EU Registry on Industrial Sites

Access template

Version 0.6 - 19/11/2020







Cover design: EEA

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Layout: EEA

Acknowledgments

This manual for the use of the EU Registry's Access template was prepared by the <u>European Environment Agency</u> (EEA) in cooperation with the <u>European Topic Centre for Air Pollution and Climate Change Mitigation</u> (ETC/ACM).

Should you have any need of clarification, please contact industrial.emissions@eea.europa.eu.

Version control

Version ID	Date	Description
0.1	August 2017	Internal version for beta testing of the conversion service.
0.2	September 2017	ETC/ACM revisions and further beta testing
0.3	December 2017	Minor corrections (e.g. reporting accuracy for location data).
0.4	September 2018	Updates to reflect publication of CID 2018/1135/EU.
0.5	February 2019	Updated to resolve remaining issues before finalisation of the workflow.
0.6	November 2020	Correction to CapacityWasteIncinerationType units

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1 Introduction

1.1 Purpose of this document

Reporting countries will make submissions to the EU Registry on Industrial Sites (hereafter the EU Registry) using Geography Markup Language (GML) files that are compliant with the GML schema definition (XSD) for the EU Registry data model. Such files will be submitted to the EEA Central Data Repository (CDR) using existing EEA reporting infrastructure. This process is described in the EU Registry Manual for Reporters¹.

There are two mechanisms to prepare GML files:

- Direct GML route: Countries generate their own GML files that must comply with the requirements
 of the XSD and be validated, on top of the basic GML syntax, against INSPIRE Geography Markup
 Language (GML) requirements. This option will typically be used by reporting countries with a high
 degree of IT expertise and who are capable of mapping data fields in their data systems to the EU
 Registry data model and of producing fully compliant GML files.
- 2. Microsoft Access route: Countries populate a predefined Microsoft Access template that is then converted into a valid GML file by an EEA online conversion service. Many reporting countries may not have access to expert IT resources and may also be more comfortable populating Microsoft Access databases. This may well be the case for many thematic experts who will be more familiar with Microsoft Access than with GML. Therefore, to help ensure the success of the EU Registry and the requisite data flow between reporting counties and the EEA, the EEA is committed to providing this alternative GML-generation route that will help reporting countries with limited IT resources.

Once the GML file has been generated by one of these two routes the reporting country will then submit it to the EU Registry via the CDR.

This document offers guidance in understanding the structure of the Access template that can be populated by reporting countries to then produce compliant GML files using the EEA's conversion service.

1.2 Resources for the conversion service

The resources provided to use the Access template route are:

- The Access template, which can be downloaded from the EU Registry project website;
- The web-based conversion service, which is accessible via the EU Registry project website.

It is assumed the user will already have an understanding of the EU Registry data model. Reference should be made to EU Registry Data Model Documentation or to the EU Registry Manual for Reporters for details on the data model structure and requirements for each attribute.

¹ Please refer to the EU Registry project website for all referenced documentation: http://cdrtest.eionet.europa.eu/help/jed_registry

2 Use of the conversion service

2.1 The conversion service explained

The EEA developed and maintains an online conversion service. Users can populate an Access file with data from their systems, upload this Access file to an EEA server, and the server returns a URL (by email) where the converted GML file can then be downloaded.

The conversion service is programmed using FME, a software that allows for a flexible and visual transformation of data formats. Users do not need a software license as the EEA uses FME Server, a package that allows running of the processes via a web interface.

Countries can however re-use and adapt the FME process which is why the full file with the conversion process is posted in the EU Registry project website (see Section 1.2).

Figure 1 includes a screenshot of the conversion service where the Access template and the web-form to upload and execute the conversion are available.

Figure 1 Screenshot of the EU Registry conversion service

Access to GML - EU Registry conversion tool About the tool Version of the tool: Version 0.2 Code of the FME process The process that runs behind this website is also available for reuse. For that to be possible, the software Feature Manipulation Engine (FME) is Current version of the FME process: download here Access template The EU Registry conversion tool uses a pre-defined template in MS Access format. Countries must populate the template with data referred to a single reporting year without any change in its structure. Once populated the conversion tool below generates a GML file compliant with the EU Registry's GML Schema. ■ Microsoft Access template: download here Version 0.2 Instructions to populate the MS Access template: <u>download here</u> - Version 0.3 Dummy-data example: download here Version 0.2 Conversion tool The following tool converts a populated Access file to GML format. The output GML file has to then be uploaded to the relevant CDR envelope. Form for the conversion: Choose file No file chosen Upload File E-mail address: Execute Instructions: 1) Choose a file (the button displays different messages depending on the browser e.g. "Choose File" or "Browse...") 2) Select the MS Access file that you want to convert 3) Click "Upload File" to upload the file (this action may take several minutes depending on the file size) 4) Provide a valid e-mail address and click "Execute" 5) When the conversion is ready, the system will send you an e-mail, with the link to the converted file 6) Click in the link and download the file 7) Add the XML file to the relevant envelope in CDR. EEA Reportnet works best with Google Chrome (recommended) or Mozilla Firefox.

