
Environment
Agency

EU ETS Compliance Forum Event

Brussels 7th February 2012

Monitoring Plan Templates; Minimum Content

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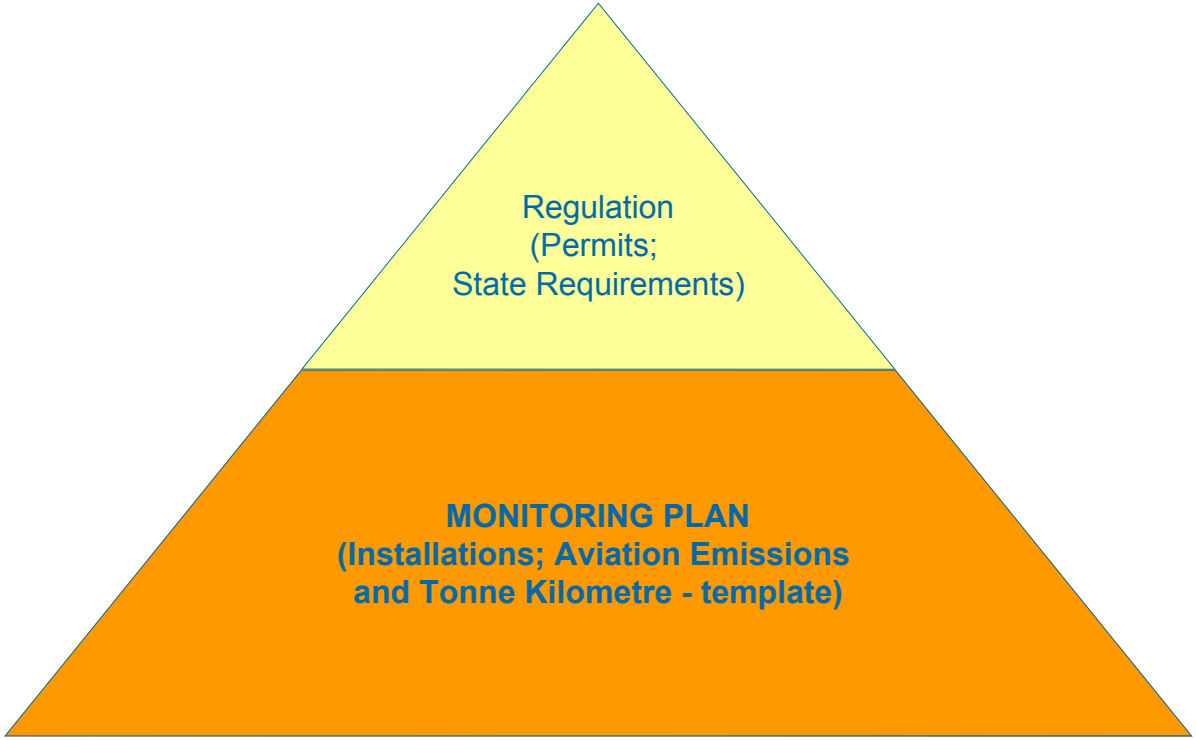
Overview

- Monitoring Plan; Linkages and Supporting info
- Why do we need templates?
- Minimum content – Installations
- Supporting Evidence
- Procedures
- Minimum content – Aviation Emissions
- Minimum content – Aviation TKM

The heart of the M&R regulation

Linkages to a Monitoring Plan



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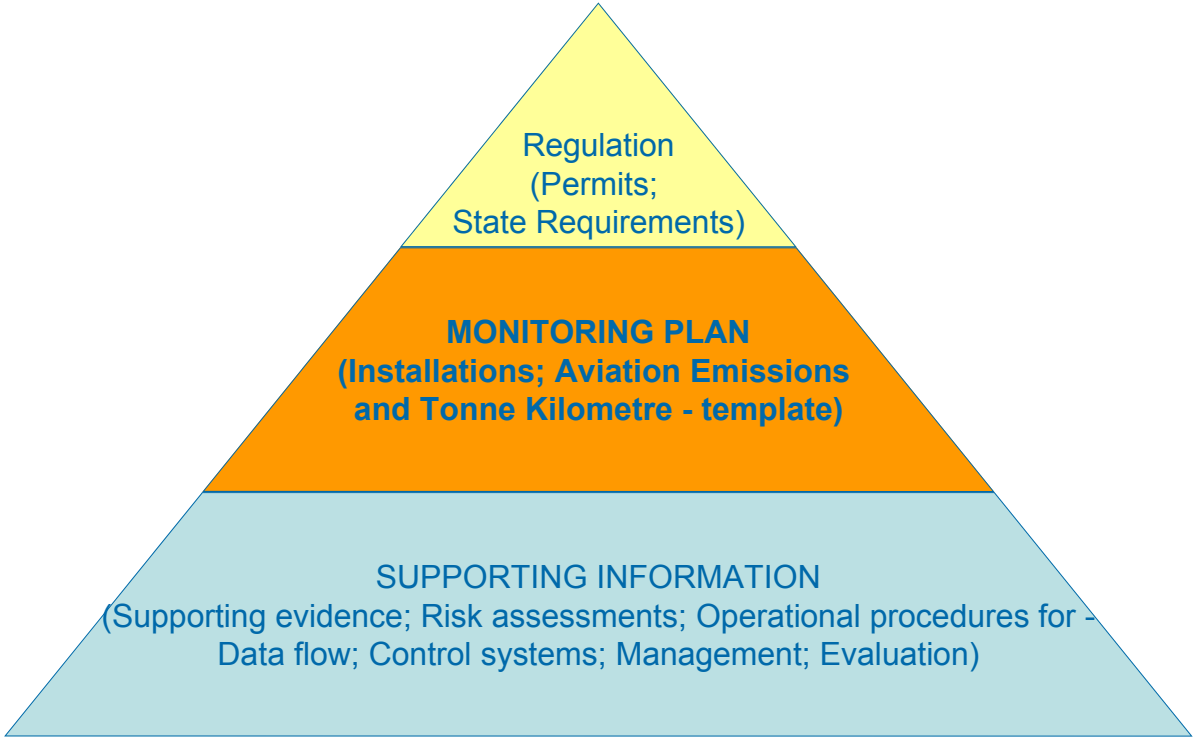
Supporting the Monitoring Plan



Why do we need templates?

