally.

Monitoring plan for CORSIA flights

Within the framework of CORSIA, the DEHSt is responsible for German and European aircraft operators who also create monitoring plans using FMS (see [Chapter 2.1.2](#)). No separate monitoring plan is created here, but the EU ETS 1 monitoring plan is expanded to include aspects of CORSIA reporting.

Further information on the use of the FMS application can be found in the [user manual for the DEHSt forms software](#).

Emission reports

FMS maps the information required by the MRR in an emissions report and is thus intended to make error-free reporting easier for operators. FMS provides different roles for the users: Aircraft operators and verifiers work on the same report at different times. The role concept enables a simple data exchange between the users by passing on the editing rights for the respective report. The entries made by the operator and the verification notes from the verifiers are available to the other role partner for perusal (see [Chapter 1](#) Compliance Cycle).

Note: An emissions report can only be created in FMS on the basis of a monitoring plan prepared in FMS.

When creating the emissions report, the aircraft operator selects **the monitoring plan that is valid and approved** for the reporting year. If the emissions report is based on several monitoring plans, the monitoring plan for the most recently approved reporting period should be used.

To ensure that the emissions report data can be traced, the operator cannot overwrite the version that is chosen as the basis for the emission report.

Emissions are reported based on airport pairs. FMS automatically assigns a region to each reported airport. The following assignments are made:

ICAO airport code	Note	Region in FMS
RCTP	There are other airports in the region. FMS automatically makes assignments.	Taiwan
VHHH		China
BKPR		Kosovo
GSVO	Alternative ICAO code: GMMH There are other airports in the region. FMS automatically makes assignments.	Western Sahara

For more information on how to prepare an emissions report via FMS, please refer to the: [User Manual for an Electronic Emissions Report](#).

3.4 Virtual Post Office

According to the legal basis for the DEHSt's enforcement procedures, electronic communication is mandatory, see [Chapter 3.1](#). For this purpose, a Virtual Post Office (VPS) was set up through which all documents are delivered. The VPS is an electronic post office to which electronic messages can be sent securely and must be retrieved from the messages received. The VPS ensures that only the intended recipient can decrypt – and thus read – the message. The E2E (end-to-end) encryption of the message makes it possible to transmit messages securely on the Internet.

Further information on the VPS, including installation and operating instructions, can be found on the DEHSt website: [Information about the VPS](#).



3.5 Signature

To send messages with an electronic signature via VPS, aircraft operators require a signature card (SmartCard) with a valid **qualified electronic signature (QES)** and a **suitable card reader (SmartCardReader)**. It should be noted that obtaining a SmartCard with QES from the trust service provider D-Trust can take several weeks. In view of the deadlines to be met, aircraft operators and verifiers should therefore take care to obtain an appropriate signature card in good time.

Information on acquiring a signature card with QES is published on the DEHSt website under [Electronic Signature](#).



If it is not possible for aircraft operators from non-EEA countries to identify themselves with a qualified electronic signature, or only with a disproportionately high effort, the following alternative can be chosen.

However, the use of the VPS remains mandatory even in these cases:

In this case, you can select a message type in the VPS mailbox that doesn't necessitate a signature such as an "informal message". In addition to sending the VPS message, the corresponding "acknowledgement" found in the outbox, must be printed, signed by hand and sent to DEHSt by fax or by post. It is crucial to ensure that the message numbers are identical. This means that the signed acknowledgement in the fax or letter belongs to the respective VPS message.

4

Monitoring plan

4.1 Monitoring plan – function and content

Monitoring plans are the basis for the annual emission reports. They define and describe where and how the CO₂ emissions and non-CO₂ effects of an aircraft operator are determined. In the monitoring plan, the monitoring requirements of the MRR are applied to the individual circumstances of an aircraft operator and explained accordingly. After preparation, the operator sends their monitoring plan to the DEHSt for approval.

New aircraft operators

Aircraft operators who start their aviation activity in a current trading period must, as per Section 6(1) in conjunction with Section 31 (1) TEHG, submit a monitoring plan immediately after the start of aviation activity to determine emissions.

Aircraft operators with a German operating license are therefore obliged to submit a monitoring plan immediately after the operating license has been granted. All other aircraft operators must submit their monitoring plan immediately after they have been assigned to Germany on the administering [Member State list](#) for the first time.

In principle, the approved monitoring plan may be used by aircraft operators to monitor and report emissions up to the end of the approval period 2030 (Section 32(2) TEHG), provided the methodology has not significantly been changed.

As already explained in [Chapter 3](#), the monitoring plan must be prepared with the FMS and submitted electronically to the DEHSt. Only then can the approvability be checked and, if necessary, approval granted. The approved monitoring plan is a technical prerequisite for creating an emissions report. On most form pages it is possible to attach files with further information/explanations to the completed form set.

Monitoring plans for different scopes

With the monitoring plan, aircraft operators can define procedures for determining fuel consumption for the EU ETS 1 and/or CORSIA and submit them to the DEHSt for approval. Corresponding explanatory fields for the two scopes are provided in FMS. With regard to the classification of flight activities and the associated obligations, information on the scopes can be found in [Chapter 2.1](#).



4.2 Changes to the monitoring plan

Pursuant to Section 6(4) TEHG, aircraft operators are obliged to adapt their monitoring plan **without delay** and to submit it to the competent authority if the requirements of the MRR change or there is a **significant change** in the monitoring as per Article 15(4) of the MRR.

Pursuant to Article 15 MRR, a distinction must be made between significant and non-significant changes to the monitoring plan. This results in different notification obligations.

Significant changes to monitoring plans of an aircraft operator are in particular:

- ▶ with regard to CO₂ emissions:
 - a) a change in the values for emission factors specified in the monitoring plan;
 - b) a switch between the calculation methodologies set out in Annex III or a switch from the application of a calculation methodology to the application of an estimation methodology as per Article 55(2) or vice versa;
 - c) the introduction of new source streams;
 - d) changes regarding the classification of an aircraft operator as a small emitter within the meaning of Article 55(1) MRR or with regard to one of the threshold values as per Article 28a(4) of the EU ETS Directive;
- ▶ with regard to non-CO₂ effects:
 - a) a change in the CO₂(e) calculation approach selected, as laid down in Article 56a(4) of MRR, notably in terms of IT tools to apply the CO₂(e) calculation models;
 - b) changes in the status of the aircraft operator as a small emitter within the meaning of Article 55(1) of MRR.

The changes must be explained clearly in the monitoring plan and documented in the data management system. This requires a clear description detailing which points in the monitoring plan have been changed as compared to the previously submitted version. In particular, it must be made clear from which date the change will be implemented.

Examples of non-significant changes:

- ▶ change of address;
- ▶ change of contact person;
- ▶ changes in the fleet, provided that they either do not concern new aircraft types (e. g. only the number of aircraft used) or it has been stated in the monitoring plan that new aircraft types will be dealt with in the same way as an approved methodology. Conversely, if a new aircraft type is used and a new methodology is applied, this is a significant change;

All non-significant changes to the monitoring plan should be collected and notified to the DEHSt together with the next significant change, but no later than 31 December of that year.



Operators who do not immediately modify the monitoring plan in the event of significant changes and submit it to DEHSt may face a fine of up to €50,000.

4.3 Aircraft operators with low emissions and/or few flights

For aircraft operators with low emissions and/or few flights, consideration may be given to either a simplified procedure for emissions monitoring as per Article 55(2) MRR (use of the Small Emitters Tool (SET), see [Chapter 4.3.2](#)) or alternatively as per Article 28a (4) EU ETS Directive (use of the Eurocontrol EU ETS 1 Support Facility, see [Chapter 4.3.3](#)). The possibility of using a simplified procedure is linked to emissions thresholds (see [Chapter 4.3.1](#)).

If an emissions report created in accordance with Article 28a(4) EU ETS Directive is only to be used for the purpose of reporting in the EU ETS 1 and CH ETS and if no alternative aviation fuels are reported in the emissions report, the information in the report is considered to be verified. However, the commissioning of a verifier cannot be waived if the EMIS emissions report is also used for reporting under CORSIA or alternative aviation fuels are reported.

The use of the simplified procedure pursuant to Article 55(2) MRR must be stipulated in the monitoring plan and approved by the DEHSt.

If an aircraft operator has exceeded both threshold values entitling them to use the SET (as per Article 55(2) MRR) in the reporting year ([Chapter 4.3.1](#)), they must notify this with the emissions report, at the latest. A change in the monitoring methodology is not required for the current reporting year. In the upcoming reporting years, the operator is eligible for the simplified procedure only if they had not exceeded the threshold values within the last five reporting years and can also prove to DEHSt that they meet the basic requirements (falling below the threshold values) for the subsequent reporting period.

Otherwise, the monitoring methodology must be changed without delay and the new monitoring plan submitted to the DEHSt for approval (see Article 55(4) MRR).

To use the simplified procedure as per Article 28a(4) EU ETS Directive, it is recommended to stipulate this in the monitoring plan and to have it approved accordingly. However, an aircraft operator may also use this procedure without prior changes to the monitoring plan.

If the threshold pursuant to Article 28a(4) EU ETS Directive is exceeded, which entitles the operator to use the Eurocontrol EU ETS 1 Support Facility, the emissions report must be verified for the year in which the threshold was exceeded as per Section 5(2) TEHG. The exception explained in the paragraph above in the case of a one-time falling below the threshold values does not apply to simplifications in the verification. If the use of the ETS Support Facility was specified in the monitoring plan, the monitoring plan for the year in question must be changed.

Aircraft operators wishing to use a simplified emissions monitoring procedure must add a “Simplified Procedure” form to their set of forms in the FMS.



It should be noted that the only estimation tools that may be used for monitoring and reporting are those that have been approved by the European Commission by 31/12 of the respective reporting year. Since the requisite actions have not been undertaken for the ICAO CORSIA CO₂ Estimation and Reporting Tool (CERT), it is not permissible to use CERT for reporting purposes.



Section 4 of this guideline contains a reference to the chapters that are not relevant when using the simplified procedure.

4.3.1 Emissions thresholds for the simplified procedure

Aircraft operators may use the “SET” of Eurocontrol (or other tools approved by the European Commission) to estimate fuel consumption (Article 55(2) MRR) or use data from the ETS Support Facility (without additional verification obligation) (Article 28a(4) of the EU ETS Directive) if, in a reporting year, they have either

- ▶ operated **fewer** than 243 flights subject to emissions trading in each of three consecutive four-month periods **in relation to the “full scope”** (threshold only applies to Article 55(2) MRR, use of SET), or
- ▶ have emitted **less** than 25,000 tonnes of CO₂ from their flights subject to emissions trading **in relation to the “full scope”** (threshold applies to Article 55(2) MVO and Article 28a(4) EU ETS Directive, use of the EU ETS 1 Support Facility), or
- ▶ have emitted **less** than 3,000 tonnes of CO₂ from their flights subject to emissions trading **in relation to the “reduced scope”** (threshold only applies to Article 55 (2) MRR and Article 28a(4) EU ETS Directive, use of the EU ETS 1 Support Facility).

4.3.2 Usage of Small Emitter Tool

The [SET](#), provided by Eurocontrol and approved by the European Commission, is a tool for estimating fuel consumption per flight. This tool assigns “proxy values” for specific fuel consumption to the different aircraft types, which are then used to estimate the consumption of the aircraft per unit length flown. Multiplying the proxy value by the flight distance yields the estimated fuel consumption. In addition, the corresponding amount of CO₂ is calculated automatically. Accordingly, the following information is required to determine the fuel quantity for a flight:

- ▶ selection of the appropriate aircraft type;
- ▶ specification of the flight route;
- ▶ optional: number of flights per route;

The first spreadsheet of the current version specifies the data to be entered into the SET and the form to be used.

Since the SET only estimates the amount of fuel consumed relative to a unit of length flown and uses this to calculate the specific amount of emissions, it is the aircraft operator’s task to define the procedure for determining the fuel and emissions for all of their flights in the monitoring plan. Furthermore, the determination of the great circle distance must be clearly defined.



If use of the SET to estimate the amount of fuel consumed is approved within the monitoring plan and the requirements for using the simplified procedure are met, this data must also be used to determine the annual emissions.

Emissions reports that are prepared on the basis of the SET must be verified by a verifier.

4.3.3 Utilisation of the EU ETS 1 Support Facility

Eurocontrol's EU ETS 1 Support Facility (follow up system of Eurocontrol's ETS Support Facility), which has been approved by the European Commission, is also a tool for estimating fuel consumption. If the requirements for using the simplified procedure are met, and the use of the EU ETS 1 Support Facility to estimate fuel consumption is approved in the monitoring plan, the emissions data calculated by the instrument must also be used for emissions reporting.

To use the EU ETS 1 Support Facility, aircraft operators apply for access through Eurocontrol. All data for the aircraft operators must be transferred in full – i.e. one-to-one, – to the respective emissions report. Any discrepancies (number of flights, airport pairs, consumption, etc.) between the data from the EU ETS 1 Support Facility and the flight management data must be clarified directly with Eurocontrol.

In principle, there is no additional verification obligation for the emissions report prepared using the EU ETS 1 Support Facility, provided that the emissions report does not contain any alternative aviation fuel quantities that lead to a reduction and thus a change in the surrender quantity. However, verification is recommended even if there is no verification obligation. However, if the EMIS report is used for reporting under CORSIA, verification cannot be waived. The reason for this is that EMIS data may not always be complete, especially for flights between third countries outside the EEA. Flights subject to reporting under CORSIA that are not included in the EMIS data must be estimated using the version of the SET valid for the relevant reporting year.

If the emissions report created using the EU ETS 1 Support Facility is subsequently amended to include alternative aviation fuel quantities that lead to a reduction and thus a change in the surrender quantity, an additional verification of the emissions report must be undertaken. This also applies if it fulfils the requirements of Article 28a (4) EU ETS Directive. The subject of the additional verification is in principle the evidence handling of the quantities of alternative aviation fuel used and their crediting against the surrender obligation.

4.4 Monitoring methodology

When using the simplified monitoring procedure for small emitters, this information does **NOT** have to be provided.



Aircraft operators determine their annual emissions as per Article 53 MRR by multiplying the annual consumption of each fuel by the respective emission factor. Table 1 Annex III MRR contains default emission factors for this purpose. For fuels not listed in the table, the aircraft operator determines the emission factor according to the specifications of Article 32 MRR. For commercially traded fuels, the operator can agree with the competent authority on a method based on purchase records pursuant to Article 53(7) MRR.

To determine the emissions, fuel consumption for each flight and for each fuel including the fuel consumption of auxiliary engines is determined. The aircraft operator should select the method in Section 1 of Annex III MRR that provides the most complete and up-to-date data with the lowest level of uncertainty.

That is, the amount of fuel refuelled is determined either from the fuel supplier's measurement (recorded in the supplier's data for each flight) or from data obtained from the aircraft's onboard measurement systems. The amount of fuel in the tank is determined by the aircraft operator using data obtained from the aircraft's on-board measurement systems. If the amount of fuel refuelled or remaining in the tanks is determined in units of volume, the aircraft operator converts this amount from volume to mass using density values (see [Chapter 4.5](#)).

