
Prime Minister

Minister for the Environment, Sustainable Development and Climate Change

Chairperson, Environment and Resources Authority

L.N. XX of 2018

ENVIRONMENT PROTECTION ACT
(CAP. 549)

Limitation of Emissions of Certain Atmospheric Pollutants Regulations, 2018

By virtue of the powers conferred by articles 54 and 55 of the Environment Protection Act, the Minister for the Environment, Sustainable Development and Climate Change, in consultation with the Environment and Resources Authority, has made the following regulations:-

Citation.

1. (1) The title of these regulations is the Limitation of Emissions of Certain Atmospheric Pollutants Regulations.

Entry into force.

- (2) These regulations shall come into force on the date of publication in the Government Gazette.

Scope.

2. These regulations provide for the implementation of Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC (hereinafter 'Directive (EU) 2016/2284'), and the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to the LRTAP Convention as amended.

Interpretation.

3. For the purpose of these regulations and unless the context otherwise requires :-

Cap. 549 "Act" means the Environment Protection Act;

S.L. 549.59 "air quality objectives" means the limit values, target values and exposure concentration obligations for air quality set out in the Ambient Air Quality Regulations;

"anthropogenic emissions" means atmospheric emissions of pollutants associated with human activities;

"the Authority" or "competent authority" means the Environment and Resources Authority established under the Act;

"black carbon" or "BC" means carbonaceous particulate matter that absorbs light;

"emission" means the release of a substance from a point or diffuse source into the atmosphere;

"emission limits" means the maximum amount of the pollutant in tonnes, which can be emitted by the specified date of compliance;

"emission reduction" means the percentage reduction in the emission of the pollutant relative to emissions of the same pollutant in 2005, to be achieved by the specified date of compliance;

"fine particulate matter" or "PM_{2,5}" means particles with an aerodynamic diameter equal to or less than 2,5 micrometres (µm);

"international maritime traffic" means journeys at sea and in coastal waters by water-borne vessels of all flags, except fishing vessels, that depart from the territory of one country and arrive in the territory of another country;

"landing and take-off cycle" means the cycle that includes taxi in and out, take-off, climb out, approach, landing and all other aircraft activities that take place below the altitude of 3,000 feet;

"LRTAP Convention" means the Convention on Long-Range Transboundary Air Pollution;

"national emission reduction commitment" means Malta's obligation in the reduction of emissions of a substance; it specifies the emission reduction that as a minimum has to be delivered in the target calendar year, as a percentage of the total of emissions released during the base year (2005);

"nitrogen oxides" or 'NO_x' means nitric oxide and nitrogen dioxide, expressed as nitrogen dioxide;

“non-methane volatile organic compounds” or “NMVOC” means all organic compounds other than methane, that are capable of producing photochemical oxidants by reaction with nitrogen oxides in the presence of sunlight;

“ozone precursors” means nitrogen oxides, non-methane volatile organic compounds, methane, and carbon monoxide;

“pollution control zone” means a sea area not exceeding 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, established by a Member State for the prevention, reduction and control of pollution from vessels in accordance with applicable international rules and standards;

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“public authority” means any organisation covered by Public Administration Act.

“sulphur dioxide” or “SO₂” means all sulphur compounds expressed as sulphur dioxide, including sulphur trioxide (SO₃), sulphuric acid (H₂SO₄), and reduced sulphur compounds such as hydrogen sulphide (H₂S), mercaptans and dimethyl sulphides.

Emission Reduction Commitments.

4. (1) The competent authority shall publish on its website the emission limits in tonnes equivalent to the emission reductions in sub-regulations (2), (3) and (4). The calculation of the emission limits shall refer to the year 2005 as a baseline. The emission limits may be subject to any adjustments, which may be made by the competent authority to the 2005 atmospheric emissions inventory according to Part 4 of Annex IV of Directive (EU) 2016/2284.