- *Article 13 (1)* details the use of *standardised or simplified monitoring plans* – based upon templates
- *Article 12 (1) MP shall consist of a detailed, complete and transparent documentation of the monitoring methodology*
- **Keep it simple – meet minimum content**
- Key benefit of using a template – a standard reporting platform that meets the requirements of the regulation, whilst giving greater consistency and harmonisation across all Member States

Minimum content – Installations

- NEW template, format based on current aviation template:
  - Cover page with guidelines for completion
  - Revision details
  - Operator information and site details
  - Description of installation activities and emissions
    - tables to be completed about emissions
  - Calculation of emissions or Measurement of emissions (or both)

Minimum content – Installations

- In addition:
  - Use of fall back approach
  - Determination of Nitrous Oxide (N2O) emissions
  - Determination of Per-fluorocarbons (PFC) from production of primary aluminium
  - Determination of inherent CO2 and Transferred CO2
  - Description of procedures for data management and control activities

(c) In the table below, please identify the tiers applied against the relevant input data for each source stream and confirm whether a standard or mass balance approach will be applied. You are also asked to provide information on the source stream category.

(i) The highest tiers as defined in Annex III of the MRR should be used by Category B and C installations to determine the activity data and each calculation factor (except the oxidation factor and conversion factor) for each major source stream. Category A installations should apply as a minimum the tiers listed in Annex II.

(ii) Operators may apply a tier one level lower than those referred to in sub paragraph (i) above for Category C installations and up to two levels lower for Category A and B installations, with a minimum of tier 1, if the operator can demonstrate to the satisfaction of the competent authority that this is not technically feasible or would lead to unreasonable cost to apply the higher tier. The justification for not applying the higher tier should be listed in in Table 8(d).

(iii) The competent authority may allow an operator to apply even lower tiers than those referred to in the sub paragraph (ii), with a minimum of tier 1, for a transition period of up to three years if the operator demonstrate to the satisfaction of the competent authority that this is not technically feasible or would lead to unreasonable cost to apply the higher tier and provides an improvement plan detailing how and by when at least the tier referred to in sub paragraph (ii) will be achieved. The improvement plan should be referenced in Table 8(d) and provided to the competent authority at time of submission of this plan.

(iv) For minor source streams operators shall apply the highest tier which is technically feasible and will not lead to unreasonable costs, with a minimum of tier 1 for activity data and each calculation factor. For de-minimis source streams operators may use conservative estimations rather than tiers, unless a defined tier can be achieved without additional effort.

(v) Installations with low emissions as identified in section 6(d) may apply as a minimum tier 1 for determining activity data and calculation factors for all source streams unless higher accuracy is achievable without additional effort.

**Note 1: For commercial standard fuels, the minimum tiers listed in Annex II of the MRR may be applied for all activities in all installations.*

**Note 2: If you are intending to apply a fall-back approach please complete the table below and select "n/a" for the tiers to be applied for each source stream where a fall-back approach is used. Section 10 "Fall-back" must also be completed for these source streams.*

Emission source ref.	Source stream ref.	Standard, Mass Balance or Fall-back Approach Applied?	Tiers to be applied (corresponding to MRR Annexes II to III as applicable)						Estimated annual emission from source stream	% of total fossil $CO_{2(t-1)}$ emission	Source category	Highest tiers applied?
			Activity data	Net CV	Emission factor	Carbon Content	Oxidation factor	Conversion factor				
S1-SS	F1	Standard Approach	4	3	3	n/a	1	n/a	95,000	95.0%	Major	Yes
S1-SS	F2	Standard Approach	4	2a	2a	n/a	1	n/a	4,500	4.5%	Minor	No
S1-SS	F3	Standard Approach	No Tier	2a	2a	n/a	1	n/a	500	0.5%	De-minimis	n/a

Please continue on a separate sheet if required.

(d) Please provide justifications for the applied tiers for each major source stream where highest tiers are not currently achieved.

For each major source stream listed in table 8(c) above for which highest tiers are not currently applied you must provide a justification for the applied tiers for each relevant parameter below. Where an improvement plan is required in accordance with Article 10 of the MRR, this should be submitted with this monitoring plan and referenced below.