In accordance with Section 1 of Annex III MRR, aircraft operators choose the method for calculating fuel consumption for their entire aircraft fleet on a general basis. In so doing, consistency with the information on the choice of method for individual aircraft types indicated in the “Calculation Method” forms must be ensured. If exceptions as defined in Section 1 of Annex III MRR arise where an activity other than a flight is carried out (e.g. maintenance) either before a flight subject to emissions trading (Method B) or after a flight subject to emissions trading (Method A), these must be identified.

The exceptions mentioned do NOT permit a deviation from the chosen calculation method.

If it is not possible to apply a uniform method for calculating fuel consumption for all aircraft in the fleet, this must be justified. Furthermore, the situations in which Method A or Method B is used to determine fuel consumption must be clearly and comprehensibly described based on general criteria. The list must be exhaustive. Only one method may be used for a specific aircraft.

The requirements in [Chapter 4.6.3](#) apply for the determination and reporting of fuel quantities determined using Method A or B.

If the determination of the refuelled quantity is based on an on-board measurement of the levels in the tank, it must be ensured that the refuelled quantity was actually determined by a measurement **immediately before and after** the refuelling process.

In the case of Method B, it is not permissible to equate the fill level of the tanks at “block on” with the fill level of the tanks at the start of the refuelling process. Otherwise, the reportable consumption of the auxiliary power unit (APU) would not be taken into account in the event of a temporal difference between “block on” and “start of refuelling”.

Care must be taken to ensure that the same method (A or B) for determining fuel consumption was used over the entire reporting period. Changes to the method specified in the monitoring plan or deviations from it are only permitted in accordance with Article 6(1), Article 15(4) MRR if they have been approved by DEHSt.

With regard to the use of biofuels or alternative aviation fuels (biofuels), [Chapter 6](#) “Use of Alternative and Eligible Aviation Fuels” must be observed.

4.5 Density determination method

When using the simplified monitoring procedure for small emitters, this information does **NOT** have to be provided.



Density values used operationally to calculate the fuel weight for safety reasons must also be used at an individual flight level to determine emissions. Fuel density can be the actual density or a standard density of 0.8 kilograms per litre.

When determining the density individually, the aircraft operator describes the data flow of real data into the central data storage. For this purpose, the process chain (actors, transfer points, media used) must be clearly described. Furthermore, it must be clearly explained in which situations there may be a deviation from the selected density determination method. This may also include which fuel supplier at which airport is unable to provide the necessary data.

Information on the procedure for collecting and processing density information should be provided in the “Special concerns” section on page 6 of the form.

If a uniform method for determining refueling density is applied for all types of aircraft being used, the procedure may be described in general terms in Section “Aircraft fleet” on page 2 of the form. In this case, the description on page 3 of the form in Section “Calculation method per aircraft type” does not have to be given separately for each aircraft type.

4.6 Notes on the recording of the aircraft fleet and the calculation method per aircraft type in the FMS

All aircraft types being used and planned to be used must be recorded at the level of the “Aircraft fleet” form. A separate “Aircraft type” form must be created for each aircraft type. Aircraft operators can create any number of forms for this purpose.

4.6.1 Aircraft type

The ICAO code of the relevant type must be entered in the “Aircraft type” form. The manufacturer and model details are optional. If the ICAO code is available in the selection lists of the FMS, the application suggests a specific model and manufacturer which the aircraft operator can select. If the selection lists are incomplete, manufacturer “A” and the model “Aircraft type not yet included” can be selected. It must also be stated whether the selected aircraft type is being used for aviation activities in accordance with Annex I of the EU ETS Directive at the time the monitoring plan is submitted to DEHSt or whether it is planned to use this type for this purpose in the future. The number of owned and leased aircraft per aircraft type must be indicated.

4.6.2 Fuels used per aircraft type

Each aircraft type must be assigned the appropriate fuels to be used. Only those fuels that have been created in advance in a relevant “Fuel” form can be assigned. If several fuels are to be assigned to an aircraft type, this is done using the “+” sign on the left margin of the page.

“Fuel” Form

In the monitoring plan, aircraft operators must specify at least one fuel. A separate “Fuel” form must be created for each additional fuel. Only those fuels for which a “Fuel” form has been created are available for assignment on the “Aircraft Type” form. The “Fuel” form refers to only one fuel category. Detailed information on a specific aviation fuel actually used in a fuel category is provided as part of the emissions reporting. The aircraft operator can choose between five different fuel categories, whereby each type can only be created once as a form: jet kerosene (Jet A1 or Jet A), jet petrol (Jet B), aviation gasoline (AvGas), alternative aviation fuels and CORSIA Eligible Fuels. The fuel category CORSIA Eligible Fuels should only be created by aircraft operators that have reporting obligations to DEHSt under CORSIA.

For each fuel category created, the aircraft operator must state the expected annual fuel consumption. The information provided is only a rough estimate based on the planning status at the time of application. It does not refer to a fuel blend but to a *neat fuel (undiluted/unblended)*, i.e. the proportion of the fuel blend that is of biogenic origin.

Furthermore, the aircraft operator must also estimate the resulting annual CO₂ emissions. For example, if an aircraft operator plans to only use zero-rated alternative aviation fuels, there will be no emissions (zero) for this field in the FMS. On the other hand, for CORSIA Eligible Fuels only the actual life cycle emissions saved are taken into account (emission factor greater than zero). Accordingly, the emissions to be estimated for this fuel category would not be zero.

Fuel categories cannot be created retrospectively within emissions reporting. If the aircraft operator intends to use other fuels in addition to jet kerosene in the medium term, DEHSt recommends that the aircraft operator establishes these fuel categories in advance and thus outline the associated internal procedures early. This will help prevent the need for last minute modifications to the monitoring plans.

Regarding the use of alternative/eligible aviation fuels, please also note [Chapter 6](#) “Use of alternative and eligible aviation fuels”.

4.6.3 Calculation method

At this point the fuel consumption calculation method for a specified aircraft type must be selected according to Section 1 of Annex III MRR. This can be done in the FMS via the “Calculation method” form.

This information is automatically applied to the aircraft type when the “Calculation method” form is created irrespective of whether “Method A” or “Method B” is identified on the “Aircraft fleet” form.

It is important to implement the measurement data for calculating fuel consumption per flight into the operational process.



For example, when using Method B, the following three measurement data are needed:

1) Fuel in the tank at on-block time of the previous flight, Flight A

The crew calculates the amount of refuelled fuel (refuelling quantity, in kilograms). The exact procedure is specified in the “Method to determine fuel uplift” field.

2) Amount of refuelled fuel after Flight A and before Flight B

The crew calculates the amount of refuelled fuel (refuelling quantity, in kilograms). The exact procedure is to be specified in the “Method to determine fuel uplift” field.

3) Fuel in the tank at on-block time of Flight B

The amount of fuel in the tank (in kilograms) will be read on the on-board instrument immediately after “Engine shutdown on arrival at parking position”. The crew will transfer this value to the Flight log of Flight B in the field “On-block fuel”.

The fuel consumption of Flight B can now be determined by the **calculation 1 + 2 – 3**.

Furthermore, the “Calculation Method” form must indicate where the data is documented and how the subsequent calculation of fuel consumption per flight is performed.

In addition, the data source for recording the amount of refuelled fuel must be selected. For this purpose, the exact times that the fuel measurements were taken to determine the refuelling quantity and its documentation must be described. Furthermore, these selections must be justified.

On form page 2, the concrete data flow of the refuelled fuel quantity has to be described. In the case of onboard measurement, the exact times for the two measurements to determine the refuelling quantity must be indicated. In the case of a measurement by the fuel supplier, the necessary documents for the calculation of the refuelling quantity per flight have to be identified. If there are any discrepancies in the selected data source for recording the amount of refuelled fuel, these must be described verifiably based on general criteria and the description of the situations. This may include the information as to which fuel supplier at which airport is unable to provide the necessary data (Annex I(2)(2 c) MRR).

The density determination method must be described on form page 3. If no uniform method is used to determine the density during refuelling for all aircraft types to be used, the density determination method must be described separately for each aircraft type specified. The principles according to [Chapter 4.5](#) must be observed.

Article 53(3 b) and (4) MRR provide an exhaustive list of data sources for fuel quantities measured on board. An appropriate data source must be selected or identified.

Further details on the procedure for collecting and processing information on fuel consumption are to be provided in the Section “Special concerns” on form page 5. See also [Chapter 4.9](#).

Information on the procedure for balancing the tank quantities should be provided in the Section “Measurements and uncertainties”. See also [Chapter 4.9](#).

[Chapter 7.1](#) describes further information related to non-CO₂ effects that are relevant for the data in Forms 4 and 5.

4.7 Data management and control system

Article 58 MRR requires aircraft operators to record and implement a data management procedure for emission monitoring and reporting. This includes the explanation of individual stages of the data flow and data processing from primary sources to the emission report (Article 58(2) MRR). In addition, a data flow diagram should be attached as an appendix to the FMS form set (Annex I(2)(1 g)) MRR). The risks of error associated with the data flow (for example, interface problems between manual data acquisition and software) must be explained.

On the basis of the assessment of the inherent risks and control risks, procedures for the control activities with appropriate quality assurance measures must be implemented and recorded in the aircraft operating company (Article 59(2) and (3) MRR) that can reduce the identified risks. Internal audits must regularly review the control system's efficiency (Article 59(4) MRR).

These procedures include the following: quality assurance measures for technical components such as measuring equipment and the IT used, measures referring to the separation of duties between data flow and control activities (at least four-eyes principle where applicable) and to ensuring the necessary competence. Control activities include a comprehensive internal control method with procedures for dealing with corrections and corrective actions as well as the control of outsourced processes. Document control, i. e. the keeping of records as well as documentation and versioning also require regulations for the purpose of quality assurance. In accordance with Article 67 MRR, records of all relevant data and information, including information referred to in Annex IX MRR, must be kept for at least ten years.

The objective of the data management and control systems procedures is that aircraft operators compile the annual emissions report based on the established data management, the report does not contain any misstatements and it is consistent with the monitoring plan and MRR. Where procedures already exist that meet the MRR requirements and, where applicable, also form an integral part of a certified quality or environmental management system (Annex I(2)(1i) MRR), this shall be identified in the FMS. FMS provides the multi-page form set "Data Management and Control System" under "Data Management" to record the established procedures.

4.8 Procedure for determining data gaps



When using the simplified monitoring procedure for small emitters, this information does **NOT** have to be provided.

Aircraft operators must describe the available secondary data sources that can be used as alternatives for reporting. Secondary data sources should always be preferred over using an estimation tool. Missing data that can be filled with secondary data, are not data gaps. If there are situations where data gaps can actually occur although secondary data is available as a data source, the monitoring plan must explain why the available secondary data cannot be used.

Furthermore, a procedure must be implemented to ensure that data gaps that occur do not exceed five percent of annual flights. The procedure for identifying data gaps must ensure continuous monitoring during the year and include a process to ensure that, after exceeding the five percent threshold of aircraft operators, the DEHSt is informed immediately (Article 66(2)(3) MRR). Remedial measures should also be taken to improve the monitoring methodology.

A standardised procedure may be used to fill data gaps (Article 66(2) in connection with Article 55(2) MRR). In this case, no further detailed information is needed. If no estimation method approved by the European Commission should be used to close data gaps (for example EUROCONTROL SET, cf. [Chapter 4.3.2](#)), a detailed and comprehensible description of an appropriate procedure that fulfils the MRR requirements (Article 3(20) MRR), in particular the “conservative estimation” principle, must be provided. **This scheme must ensure that carbon dioxide emissions for each individual flight event are under no circumstances underestimated!**

It should be noted that any completely missing airport pairs in the downstream emission reporting are not data gaps in the described sense. [Chapter 4.9](#) contains information on monitoring the completeness of the fleet, flights and airport pairs.



4.9 Special concerns

When using the simplified monitoring procedure for small emitters, the information in sections 3, 5 and 6 does NOT have to be provided.



Aircraft operators must explain in the “Special concerns” form set and in the “Measurements and uncertainty assessment” form how they can ensure that all necessary information is available in the internal data management. This in particular means how, by whom, where, at what time, in which systems and with what data transfers this information is collected. Possible risks must be identified and their encounter explained. Specifically, this applies to the forms in the following sections:

1. **Section “Owned and leased aircraft”.** Aircraft operators must ensure that all aircraft (owned and leased) performing aviation activities in accordance with Annex I to the EU ETS Directive are recorded.
2. **Section “Aerodrome pairs and ETS flights”.** All relevant flights must be recorded. The procedure for distinguishing between flights subject to emissions trading and those not subject to emissions trading must ensure that all flights are correctly recorded with regard to aviation activities in accordance with Annex I EU ETS Directive and classified in the internal data management system.
3. **Section “Additional aircraft types”.** If new aircraft types are always monitored in accordance with an aircraft type identified in the monitoring plan, the appropriate selection must be made and no further information needs to be provided. Otherwise, it must be clearly identified which methods will be used to monitor new aircraft types not already in use. The following must in particular be stipulated: the formula for the fuel consumption calculation (Method A/B), the data source for the amount of refuelled fuel (onboard measurement or fuel supplier’s invoice) and the data source for the density used to convert volume units into mass units (cf. [Chapter 4.6](#)).
4. **Section “Determination of flights according to Article 4 CORSIA Regulation”.** The criteria and procedures for each flight category should be indicated according to which international flights covered by the CORSIA Regulation (i. e. excluding flights subject to reporting under EU ETS 1, CH ETS or UK ETS) are identified for reporting. Comprehensive reporting of all flights in accordance with Article 4 of the CORSIA Regulation must be ensured. It should be noted that for flights in accordance with Article 1(2) of the CORSIA Regulation, only the flight categories specified in Annex Part A Section 4(2) TEHG are exempt from reporting. These differ in part from the exemptions specified in Annex Part A(2)(33) TEHG (EU ETS 1).



Voluntary reporting of international flights within the reduced scope of the EU ETS Directive is not provided for by European and national legislators (example: international training flight between Germany and France). This also applies to flights between the EEA and Switzerland and between the EEA and the UK as well as between Switzerland and the UK, which are exempt from a reporting obligation in the respective emissions trading system but would be subject to reporting under the ICAO CORSIA SARPs.

5. **Section “Fuel consumption”.** It must be shown that fuel consumption for all aviation activities are fully recorded in accordance with Annex I EU ETS Directive.
6. **Section “Density”.** It must be shown that the density data for all fuel quantity measurements of all aviation activities is recorded in accordance with Annex I EU ETS Directive.
7. **Section “Particular aerodromes”.** A list of known deviations for special airports must be shown.
8. **Section “Cross checks between fuel uplift quantities”.** A procedure must be implemented that ensures the regular comparison of tank quantities on invoices with tank quantities measured on board.

5

Emissions report

The annual emissions report contains the results of the aggregated CO₂ emissions and the non-CO₂ effects for the reporting year based on the monitoring and calculation methods specified in the monitoring plan. The minimum content of an emissions report is regulated in Section 2 of Annex X MRR and is explained in more detail in this part of the guideline.

To support operators, individual data fields are marked as mandatory in the FMS. Explanations or other necessary information that cannot be entered in the form, for example due to field limitations, must be attached to the emission report as an appendix.

5.1 Reporting obligations depending on the place of business and geographical aviation activities

In addition to the EU ETS 1 (and CH ETS, if applicable) reporting obligations, aircraft operators based within the EEA where DEHSt is responsible with regard to CORSIA, must also report the emissions from their fleet in the CORSIA scope. For this purpose, the FMS application has been divided into two parts in terms of content: “EU ETS 1 emissions” and “CORSIA Article 4 emissions” (cf. [Chapter 2.1.3](#)).