(2) By 1 January 2020, the total anthropogenic emissions of SO₂, NO_x, NMVOC, NH₃ and PM_{2,5} shall, as a minimum, be limited to the following emission reductions and their corresponding emission limits:

- (i) SO₂ emission reduction of 77%;
- (ii) NO_x emission reduction of 42%;
- (iii) NMVOC emission reduction of 23%;
- (iv) NH₃ emission reduction of 4%; and
- (v) PM_{2,5} emission reduction of 25%.

(3) For the period from 01 January 2020 to 01 January 2025, the competent authority shall ensure that emission reductions follow a linear trajectory aimed at achieving the following indicative emission reductions and corresponding emission limits:

- (i) SO₂ emission reduction of 86%;
- (ii) NO_x emission reduction of 60%;
- (iii) NMVOC emission reduction of 25%;

(iv) NH₃ emission reduction of 14%; and

(v) PM_{2,5} emission reduction of 38%.

(4) By 1 January 2030, without prejudice to sub-regulations (2) and (3), the competent authority shall ensure that the total anthropogenic emissions of SO₂, NO_x, NMVOC, ammonia (NH₃) and PM_{2,5} shall as a minimum be limited to the following emission reductions and their corresponding emission limits:

(i) SO₂ emission reduction of 95%

(ii) NO_x emission reduction of 79%;

(iii) NMVOC emission reduction of 27%;

(iv) NH₃ emission reduction of 24%; and

(v) PM_{2,5} emission reduction of 50%.

(5) The competent authority shall allow for deviations from the trajectory specified in sub-regulation (3) if it is technically and economically more efficient to do so and as long as the emission levels and the respective emission in sub-regulation (4) are unaltered. These alternative trajectories together with the reasons behind them shall be appropriately described in the air pollution control programme for Malta, prepared pursuant to regulation 5.

(6) If the indicative emission levels and the respective emission reductions in sub-regulation (3) cannot be achieved, then the competent authority shall include the reasons behind any deviations from these indicative targets in Malta's subsequent informative inventory reports, prepared pursuant to sub-regulation (4) of regulation 6. These informative inventory reports shall also include any measures, which would realign the emission levels and the respective emission reductions with those in sub-regulation (3).

(7) The following emissions are not to be taken into account for the purpose of compliance with the above emission reduction commitments:

(a) aircraft emissions beyond the landing and take-off cycle;

(b) emissions from international maritime traffic; and

(c) emissions of nitrogen oxides and non-methane volatile organic compounds from activities falling under the 2014 Nomenclature for Reporting as provided by the LRTAP Convention categories 3B (manure management) and 3D (agricultural soils).

Air Pollution Control Programme.

5. (1) In order to achieve the reductions in anthropogenic emissions in regulation 4, the competent authority, in collaboration with the Ministry responsible for the Environment and any other relevant public authorities, shall compile, adopt and

implement an air pollution control programme in accordance with Part 1 of Schedule II.

(2) The air pollution control programme shall:

- (a) include an assessment of the likelihood of impacts on the air quality in both Malta and in neighbouring Member States, from emissions in Malta. This shall be determined using, where appropriate, the data and methodologies developed by the European Monitoring and Evaluation Programme (EMEP) under the Protocol to the LRTAP Convention on long-term financing of the cooperative programme for monitoring and evaluation of the long-range transmission of air pollutants in Europe;
- (b) take account of the need to reduce air pollutant emissions for the purpose of reaching compliance with air quality objectives in Malta and where appropriate in neighbouring Member States;
- (c) prioritise the emission reduction measures for BC when taking measures to achieve the emission levels and emission reductions for PM_{2,5};
- (d) be coherent with other relevant plans and programmes arising from both National and European Union legislation.

(3) The air pollution control programme shall include the obligatory measures in Part 2 of Schedule II, and may include the optional measures in the same Schedule, or measures having an equivalent mitigation effect.

(4) The competent authority shall update the air pollution control programme at least every four years.

(5) If according to the data submitted through the national emissions inventory in sub-regulation (1) of regulation 6, the targets in Regulation 4 are not complied with or if there is a risk that these targets will not be complied with, then the emission reduction policies and measures in the air pollution control programme shall without prejudice to sub-regulation (4), be updated within eighteen months from the submission of the latest national atmospheric emissions inventory or the emissions projections.