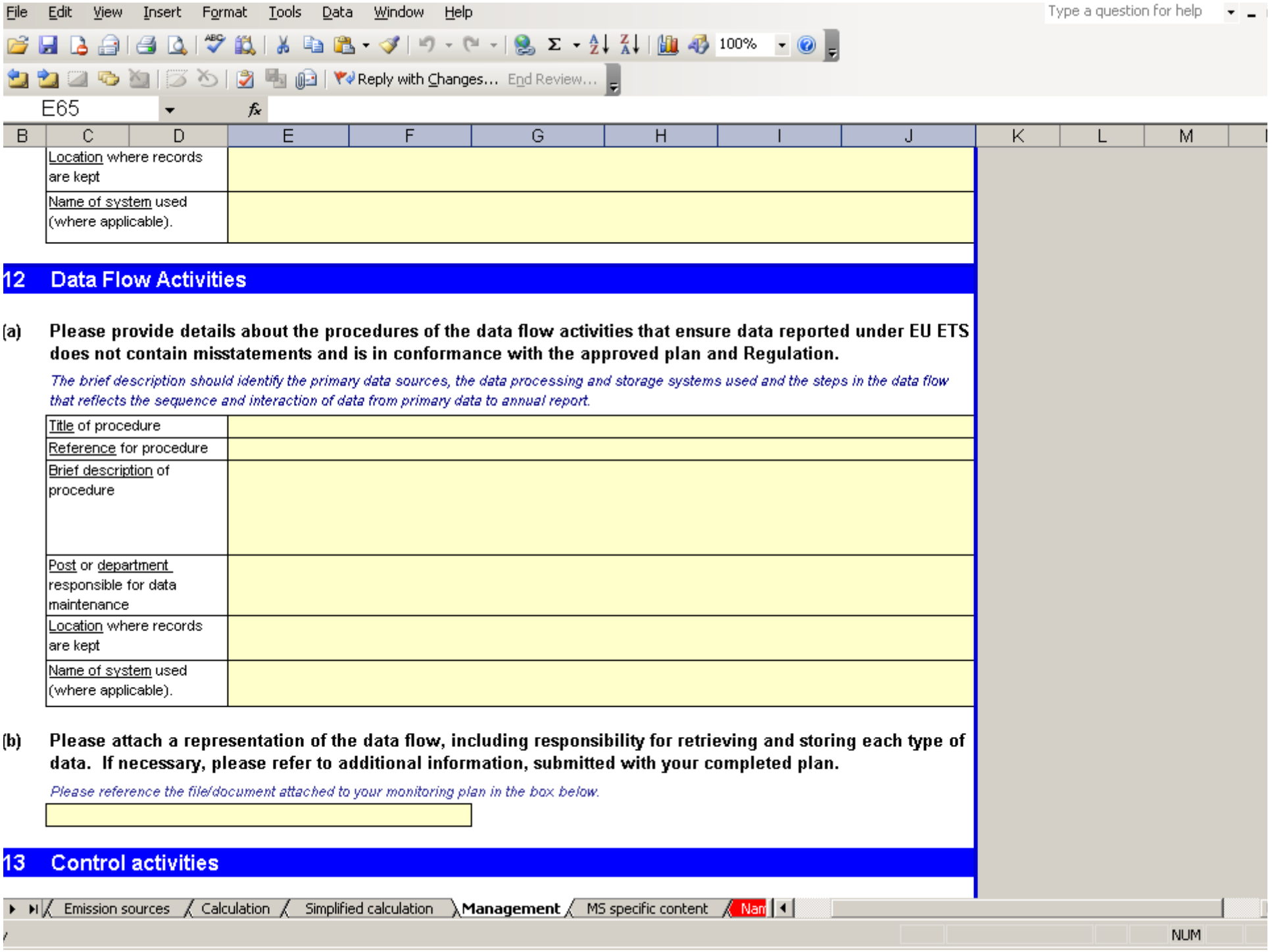
Emission Source ref.	Source stream ref.	Parameter	Justification for the applied tier	Improvement Plan Reference (where applicable)
S1-SS	F2	Activity	Uncertainty of the metering device is within the tier threshold based on calculation in accordance with the Competent	n/a

Supporting Evidence

- *each source stream and emission source demonstrating compliance with the uncertainty thresholds for activity data and calculation factors, where applicable, for the applied tiers as defined in Annex II* (Tiers) *and Annex III* (Aviation methods)
- *the results of a risk assessment providing evidence that the proposed control activities and procedures for control activities are commensurate with the inherent risks and control risks identified.*

Procedures

- Wherever Annex I makes a reference to a procedure, operators shall establish, document, implement and maintain such a procedure separately from the monitoring plan.
- The operator or the aircraft operator shall **summarise** the procedures in the monitoring plan.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E65
B C D E F G H I J K L M
Location where records are kept
Name of system used (where applicable).
12 Data Flow Activities
(a) Please provide details about the procedures of the data flow activities that ensure data reported under EU ETS does not contain misstatements and is in conformance with the approved plan and Regulation.
The brief description should identify the primary data sources, the data processing and storage systems used and the steps in the data flow that reflects the sequence and interaction of data from primary data to annual report.
Title of procedure
Reference for procedure
Brief description of procedure
Post or department responsible for data maintenance
Location where records are kept
Name of system used (where applicable).
(b) Please attach a representation of the data flow, including responsibility for retrieving and storing each type of data. If necessary, please refer to additional information, submitted with your completed plan.
Please reference the file/document attached to your monitoring plan in the box below.
13 Control activities
Emission sources
Calculation
Simplified calculation
Management
MS specific content
NUM