In contrast, aircraft operators not based within the EEA only report their emissions to DEHSt in accordance with the EU ETS 1 (and CH ETS, if applicable). CORSIA reporting must be submitted to the respective national competent authority. The Section “Fuel/Emissions Article 4 del. regulation” in the FMS form does not have to be filled in by these aircraft operators.

Operators based within the EEA that only fall within the scope specified in Article 1 of the CORSIA Regulation, however, need only fill in the second part of the FMS “Fuel/Emissions Article 4 del. regulation”⁸ application.

Operators who have not carried out any flights in the reporting year that should be assigned to the scope of Section 29 TEHG, do not have to report emissions in the first part of the “Fuel/Emissions EU ETS 1” FMS application. The same applies to Section “Fuel/Emissions Article 4 del. Regulation” for operators who have exclusively operated privileged flights in terms of Annex Part A(4) TEHG.

5.2 Reporting obligation in mergers

If the identity or legal form of the operator changes, for example due to a company merger, this must be reported to DEHSt without delay. The new operator is then responsible for monitoring, reporting and surrender in accordance with Section 16 TEHG. Cases of doubt should be clarified with DEHSt at an early stage.

5.3 Basics for creating reports in FMS

5.3.1 Monitoring plan – basis for the emissions report

When preparing the report, aircraft operators must select the approved monitoring plan valid for the reporting year. If the emissions report is based on several monitoring plans, the most recently approved monitoring plan for the reporting period must be selected. Key information on the selected monitoring plan is automatically included in the emissions report.

If several monitoring plans were used in the reporting year, the corresponding answer should be affirmative in the “Monitoring plan” form, which then prompts the option of entering further monitoring plans in the FMS. It must be ensured that only monitoring plans approved by DEHSt for the reporting year are entered. Further-more, it must be explained why different monitoring plans have been used. This may be the case due to a change in the monitoring method during the year or the introduction of a new source stream.

⁸ Here and further: description of the form in the FMS according to Article 4 of the CORSIA Regulation.

If there are deviations from the approved monitoring plan, this must also be indicated and explained in detail. In particular, the reasons for the deviations must be explained.

5.3.2 Identification of the aircraft operator

Some of the information requested in the “Identification” form (including the relevant address forms) are automatically transferred from the monitoring plan. Operators and verifiers must ensure that this data taken over is still accurate at the time of reporting. For example, information on the operating licence and the AOC must be checked for continued validity. Attention must be paid to the validity of special information, restrictions or exceptions. Information that is no longer accurate must be corrected. Information not included in the monitoring plan must be supplemented in the form.

5.3.3 Reporting period

The reporting period must be indicated in the Section “About your report” of the “Emissions Report” form. In principle, the reporting period extends over the entire calendar year. This also applies if the first flight of the year was not carried out on 1st January but only at a later date. However, if new aircraft operators have started flight operations later in the year, the reporting period will not begin until the date of commencement of operations. This is then the date from which an operating license or an AOC of commercial operators becomes valid.

5.3.4 Scope and aviation activities

Information whether the report intends to report emissions for the EU ETS 1, CH ETS and/or emissions covered by the CORSIA Regulation must also be provided in the “Emissions Report” form. Depending on the selection, further forms will be made available that are necessary for the relevant reporting.

The commercial status of the aircraft operator as well as on the emissions caused and the number of flights within the EU ETS 1 must also be indicated. Care should be taken to ensure that the extended geographical scope of the EU ETS 1 is taken into account with regard to this information (see [Chapter 2.1](#)). The information makes it clear whether there is a reporting obligation for the aircraft operator and whether simplified emission monitoring procedures may be used (cf. [Chapter 4.3](#)).

5.3.5 Application of a simplified emission monitoring procedure for small emitters

At this point, it must be indicated whether a simplified emission monitoring procedure has been applied. The current SET version or the Eurocontrol Support Facility is available for emission estimation. CERT has not been approved by the European Commission for emission estimation and therefore cannot be used for emissions under the CORSIA Regulation (see [Chapter 4.3](#)). By selecting the Support Facility, the FMS technically opens up the option not to transfer the emission report to the verifier.

If verification is legitimately waived (i. e. the report was generated entirely with data from the EU ETS Support Facility, no alternative and/or eligible aviation fuels were included in the emissions report and the emissions report is not used for reporting under CORSIA), the emissions report can be submitted directly to the DEHSt after it has been created in the FMS. In order to do that, instead of the verifier, aircraft operators must create a zip file from the FMS. The zip file must then be sent to the DEHSt including any available accompanying documents by an electronically signed VPS message.

In that case, aircraft operators are also not required to have a verifier confirm the entry of their VET value in the Union Registry. Instead, the registry administration will perform the confirmation. However, this confirmation of the VET entry by the registry is a purely technical confirmation without saying anything about the correctness of the VET value since conclusions can only be made after DEHSt having reviewed the content of the emission report.

5.3.6 Dealing with data gaps and estimates

Estimation is the last resort for determining relevant data for the report. It is only used if,

- ▶ in a specific case, the primary source (e.g. on-board measuring device) identified in the monitoring plan for the determination of a parameter cannot be used
- ▶ and alternative sources of evidence (for example, fuel supplier's invoice) i.e. "replacement data" from secondary sources cannot reconstruct the data either.

In these cases, data gaps in emission monitoring must be closed by conservative estimates in accordance with Articles 7 and 66 MRR (cf. [Chapter 4.8](#)). The estimation procedure should be carried out in accordance with the provisions of the monitoring plan.

The estimate for emission reporting is carried out by the operator and verified and confirmed by the verifier. If the verifier concludes that the estimate is incorrect e.g. because the above-mentioned principles have not been observed, the operator must correct this estimate observing the verifier's instructions.

If data has been reconstructed using evidence other than the primary or secondary data sources identified in the monitoring plan, the operator and verifier must clearly indicate this in their reports. According to Annex X(2)(11) MRR, in these cases the operator must

- ▶ explain the number of flights, expressed as a percentage of annual flights (rounded to the nearest 0.1 percent) where data gaps have occurred and the circumstances and causes of the data gaps
- ▶ explain the estimation method used, and
- ▶ show separately the emissions calculated based on the replacement values.

5.3.7 Information on the aircraft fleet

In contrast to the list of aircraft types in the monitoring plan, all aircraft that has performed flights subject to reporting and surrendering within the EU ETS 1 (i.e. flights within the reduced scope) or within the scope of the CORSIA Regulation in the reporting year must be entered individually for reporting into the "Aircraft fleet" form. This also applies to aircraft sold or decommissioned during the reporting year. All leased aircraft must also be recorded.

Aircraft which only have performed privileged flights (for example, aircraft with a maximum take-off mass of less than 5.7 tonnes) do not have to be recorded.

Operators must indicate the manufacturer and model of all aircraft used in Section "Registration of all aircraft operated in the reporting year" in the "Aircraft fleet" form. FMS automatically supplements the ICAO code of the aircraft type and the aircraft's tail code must be entered in the "Registration" field.

If "No" has been selected in the "Operator" = Owner? field (for example, when using leased aircraft), the "Owner" field is also mandatory.

In addition, it should be indicated whether the aircraft has been used in the EU ETS 1 and/or within the scope of the CORSIA Regulation and which fuel has been used. Several fuels can be selected, but they must be consistent with the approved monitoring methods.

In the Section "Comment of the verifier on the aircraft fleet", the verifier describes the result of the verification, in particular, whether all aircraft operated in the reporting year have been described and whether the fuels have been assigned correctly. If the specifications of the records for the aircraft fleet differ from those of the monitoring plan, the verifier's report must also include an explanation and assessment.

5.3.8 Reporting different types of fossil fuels

The fuel level is the top reporting level. If different fuels have been used, all other information, i. e. emissions per airport pair (see [Chapter 5.3.9](#)), separated as emissions in the EU ETS 1 or in the scope of the CORSIA Regulation, must be entered separately for all fuels. This means that separate “Fuel” and “Carbon dioxide emissions per airport pair” forms must be completed for each type of fuel.

FMS automatically calculates the total consumption in the reporting year for each fuel type (e. g. jet kerosene) from the fuel data for each airport pair. This aggregated information is shown in the “Fuel” form in the Section “Fuel consumption rate under EU ETS”.

Emissions are determined for aviation fuel (AvGas), jet petrol (JET B) and jet kerosene (JET A) in accordance with set standard emission factors (Article 53(6) MRR in connection with Table 1, Annex III MRR). The use of other emission factors for reporting these fuels is not permitted. According to the information on the fuels used in the monitoring plan, the emission factors are automatically entered in the report (“Fuel” form, Section “Source values”).

[Chapter 6](#) explains the procedure for the use of alternative and/or eligible aviation fuels . We have summarised all information in this Chapter because of their special features.

5.3.9 Reporting based on airport pairs

Reporting is based on individual airport pairs. An airport pair consists of one take-off and one landing airport. In principle, each airport pair is unidirectional, i. e. for a connection between two airports, each flight direction represents a separate airport pair. For example, Berlin-Cologne and Cologne-Berlin are two airport pairs, for each of which a separate entry must be made for annual emissions. Estimated fuel quantities must be shown separately in the form as a sub-quantity of the total quantity.

When recording airport pairs in the FMS, distinction must be made between airport pairs that fall within the reduced scope of the EU ETS 1 and airport pairs under the CORSIA Regulation.

EU-ETS 1

“Emissions EU ETS 1” form for all flights within the reduced scope of the EU ETS 1, including

- ▶ flights from the EEA to Switzerland,
- ▶ flights from the EEA to the UK,
- ▶ all CH ETS flights, i. e. flights within Switzerland, from Switzerland to the EEA and, since 01/01/2023, from Switzerland to the UK,
- ▶ all flights between an EEA state and an outermost region of another EEA state

CORSIA

Form “Emissions Article 4 del. regulation” is in particular for flights

- ▶ between the EEA and third countries or between two different third countries;
- ▶ International flights within the EEA, which have already been reported in the “Fuel/Emissions EU ETS 1” section and must in principle also be reported under CORSIA, may not be reported again.

In addition to fuel consumption, the number of flights for the airport pair must also be reported. The operator and verifier must ensure that only reportable flights are reported.



The data provided by the operator per airport pair is automatically aggregated in the FMS (cf. [Chapter 5.3.10](#) for annual emissions).

In principle, airports are characterised using the ICAO aerodrome codes, which are stored in the FMS as a catalogue. For airports without an ICAO aerodrome code, the query “Have flights been carried out that take off or land from airports without an ICAO code?” in the “Aviation activities” section of the “Emissions report” form must be answered with “Yes”. In this case, an entry must be created on the “Non-ICAO aerodromes” form for each airport without an ICAO aerodrome code. Only then will these airports be available for entry on the “Carbon dioxide emissions per airport pair” forms. This also applies if an ICAO code is assigned to the airport to be reported, but this cannot be found in the catalogue.



The data for EU ETS 1 and CORSIA reporting can be imported in an XML file via the XML interface. To import data for the “Fuel/Emissions Art.4 del. regulation” section of the CORSIA Regulation, the XML file itself must be adapted in accordance with the XML interface description. Alternatively, this data can also be entered manually.

To support aircraft operators with CORSIA obligations who use the Eurocontrol ETS Support Facility for reporting and need to supplement flights, for example between third countries, DEHSt has provided an MS Excel FMS tool for simplified XML data importing on request (via the DEHSt customer service). The tool can also be used to add flights manually (e. g. between third countries).

5.3.10 Summary of carbon dioxide emissions

Different aggregation levels of emissions are presented in the “Summary of carbon dioxide emissions” form. The aggregation levels are based on the information on the aerodrome pairs served (“Emissions” form, Section “Carbon dioxide emissions in the EU ETS 1/according to Article 4 of the CORSIA Regulation per aerodrome pair”). This means that no additional information from the operator is required.

The verifier confirms the aggregated information in the “CO₂ emissions of reported flights...”, “Number of reported flights...” and “Memo items...” sections.

The “Summary of carbon dioxide emissions” form in the emissions report shows aggregation levels for information only but they can be used to check the plausibility of previous data.

6

Use of Alternative and Eligible Aviation Fuels



Update

With the entry into force of the latest amendment to the MRR through the Amendment Regulation (EU) 2024/2493 of 23/09/2024, new definitions and regulations for certain fuels of non-biological origin were introduced in addition to the recognition of sustainable biofuels. As a result, since the 2024 reporting year, operators can now use renewable fuels of non-biological origin (RFNBO for short), recycled carbon fuels (RCF for short) or synthetic low-carbon fuels (SLCF for short) to reduce their surrender obligation, provided that they comply with the specific requirements set out in Delegated Regulations (EU) 2023/1184 and 2023/1185. The initial requirements, e. g. recognition of certification systems and certification bodies for the required provision of evidence in accordance with the Renewable Energy Directive (EU) 2018/2001 (RED) and the Regulation on the crediting of electricity-based fuels and co-processed biological oils towards the greenhouse gas quota (37. BImSchV⁹) have been met. At the time of publication of this guideline, the legislative process to amend the EHV has not yet been completed.

Guidance Document 3 [“Biomass and other zero-rating under the EU ETS”](#) from the European Commission has already been revised and published. It deals in particular with the new requirements from the revised EU RED Directive¹⁰ (see [Chapter 6.4](#)). At the time of the publication of this guideline, the German sustainability regulations have not yet been adapted to the requirements of the revised RED.

Further guidance on the provision of evidence for RFNBO, RCF and SLCF since the 2024 reporting year, as well as an outlook on the changes in the provision of evidence resulting from the implementation of the revised RED since May 2025, can be found in the [Guideline for Stationary Installations, Chapter 8](#) (only available in German).

Once the amended EHV will have entered into force, this guideline and the Guideline for Stationary Installations will incorporate the updated requirements on sustainability, greenhouse gas savings and the provision of sustainability evidence, as well as the associated obligations for operators.

⁹ Further information is available here: [Implementation of the 37. BImSchV: Crediting of electricity-based fuels](#) (only available in German)

¹⁰ Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652

6.1 Basic information on Monitoring and Reporting Alternative Aviation Fuels

If an aircraft operator uses alternative aviation fuels subject to emissions trading for their flights, they can, under certain conditions, subtract the CO₂ emissions caused by these fuels in the emissions report. This allows him to reduce their surrender obligation.

According to Article 3(23), (23e), (23f) and (23h) of MRR, the following alternative aviation fuels have been available for the EU ETS 1 since 01/01/2024:

- ▶ **Biofuels** are liquid fuels for transport produced from biomass.
- ▶ **Recycled carbon fuels (RCF)** are liquid and gaseous fuels that are produced from liquid or solid waste streams of non-renewable origin which are not suitable for material recovery in accordance with Article 4 of Directive 2008/98/EC, or from waste processing gas and exhaust gas of non-renewable origin which are produced as an unavoidable and unintentional consequence of the production process in industrial installations.
- ▶ **Renewable fuels of non-biological origin (RFNBO)** are liquid and gaseous fuels the energy content of which is derived from renewable sources other than biomass.
- ▶ **Synthetic low-carbon fuels (SLCF)** are gaseous and liquid fuels, the energy content of which is derived from low-carbon hydrogen as defined in Article 2, point (13) of Directive (EU) 2024/1788, which meet the greenhouse gas emission reduction threshold of 70% compared to the fossil fuel comparator for renewable fuels of non-biological origin set out in the methodology adopted according to Article 29a(3) of Directive (EU) 2018/2001, as certified in accordance with Article 9 of Directive (EU) 2024/1788.