(6) The competent authority shall consult the public and any relevant institutional stakeholders which by reason of their specific environmental responsibilities in the field of air pollution, quality and management, may be affected by this programme, in accordance with the Plans and Programmes (Public Participation) Regulations, on the draft air pollution control programme, and on any significant updates prior to the finalisation of this programme.

(7) Transboundary consultations shall be conducted when appropriate.

(8) The competent authority shall compile the first air pollution control programme by 01 April 2019.

(9) The competent authority shall notify any updates to the air pollution control programme pursuant to sub-regulation (5) to the European Commission within two months.

National Atmospheric Emissions Inventory.

6. (1) The competent authority shall prepare and annually update the national atmospheric emissions inventory for the pollutants set out in Table A of Schedule I, in accordance with the requirements set out therein.

(2) The competent authority shall prepare and update every four years spatially disaggregated national atmospheric emission inventories and large point source inventories, for the pollutants in Table B of Schedule I, in accordance with the requirements set out therein.

(3) The competent authority shall prepare and update every two years national emission projections for pollutants set out in Table B of Schedule I, in accordance with the requirements set out therein.

(4) The competent authority shall compile an informative inventory report accompanying the national atmospheric emissions inventory in sub-regulation (1) and the projections in sub-regulation (3), in accordance with the requirements set by Table C of Schedule I.

(5) The competent authority shall prepare and update the national atmospheric emissions inventory, the emissions projections, the spatially disaggregated national atmospheric emissions inventory and large point sources and the accompanying informative inventory report in accordance with Schedule III.

(6) The competent authority shall forward the national atmospheric emissions inventory and projections, spatially disaggregated national atmospheric emissions inventory and large point sources and the informative inventory report to the European Commission and the European Environment Agency by the reporting dates set out in Schedule I.

(7) The competent authority shall ensure that the reporting requirements in sub-regulation (6) are consistent with the reporting to the Secretariat of the LRTAP Convention.

Monitoring Air Pollution Impacts.

7. (1) The competent authority shall ensure the monitoring of negative impacts of air pollution on ecosystems, which include sites representative of freshwater, natural and semi-natural habitats and forest ecosystem types, taking a cost-effective and risk-based approach. The competent authority shall coordinate with other the monitoring programmes established under the Ambient Air Quality Regulations, the Water Policy Framework Regulations, and the Flora, Fauna and Natural Habitats Protection Regulations, and if appropriate, the LRTAP Convention. The competent

authority may, where appropriate, make use of data collected under those programmes.

(2) The optional monitoring indicators in Schedule IV may be used in order to satisfy the requirement in sub-regulation (1).

(3) The competent authority shall forward to the European Environment Agency and the European Commission the following information:

(a) The location of the monitoring sites and associated indicators used to monitor for air pollution impacts by 01 July 2018 and every four years thereafter; and

(b) The monitoring date in sub-regulation (1) by 01 July 2019 and every four years thereafter.

Collection of information.

8. The competent authority may prepare forms, questionnaires and other records for the collection of information related to the activity of any sources deemed relevant to the compilation of any of the obligations in regulation 6 and shall specify the date or the period within which these completed forms, questionnaires and other records shall be returned to the competent authority.

9. Notwithstanding anything contained in any other law enjoining secrecy, the competent authority may for the purpose of obtaining the information in regulation 8 require any natural or legal person to –

(a) complete a form, questionnaire or other record;

(b) answer any questions; or

(c) provide any information or records,

and any information so obtained shall be subject to the restrictions on use and prohibition on disclosure of information specified in regulation 12.

10. Notwithstanding anything contained in any other law enjoining secrecy, any natural or legal person holding records, which in the opinion of the competent authority, could lead to the compilation of the information in regulation 6, shall grant to the competent authority access to such records for obtaining the said information.