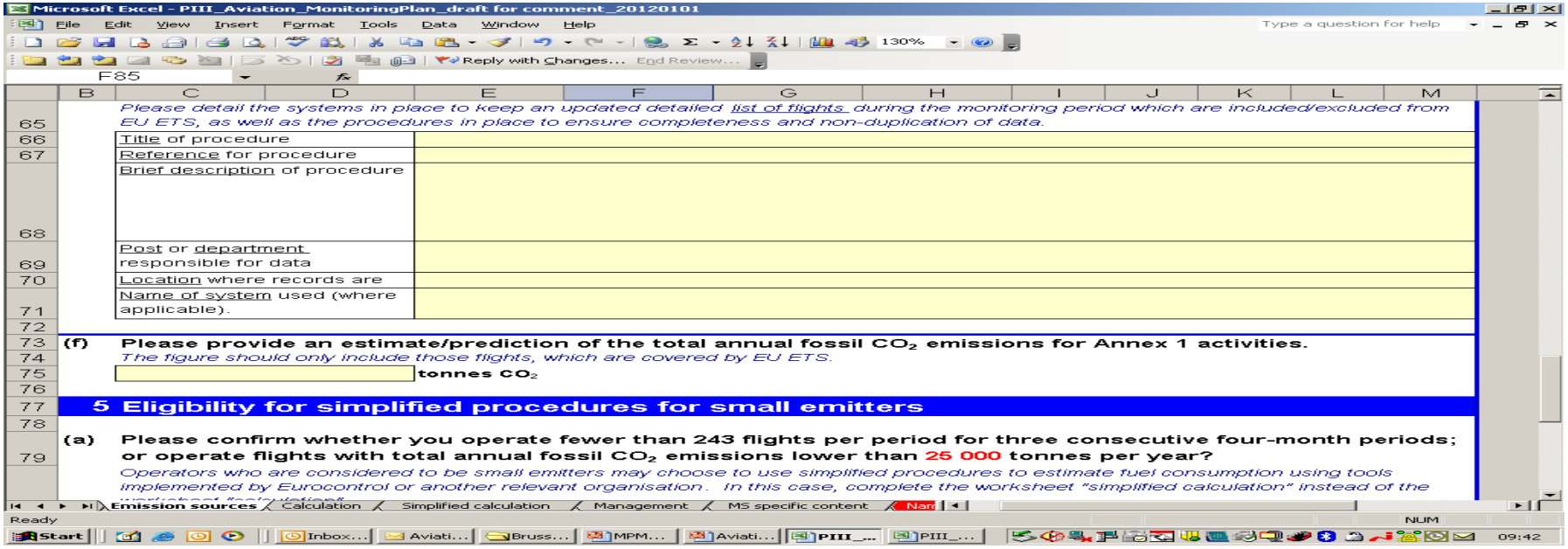
Minimum content – Aviation Emissions

- Summary of main changes: MRG → MRR
  - Small emitter threshold
  - Sources of density
  - Sources of uncertainty
  - Data Gaps

  - Requirement for supporting evidence
  - Procedures for Data flow and Control activities

Revision to the ‘small emitters’ threshold

- Any reference to “10 000” tonnes amended to “25 000” tonnes in accordance with Article 54



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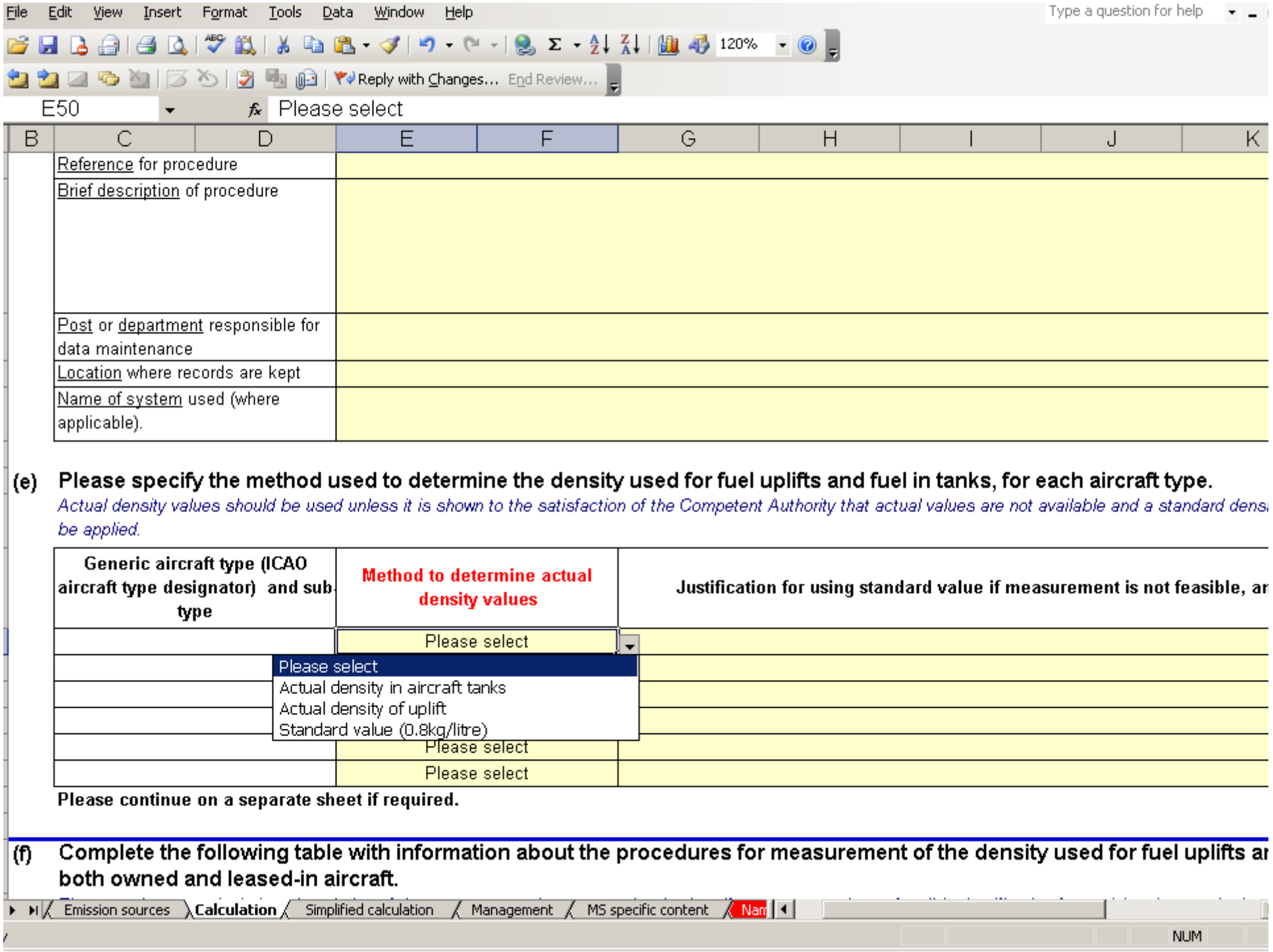
Determination of fuel density