These fuel types can be used with conventional fuels and are then called fuel blends. Aircraft operators must generally take certain precautions (except for the 2024 reporting year) in order to be able to deduct CO₂ emissions from zero-rated fuels in the emissions report, and they must be described in the monitoring plan. The zero-rated fuel content in the fuel blend can only be credited within the scope of the EU ETS 1 and the CH ETS.

6.2 Basic Information on Monitoring and Reporting Eligible Fuels (FEETS)

Fuels of non-fossil origin that fall under the category of eligible fuels (FEETS) in terms of Article 3c(6) EU ETS Directive in conjunction with Section 32(2) TEHG are eligible for funding.

According to ReFuelEU Aviation (Regulation (EU) 2023/2405) (ReFuelEU), these fuels must be used in commercial subsonic flights for which allowances must be surrendered (Section 7(1) TEHG, Article 12(3) EU ETS Directive), as well as for flights falling under Article 3c(8) EU ETS Directive and departing from the aerodrome where the eligible aviation fuel is provided (this may be an airport in the EU under ReFuelEU, but does not have to be). Flights covered by Article 3c(8) EU ETS Directive include, until 31/12/2030, domestic flights serving outermost regions. These include flights between an aerodrome in an outermost region of a Member State and an aerodrome in the same Member State (for example, between Tenerife South (TFS) and Seville (SVQ)), including another aerodrome in the same outermost region or in another outermost region of the same Member State.

Only the neat proportions of biofuels, SLCF or RFNBO that meet the sustainability criteria and greenhouse gas saving thresholds (see Section 6.4) are relevant for the recognition of eligible aviation fuels.

Table 2 describes the alternative types of aviation fuels that can be recognised as eligible aviation fuels in accordance with Article 3c(6) EU ETS Directive in conjunction with Section 32(2) TEHG. The third column shows the percentage of the remaining price difference between fossil kerosene and eligible aviation fuel for which emission allowances can be allocated upon application.

Table 2: List of aviation fuel types that can be recognised as eligible¹¹

Alternative fuel types	Description of fuel type	Support level according to Article 3c (6) EU ETS Directive
Biofuels		
Advanced aviation biofuel	Biofuels produced from the feedstock listed in Part A Annex IX to Directive 2018/2001 and that are certified in compliance with Article 30 of that Directive	70%
Aviation Biofuel	Biofuels produced from feedstock listed in Part B Annex IX to Directive 2018/2001 and that are certified in compliance with Article 30 of that Directive	50%
Other aviation biofuel	Biofuels produced from the feedstock not listed in Annex IX to Directive 2018/2001 except for those produced from food and feed crops and that are certified in compliance with Article 30 of that Directive	50%
Co-processed advanced biofuel	Co-products in a conventional refinery produced from the feedstock listed in Part A Annex IX of Directive 2018/2001 and that are certified in compliance with Article 30 of that Directive	70%
Co-processed biofuel	Co-products in a conventional refinery other than advanced co-processed fuels and that are certified in compliance with Article 30 of that Directive	50%
RFNBO/RCF		
RFNBO	Drop-in renewable fuels of non-biological origin as defined in Article 2, point (36) of Directive 2018/2001 and that are certified in compliance with Article 30 of that Directive	95%
SLCF		
non-fossil SLCF	Synthetic low-carbon aviation fuels as defined in Article 3, point (13) of Regulation (EU) 2023/2405 that is not derived from fossil fuels and is complying with the required greenhouse gas reduction criterion	50%
Other		
Other Aviation fuel (Manual input)	Any other drop-in aviation fuel not listed above, open to complete manual input, i. e. there is the possibility to enter an emission factor or NCV different from standard aviation fuels, determined in accordance with Articles 32 to 35 of the MRR.	Manual input

11 Quelle: [Template No. 5: Annual emissions report of aircraft operators for EU ETS, Swiss ETS, and CORSIA](#)

Table 3 describes the types of alternative aviation fuels that **cannot** be recognised as eligible:

Table 3: List of aviation fuel types that cannot be recognised as eligible¹²

Alternative fuel types	Beschreibung der Kraftstoffart
Biofuels	
Non-Eligible biofuels	Biofuels that are certified in compliance with Article 30 of Directive 2018/2001 and produced from food and feed crops
Non-zero-rated biofuels	Biofuels that are not certified in compliance with Article 30 of Directive 2018/2001
RFNBO/RCF	
RCF	Recycled carbon fuels as defined in Article 2, point (35) of Directive (EU) 2018/2001 and that are certified in compliance with Article 30 of that Directive
Non-zero-rated RFNBO	Drop-in renewable fuels of non-biological origin as defined in Article 2, point (36) of Directive 2018/2001 and that are NOT certified in compliance with Article 30 of that Directive
Non-zero-rated RCF	Recycled carbon fuels as defined in Article 2, point (35) of Directive (EU) 2018/2001 and that are NOT certified in compliance with Article 30 of that Directive
SLCF	
SLCF (fossil)	Synthetic low-carbon aviation fuels as defined in Article 3, point (13) of Regulation (EU) 2023/2405 that is not derived from fossil fuels
non-zero-rated SLCF	Synthetic low-carbon aviation fuels as defined in Article 3, point (13) of Regulation (EU) 2023/2405 that is derived from fossil fuels and/or is NOT complying with the required greenhouse gas reduction criterion
Andere	
Other	Any other drop-in aviation fuel not listed above

Adaptation

In order to receive the relevant allocation, aircraft operators must report the proportion of aviation fuel purchased and consumed in the reporting year that they wish to claim and for which they intend to apply for an allocation is eligible (for further information, see Section 6.6).

Delegated Regulation (EU) 2025/723 lays down detailed rules for the annual calculation of the amount of free allocation. According to Article 8, aircraft operators receiving free allocation for eligible fuels must, in return, clearly display the support received and its origin. The information must be tailored to the target audience, i.e. it must be directed at passengers, the media and the general public. It can be disseminated, for example, through the operator's own advertising relating to the use of alternative aviation fuels, or in sustainability reports or annual reports. The amount of support and the label "(Co-)financed by the EU Emissions Trading System" must be indicated. Relevant information may be displayed on the flight ticket or on information boards at airports for the exemplary target group of passengers.

A guidance document for aircraft operators issued by the EU Member States explains the requirements of Article 8 of Delegated Regulation (EU) 2025/723 in more detail and provides practical advice on how to implement them. In future, DEHSt's compliance checks in relation to the requirements of Article 8 of Delegated Regulation (EU) 2025/723 will be based on this guidance document.

¹² Quelle: [Template No. 5: Annual emissions report of aircraft operators for EU ETS, Swiss ETS, and CORSIA](#)

Aircraft operators who have already received a free allocation in 2025 based on the 2024 emissions report may meet the requirements in a simplified form until then by including information in their group communications, for example in sustainability or annual reports. The more comprehensive requirements must be met starting from the publication of the aforementioned Guidance Document, i. e. also for aircraft operators who apply for a free allocation for eligible fuels in their 2025 emissions report and receive it after review by DEHSt by 30/09/2026. Evidence that a communication strategy has been developed in accordance with the requirements of Article 8 of Delegated Regulation (EU) 2025/723 and that it will be implemented promptly after the free allocation has been issued, should therefore be available by 01/10/2026 at the latest.

From 01/01/2026, free allocation is envisaged under the CH ETS in accordance with Article 46 h in conjunction with Annex 15(5.1) [of the Ordinance on the Reduction of CO₂ Emissions \(CH CO₂ VO\)](#).



6.3 Requirements for the Use of Alternative and Eligible Aviation Fuels

Requirements of Articles 53a, 54, 54a, 54b and 54c of MRR apply to the monitoring, reporting and verification of fuel blends with zero-rated fuels and eligible fuels. In addition, the [European Commission's Guidance Document No 2 \("The Monitoring and Reporting Regulation – General Guidance for Aircraft Operators"\) in conjunction with Guidance Document No 3 \("Biomass and Other Zero-Rating under the EU ETS"\)](#)¹³ must be taken into account.

Aircraft operators can only apply an emission factor of zero for alternative aviation fuels (in accordance with Article 53a, Article 54c MRR) and/or have aviation fuels recognised as eligible (in accordance with Article 54a) in their report in order to apply for an allocation if:

1. the total amount of fuel claimed does not exceed the total amount of fuel consumed by the aircraft operator for flights falling under the obligation to surrender emission allowances under the EU ETS 1 (i. e. the reduced scope), **AND**
2. the quantity of fuel taken into account under the EU ETS 1 does not exceed the total quantity of fuel purchased by the aircraft operator minus the quantity of alternative/eligible fuel sold by the aircraft operator to third parties, **AND**
3. RFNBO, RCF, SLCF and biofuels meet the sustainability and/or greenhouse gas emission savings criteria according to RED II, including the traceability requirements (see [Chapter 6.3](#)), **AND**
4. the ratio of alternative aviation fuels to fossil fuels, which are assigned to flights by airport pairs, does not exceed the maximum blending ratio for that fuel type according to a recognised international standard such as ASTM, **AND**
5. the same amounts of alternative aviation fuels have not been claimed in an earlier report under the EU ETS 1 or by another person in another greenhouse gas regulatory system.

When calculating the maximum amounts and ratios claimed (i. e. items 1, 2 and 5 above), it should be noted that any fuel remaining in the tanks after a flight and before refuelling is considered to be 100% fossil fuel.



¹³ Guidance Document No 2 will be updated at the time of publication of this guideline and should be published shortly on the EU Commission's website.

In addition to the above requirements, the aircraft operator must determine the **biogenic proportion** or deductible **proportion of electricity-based fuels (RFNBO and RCF) and synthetic low-carbon fuels (SLCF)** in accordance with Articles 54 and 54a of the MRR as follows:

► **Direct delivery to the aircraft**

For physically identifiable batches delivered directly to an aircraft, the source values (emission factor, net calorific value and alternative/eligible aviation fuel content in terms of total carbon) must be determined on the basis of the mass balance in accordance with Article 30(1) of RED II.

► **No physical delivery to a specific aircraft**

For all types of alternative and/or eligible aviation fuels: If aviation fuels purchased in batches are not physically assigned to a specific aircraft, the aircraft operator determines the source values based on purchase records (in accordance with Article 54 (3) MRR).

If all the above conditions are met and can be substantiated by documented evidence (see Section 6.4), an emission factor of zero can be applied to these source streams in the emissions report and/or the aviation fuel can be recognised as eligible (see Section 6.2).

6.4 Providing sustainability evidence

The following subchapters mainly address the crediting of sustainable biofuels. [Subsection 8.3.4 of the Guidelines for Stationary Installations](#) (only available in German) presents details on the eligibility of electricity-based fuels of non-biological origin and synthetic low-carbon fuels since the 2024 reporting year.

Emissions from the energy use of liquid, solid and gaseous biomass are exempt from the obligation to surrender emission allowances in the EU ETS 1, provided that the sustainability criteria under Article 29(2) to (7) and (10) and Article 30 of RED are met and verified. Detailed information on RED certification and evidence provision regarding sustainability can be found in Chapter 8 of the guidelines for stationary installations, in particular:

- Section 8.3 regarding the legal framework, stakeholders and their responsibilities,
- Section 8.4 with regard to RED criteria to be verified for the deductibility of the sustainable biomass proportion.

In Germany, RED is implemented in national law by the Biomass Stream Sustainability Ordinance (BioSt-NachV) and the Biofuel Sustainability Ordinance (Biokraft-NachV). According to Section 4 EHV, sustainability in the EU ETS 1 for aviation has to be proven by a recognised proof of sustainability (PoS) in accordance with Section 8 of the Biokraft-NachV in order to be able to apply the emission factor of zero when using biofuels.

The recognition of sustainable biofuels in the EU ETS 1 is currently based exclusively on Section 4 EHV and on recognised PoS from the national Nabisy database. With the implementation of the latest version of the MRR and the revised RED, the “Union Database” (UDB) should be used as the central European database system in emissions trading to ensure the seamless tracking of raw materials and biofuels. However, the functionalities for sustainability certificates are not expected to be available until sometime in 2026.

Provision of evidence for the recognition of alternative and eligible fuels in emissions trading will be regulated in more detail in the pending amendment to the EHV.

Adaptation

The latest amendments to Directive (EU) 2018/2001 (RED) contain adjustments that were generally to be implemented in the Member States by 21/05/2025. All previously recognised certification schemes have been positively assessed in accordance with the rules of the latest RED revision. The EU Commission's decisions on the recognition of the schemes remain valid, therefore there is no need for new recognition of the certification schemes.

The adjustment of the German sustainability regulation to RED is still pending at the time of this guideline's publication. As soon as it enters into force, this guideline will incorporate the updated requirements. Proofs of sustainability issued in accordance with the current version of the Biofuel Sustainability Ordinance and thus before the deadline (21/05/2025) will remain valid after the entry into force of the new version of the ordinance and can be recognised within the emissions reporting.



6.4.1 Recognition of Equivalent Sustainability Evidence of Certification Systems

The current legal situation allows operators subject to emissions trading within the EU Emissions Trading System 1 (EU ETS 1) to prove their compliance with the sustainability criteria and greenhouse gas reduction obligations solely by means of a recognised PoS recorded in the Nabisy database. A recognised PoS allows the emission factor zero to be claimed for biofuels so far.

When procuring PoS, a common issue arises: manufacturers or suppliers in the upstream chain may already need the PoS themselves for their own obligations such as meeting quota requirements under the ReFuelEU. A PoS can only be issued once and is therefore frequently no longer available to operators subject to emissions trading for emissions reporting within the EU ETS 1.

Since the 2024 emissions report, aircraft operators may also apply for free emission allowances for their use of eligible fuels by submitting recognised PoS in accordance with Section 32(2) TEHG.

The European Commission is currently developing the Union Database (UDB) outlined in Article 31a RED, which is to be used by operators in the sustainable fuels market to ensure seamless traceability of alternative fuels and for the recognition of alternative fuels in the respective target systems.

The Union Database (UDB) will enable claiming of the same fuel delivery by fuel manufacturers, suppliers and buyers in accordance with the ReFuelEU Aviation Regulation and within the EU ETS 1. At the same time, it is designed to prevent the same fuel delivery from being double counted by several operators subject to emissions trading.

In the future, aircraft operators should therefore also be able to use the proof provided in the UDB for alternative fuels in emissions trading.

Adaptation

Interim solution

Adaptation

However, the UDB currently lacks the functionality to recognise sustainable fuels for different compliance purposes simultaneously. An interim solution is needed to prevent difficulties in obtaining PoS until these functionalities become available. If an operator subject to emissions trading or entitled to allocations does not have any PoS available, as an interim solution and only on a temporary basis the claiming of an equivalent evidence of sustainability (so-called Proof of Compliance (PoC)) of the certification systems¹⁴ for emissions reporting and in the allocation of free emission allowances under the EU ETS 1 may be granted

Adaptation

This means that aircraft operators can submit PoCs as evidence when reporting and verifying their annual emissions reports. It is the verifiers' responsibility to check whether the PoC is valid and complete and corresponds to the specified fuel batch. DEHSt can review the evidence and request additional documents/information from the operator or the verifier. This is to confirm that the template used is consistent with those approved under the certification schemes, that the PoC is complete and up to date and does not contain any obvious discrepancies.