11. The competent authority may request any public authority to consult and cooperate with it for the purpose of assessing the potential of records of the authority as a source of information, which could contribute to the compilation of the obligations

in regulation 6, and the public authority shall comply with any such request, in so far as resources permit.

12. No information obtained under these regulations, which can be related to an identifiable natural or legal person shall, except with the written consent of that natural or legal person, be disseminated, shown or communicated to any person or body except -

(a) for the purpose of a prosecution under the Act;

(b) to officers of the competent authority in the course of their duties under the Act; and

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(c) if the information is within the scope of the Freedom of Access to Information on the Environment Regulations.

Access to information.

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13. In accordance with the Freedom of Access to Information on the Environment Regulations, the competent authority shall ensure that the following information is made publically available through electronic means:

(a) the air pollution control programme and any updates;

(b) the national emission inventory (including, where applicable, the adjusted national emissions inventories), the national emission projections, the informative inventory reports and additional reports and information provided to the European Commission in accordance with regulation 6(6).

Penalties.

14. Any person who commits an offence against these regulations or against any measures imposed by the competent authority in accordance with these regulations in order to reach the Emission Reduction Commitments, shall, on conviction, be liable:

(a) in the case of a first offence, a fine (*multa*) of not less than one-thousand five hundred euro (€1,500) but not exceeding three thousand euro (€3,000), or to imprisonment for a term not exceeding two years, or to both such fine and imprisonment;

(b) in the case of a second or subsequent offence, a fine (*multa*) of not less than three thousand euro (€3,000) to but not exceeding six thousand euro (€6,000), or imprisonment not exceeding two years, or both such fine and imprisonment.

Provided that the court shall order any person who has been found guilty of committing an offence against these regulations to pay for the expenses incurred by the competent authority or other public entity as a result of the said offence, to undertake mitigation or prevention measures in order to address offence-related damages, if applicable, the revocation of any permit issued by the competent authority and the confiscation of the *corpus delicti*.

Applicability of the Criminal Code.

- Cap. 9. 15. (1) The provisions of article 23 and 30(1) of the Criminal Code shall, *mutatis mutandis*, apply to proceedings, in respect of offences against these regulations, so however that the disqualification from holding or obtaining a license, permit or authority shall in no case be for less than one year.
- (2) Notwithstanding the provisions of article 370 of the Criminal Code, proceedings for an offence against these regulations shall be taken before the Court of Magistrates (Malta) or the Court of Magistrates (Gozo), as the case may be, and shall be in accordance with the provisions of the Criminal Code regulating the procedure before the said courts as courts of criminal judicature.
- (3) Notwithstanding the provisions of the Criminal Code, the Attorney General shall always have a right of appeal to the Court of Criminal Appeal from any judgment given by the Court of Magistrates (Malta) or the Court of Magistrates (Gozo) in respect of proceedings for any offence against these regulations.

Language of the Schedules.

16. As per article 54(3) of the Act, Schedules I to IV to these regulations are being published in the English.

Repeal of Regulations.

17. The following regulations shall be repealed with effect from the date of publication of these regulations:
- S.L 549.32 a. the National Emissions Ceilings for Certain Atmospheric Pollutants Regulations; and
 - S.L 549.115 b. the Limitation of Emissions of Certain Atmospheric Pollutants Regulations.

SCHEDULE I

Monitoring and Reporting of Atmospheric Emissions

Table A. Reporting of annual emissions pursuant to sub-regulation (1) of regulation 6