- In accordance with Article 52(6), the option for the determination of actual density has been limited to the use of on-board systems or density measured by the fuel supplier at uplift.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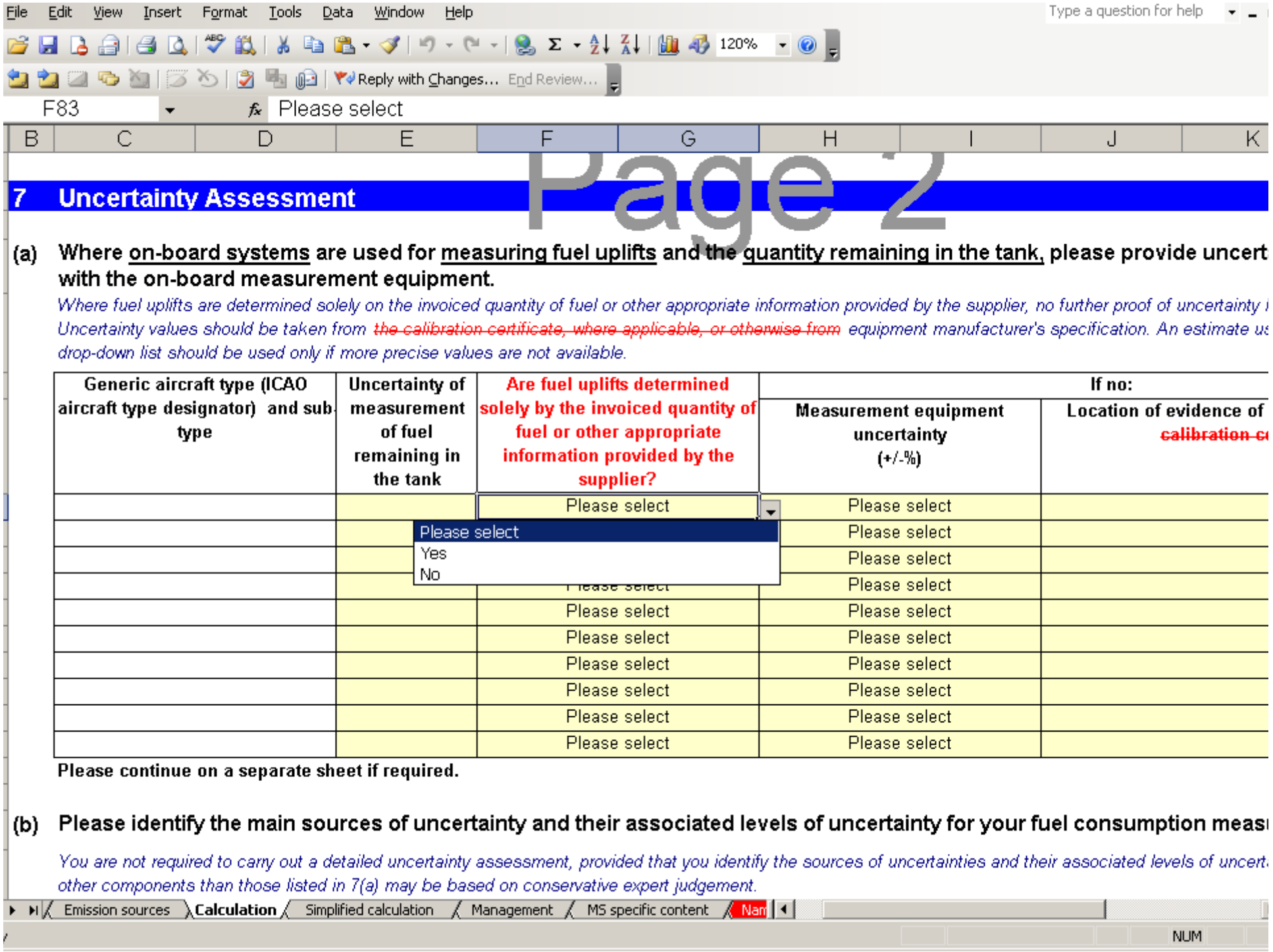
E50
Please select
Reference for procedure
Brief description of procedure
Post or department responsible for data maintenance
Location where records are kept
Name of system used (where applicable).
(e) Please specify the method used to determine the density used for fuel uplifts and fuel in tanks, for each aircraft type.
Actual density values should be used unless it is shown to the satisfaction of the Competent Authority that actual values are not available and a standard densi
be applied.
Generic aircraft type (ICAO aircraft type designator) and sub-type
Method to determine actual density values
Justification for using standard value if measurement is not feasible, ar
Please select
Please select
Actual density in aircraft tanks
Actual density of uplift
Standard value (0.8kg/litre)
Please select
Please select
Please continue on a separate sheet if required.
(f) Complete the following table with information about the procedures for measurement of the density used for fuel uplifts ar
both owned and leased-in aircraft.
Emission sources
Calculation
Simplified calculation
Management
MS specific content
NUM