Adaptation

Initially, according to the ISCC PoC Framework, PoCs could only be issued and transferred if no national database was used to account for the original PoS. However, [ISCC has revised the relevant guideline – ISCC Guidance Document Proof of Compliance V1.1, September 2025](#).

The criteria for issuing a PoC in connection with the use of national databases have been adjusted: If the fuel supplier uses the balancing account in a national database (for example, to meet the GHG quota or the ReFuelEU Aviation blending quota), they can issue a PoC within the ISCC EU framework and transfer it to the aircraft operator.

Aircraft operators must maintain the following records for the use or claiming of alternative/eligible aviation fuels under the EU ETS 1, which must contain at least the following information:

- ▶ **PoS or PoC or equivalent evidence**, which contains at least the following data:
 - ▶ RED compliant certificate reference of the supplier (e. g. ISCC EU);
 - ▶ in the case of a PoC, the unique identification number of the original PoS;
 - ▶ path (raw material and technology, e. g. UCO HEFA, POME co-processing, RFNBO, RCF);
 - ▶ where possible, the place of uplift (aerodrome)¹⁵ and date of delivery;
 - ▶ volume of the batch (in tonnes¹⁶ or, if not possible, in standard cubic metres);
 - ▶ the aircraft operator as the recipient of the batch;
 - ▶ the net calorific value (NCV);
 - ▶ life cycle emissions in gCO₂e/MJ of the end product.
- ▶ If applicable, **the identification of each alternative aviation fuel batch, in whole or in part, that has been sold or transferred to third parties.**

Adaptation

If alternative/eligible aviation fuels are delivered to the aircraft in physically identifiable batches, the aircraft operator must demonstrate to the competent authority that the alternative aviation fuel is assigned to the flight that takes place immediately after the aircraft is refuelled. Any fuel remaining in the tank after a flight will be considered to be 100% fossil fuel.

¹⁴ Currently, the PoC framework is being implemented exclusively by ISCC EU.

¹⁵ According to ISCC-EU, certified economic operators may add additional data points to the PoS/PoC. The aircraft operator may request information on the airport at which the refuelling took place.

¹⁶ The aircraft operator may request information on the volume delivered from certified operators in tonnes.

If two consecutive flights are operated without intermediate refuelling (e. g. “tankering”), the volume of alternative/eligible fuels must be allocated proportionally based on the CO₂ emissions of each flight. This calculation should use the preliminary emission factor (3.16 for Jet A1).

If an alternative aviation fuel at an airport cannot be clearly assigned to a specific flight, the aircraft operator must distribute the fuel in proportion to the emissions of their flights that take off from that airport and for which allowances must be surrendered in accordance with Article 12(3) of Directive 2003/87/EC. The calculation should be carried out using a provisional emission factor. The aircraft operator must also provide evidence that the alternative fuel was delivered to the airfield refuelling system either during the reporting period or within a period of three months before the start, or three months after the end, of that reporting period (proof of delivery).

6.4.2 Database Sustainable Biomass System (Nabisy)

When reporting emissions, aircraft operators must ensure that the required PoS are available to DEHSt when submitting emissions reports. In Germany, acquisition and transmission of PoS (except of PoC) is carried out until now electronically in the state database “Nachhaltige-Biomasse-System” (Sustainable Biomass System – Nabisy) of the Federal Office for Agriculture and Food (BLE), which is the competent authority according to Section 47(1) of the Biofuel Sustainability Ordinance (Biokraft-NachV). Therefore, queries about requirements for PoS and technical questions in connection with Nabisy should be addressed to BLE.

PoS are also submitted to the DEHSt in this database as part of emissions reporting. Aircraft operators need a Nabisy user account for this purpose. Aircraft operators transfer PoS or partial PoS for the corresponding biofuel within the Nabisy database from their user accounts to the DEHSt account: DE-B-BLE-BM-NtzB-90000000.

In the absence of a valid PoS, the biofuel used and reported in the EU ETS 1 is treated as conventional paraffin (Jet A1 or Jet A) using an emission factor of 3.16 tonnes of CO₂ per tonne of fuel.

For the transmission of a PoS or partial PoS from an EU system, it is possible to register it to an active German account within Nabisy. This can be found in the “Nabisy FAQ” document, Question 21 on the BLE website in the Section “General information on Nabisy”. Details of these transactions can be clarified by directly contacting BLE.

Due regard should be given to the link to eIna (**e**lektronischer **N**achhaltigkeits**n**achweis – electronic PoS), the mandatory web application in Austria operated by the Austrian Environment Agency GmbH (LLC). Nabisy and eIna are connected by an electronic interface that can be used to transfer PoSs to and from the Austrian eIna database. Transferring PoSs via the interface is subject to conditions such as the specification of disaggregated greenhouse gas emissions and the use of default values. Information on the current framework conditions for using the interface is available on the [eIna](#) and [Nabisy](#) websites.

6.4.3 Verification of sustainability requirements by verifiers

Aircraft operators should provide the verifiers with all relevant information (including account statements from Nabisy or information from certified economic operators who have prepared PoCs) (in addition to the monitoring plan and the procedure description according to Section 6.5) to enable a reliable verification of the PoS.

If verifiers discover that biogenic emissions have been incorrectly deducted in the emissions report, this must be pointed out in the verification report. Verifiers shall inform operators in advance. If the error can be corrected before the verification report is drafted, the error should be recorded as a corrected non-conformity in the verification documentation. If the operator does not correct the non-conformities and these have a significant impact on the emission data, the verifier shall assess the emissions report as “unsatisfactory”.

6.5 Monitoring plan: Approval, Necessary Adjustments

Where an aircraft operator wishes to have alternative fuels credited under the EU ETS 1 for the first time, a relevantly updated “Annual Emissions” monitoring plan must be submitted to the DEHSt for approval. The aircraft operator must explain in this plan how the amounts of alternative aviation fuels used will be monitored.

Chapter 4.6.2 describes in detail how alternative and/or eligible aviation fuels should be reported as a fuel category in the emissions report.

6.6 Reporting: Technical Options in the FMS Application

For the 2024 reporting year, alternative aviation fuels used outside the FMS were recorded in a separate document. From the 2025 reporting year onwards, these queries will be included in the FMS.

Please do not use the separate document anymore.

External documents are still required for reporting CORSIA Eligible Fuels. These can be obtained from DEHSt customer service on request.

In addition to emissions from fossil kerosene, aircraft operators may also report the use of alternative aviation fuels in the FMS. The prerequisite for this is that these fuels have already been established as fuels in the monitoring plan. If the monitoring plan is submitted to the DEHSt for review and approval well ahead of reporting, this approach ensures that the monitoring, reporting and evidence provision procedures envisaged by the aircraft operator meet the requirements of the Monitoring and Reporting Regulation.

If necessary, an amended monitoring plan can also be submitted to the DEHSt together with the emissions report. This may be needed where the establishment of alternative aviation fuels or CORSIA eligible fuels in the monitoring plan was overlooked in advance. DEHSt can only recognise reported emission reductions if the reporting and the procedures described in the monitoring plan meet the MRR requirements and the verifier confirms compliance. DEHSt therefore strongly recommends that the monitoring plan be approved well ahead of the start of the preparation of the emissions report.

The procedure for reporting alternative aviation fuels (Steps 1 to 5) and CORSIA-eligible fuels (Step 6) is described below.

1) Reporting as fossil aviation fuel

In principle, aircraft operators (regardless of whether alternative aviation fuels or CORSIA eligible fuels are reported) must initially report all their flights in the EU ETS, CH ETS and, if applicable, under CORSIA as flights that were operated entirely using fossil fuels (Jet A1/Jet A, Jet B or AvGas). The reporting of aviation fuel volumes consumed per aerodrome pair is carried out in the “Emissions EU-ETS” and “Emissions Article 4 del. Regulation” forms below the “Fuel” form.

The “Fuel” form for fossil aviation fuels is established by default by the FMS, since all aircraft operators must establish these fuels in the monitoring plan as well. If alternative aviation fuels or CORSIA eligible fuels have been established in the monitoring plan, the “Fuel” form is also automatically established for these aviation fuels.

The “Fuel” form for fossil aviation fuels has the “Emissions EUETS” and “Emissions Art. 4 del. Regulation” sub-forms as a standard. Please report your data in the relevant sub-forms. Information on the respective scope can be found in *Chapter 2.1*.

2) Reporting for alternative aviation fuels

If the fuel has already been established in the monitoring plan, the FMS automatically establishes the “Fuel” form for an alternative aviation fuel. If you want to report additional alternative aviation fuels, you must manually establish additional “Fuel” forms using the copy function in the FMS application.

On Page 1, the alternative aviation fuel must first be described in more detail by specifying the fuel type as alternative aviation fuel. Depending on the selection, the FMS will automatically provide further information such as the level of support (%) for a free allocation of allowances in accordance with Article 3c(6) EU ETS Directive in conjunction with Section 32(2) TEHG (for certain alternative aviation fuels designated as eligible fuels). The FMS will also automatically indicate whether a particular alternative aviation fuel selected by the operator is a zero-rated fuel.

Despite displaying an emission factor of zero assessment, the FMS will still indicate the standard emission factor for each fuel type (e.g. 3.16 t CO₂/t fuel for Jet A1), even though you have selected an alternative aviation fuel. As indicated in the tooltip, this is specifically the “provisional emission factor”, which is used to calculate the emission savings achieved by using an alternative aviation fuel at a later stage.

Filling in the “Fuel” form for an alternative aviation fuel

To fill in the “Fuel” form for alternative aviation fuels on Page 1, please refer to the tables in [Chapter 6.2](#).

On Page 2 of the “Fuel” form, enter the volume consumed and the method used to determine this.

On Page 3 of the “Fuel” form, further data must be provided on the raw material, the conversion process, the life cycle emissions in tonnes of CO₂ per tonne of alternative aviation fuels and the greenhouse gas savings in percent. Please note that the data does not refer to fuel blends, but always to pure alternative aviation fuel (neat fuel).

After setting up the form, we recommend that you do not immediately start assigning the alternative aviation fuel to aerodrome pairs in the automatically generated subform “Attribution of alternative aviation fuels (*airport pair*)” located below the relevant fuel forms. Especially if the aircraft were refuelled from a central tank farm and therefore the actual volumes of alternative aviation fuel cannot be directly assigned to the flights, you should first calculate the proportions of alternative aviation fuel that can actually be assigned to the aerodrome pairs to be reported. This can be done in the form “Attribution of alternative aviation fuels (*airport*)”, which is also generated automatically (Step 3).

3) Allocation of alternative aviation fuels (aerodrome)

In order to calculate the proportion eligible for crediting under the EU ETS 1 where alternative aviation fuels are delivered to a central storage facility at an aerodrome in the EEA, it is necessary to determine the “proportionality factor”. This section explains the calculation method and provides information on the legal source. Please first note the following general information.

- ▶ It is not necessary to determine the proportionality factor if refuelling with alternative aviation fuels can be directly attributed to a single flight. Direct attribution is possible if the aircraft is refuelled directly (e.g. using a fuel truck). However, direct attribution is not possible if the alternative aviation fuels are delivered to a central fuel depot at the aerodrome.
- ▶ While the application of the proportionality factor was originally only necessary for alternative aviation fuels delivered to aerodromes in the EEA, from the 2025 reporting year onwards, the proportionality factor must also be applied to deliveries to aerodromes in Switzerland (Annex 17 of the CH CO₂ Ordinance).
- ▶ No proportionality factor is required for reporting CORSIA eligible fuels either.
- ▶ The proportionality factor may vary depending on the use case. The proportionality factor can be calculated for the allocation of delivered aviation fuel volumes for the purposes of crediting alternative zero-rated aviation fuels or for applying for a free allocation for commercial aircraft operators using certain alternative aviation fuels (eligible aviation fuels). The result of the calculation does not have to be identical. Detailed explanations are available in this section.

The proportionality factor is determined for each aerodrome (to which alternative aviation fuel has been delivered). Therefore, you must first establish an aerodrome in the “Attribution of alternative aviation fuels (airport)” form.

- a) Select an ICAO aerodrome code from the drop-down menu. Only aerodromes that have previously been established for reporting with fossil aviation fuel will be displayed.
- b) Commercial aircraft operators in terms of the EU ETS Directive may apply for funding in the form of free allowances in accordance with Article 3c(6) EU ETS Directive in conjunction with Section 32(2) TEHG for the use of certain alternative aviation fuels (eligible fuels). The amount of support also depends on the geographical location of the aerodrome to which the eligible aviation fuel was delivered. Since non-commercial aircraft operators cannot apply for support for eligible fuels, this column is blocked for non-commercial aircraft operators in the FMS. Commercial aircraft operators, however, should fill in the “100% support” column by selecting “yes” or “no” according to the scheme below.

Please assess for each aerodrome, whether it is eligible for 100% funding in accordance with Article 3c(6)(3)(c) EU ETS Directive, by answering the three questions for each aerodrome:

- a) Is the aerodrome located on an island with a surface area of less than 10,000 km² and with no road or rail connection to the mainland?
- b) Are the aerodromes not large enough to be categorised as Union aerodromes for the respective reporting year in accordance with the ReFuelEU Regulation EU 2023/2405? To determine if an aerodrome qualifies as a Union aerodrome, please refer to the list of Union aerodromes published by the EU Commission in the context of ReFuelEU Aviation (please refer to the list for the relevant reporting year). The list is published here: https://transport.ec.europa.eu/transport-modes/air/environment/refueleu-aviation_en#main-documents
- c) Are these aerodromes located in outermost regions (e.g. the Canary Islands)?

If **at least one of these three questions** can be answered with yes for the respective aerodrome, select “yes” to the question of whether the specific fuel claimed is eligible for 100% funding for the respective aerodrome (Article 3c(6) EU ETS Directive)¹⁷.

If the answer to all three questions is no, select “no” for the respective aerodrome from the drop-down list.

- a) Select the name of the alternative aviation fuel (column “Name of alternative aviation fuel”). In order to make a selection, the corresponding fuel forms must have been established in advance.
- b) For each alternative aviation fuel and aerodrome, calculate the total volume of that (neat) alternative aviation fuel delivered to the respective aerodrome for which recognised proofs of sustainability are available. To determine the total volume in units of mass, a conversion from the proofs of sustainability (e. g. Nabisy) may be required. If the energy content is given for a specific alternative/eligible aviation fuel, the specific energy content on which the alternative/eligible aviation fuel is based should be taken into account when determining the mass. Proofs of sustainability usually already show quantities in mass units.

Aircraft operators who use valid ISCC EU PoCs as proofs of sustainability should require their fuel suppliers (certified under the PoC framework) to issue PoCs stating the quantities in mass units (metric tonnes).

If the fuel supplier is unable to provide volumes in mass units in the PoC, the aircraft operator should state the reason for the unavailability of this information in the emissions report.

If the approved monitoring plan does not include a procedure for converting information available exclusively in volume units into mass units, the aircraft operator may convert them into mass units (metric tonnes) using the energy content in (MJ) specified in the proof of sustainability. The conversion calculations should be attached to the emissions report.