Element	Pollutant	Time series	Reporting Requirement	Reporting dates
<i>Gaseous Pollutants</i>				
Total national emissions by NFR ⁽¹⁾ source category ⁽²⁾ .	SO ₂	Annual from 1990 to reporting year minus 2 (X-2)	compulsory	15 February
	NO _x		compulsory	
	NMVOC		compulsory	
	NH ₃		compulsory	
	CO		compulsory	
<i>Particulate Matter</i>				
Total national emissions by NFR ⁽¹⁾ source category ⁽²⁾ .	PM ₁₀ ⁽³⁾	Annual from 2000 to reporting year minus 2 (X-2)	compulsory	15 February
	PM _{2,5}		compulsory	
	BC (if available)		compulsory	
	TSP		optional	15 February
<i>Heavy Metals</i>				
Total national emissions by NFR ⁽¹⁾ source category ⁽²⁾ .	Cd ⁽⁴⁾	Annual from 1990 to reporting year minus 2 (X-2)	compulsory	15 February
	Hg ⁽⁵⁾		compulsory	
	Pb ⁽⁶⁾		compulsory	
	As and its compounds		optional	
	Cr and its compounds		optional	
	Cu and its compounds		optional	
	Ni and its compounds		optional	
	Se and its compounds		optional	
Zn and its compounds	compulsory			
<i>Persistent Organic Pollutants (POPs)</i>				
Total national emissions by NFR ⁽¹⁾ source category ⁽²⁾ .	Benzo(a)pyrene	Annual from 1990 to reporting year minus 2 (X-2)	compulsory	15 February
	Benzo(b)fluoranthene		compulsory	
	Benzo(k)fluoranthene		compulsory	
	Indeno(1,2,3-cd)pyrene		compulsory	
	Total PAHs ⁽⁷⁾		compulsory	
	Dioxins/Furans		compulsory	
	PCBs ⁽⁸⁾		compulsory	
	HCB ⁽⁹⁾		compulsory	

⁽¹⁾Nomenclature for reporting (NFR) as provided by the LRTAP Convention.

⁽²⁾Natural emissions shall be reported in accordance with the methodologies laid down in the LRTAP Convention and the EMEP/EEA air pollutant emission inventory guidebook. They shall not be included in national totals and shall be separately reported.

⁽³⁾"PM₁₀" means particles with an aerodynamic diameter equal to or less than 10µm.

⁽⁴⁾Cadmium.

⁽⁵⁾Mercury.

⁽⁶⁾Lead.

⁽⁷⁾Polycyclic aromatic hydrocarbons.

⁽⁸⁾Polychlorinated biphenyls.

⁽⁹⁾Hexachlorobenzene.

Table B. Reporting requirements on emissions and projections pursuant to sub-regulations (2) and (3) of regulation 6

Element	Pollutants	Time series/target years	Reporting dates
National gridded data of emissions by source category (GNFR)	SO ₂ , NO _x , NMVOC, CO, NH ₃ , PM ₁₀ , PM _{2,5}	Every four years for reporting year minus 2 (X-2) as from 2017	1 May ⁽¹⁾
	Cd, Hg and Pb.		
	Total PAHs, HCB, PCBs, dioxins/furans		
	BC (if available)		
Large Point Sources (LPS) by source category (GNFR)	SO ₂ , NO _x , NMVOC, CO, NH ₃ , PM ₁₀ , PM _{2,5}	Every four years for reporting year minus 2 (X-2) as from 2017	1 May ⁽¹⁾
	Cd, Hg and Pb.		
	Total PAHs, HCB, PCBs, dioxins/furans		
	BC (if available)		
Projected emissions by aggregated NFR	SO ₂ , NO _x , NMVOC, CO, NH ₃ , PM ₁₀ , PM _{2,5}	Biennial, covering projections years 2020, 2025, 2030 and where available, 2040 and 2050 as from 2017	15 March
	BC (if available)		

⁽¹⁾ re-submissions due to errors shall be provided within our weeks and include a clear explanation of the changes made.

Table C. Reporting requirements on informative inventory report pursuant to subregulation (4) of regulation 6

Element	Pollutants	Time series/target years	Reporting dates
Informative Inventory Report	SO ₂ , NO _x , NMVOC, CO, NH ₃ , PM ₁₀ , PM _{2,5}	All years from 1990 onwards	15 March
	Cd, Hg and Pb.	All years from 1990 onwards	
	BC	All years from 2000 onwards	
	TSP	All years from 2000 onwards	
	Total PAHs, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene HCB, PCBs, dioxins/furans	All years from 1990 onwards	
	If available: As, Cr, Cu, Ni, Se, and Zn and their compounds.	All years from 1990 onwards	