Metering Uncertainty

- Article 55(3) does not identify the requirement for calibration certificates to demonstrate the uncertainty of on-board fuel measurement systems.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F83
Please select
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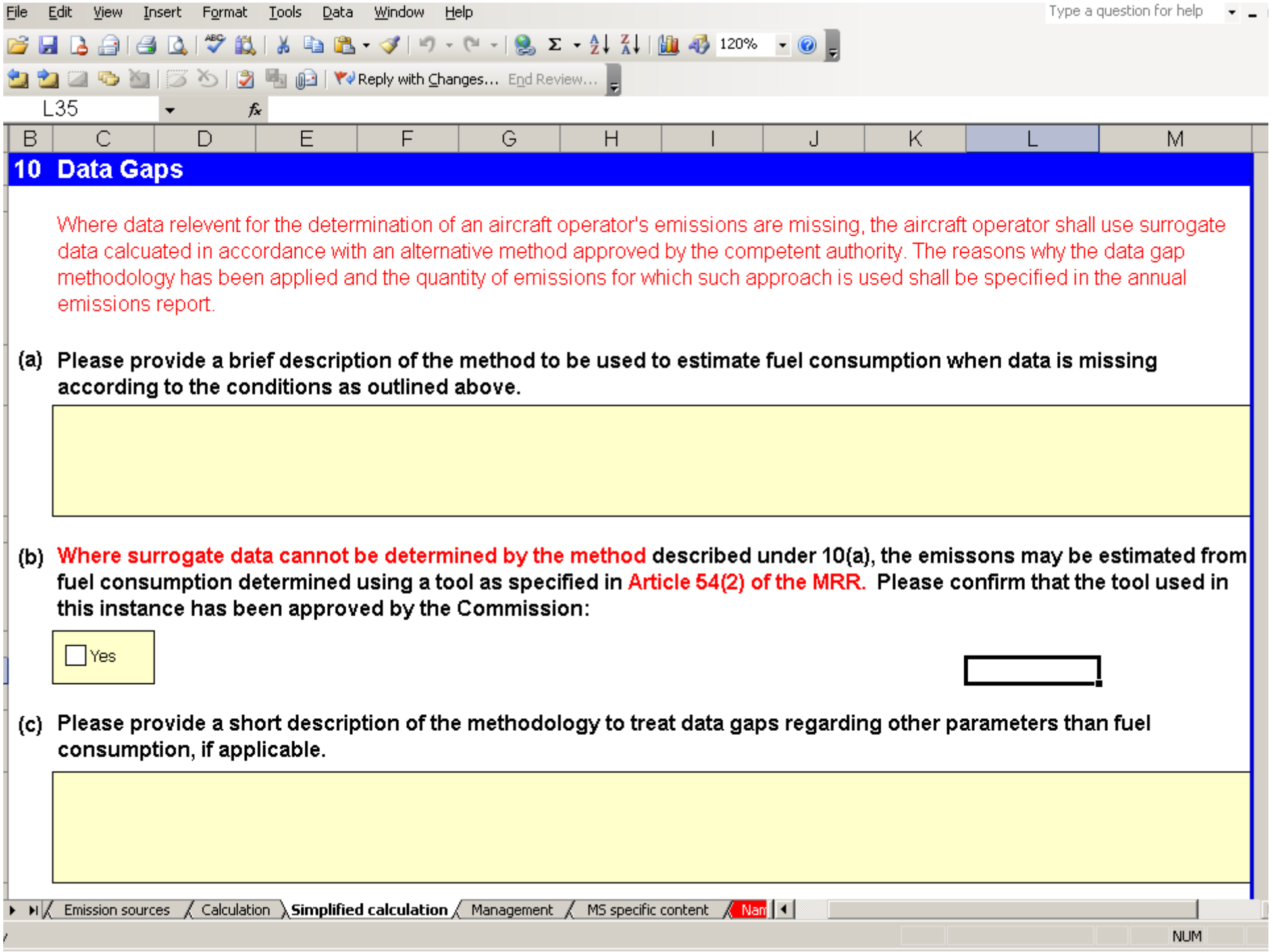
Page 2
7 Uncertainty Assessment
(a) Where on-board systems are used for measuring fuel uplifts and the quantity remaining in the tank, please provide uncert
with the on-board measurement equipment.
Where fuel uplifts are determined solely on the invoiced quantity of fuel or other appropriate information provided by the supplier, no further proof of uncertainty
Uncertainty values should be taken from the calibration certificate, where applicable, or otherwise from equipment manufacturer's specification. An estimate u
drop-down list should be used only if more precise values are not available.
Generic aircraft type (ICAO aircraft type designator) and sub-type
Uncertainty of measurement of fuel remaining in the tank
Are fuel uplifts determined solely by the invoiced quantity of fuel or other appropriate information provided by the supplier?
If no:
Measurement equipment uncertainty (+/-%)
Location of evidence of calibration c
Please select
Please select
Yes
No
Please continue on a separate sheet if required.
(b) Please identify the main sources of uncertainty and their associated levels of uncertainty for your fuel consumption meas
You are not required to carry out a detailed uncertainty assessment, provided that you identify the sources of uncertainties and their associated levels of uncert
other components than those listed in 7(a) may be based on conservative expert judgement.
Emission sources Calculation Simplified calculation Management MS specific content Nam
NUM