2.2 Structure of the template

The use of Internet Explorer is not recommended.

The Access template mirrors, to a large extent, the Unified Modelling Language (UML) data model of the EU Registry. The template is intended to be a bridge between reporting countries data systems and the EU Registry data model. However, the constraints of Access lead to slight changes in the structure. Furthermore, the need to offer a flexible, user-friendly framework, means the template's design will not be fully optimised from an IT expert's point of view.

Two key principles governed the development of the template:

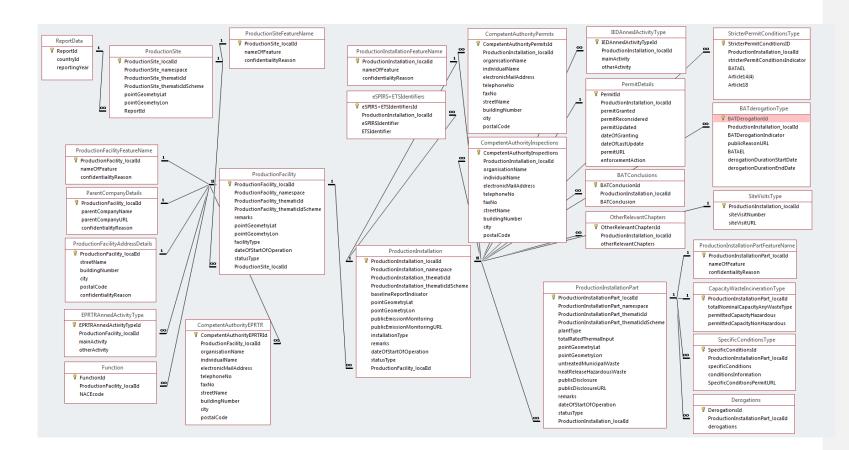
- Understandability and intuitiveness The data structure should match the EU Registry UML data
 model wherever possible and field names should either match attributes in the EU Registry data
 model directly or else be easily understood by a thematic expert.
- A robust self-contained structure It should be possible to easily populate the template from
 reporting countries databases with export queries that can be based on countries' own INSPIREcompliant identifiers. The need to track and relate identifiers that are internal to the template should
 be avoided wherever possible.

Figure 2 offers an overview of the template's structure. The template only contains the attributes that are included in the so-called streamlined view of the EU Registry's data model (more details are available in the EU Registry data model documentation). Attributes for which the INSPIRE Production Facilities data specification either permits a multiplicity of zero or allows to be voidable are not included. The attributes covered here constitute the EU Registry and represent those with which reporting countries need to be concerned with reporting.

Certain tables in the template will repeat the same values multiple times (e.g. the same competent authority details will be repeated for each relevant facility). While this is inefficient from a data base structure point of view, it means the tables can be populated with simple queries and where only the (required) identifier for each industrial entity needs to be tracked. Some reporting countries may already have their own internal ID's for competent authorities or parent companies. However, by repeating such information for each relevant entity, the template can also be used by reporting countries who do not have such a sophisticated system for tracking such data (e.g. they might use a simple 'flat file' for all information associated with a facility or installation).

To reiterate, the overarching purpose for this Access template is to serve as an understandable stepping stone between reporting countries' databases and generating GML files that are compliant with the EU Registry data model. Therefore, robustness and ease of understanding by a range of users (who will include thematic experts or others with limited IT experience) are paramount to the design of the template. Direct population of GML files that are compliant with the EU Registry XSD by exporting directly from reporting countries' data systems remains another option for organisations with sufficient IT capabilities.

Figure 2 Structure and relationships of the EU Registry Access template



Commented [AD1]: I've updated this image. Now reflects the fact BATConclusions has been removed from two tables.