SCHEDULE II

Content of the Air Pollution Control Programmes in regulation 5

Part 1. Minimum content of the Air Pollution Control Programme

1. The initial national air pollution control programmes referred to in regulation 5 shall at least cover the following content:
 - (a) the air quality and pollution policy framework in which context the programme has been developed, including:
 - (i) the policy priorities and their relationship to priorities set in other relevant policy areas, including climate change and, when appropriate, agriculture, industry and transport;
 - (ii) the responsibilities attributed to authorities other than the competent authority;
 - (iii) the progress made by current policies and measures in reducing emissions and improving air quality, and the degree of compliance with national and European Union obligations;
 - (iv) the projected further evolution assuming no change to already adopted policies and measures;
 - (b) the policy options considered to comply with the emission reduction commitments for the period between 2020 and 2029 and for 2030 onwards and the intermediate emission levels determined for 2025 and to contribute to further improve the air quality, and their analysis, including the method of analysis; where available, the individual or combined impacts of the policies and measures on emission reductions, air quality and the environment and the associated uncertainties;
 - (c) the measures and policies selected for adoption, including a timetable for their adoption, implementation and review and the competent authorities responsible;
 - (d) where relevant, an explanation of the reasons why the indicative emission levels for 2025 cannot be met without measures entailing disproportionate costs;
 - (e) where relevant, an account of the use of the flexibilities set out in Article 5 of Directive (EU) 2016/2284 and any environmental consequences arising from such use;
 - (f) an assessment of how selected policies and measures ensure coherence with plans and programmes set up in other relevant policy areas.
2. The national air pollution control programme updates referred to in regulation 5 shall at least include
 - (a) an assessment of the progress made with implementation of the programme, the reduction of emissions and the reduction of concentrations;
 - (b) any significant changes in the policy context, assessments, the programme or the implementation timetable thereof.

Part 2. Emission reduction measures referred to in sub-regulation (2) of regulation 5.

The UNECE Guidance Document on Preventing and Abating Ammonia Emissions from Agricultural Sources of 2014 (the 'Ammonia Guidance Document'), together with the best available techniques in accordance with Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast), shall be taken into account in order to comply with the emission reduction commitments contained in regulation 4.

A. Measures to control ammonia emissions

1. An advisory code of good agricultural practice shall be established to control ammonia emissions, taking into account the UNECE Framework Code for Good Agricultural Practice for Reducing Ammonia Emissions of 2014, covering at least the following items:
 - (a) nitrogen management, taking into account the whole nitrogen cycle;
 - (b) livestock feeding strategies;
 - (c) low-emission manure spreading techniques;
 - (d) low-emission manure storage systems;
 - (e) low-emission animal housing systems;
 - (f) possibilities for limiting ammonia emissions from the use of mineral fertilisers.
2. A national nitrogen budget may be established in order to monitor the changes in overall losses of reactive nitrogen from agriculture, including ammonia, nitrous oxide, ammonium, nitrates and nitrites, based on the principles set out in the UNECE Guidance Document on Nitrogen Budgets.
3. The use of ammonium carbonate fertilisers shall be prohibited and ammonia emissions from inorganic fertilisers may be reduced by using the following approaches:
 - (a) replacing urea-based fertilisers by ammonium nitrate-based fertilisers;
 - (b) where urea-based fertilisers continue to be applied, using methods that have been shown to reduce ammonia emissions by at least 30 % compared with the use of the reference method, as specified in the Ammonia Guidance Document;
 - (c) promoting the replacement of inorganic fertilisers by organic fertilisers and, where inorganic fertilisers continue to be applied, spreading them in line with the foreseeable requirements of the receiving crop or grassland with respect to nitrogen and phosphorus, also taking into account the existing nutrient content in the soil and nutrients from other fertilisers.
4. Ammonia emissions from livestock manure may be reduced by using the following approaches:
 - (a) reducing emissions from slurry and solid manure application to arable land and grassland, by using methods that reduce emissions by at least 30 % compared with the reference method described in the Ammonia Guidance Document and on the following conditions:

- (i) only spreading manures and slurries in line with the foreseeable nutrient requirement of the receiving crop or grassland with respect to nitrogen and phosphorous, also taking into account the existing nutrient content in the soil and the nutrients from other fertilisers;
- (ii) not spreading manures and slurries when the receiving land is water saturated, flooded, frozen or snow covered;
- (iii) applying slurries spread to grassland using a trailing hose, trailing shoe or through shallow or deep injection;
- (iv) incorporating manures and slurries spread to arable land within the soil within four hours of spreading;

(b) reducing emissions from manure storage outside of animal houses, by using the following approaches:

- (i) for slurry stores constructed after 1 January 2022, using low emission storage systems or techniques which have been shown to reduce ammonia emissions by at least 60 % compared with the reference method described in the Ammonia Guidance Document, and for existing slurry stores at least 40 %;
- (ii) covering stores for solid manure;
- (iii) ensuring farms have sufficient manure storage capacity to spread manure only during periods that are suitable for crop growth:

(c) reducing emissions from animal housing, by using systems which have been shown to reduce ammonia emissions by at least 20 % compared with the reference method described in the Ammonia Guidance Document;

(d) reducing emissions from manure, by using low protein feeding strategies which have been shown to reduce ammonia emissions by at least 10 % compared with the reference method described in the Ammonia Guidance Document.

B. Emission reduction measures to control emissions of fine particulate matter and black carbon

1. Without prejudice to Annex II on cross-compliance of Regulation (EU) No 1306/2013 of the European Parliament and of the Council of 17 December 2013 on the financing, management and monitoring of the common agricultural policy and repealing Council Regulations (EEC) No 352/78, (EC) No 165/94, (EC) No 2799/98, (EC) No 814/2000, (EC) No 1290/2005 and (EC) No 485/2008, the open field burning of agricultural harvest residue and waste and forest residue may be banned.

The implementation of any ban implemented in accordance with the first subparagraph, shall be monitored and enforced. Any exemptions to such a ban shall be limited to preventive programmes to avoid uncontrolled wildfires, to control pest or to protect biodiversity.

2. An advisory code of good agricultural practice may be established for the proper management of harvest residue, on the basis of the following approaches:

(a) improvement of soil structure through incorporation of harvest residue;

(b) improved techniques for incorporation of harvest residue;

(c) alternative use of harvest residue;

(d) improvement of the nutrient status and soil structure through incorporation of manure as required for optimal plant growth, thereby avoiding burning of manure (farmyard manure, deep-straw bedding).

C. Preventing impacts on small farms

The impacts on small and micro farms shall be taken into account fully when measures such as the ones outlined in Sections A and B are taken.

For instance small and micro farms can be exempt from these measures where possible and appropriate in view of the applicable reduction commitments.

SCHEDULE III

Methodologies for the preparation and updating of atmospheric emission inventories and projections, informative inventory reports referred to in regulation 5.

An atmospheric emissions inventory shall be prepared for the pollutants referred to in Schedule I. The atmospheric emissions inventories, emission projections, spatially disaggregated atmospheric emission inventories, large point source inventories and informative inventory reports, shall be prepared using the methodologies adopted by Parties to the LRTAP Convention (EMEP Reporting Guidelines). In addition, atmospheric emissions inventories shall be prepared using the EMEP/EEA air pollutant emission inventory Guidebook (EMEP/EEA Guidebook). Supplementary information, in particular the activity data, needed for the assessment of the atmospheric emission inventories and projections shall be prepared in accordance with the same guidelines. Reliance upon the EMEP Reporting Guidelines is without prejudice to the additional arrangements specified in this Schedule and to the requirements on reporting nomenclature, time series and reporting dates specified in Schedule I.