- c) For this purpose, the aircraft operator may use the energy content in MJ specified in the proof of sustainability together with density data from the current Nabisy type list of the BLE, which can be found here: www.ble.de/EN/Topics/Climate-Energy/Sustainable-Biomass-Production/Information-Nabisy/information-nabisy_node.html

The following example illustrates how to convert Nabisy evidence for a given neat alternative aviation fuel in order to explain the calculation steps. The Nabisy codes given in the example are for illustrative purposes only.

¹⁷ The support may cover up to 100% of the price difference, provided that the eligible fuel is refuelled on small islands, at small airports or in outermost regions. Further information on EEA airports that may benefit from a 100% subsidy in the 2025 reporting year can be found in this [indicative list](#).

Example of how the data from the Nabisy PoS is converted into mass units for the emissions report:**a) Information on the energy content (MJ) and biomass code from the NABISY PoS.**

Fuel type: 100% HVO Energy content (MJ): 16,555,444

Code: 15162-w200125-01 Abbreviation: HVO vegUco

b) Determining the mass-related energy content from the “NABISY-Biomass Types” BLE document

The mass-based energy content can be determined from the Nabisy biomass types documents provided by the BLE, which are published on the BLE website (www.ble.de/DE/Themen/Klima-Energie/Nachhaltige-Biomasseherstellung/Informationen-Nabisy/Nabisy_node.html) using the biomass code data from the PoS (code: 15162-w200125-01). Please note that the mass-related energy content may vary depending on the biomass code. Please only use the latest Nabisy biomass types BLE document.

The mass-related energy content for the code 15162-w200125-01 is 44 MJ/kg.

c) Conversion

Having a mass-related energy content of 44 MJ/kg and an energy content (MJ) of 16,555,444, the result for the biomass in this example is:

$$16,555,444 \text{ [MJ]} / 44 \text{ [MJ/kg]} = 376,260.0909090909 \text{ kg or } 376.2600909090909 \text{ t.}$$

To calculate the CO₂ reduction as accurately as possible, no decimal places should be deleted or omitted at this stage as this can affect the sustainable biomass proportion of total carbon to be calculated and thus also the total CO₂ emissions to be reported.

- d) Please enter the proportionality factors applicable to this aerodrome (“Proportionality factor (Article 53a MRR) [%]” box and “Proportionality factor (Article 54a MRR [%]” box). For non-commercial aircraft operators, the entry for the “Proportionality factor (Article 54a MRR [%]” box) is blocked, as only commercial aircraft operators can apply for a free allocation for reporting certain alternative aviation fuels (eligible fuels). The proportionality factors only need to be calculated for deliveries to the aerodrome’s central fuel depot, i.e. where alternative aviation fuels cannot be physically assigned to a specific flight. If physical assignability is given, the proportionality factor is either 100% or 0%.

In order to determine the relevant proportionality factor PF_{Art53a} (application of the emission factor of zero, Article 53a MRR) and PF_{Art54a} (free allocation for eligible fuels, Article 54a MRR), it should be noted that the geographical scope for eligible fuels (Article 54a MRR) is not identical to the reduced scope for reporting and surrender obligations in the EU ETS 1 (Article 53a MRR). In addition to the reduced scope, national flights from, to or between outermost regions must also be considered for eligible fuels, provided that these flights departed from the respective EEA aerodromes for which alternative aviation fuels should be credited. Therefore, the two proportionality factors may differ..

$$PF_{Art53a} = \frac{\text{Emissions of flights from this airport for which allowances have to be surrendered by the AO}}{\text{Emissions of all flights of the AO departing from this airport}}$$

$$PF_{Art54a} = \frac{\text{Emissions of flights from this airport for which allowances have to be surrendered by the AO} + \text{Emissions from domestic OMR flights}}{\text{Emissions of all flights of the AO departing from this airport}}$$

You should determine the proportionality factor applicable to alternative zero-rated aviation fuels in accordance with Article 53a MRR and enter it in the relevant box in the FMS.

If you wish to apply for a support in accordance with Article 3c(6) EU ETS Directive and the alternative aviation fuel is eligible for such support, you should determine the proportionality factor applicable to eligible aviation fuels in accordance with Article 54a MRR for each identified aerodrome.

Where refuelling from the central tank farm and refuelling that can be directly assigned to a fuel bowser were carried out at an aerodrome, the proportionality factor should only be applied to the proportions of alternative aviation fuel where direct assignment is not feasible. For direct refuelling of a blend of alternative aviation fuel and fossil kerosene, a proportionality factor of 100% should be entered for the relevant volume of neat alternative aviation fuel if the flights took place within the scope of Article 53a MRR or Article 54a MRR. Otherwise, the proportionality factor is 0%. So where the same alternative aviation fuel has been delivered to both a central tank farm at the aerodrome and refuelled directly at the aerodrome using a fuel truck, that same alternative aviation fuel must be entered twice in the same form and for the same aerodrome: once entering the volumes refuelled from the central tank farm that cannot be directly assigned (proportionality factor between 0 and 1) and another times entering the volumes directly assignable to flights due to a fuel truck used for refuelling (proportionality factor 0 or 1).

It should be noted that the same proportionality factor applies to every refuelling from the central tank farm (i. e. not directly assignable alternative aviation fuels) in accordance with Article 53a MRR or Article 54a MRR. This means that the same proportionality factor must be entered in the FMS for all alternative aviation fuels you have delivered to an aerodrome and selected by yourself in the FMS for this aerodrome in accordance with Article 53a MRR or Article 54a MRR. Only if additional direct refuelling (directly assignable aviation fuels) has also taken place, will the proportionality factors differ for this proportion of these alternative aviation fuels (100% or 0%). The FMS will give a warning if you specify different proportionality factors for each aerodrome.

Based on this information, the form automatically calculates the remaining three boxes. These are: the volume of attributed alternative aviation fuel under the EU ETS 1 (after applying the proportionality factor according to Article 53a MRR), the volume of attributed alternative zero-rated aviation fuel (after applying the proportionality factor according to Article 53a MRR) and the volume of fuel eligible for support (after applying the proportionality factor according to Article 54a MRR).

4) Assignment of alternative aviation fuels (aerodrome pair)

The volumes calculated in 3) for each alternative aviation fuel and aerodrome must then be assigned to aerodrome pairs in EU ETS 1. To do this, the FMS automatically generates a subform called “Attribution of alternative aviation fuels (airport pair)”. It must be noted that for each “Fuel” form created for a specific alternative aviation fuel, the corresponding volumes must be allocated separately. This also applies where you have obtained different alternative aviation fuels that have been delivered to the same aerodrome. To do this, the aerodrome of departure must be selected, which must correspond to the location where refuelling or delivery to the aerodrome took place. The volume of alternative aviation fuel calculated in 3) per aerodrome should be distributed to flights in the reduced scope of the EU ETS 1 from this aerodrome. In addition to the reduced scope, eligible fuels can also be allocated to domestic flights from, to or between outermost regions from this EEA aerodrome. As a general rule, it must be ensured that, for each aerodrome of departure and for each alternative aviation fuel, the total volume of alternative aviation fuel equals the sum of aviation fuel volumes assigned in the “Attribution of alternative aviation fuels (airport)” form for that aerodrome of departure and aviation fuel type. Furthermore, it is important to note that the assignment of alternative aviation fuels to aerodrome pairs cannot be carried out arbitrarily in full.

Failure to comply with the maximum volumes to be taken into account according to Article 53a(4)(i to iv) MRR for alternative aviation fuels and Article 54a(6)(a to d) MRR for eligible fuels may, for regulatory reasons, result in the DEHSt being unable to take into account all volumes for which recognised and complete proof of sustainability is available for the purpose of reducing emissions. It should be noted that non-compliance with or disregard of the maximum volumes to be considered may lead to avoidable infringements in the surrender amount. The maximum volumes must be complied with regardless of whether an approved monitoring plan is in place.

Compliance with the maximum volume rules and potential double counting are subject to verification by the verifiers if alternative and/or eligible fuels have been reported in the emissions report.

If, when assigning alternative aviation fuels, it is found that the maximum volumes specified in Article 53a(4) (iii) or Article 54a(6)(c) MRR (blending limits), have been exceeded, the alternative aviation fuels must be distributed among additional aerodrome pairs. The requirements for the use of alternative and eligible aviation fuels described in [Chapter 6.3](#) must be observed.

5) Application for free allocation of eligible fuels

Commercial aircraft operators, who would like to apply for support pursuant to Article 3c(6) of the EU ETS Directive where the fuel is eligible for such support, should select “yes” in the “Application according to Article 3c(6) EU ETS Directive (FEETS¹⁸)” form. It should be noted that this is an opt-out question, meaning that if someone wishes to apply for a free allocation, “yes” should be selected, whereas operators with no wish to apply for free allocation, should select “no”. It should be noted that the allocation of free allowances for reporting eligible fuels is limited to the reduced scope of the EU ETS 1 and to domestic flights from, to or between outermost regions of EEA countries. Under EU law, no allocation is planned for flights in the CH ETS for the 2025 reporting year.

From the 2026 reporting year onwards, free allocation is planned under the CH ETS.

FMS automatically calculates the eligible aviation fuel volume for your application in this form.

6) Reporting CORSIA-eligible fuels for aircraft operators based in Germany

Aircraft operators registered in Germany, having CORSIA reporting obligations in Germany and wishing to have CORSIA-eligible fuels recognised, should contact DEHSt customer service. They will be provided with external ICAO forms, which must be completed, verified and then submitted together with the emissions report through VPS.

¹⁸ Fuels eligible for EU ETS support

7

Monitoring and Reporting Non-CO₂ Effects

7.1 Basic information on Monitoring Non-CO₂ Effects



The procedural steps and deadlines for non-CO₂ MRV are the same as those for the existing EU ETS 1 and CH ETS obligations for CO₂. The monitoring of non-CO₂ effects must be described in a monitoring plan and approved by the competent authority. In order to keep the administrative burden to a minimum, this is done through a joint monitoring plan for CO₂ emissions and non-CO₂ effects. As a result, a completely new monitoring plan had to be submitted for the period from 01/01/2025 onwards.

Non-CO₂ effects of aviation are the climate impacts caused by aircraft that result from the release of nitrogen oxides, soot particles and oxidised sulfur compounds released during fuel combustion, as well as the impact of water vapour, including contrails.

Under the EU ETS 1 and CH ETS, aircraft operators have been required from 01/01/2025 onwards, to determine the non-CO₂ effects of their flights and report them to the competent authority by 31st March of the following year. In contrast to CO₂ however, there is no obligation to surrender allowances for the reported non-CO₂ effects, which is why it is referred to as a non-CO₂ MRV system. MRV stands for Monitoring, Reporting & Verification.

The non-CO₂ MRV system of the EU ETS 1 applies to its full geographical scope. However, in order to facilitate the introduction of the non-CO₂ MRV obligation, aircraft operators are permitted in 2025 and 2026 to apply non-CO₂ MRV to flights within the reduced geographical scope of the EU ETS 1 only (but including domestic flights departing from and/or arriving in an outermost region of an EEA country) or to choose a geographical scope that is at least equivalent to this reduced scope. It is therefore possible to report additional flights within the full scope. Under the CH ETS, however, there are no geographical reductions. Exemptions from the non-CO₂ MRV requirement exist for flights that are not operated by aeroplanes equipped with jet engines, such as helicopters or propeller driven aeroplanes.

7.1.1 Calculation of CO₂ equivalent emissions from Non-CO₂ Effects

The non-CO₂ effects caused by a flight are not directly related to the CO₂ emissions of that particular flight. Rather, the respective non-CO₂ effects depend on the current weather conditions, the fuel used or the engines themselves. It is therefore not possible to derive the non-CO₂ effects from the CO₂ emissions. Instead, it is necessary to collect data for each individual flight and then calculate the climate impact. Since the commonly used unit in the EU ETS 1 is a tonne of CO₂, the logical consequence is to specify the climate impact of non-CO₂ effects in terms of CO₂ equivalents.

The calculation of CO₂ equivalents from the data collected for each flight should be based on the current Global Warming Potential (GWP) for three time horizons, i.e. 20, 50 and 100 years (GWP20, GWP 50 and GWP 100), in order to obtain a better understanding of the climate impacts. In addition, efficacy must also be taken into account for a more precise calculation of the non-CO₂ effects on climate change. Efficacy (Article 3(74) MRR) is the change in global mean temperature per unit radiative forcing exerted by the climate agent, relative to the response generated by a standard CO₂ forcing starting from the same initial climate state.

It should be emphasised that aircraft operators do not have to create their own climate models for this calculation but can rely on commonly used climate models.

NEATS (non-CO₂ aviation effects tracking system)

The European Commission provides a free IT tool called NEATS for this purpose. However, aircraft operators are also free to use an IT tool of their own or a combination of their own IT tools and NEATS, provided that these have been approved in advance by the European Commission. However, the European Commission will not yet approve any IT tools apart from NEATS for 2025.

The use of NEATS is not limited to calculating the climate impact; it can also be used for the entire monitoring, reporting and, to some extent, verification process. The main functions are listed below. The European Commission is currently working on a more detailed description.

- ▶ **Monitoring**
NEATS provides flight information, flight trajectories and weather data collected by third parties and can, where appropriate, use default values for aircraft and fuel properties to fully automate the monitoring process. Aircraft operators can overwrite the data stored in NEATS with their own data at any time. NEATS fully calculates the CO₂ equivalents per flight in accordance with Article 56a(4) MRR for methods C and D.
- ▶ **Reporting:**
NEATS automatically generates the XML table in accordance with Annex X(2a)(9) MRR at the end of each reporting year, thus keeping the administrative burden associated with reporting to a minimum.
- ▶ **Verification:**
NEATS offers the option for verifiers and the competent authority to check the CO₂ equivalents for each flight while also protecting confidential data.

Further detailed information on NEATS can be found on the SharePoint site set up by Eurocontrol, which can be accessed by clicking on the following link: [Sign up for the NEATS User Group](#). Once registered, all information required to set up a NEATS access will be provided.

Adaptation



Calculation methods

The standard method for calculating CO₂ equivalents is Method C, also known as the weather-based approach. This continues the list of Methods A and B, which apply to the determination of CO₂ emissions. The essential feature of Method C is that the climate impact is calculated at a specific location and at a specific time using current weather information.

Small emitters as defined in Article 55(1) MRR (see also [Chapter 4.3.1](#)), may also use the location-based simplified approach under Method D. This approach uses climate response models instead of current weather data thus reducing the need for extensive data collection and calculation.

Note for aircraft operators with low emissions

If an operator emits less than 25,000 t CO₂ per year in the full scope or, limited to 2025 and 2026, less than 3,000 t CO₂ within the reduced geographical scope (cf. [Chapter 4.3.1](#)), simplified reporting may be used according to Article 33a(1) AVR. Similar to the CO₂ reporting under Article 28a(4) EU ETS Directive, the non-CO₂ report can be submitted to the competent authority without verification by a verifier provided no changes have been made to the data provided by NEATS.

It should be noted, however, that this simplification does not automatically permit the use of Method D. Even if the emissions are below 3,000 t CO₂ in the reduced geographical scope, an operator is not considered a small emitter within the terms of Article 55(1) MRR if emissions amount to at least 25,000 t of CO₂ in the full geographical scope and more than 242 flights take place in the relevant four-month periods. In such cases, Method C must still be applied. Since these calculations are carried out entirely by NEATS, this does not result in any additional work for the operator.