Data Gaps Methodology

- Annex 1, section 2, 2(f) requires an aircraft operator who does not intend to use the small emitter tool, to provide a description of their "data gap" methodology.
- Art 65(2) implies a hierarchy, in that where data is missing, surrogate data shall be obtained from an 'alternative method' defined in the plan and where data cannot be obtained via this method the operator may use the small emitters tool.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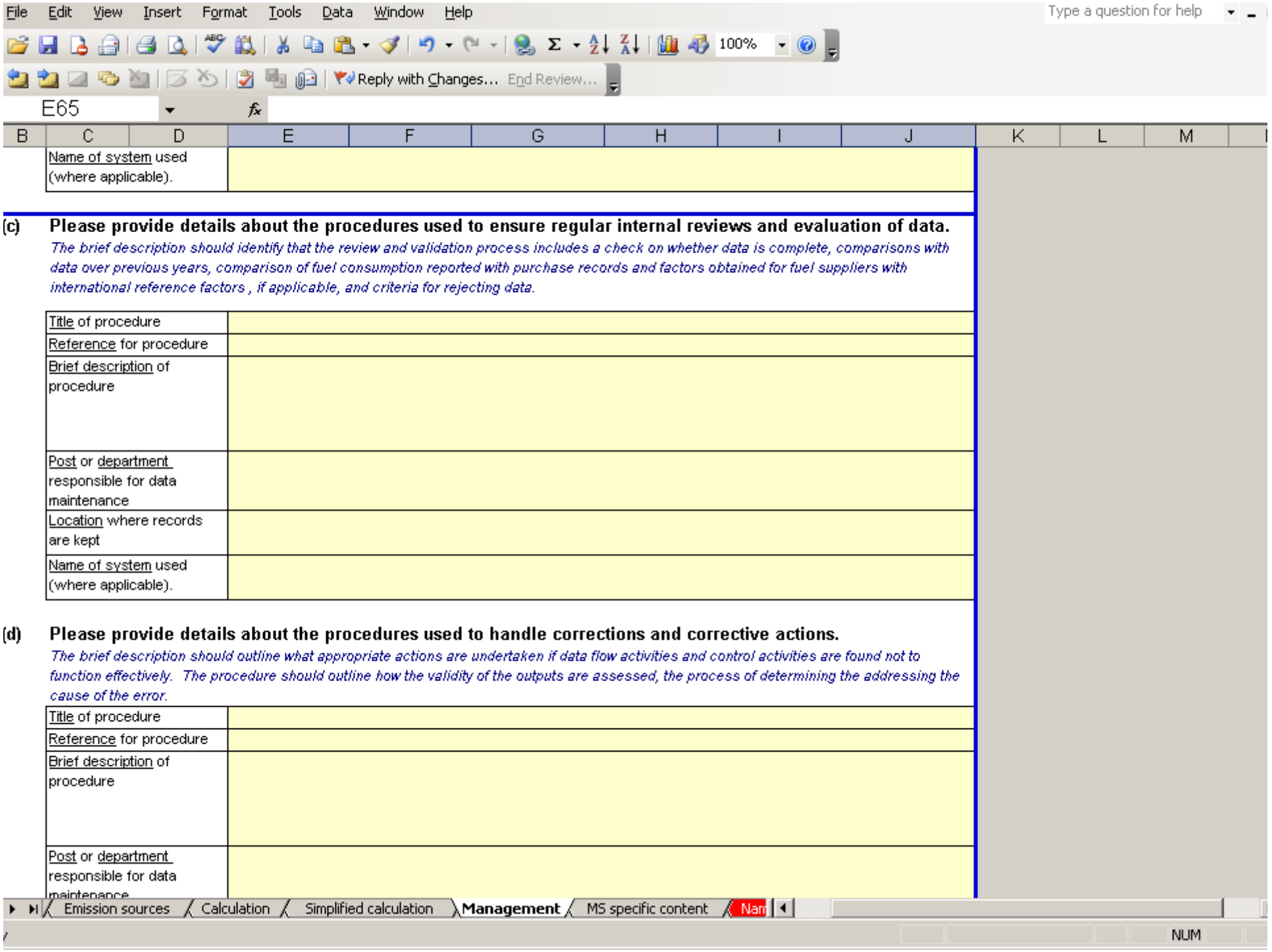
10 Data Gaps
Where data relevent for the determination of an aircraft operator's emissions are missing, the aircraft operator shall use surrogate data calcuated in accordance with an alternative method approved by the competent authority. The reasons why the data gap methodology has been applied and the quantity of emissions for which such approach is used shall be specified in the annual emissions report.
(a) Please provide a brief description of the method to be used to estimate fuel consumption when data is missing according to the conditions as outlined above.
(b) Where surrogate data cannot be determined by the method described under 10(a), the emissons may be estimated from fuel consumption determined using a tool as specified in Article 54(2) of the MRR. Please confirm that the tool used in this instance has been approved by the Commission:
Yes
(c) Please provide a short description of the methodology to treat data gaps regarding other parameters than fuel consumption, if applicable.
Emission sources Calculation Simplified calculation Management MS specific content
NUM