Part 1. National annual emission inventories

1. National emission inventories shall be transparent, consistent, comparable, complete and accurate.
2. Emissions from identified key categories shall be calculated in accordance with the methodologies defined in the EMEP/EEA Guidebook and with the aim of using a Tier 2 or higher (detailed) methodology. Other scientifically based and compatible methodologies for establishing atmospheric emission inventories may be used if these methodologies produce more accurate estimates than the default methodologies set out in the EMEP/EEA Guidebook.
3. Emissions from transport, shall be calculated and reported in a way consistent with national energy balances reported by Malta to Eurostat.
4. Emissions from road transport shall be calculated and reported on the basis of the fuels sold in Malta. As an alternative, emissions from road transport may be reported and calculated on the basis of fuels used or kilometres driven in Malta.
5. The annual atmospheric emissions shall be expressed in the applicable unit specified in the NFR reporting template of the LRTAP Convention.

Part 2. Emissions projections

1. Emission projections shall be transparent, consistent, comparable, complete and accurate and reported information shall include at least the following: (a) clear identification of the adopted and planned policies and measures included in the projections; (b) where appropriate, the results of sensitivity analysis performed for the projections; (c) a description of methodologies, models, underlying assumptions and key input and output parameters. 2. Projections of emissions shall be estimated and aggregated to relevant source sectors.
2. Emissions projections report shall include a 'with measures' (adopted measures) projection and, where relevant, a 'with additional measures' (planned measures) projection for each pollutant in accordance with the guidance established in the EMEP/EEA Guidebook.

3. Emission projections shall be consistent with the annual atmospheric emission inventory for the year x-3 and with projections reported under Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC.

Part 3. Informative Inventory Report

The informative inventory reports shall be prepared in accordance with the EMEP Reporting Guidelines and reported using the template for inventory reports as specified therein. The inventory report shall include, as a minimum, the following information:

- (a) descriptions, references and sources of information of the specific methodologies, assumptions, emission factors and activity data, as well as the rationale for their selection;
- (b) a description of the national key categories of emission sources;
- (c) information on uncertainties, quality assurance and verification;
- (d) a description of the institutional arrangements for inventory preparation
- (e) recalculations and planned improvements;
- (f) if relevant, information on the use of the flexibilities provided for under Article 5(1), (2), (3) and (4) of Directive (EU) 2016/2284.
- (g) if relevant, information on the reasons for deviating from the reduction trajectory determined in accordance with subregulation 3 of regulation 4, as well as the measures to converge back on the trajectory;
- (h) an executive summary.

SCHEDULE IV

Optional Indicators for monitoring the impact of air pollution referred to in regulation 7.

- (a) for freshwater ecosystems: establishing the extent of biological damage, including sensitive receptors (microphytes, macrophytes and diatoms), and loss of fish stock or invertebrates:

the key indicator acid neutralising capacity (ANC) and the supporting indicators acidity (pH), dissolved sulphate (SO_4^{2-}), nitrate (NO_3^-) and dissolved organic carbon: frequency of sampling: from yearly (in lake autumn turnover) to monthly (streams).

- (b) for terrestrial ecosystems: assessing the soil acidity, soil nutrients loss, nitrogen status and balance as well as biodiversity loss:

- (i) the key indicator soil acidity: exchangeable fractions of base cations (base saturation) and exchangeable aluminium in soils:

frequency of sampling: every 10 years;

supporting indicators: pH, sulphate, nitrate, base cations, aluminium concentrations in soil solution:

frequency of sampling: every year (where relevant);

- (ii) the key indicator soil nitrate leaching ($\text{NO}_{3,\text{leach}}$):

frequency of sampling: every year;

- (iii) the key indicator carbon-nitrogen ratio (C/N) and the supporting indicator of total nitrogen in soil (N_{tot}):

frequency of sampling: every 10 years;

- (iv) the key indicator nutrient balance in foliage (N/P,N/K, N/Mg):

frequency of sampling: every four years.

- (c) for terrestrial ecosystems: assessing ozone damage to vegetation growth and biodiversity:

- (i) the key indicator vegetation growth and foliar damage and the supporting indicator carbon flux (C_{flux}):

frequency of sampling: every year;

- (ii) the key indicator exceedance of flux-based critical levels:

frequency of sampling: every year during the growing season.