Adaptation

7.1.2 Basic information on monitoring and reporting Non-CO₂ Effects

Calculating the climate impact requires six different data sets, both according to Method C and Method D. These are largely identical for both methods and partly optional. The data sets are:

- a) Flight information (flight data)
- b) 4-D flight trajectory (flight route)
- c) Weather data (Method C – enhanced weather data; Method D – basic weather data)
- d) Aircraft properties
- e) Aircraft performance (optional for Methods C & D)
- f) Fuel properties (optional for Method D)

In principle, operators can create all these data sets themselves from their own monitoring or take them from other sources or NEATS.

Some of the data involved must only be recorded once per flight, such as the departure and destination or the aircraft type. However, other data must be determined at regular time intervals. The time interval between two time stamps, i.e. the points when data is recorded, must not exceed 60 seconds. If data with a time stamp is unavailable, the calculation can be made based on a linear interpolation of the two data points measured directly before and after the missing time stamp in the same flight phase, provided that these data points were recorded during a homogeneous flight route for the flight phase in question, in particular during cruise phase.

Flight information

Flight information comprises the call sign in accordance with Article 51 MRR, the day and time of departure and arrival and the ICAO or IATA codes of the aerodromes of departure and arrival, to enable a particular flight to be unambiguously identified.

If the flight information is taken from NEATS however, it must be ensured that the values are complete so that there are no deviations from the flights with a CO₂ reporting obligation. This does not apply to flights with aircraft without a non-CO₂ MRV obligation.

4-D flight trajectory (flight route)

The 4-D flight trajectory indicates the four-dimensional position of an aircraft, defined by its latitude (decimal degrees), its longitude (decimal degrees) and its altitude (pressure altitude) at any point in time between the start and end of the flight. It must be determined at time intervals of no longer than 60 seconds.

The minimum requirement for Method C is to use the latest Operational Flight Plan (OFP). This is the last flight plan available for a particular flight before it is executed and has been confirmed by the relevant air traffic control service. If this is not available, the Regulated Tactical Flight Model (RTFM) of Eurocontrol or, alternatively, the Filed Tactical Flight Model (FTFM) of Eurocontrol or a model equivalent in terms of data accuracy may be used.

For the 4-D flight trajectory, the actual trajectory flown can also be used for Method C. If it is not recorded by the aircraft itself, the Current Tactical Flight Model (CTFM) of Eurocontrol can be used.

When using Method D, the actual 4-D flight trajectory flown should be used. If it is not recorded by the aircraft, it may be obtained from a third party. It should be as accurate as CTFM. If CTFM or equivalent is unavailable, the latest flight plan (OFP) should be used, otherwise RTFM or FTFM may be applied.

Weather data

The weather data required for the non-CO₂ MRV cannot be collected by aircraft and is therefore provided by NEATS.

For method D, basic weather data should be used. This should include at least pressure, ambient air temperature and specific humidity, and can be estimated using standardised, altitude-dependent corrections.

The enhanced weather data required for Method C includes a range of other, sometimes very specific atmospheric parameters. These are provided by meteorological services based on calculations using numerical weather prediction models.

Aircraft properties

Aircraft properties include three different types of information: the aircraft type used (ICAO code), the engine identifier (Engine UID) and the aircraft mass along the flight trajectory.

The ICAO code is the most important data in determining the aircraft type. If the subtype is known, NEATS can also improve the calculation of the climate impact.

In addition to the operator's own data, the conservative values in Appendix IIb MRR can also be used for the engine identifier.

The aircraft mass along the flight trajectory must be determined at time intervals of no longer than 60 seconds and can be determined in different ways, such as

- a) the actual mass, which is calculated from the take-off mass minus the fuel burned during the flight or if it is not available,
- b) based on of an estimate using a relevant model. NEATS uses the BADA model of Eurocontrol for this purpose.

To determine the actual mass, the amount of fuel burnt up to specific points in time must be determined.

The estimation process uses a step-by-step model approach. For the highest accuracy, the actual take-off mass must be provided. If this is not available, the actual load factor can be used. If the load factor is also unavailable, a default load factor of 1 can be applied. The load factor according to Annex IIIa(1)(32) MRR means the weight of passengers, cargo and baggage, (including mail and hand luggage), expressed as a fraction of the maximum payload mass. This, together with a standard value for the maximum mass of the aircraft type used, helps to estimate the approximate value of the take-off mass if this is not available.

Aircraft performance

Aircraft performance includes data on fuel flow and engine efficiency. Fuel flow specifies the mass of fuel that passes through the aircraft fuel system and into the aircraft's engines during the flight. Engine efficiency, better known as the overall propulsion efficiency of the aircraft, is the percentage (or ratio) of useful thrust generated by an aircraft engine relative to the energy input from the fuel.

Monitoring and use of this data is voluntary for both Method C and Method D. They serve to increase the accuracy of the climate impact calculations but can be replaced by values derived from aircraft property data when necessary.

However, if aircraft performance data is used, it must be ensured that it is consistent with the method used to record the trajectory. This means that if flight plan data is used for the trajectory, the fuel flow data should also originate from or be calculated based on the flight planning process. When using the actual trajectory, the actual fuel flow should be monitored or calculated using a fuel flow model. The European Commission will provide further information about the alternative use of engine efficiency data.

Fuel properties

Fuel properties are understood to contain information on the hydrogen per carbon ratio, aromatic content and the net calorific value of the fuel on board for each flight. Provision of this information is voluntary for Method D.

Since this data cannot be measured by aircraft, fuel suppliers or airports must provide it. For further information, please refer to the European Commission's Guidance.

7.1.3 Interim regulation for the period in which NEATS is not yet available

As described, an IT tool provided or approved by the European Commission must be used for non-CO₂ MRV in accordance with the MRR. For the 2025 reporting year, this will exclusively be the NEATS tool, which is provided free of charge by the European Commission. However, NEATS was not yet available on 01/01/2025. In accordance with Article 56b(6) MRR, aircraft operators in this situation were required to monitor the flight information and aircraft properties themselves for each flight, so that the data could be transferred later to NEATS. This enables NEATS to perform a retrospective calculation of the climate impact.

The first NEATS version was released on 30/09/2025, initially enabling the creation of user accesses and data uploading for each flight. However, NEATS will not be fully available until the first few weeks of 2026. As a result, the entire 2025 reporting year has been treated as a pre-NEATS phase.

Further detailed information can be found in the European Commission's Guidance: [“MRV non-CO₂ data collection Guidance for Aircraft Operators”](#).

7.1.4 Monitoring plan: technical options in the FMS application

The non-CO₂ effect monitoring plan is created in the same FMS application as the CO₂ emissions monitoring plan, thus reducing the administrative burden.

For this purpose, the new “Non-CO₂ effects” form has been integrated into the FMS application. This can be completed after entering a few basic details about the non-CO₂ MRV in the “Identification” form. The most important details are discussed below.

“Identification” form

Please indicate whether you operate flights using aeroplanes equipped with jet engines. If this is not the case, you can select “No”, and no further data is required for non-CO₂ MRV. Otherwise, the geographical scope in which the non-CO₂ MRV should be performed in 2025 and 2026 must be specified in the next step. You also have the option to select a scope between the reduced and the full geographical scope and then describe it in the following text field. There are no restrictions as to which flights you would like to consider outside the reduced scope. Starting in the 2027 reporting year, i. e. from 01/01/2027, the full geographical scope will automatically apply for all flights, regardless of your selection.

“Non-CO₂ effects” form

The option of creating this form becomes available after selecting “Yes” to the question about operating flights that use jet engine aeroplanes.

On Page 1 of this form, basic information about the IT tool used, the intended scope of data monitoring and the calculation method used must first be provided.

The FMS offers you a range of technical options for the IT tool. However, since the European Commission has not yet approved any tools apart from NEATS for 2025, all aircraft operators must initially select “NEATS”. This requirement applies even though NEATS was not available on 01/01/2025.

Please create your non-CO₂ monitoring plan assuming that NEATS is already available and refer to the notes on page 4 “Dealing with data gaps” in the form for the transition period without NEATS.



First, indicate whether you want to use your own data other than flight information for additional data. If your answer is “No”, the secondary data provided by NEATS is used for datasets b) to f) (see [Chapter 7.1.2](#)) and the relevant fields for these datasets in the FMS do not have to be completed. If you want to use your own data for at least one of the datasets listed under b) to f), you must select “Yes” and provide information in the relevant queries for all these datasets.

On **Page 1**, small emitters as specified in Article 55(1) MRR are given the last choice to decide which calculation method they want to use. If you are a small emitter and wish to use different calculation methods for different aircraft types, you can select “Both”. “Method C” is automatically selected for non-small emitter aircraft operators by default.

Please indicate on **Page 2** how you will monitor the flight information. If applicable, please describe how you will check the flight information provided by NEATS against your own data and also, if necessary, outline the procedure to perform corrections in the NEATS data.

If you are an aircraft operator with low emissions and would like to benefit from a simplified verification method (see also [Chapter 7.1.1](#)), please indicate this in the text field accordingly.

Page 3 can be used to provide information about other datasets. For optional datasets, you should first select whether you want to use them. For all datasets, you must then choose whether the same monitoring method should be applied for all aircraft types used. You may use the same method for certain datasets for all aircraft types, but you can use an aircraft-specific method for other datasets. When an aircraft-specific monitoring method is used for at least one dataset, the relevant information is required in the “Calculation method per aircraft type” forms.

Please select whether you want to use primary or secondary data for the 4-D flight trajectory and, if applicable, describe the procedure for determining the data.

A similar approach should be applied for the weather data. However, it should also be indicated whether basic or enhanced weather data is used, with the selection being linked to the monitoring method used (Method C – enhanced weather data, Method D – basic weather data).

Aircraft properties comprise various pieces of information. First, the aircraft type used must be specified. Data input for engine identifier and the aircraft mass along the trajectory, again follows the scheme according to which data source must be selected first and then, depending on the selection, a description must be added. A description is also needed for the aircraft mass along the trajectory when using secondary data, since a staged procedure may be used here.

Aircraft performance can be optionally selected and subsequently be specified by all aircraft operators. Monitored data can be used to overwrite some of the data derived from the aircraft properties. Conversely, this also means that if aircraft performance data is not available, alternative data is automatically provided.

Monitoring fuel properties is mandatory for Method C while it is optional for Method D. It should be emphasised that operators who want to use the same monitoring method for the entire aircraft fleet can select “Both”, meaning, both primary and secondary data, as the data source. This is because aircraft operators may not always have control over whether they receive primary data.

On **Page 4**, please indicate how you will close data gaps. In addition, you also should describe how flight information and aircraft properties will be monitored while NEATS is not available. The extent of this description may depend on how you plan to monitor this data once NEATS becomes available. If your method of monitoring flight information does not change after NEATS becomes available, a brief reference to the relevant Section on page 2 of the form will suffice.

Page 5 must include a description about the procedure for ensuring consistency between 4-D trajectory data and aircraft performance along the trajectory. Of particular importance is how to ensure that position and fuel consumption are determined using the same time stamp. This ensures that fuel consumption is always assigned to the corresponding position. This is not the case when primary data is used to specify the trajectory and secondary data to determine aircraft performance.

Further information that you may consider relevant should be entered into the text box on **Page 6**.

“Aircraft type” form

First please answer the question whether it is an aeroplane equipped with jet engines. Only if it is, you will need to provide further information in the “Calculation method per aircraft type” form.

“Calculation method per aircraft type” form

As described above, information on the datasets (b) to (f) to be monitored must be entered, or additional information may be provided on pages 4 and 5. Information about closing data gaps and ensuring consistency between trajectory and aircraft performance data must be included in the “Non-CO₂ effects” form. If applicable, please use the relevant text fields to specify the aircraft type to which your description applies.

7.2 Basic information on reporting of Non-CO₂ Effects

For the 2025 reporting year, a report on non-CO₂ effects must be submitted for the first time. Currently, reporting is not yet fully integrated into the FMS, and is partly carried out using an external form, which must be submitted as an annex to the emissions report through VPS and accompanied by a QES. At the time this guideline went to press, not all details of the form were known. Therefore, you should also refer to the information we have provided on our website.

In the FMS, only the aggregated climate impact values for the 2025 reporting year should be entered in the GWP20, GWP50 and GWP100 metrics for all flights for both the EU ETS 1 and the CH ETS. Please enter these values in the “Summary” form under the sections “Climate impact of non-CO₂ effects in the EU ETS 1” and “Climate impact of non-CO₂ effects in the CH ETS”.

8

Creating an improvement report

There is a basic obligation to submit an improvement report by 30th June (Article 69(4) MRR) if the verifier documents open non-compliance or recommendations for improvement in their verification report. Even if the recommended improvements do not lead to an improvement in the monitoring methodology, the aircraft operator must submit a corresponding justification to the DEHSt.

If non-compliance and recommendations from the verifier have already been addressed by an improved monitoring methodology and a correspondingly modified monitoring plan has been submitted to the DEHSt, no additional improvement report needs to be submitted. The same applies when, in individual cases, the DEHSt has already agreed on how to deal with the need for improvement in monitoring.

9

Entry of verified emissions in the Union Registry

The verified emissions generated by an aircraft operator must be entered in the Union Registry separately for domestic flights (intra-EEA flights) and international flights (flights outside the EEA).

To do so, the emissions under the EU ETS 1 and also those under the CH ETS must always be entered under the “Compliance” tab by 31st March each year. The procedure is as follows: under “Select ETS”, select “EU” and then “CH” (then “Refresh display” in each case) and enter the emissions by clicking “Enter” in the “Action” column. If there were no emissions under the scope of an ETS, a “0” (zero) must always be entered as without an entry the account will be blocked. When entering data for the EU ETS 1, emissions from domestic flights and international flights must be entered separately (see Article 31(2) in conjunction with Table IX-I of the Registry Regulation (Regulation (EU) 2019/1122)).

The relevant quantities for the entry in the Union Registry can be found in the emissions report. If there were no emissions for the respective greenhouse gas, a “0” must be entered. If the aircraft operator had no emissions at all, a “0” should be entered in all fields.

The values of the verified emissions determined according to the emissions report are to be entered in the registry either by the aircraft operator’s authorised representative or by an authorised representative of the assigned verifier. To assign a verifier to an aircraft operator, the aircraft operator’s authorised representative must first select the verifier using the tab of the same name in the Union Registry. The verifier must accept this assignment in the Union Registry. The verifier can then enter the verified emissions and approve the entry for the corresponding reporting year.

If the verified emissions are entered by one of the aircraft operator’s authorised representatives, an authorised representative of the verifier must approve this entry. If the entry and approval have not been received by 31st March at the latest, the DEHSt as the Registry administrator will block the account until this has been done. Missing entries can be made and confirmed by the authorised representatives of the account holder and also by the verifiers after 31st March and even after 30th September. However, corrections to erroneous emissions entries that have already been finally confirmed by the verifiers are only possible until 30th September. After that, incorrect entries can only be corrected by the DEHSt.

For aircraft operators to be able to assign verifiers, they need a “verifier account”. How to apply for this is explained on the DEHSt website

Verifiers must appoint at least one authorised representative. If a verifier makes the entries themselves, it needs at least two authorised representatives. Any necessary changes to verified emissions as a result of a correction to the emissions reports, must be entered in the verified emissions table by the DEHSt as per Article 31(6) of the EU Registry Regulation (EU) 2019/1122. The account holder will be notified of the entry.