2.3 Key aspects when populating the template

There are certain aspects that need to be taken into account to successfully populate the Access template:

- The data need to refer to a single reporting year. If a country would like to report for several
 reporting years, independent Access files must be produced for each year and need to be converted
 separately.
- The conversion service does not implement comprehensive quality assurance; this only happens in
 the Central Data Repository (CDR) envelope where the converted GML file is reported. There are
 some limited checks and validations within the Access template. These include checks on referential
 integrity (a parent entity must exist for a new lower-level entity) and values are required for certain
 fields.
- When populating fields dependent on code lists, please ensure the values are admitted values in the approved lists in the <u>EEA Data Dictionary folder for the EU Registry</u>.
- INSPIRE v4.0 (the version to which the EU Registry data model is referred to) requires codes to be
 reported as uniform resource locators (URLs). This means that all attributes populated using a code
 list need to provide a full valid URL to the EEA Data Dictionary code. For example:

The code list 'ConditionOfFacilityValue' is used to report the status of an industrial entity. In a case where an entity needs to be reported as 'decommissioned', the valid way to populate the relevant attribute would be:

http://dd.eionet.europa.eu/vocabulary/euregistryonindustrialsites/ConditionOfFacilityValue/decommissioned

- The hosting relationships between the levels (i.e. site, facility, installation and part) need to be complied with. This means that, whenever an entity in a lower level is populated, all the higher (parent) levels must be populated. In cases where a lower level entity (e.g. waste incinerator) is not regulated as an installation under the Industrial Emission Directive Chapter II nor as a facility under the E-PRTR Regulation, a parent site, facility and installation will still have to be populated as geographical objects.
- The tables that relate to the main feature types of the EU Registry data model (i.e. site, facility, installation and part) are linked with each other on the basis of the 'local identifier' of the INSPIRE identifier for the relevant feature type. These identifiers are used wherever possible as the link between the main tables (representing the feature types) and the ancillary tables (representing the data types). In general, these identifiers act as the primary key of the relevant tables. However, when the relationship between an attribute and the parent table has a multiplicity that is NOT 1:1, an ID specific to the Access template which is populated with an auto-number acts as the primary key (i.e. a unique identifier for each record in the table) in the background. Reporting countries should not need to track these auto-number generated values.
- Where multiplicity of zero or voidable is permitted for an attribute within the main feature types of
 the EU Registry data model then the corresponding field should be left as blank (i.e. null) in the Access
 template. Where multiplicity of zero or voidable is permitted for an attribute that is linked to a data
 type in the EU Registry data model then no record should be provided in the corresponding ancillary
 table in the Access template.
- It is recommended that users populate the highest level tables first in sequence. Specifically, internal
 referential integrity warnings can be avoided by populating tables in the following order:

- 1. 'ReportData'
- 2. 'ProductionSite', followed by its ancillary table, i.e. 'ProductionSiteFeatureName'.
- 3. 'ProductionFacility', followed by its ancillary tables; these ancillary tables can be filled out in any order.
- 4. 'ProductionInstallation', followed by its ancillary tables.
- 5. 'ProductionInstallationPart', followed by its ancillary tables.

2.4 Means to populate the template

Countries are expected to develop their own means to populate the Microsoft Access template, e.g. using Access queries and macros. As all reporting countries operate with a different data storage mechanism, the EEA is not in the position to produce a populating mechanism that fits all circumstances.

The EEA offers, however, assistance to clarify further with IT experts in the reporting countries on the possible ways of populating the template, the mapping of the Access template structure with the GML schema tags, and any other support that may be needed. Should you need such assistance, please contact the EEA staff via the email listed in the "Acknowledgements" section of this document.

2.5 Description of the data tables and fields

This section describes the data tables and fields of the Access template and how these relate to the EU Registry data model feature types, data types and attributes.

ReportData

This table is analogous to the ReportData feature type in the EU Registry data model.

- ReportId Internal ID to the Access template which is populated with an auto-number. Since there
 should only be one record in the ReportData table the value of this field should be expected to be
 1.
- countryld Correlates directly to this attribute in the EU Registry data model.
- reportingYear Correlates directly to this attribute in the EU Registry data model.

ProductionSite

This table is analogous to the ProductionSite feature type in the EU Registry data model.

- ProductionSite_localId This is the first of two components that make up the INSPIRE identifier for
 the production site. It is assigned by the data provider and may be a national identifier, provided
 this satisfies INSPIRE requirements for uniqueness, persistence, traceability and feasibility. For
 more information and recommended examples, see Annex 4 of the EU Registry Data Model
 Documentation. Values for this field must be unique amongst all production sites in the reporting
 country. This field will be used to link to the ProductionSiteFeatureName table.
- ProductionSite_namespace This is the second of two components that make up the INSPIRE
 identifier for the production site and should identify the data source. This field should be populated
 with the same value for all production site records (and indeed, for identifiers for all entities). Use
 of the ISO2 country code plus the acronym CAED (for Competent Authority for Environment Data)
 is recommended, e.g. "ES.CAED".
- ProductionSite_thematicId This is the first of two components that make up the
 ThematicIdentifier for the production site. It is a unique identifier that may be internal to each
 reporting country's own national reporting system. The field is an opportunity for the reporting
 country to provide an additional identifier, but is not mandatory.