Management and Control Section

- Managing the assignment of responsibilities and competences of personnel
- Regular evaluation of the monitoring plan's appropriateness and potential measures for improvement
- Description of procedures for the data flow activities
- Description of procedures for control activities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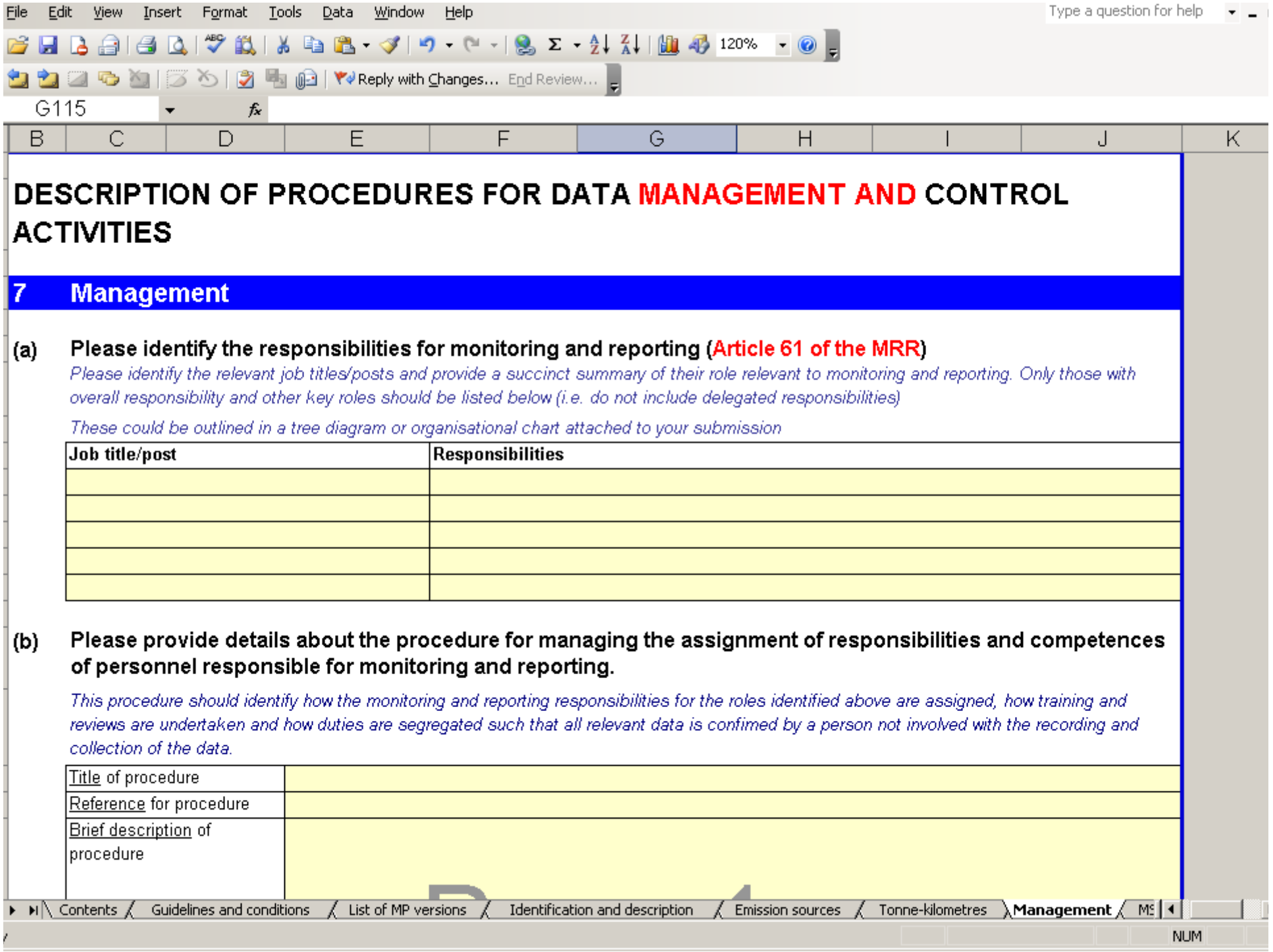
Name of system used (where applicable).
(c) Please provide details about the procedures used to ensure regular internal reviews and evaluation of data.
The brief description should identify that the review and validation process includes a check on whether data is complete, comparisons with data over previous years, comparison of fuel consumption reported with purchase records and factors obtained for fuel suppliers with international reference factors , if applicable, and criteria for rejecting data.
Title of procedure
Reference for procedure
Brief description of procedure
Post or department responsible for data maintenance
Location where records are kept
Name of system used (where applicable).
(d) Please provide details about the procedures used to handle corrections and corrective actions.
The brief description should outline what appropriate actions are undertaken if data flow activities and control activities are found not to function effectively. The procedure should outline how the validity of the outputs are assessed, the process of determining the addressing the cause of the error.
Title of procedure
Reference for procedure
Brief description of procedure
Post or department responsible for data
Emission sources Calculation Simplified calculation Management MS specific content
NUM

Minimum content – Aviation TKM

- Monitoring methodology for additional aircraft type removed;
- Management and Control Sections mirror those in the Aviation Emission Monitoring plan;
- Requirement for supporting evidence;
- Procedures for Data flow and Control activities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B C D E F G H I J K
DESCRIPTION OF PROCEDURES FOR DATA MANAGEMENT AND CONTROL ACTIVITIES
7 Management
(a) Please identify the responsibilities for monitoring and reporting (Article 61 of the MRR)
Please identify the relevant job titles/posts and provide a succinct summary of their role relevant to monitoring and reporting. Only those with overall responsibility and other key roles should be listed below (i.e. do not include delegated responsibilities)
These could be outlined in a tree diagram or organisational chart attached to your submission
Job title/post
Responsibilities
(b) Please provide details about the procedure for managing the assignment of responsibilities and competences of personnel responsible for monitoring and reporting.
This procedure should identify how the monitoring and reporting responsibilities for the roles identified above are assigned, how training and reviews are undertaken and how duties are segregated such that all relevant data is confimed by a person not involved with the recording and collection of the data.
Title of procedure
Reference for procedure
Brief description of procedure
Contents Guidelines and conditions List of MP versions Identification and description Emission sources Tonne-kilometres Management
NUM

Summary

- Templates
  - evolution (using Aviation experience)
  - meet minimum requirements (**SIMPLE**)
  - consistent approach
- Efficiency
  - same requirements for operations in all MS
- Effective
  - can be built into most MS ways of working
  - greater harmonisation
  - completeness (leading to greater compliance)