Emissions in accordance with the CORSIA Regulation do not have to be entered into the Union Registry.

10

Enforcement of reporting and surrender obligations

Proper compliance with reporting and surrender obligations is a prerequisite for functioning emissions trading without the distortion of competition. In the event that aircraft operators fail to comply with these obligations, Section 5 TEHG provides for various forms of sanction.

10.1 Account suspension

If an aircraft operator has not submitted an emissions report for the previous calendar year by 31st March and the verified emissions have not been entered and confirmed in the Union Registry, the DEHSt will suspend their account pursuant to Section 45 TEHG. The aircraft operator can then still fulfil his surrender obligations, but no longer authorise allowances in their account. In particular, they cannot arrange for these allowances to be transferred to another account. The account suspension will only be lifted once a proper emissions report has been submitted to the DEHSt or the DEHSt has estimated the emissions and a corresponding entry has been made in the Union Registry.

10.2 Sanctions for breach of surrender obligations

If insufficient allowances have been surrendered by 30th September¹ for the previous calendar year, the aircraft operator will be fined €100 per missing allowance as per Section 46(1) TEHG. The payment obligation increases in line with the increase in the European Consumer Price Index for the reporting year compared to the reference year 2012. In addition, they must surrender the missing allowances by 31st January of the following year (see Section 46 (3) TEHG).

In principle, the cause of a breach of surrender obligation is irrelevant for the imposition of sanctions. Only in the case of force majeure is the DEHSt entitled to refrain from imposing a sanction. Force majeure involves mainly only cases of natural events or other serious external circumstances that could not have been prevented by the aircraft operator even with the utmost care, but not including, for example, a lack of care by employees. In the case of causes other than force majeure, the DEHSt has no discretion over whether sanctions should be imposed or the amount of the fine¹⁹. However, when surrendering allowances, the aircraft operator can rely on the emissions shown in their emissions report and confirmed by a verifier²⁰. As a rule, this also applies if the verifier has assessed the emissions report as “satisfactory with comments”. If DEHSt discovers an error in the verified report after 30th September, no fine will be imposed under Section 30(1) TEHG. In this case, however, the missing allowances must still be surrendered retrospectively.

10.3 Imposition of fines

Section 49 TEHG lists a number of administrative offences for which fines can be imposed. Of these, the following are essentially relevant for emissions monitoring and reporting:

A fine of up to €500,000 can be imposed on an aircraft operator who fails to report, or fails to report correctly, completely or in good time and therefore does not report the emissions caused in accordance with the approved monitoring plan (pursuant to Section 49(1)(1) in conjunction with Section 49(7) TEHG). If the aircraft operator acts negligently, the fine is up to €100,000 (see Section 49 (7) TEHG). This includes cases where the aircraft operator disregards ancillary provisions in the notice approving the monitoring plan. In particular, this applies also to cases where the aircraft operator does not proceed carefully when preparing the report and thus provides incorrect information. In the event of an error in the emissions report, the DEHSt must consider whether a corresponding fine is to be imposed.

A fine of up to €100,000 is also imposed on aircraft operators who obstruct the DEHSt in the performance of its duties, for example by refusing to provide information or submit requested documents, or if they fail to provide such information on time or provide it incorrectly.

¹⁹ European Court of Justice, judgement of 17 October 2013, case C-203/12.

²⁰ European Court of Justice, judgement of 29 April 2015, case C-148/14.

11

Verifiers

11.1 Preliminary remarks

The Accreditation and Verification Regulation (Regulation (EU) 2018/2067) together with the standards DIN EN ISO 14065, DIN EN ISO/IEC 17011 and DIN EN ISO/IEC 17029 form a uniform and comprehensive legal framework with regard to:

- ▶ organisational, procedural and competence requirements for verifiers,
- ▶ the procedure for verification of emissions reports,
- ▶ the requirements for the accreditation procedure (certification procedure) and the supervision of verifiers,
- ▶ the organisational and procedural requirements for accreditation bodies (certification bodies),
- ▶ the mutual recognition of accredited and certified verifiers within the EU ETS 1, and
- ▶ the cooperation and exchange of information between emissions trading authorities and accreditation bodies or certification bodies.

11.2 Accredited/certified verifiers

The emissions reports to be submitted to the DEHSt by 31st March each year must be verified in accordance with the AVR, see Article 68(1) MRR. According to Section 14 TEHG, only bodies that have been previously accredited or certified in accordance with the AVR are permitted to carry out verification.

The verifier commissioned by the aircraft operator must hold a specific accreditation for the aviation sector, and specifically for emissions data under Activity Group 12a and for non-CO₂ effects under Activity Group 12b (Article 44 and Article 35 in conjunction with Annex I, Activity Group 12a/b AVR).

Special notes for verifiers

Activity Group 12a means that the verifier can continue to perform their activities within the existing scope of Activity Group 12 – CO₂ emissions.

Activity Group 12b means that the verifier needs an extended accreditation for the verification of parts of reports relating to non-CO₂ effects. However, there is an **exception** for data on flight information, flight trajectories and aircraft properties (cf. Article 44(3) AVR). These can be verified by a verifier according to Activity Group 12a.

The German Accreditation Body Ltd. (DAkkS; www.dakks.de) is responsible for the accreditation of verifiers located in Germany. In principle, only legal entities or partnerships can be accredited.

More detailed information on the requirements for accreditation and the accredited verifiers can be obtained from DAkkS. It is also responsible for publishing a list of the verifiers it has accredited. The DEHSt does not maintain a public register of the verifiers active in Germany in the EU ETS 1.

Under the conditions of Article 67 AVR, the verification of emissions reports in Germany can also be carried out by verifiers accredited in another Member State

11.3 Verification activity

All verifiers should take note of the guidelines in their entirety and, above all, of the specific instructions on individual monitoring and reporting issues, some of which are addressed directly towards them in the previous chapters.

The requirements for verifiers and their verification of emissions reports are comprehensively regulated in the AVR and DIN EN ISO 14065. In addition, the European Commission, in consultation with Member States, has published a series of guidelines to support the practical application of these rules on the Directorate [General for Climate Policy website](#). Knowledge of the European guidelines is assumed. They are not directly legally binding, but provide guidance on best practice in verification. In addition to the aviation-specific content of the guidelines, the general content on verification in the stationary area of emissions trading should also be taken into account, as the explanations re individual verification steps for stationary installations are more comprehensive.

11.4 Evaluation of the emissions reports and verification reports

The aim of the verification is to determine with reasonable certainty that an emissions report does not contain any material misstatements. For this purpose the aircraft operator must, at the request of the verifier, correct all of the misstatements and cases of non-compliance found with the approved monitoring plan. The verification ends with a final assessment, respectively for the EU ETS 1 and/or CORSIA area. These assessments must be basically clear and identify the report as either “satisfactory” (because free of material misstatements) or “unsatisfactory”. In the case of “unsatisfactory”, the reasons why verification is not possible must be stated. In exceptional cases, the assessment “satisfactory with comments” may also be given. In this case also, the shortcomings must be explained in detail.

It is important to note that an assessment of “satisfactory” or “satisfactory with comments” may only be given if there is actual reasonable assurance that there are no material misstatements. However, “material” does not just apply to misstatements above the applicable percentage materiality threshold (Article 23 AVR), as in fact any misstatement (Article 3(5) AVR) could influence the assessment of the report by the DEHSt, so the verifier must proceed with great care. If a report shows emissions that are too low, the DEHSt will always assess the emissions report as incorrect and thus to be corrected. An assessment of the report as “unsatisfactory” must ultimately also be made if the verifier concludes that due to one or more uncorrected non-compliances, it cannot be ruled out with sufficient certainty that no material misstatements are contained therein (Article 27(1)(2)(d) AVR). The same applies if the scope of the verification was too limited to confirm the absence of material misstatements with reasonable certainty (Article 27(1)(2)(c) in conjunction with Article 28 AVR).

Any misstatements or non-compliance identified by the verifier but not corrected by the operator must in any case be identified in the verification report as per Article 27(3)(l) AVR.

The final statement on the emissions report required under Article 27(1) AVR and the actual verification report with its elements required under Article 27(3) AVR are integrated in the FMS software.

Overall, the verification report should be complete, meaningful and transparent. If the fields in the FMS are not large enough to accommodate the verifier’s comments, they can attach supplementary files. However, it should be noted that the FMS must be used as a priority. Complete outsourcing of the verification report to an attached document is not permitted.

11.5 Virtual site visits

11.5.1 General

Under certain conditions, the site visit can be carried out virtually (Articles 34a and 34b AVR). The verifier must carry out the same activities during a virtual site visit as during a physical site visit, the difference being that these activities are performed by electronic means.

In addition, Article 33(1) AVR allows for a simplified audit for aircraft operators: in the case of a small emitter (Article 55(1) MRR), and in deviation from Article 21 AVR, the verifier can refrain from undertaking the virtual site visit under certain conditions.

11.5.2 Virtual site visits in accordance with Article 34a AVR

A key requirement for a virtual site visit under Article 34a is that a case of force majeure exists. The verifier decides whether a virtual site visit should be carried out. If a verifier decides in favour of this, the affected aircraft operator must first apply to the DEHSt for approval of a virtual site visit in accordance with Article 34a(3) AVR²¹.

During the years of the COVID 19 pandemic, permits for virtual site visits under Article 34a(4) AVR were not required due to an authorisation by DEHSt. Due to the easing of the pandemic situation, individual approval by the DEHSt have been required since the third quarter of 2023.

The application for approval of a virtual site visit must include the following information in accordance with Article 34a(2) AVR:

- ▶ evidence that no physical site visit can be carried out due to serious, exceptional and unforeseeable circumstances for which the aircraft operator is not responsible (force majeure);
- ▶ Information on how the virtual site visit will be carried out;
- ▶ Information on the result of the risk analysis by the verifier;
- ▶ Evidence that the verifier has taken measures to reduce the verification risk to an acceptable level so that there is sufficient certainty that the aircraft operator's report will not contain any material misstatements.

The application form must be completed by the verifier. For this purpose, the aircraft operator must grant the verifier access to the relevant documents, procedures, processes and any other information necessary for the verification.

The only reason for an application under Article 34a is force majeure that prevents the verifier from physically performing the site visit. Examples of force majeure under Article 34a AVR include pandemics, war, terrorism, natural and man-made disasters. This also includes disasters that result in the site being closed to external parties or that make travel to the site impossible. Force majeure can therefore be very specific national, regional or local circumstances.

²¹ [DEHSt – Publications – Application for a virtual site visit in accordance with Article 34a\(1\) of the Accreditation and Verification Ordinance \(EU\) 2018/2067 \(AVR\) \(only available in German\)](#)

11.5.3 Information on submitting an application in accordance with Article 34a AVR

The aircraft operator must submit the virtual site visit application form completed by the verifier to the DEHSt via the Virtual Post Office (VPS). The following information applies to the application process:

- ▶ If it is certain that a case of force majeure as defined in Article 34a AVR exists and aircraft operators and verifiers agree that an application for a virtual site visit should be submitted in accordance with Article 34a AVR, the verifier downloads the “Application for approval of a virtual site visit in accordance with Article 34a AVR” form from the DEHSt website which he then completes.
- ▶ The verifier electronically fills out the form and sends it to the aircraft operator via the VPS using a message with a qualified electronic signature. The verifier enters the file number and “Application for virtual site visit” in the subject line. The message type is “General request”.
- ▶ The aircraft operator forwards the verifier’s message to DEHSt. This message must be signed by the aircraft operator by a qualified electronic signature.

11.5.4 Virtual site visits in accordance with Article 34b AVR

Article 34b AVR also allows virtual site visits in situations other than serious, exceptional and unforeseeable circumstances, provided that the result of the verifier’s risk analysis confirms a virtual site visit is possible and that remote access to relevant data, including interviews, is possible. However, Article 34b(3) AVR lists four restrictions when virtual site visits are generally not possible:

- ▶ First verification of an emissions report by the verifier at the aircraft operator
- ▶ A physical site visit was already waived when the emissions report was reviewed in the two previous years.
- ▶ Major changes have been made to the monitoring plan as compared to the previous audit, in accordance with Article 15(4) of the MRR.
- ▶ Compliance code in the Union Registry for the previous reporting period is different from code A.

A physical site visit is required for the 2025 reporting year, as the non-CO₂ report will also be reviewed within the verification process for the first time.

Exception: A site visit is **not absolutely necessary** if **NEATS data** is adopted **unchanged**.

Adaptation



In contrast to the virtual site visit in accordance with Article 34a AVR, no application to the DEHSt is necessary.

11.5.5 Information on conducting a virtual site visit

The verifier is obliged to indicate how they will carry out the virtual site visit. For example, the following procedures can be used:

- ▶ Interviewing the aircraft operator's personnel via web meetings or teleconferences, including audio, video, screen and data sharing.
- ▶ A person from the aircraft operator taking photos and completing a checklist on site while the verifier gives instructions over the phone.
- ▶ A person from the aircraft operator taking a tour of the premises on site with a camera via a live stream connection while the verifier gives instructions on what to focus the camera on.

It should be noted in all procedures that all relevant information, documents and procedures must be transmitted to the verifiers in a secure environment or made available to them by secure electronic means.

11.5.6 Risk analysis by the verifier

The verifier takes his decision on the virtual site visit based on a risk analysis. This risk analysis assesses the probability of misstatements and/or non-conformities and their potential impact on the reported data. The verifier determines and records the risks of the available procedures and their impact on the effectiveness of the audit. Such a risk analysis is an iterative process that may be modified based on the results and further analysis of the risks during the virtual site visit. This means that by a site visit, the verifier has the opportunity to update its risk analysis and adapt its inspection plan. Incorrectly assessed risks can lead to verifier having to carry out a physical site visit (Article 34b AVR) or having to carry out a physical site visit immediately after the circumstances of force majeure have ceased to exist (Article 34a AVR).

11.5.7 Approaches to reduce the inspection risk to an acceptable level

Finally, a virtual site visit may only be conducted if the verifier takes actions to reduce the audit risk to an acceptable level so that it can be ensured with reasonable assurance that the aircraft operator's report does not contain any material misstatements. The following aspects should be considered in order to fulfil this condition:

- ▶ Appropriate controls should be implemented in an electronic inspection process to ensure that the data cannot be tampered with and inspection integrity is not compromised. The security and confidentiality of electronic or electronically transmitted information is important to ensure that virtual site visits can be conducted properly which can be achieved by putting robust security measures in place.
- ▶ Measures should be taken to optimise the effectiveness and efficiency of the assessment during virtual site visits while maintaining the integrity of the inspection process. The verifier's risk analysis is a critical factor in assessing which approach or combination of approaches should be used during the virtual site visit. A major aircraft operator with a large and complex data flow requires more robust approaches and intensive testing in line with the main risk analysis used to plan the inspection.
- ▶ The planned procedures should be tested in advance of the virtual site visit. An emergency or backup plan should also be drawn up in case the technology does not work (for example, changing the platforms used or switching from web meetings to telephone calls).
- ▶ Verifiers must have the competence and ability to understand and carry out the chosen procedures. If necessary, technical experts should be included in the inspection team.

Further information:

www.dehst.de/Aviation

www.dehst.de/Aviation-reporting