- **ProductionSite_thematicIdScheme** This is the second of two components that make up the ThematicIdentifier for the production site and should identify the scheme used to assign the identifier. If one is provided.
- pointGeometryLat Latitude of the approximate centre of the production site using the ETRS89
 (2D)-EPSG:4258 coordinate reference system with a 10-meter precision (i.e. to four decimal places).
- pointGeometryLon Longitude of the approximate centre of the production site using the ETRS89 (2D)-EPSG:4258 coordinate reference system with a 10-meter precision (i.e. to four decimal places).
- **ReportID** Used to link to the parent ReportData table. Since there should only be one record in the ReportData table it is expected that all values for this field would be 1.

ProductionSite Ancillary Tables:

ProductionSiteFeatureName

This table is based upon the Feature Name data type in the EU Registry data model and contains information specific to the production site.

- **ProductionSite localId** Used to link to the parent ProductionSite table.
- nameOfFeature Correlates directly to this attribute in the EU Registry data model.
- confidentialityReason This field is populated with a valid URL for the relevant value in the
 code list 'ReasonValue' in the <u>EEA Data Dictionary</u> folder for the EU Registry. For example, if
 confidentiality is claimed by Article 4(2)(a), in accordance with Directive 2003/4/EC, then the
 field should be populated with:

http://dd.eionet.europa.eu/vocabulary/euregistryonindustrialsites/ReasonValue/Article4(2)(a).

ProductionFacility

This table is analogous to the ProductionFacility feature type in the EU Registry data model although various ancillary tables are used to hold some of the facility information.

- ProductionFacility_localId This is the first of two components that make up the INSPIRE identifier for the production facility. It is assigned by the data provider and likely may well be a national identifier, provided this satisfies INSPIRE requirements for uniqueness, persistence, traceability and feasibility. For more information and recommended examples, see Annex 4 of the EU Registry Data Model Documentation. Values for this field must be unique amongst all production facilities in the reporting country. This field will be used to link to multiple other tables that hold some facility information.
- **ProductionFacility_namespace** This is the second of two components that make up the INSPIRE identifier for the production facility and should identify the data source. This field should be populated with the same value for all production facility records (and indeed, for identifiers for all entities). Use of the ISO2 country code plus the acronym CAED (for Competent Authority for Environment Data) is recommended, e.g. "ES.CAED".
- **ProductionFacility_thematicId** This is the first of two components that make up the ThematicIdentifier for the production facility. It is a unique identifier internal to each reporting country's own national reporting system. The field is an opportunity for the reporting country to provide an additional identifier but is not mandatory.
- **ProductionFacility_thematicIdScheme** This is the second of two components that make up the ThematicIdentifier for the production facility and should identify the scheme used to assign the identifier, if one is provided.
- Remarks This is an optional field which allows reporting countries to provide additional
 information about the facility.
- pointGeometryLat Latitude of the approximate centre of the production facility using the ETRS89 (2D)-EPSG:4258 coordinate reference system with a 10-meter precision (i.e. to four decimal places).

- pointGeometryLon Longitude of the approximate centre of the production facility using the ETRS89 (2D)-EPSG:4258 coordinate reference system with a 10-meter precision (i.e. to four decimal places).
- facilityType This field is populated with a valid URL for the relevant value in the code list 'FacilityTypeValue' in the EEA Data Dictionary folder for the EU Registry.
- dateOfStartOfOperation correlates directly to this attribute in the EU Registry data model.
- statusType This field is populated with a valid URL for the relevant value in the code list 'ConditionOfFacilityValue' in the EEA Data Dictionary folder for the EU Registry.
- **ProductionSite_localId** Used to link to the parent ProductionSite table.

ProductionFacility Ancillary Tables:

ProductionFacilityFeatureName

This table is based upon the FeatureName data type in the EU Registry data model and contains information specific to the production facility.

- ProductionFacility_localId Used to link to the parent ProductionFacility table.
- nameOfFeature Correlates directly to this attribute in the EU Registry data model.
- **confidentialityReason** This field is populated with a valid URL for the relevant value in the code list 'ReasonValue' in the EEA Data Dictionary folder for the EU Registry.

ParentCompanyDetails

This table is analogous to the ParentCompanyDetails data type in the EU Registry data model.

- ProductionFacility_localId Used to link to the parent ProductionFacility table.
- parentCompanyName Correlates directly to this attribute in the EU Registry data model.
- parentCompanyURL Correlates directly to this attribute in the EU Registry data model.
- confidentialityReason This field is populated with a valid URL for the relevant value in the code list 'ReasonValue' in the EEA Data Dictionary folder for the EU Registry.

$\underline{ProductionFacilityAddressDetails}$

This table is based upon the AddressDetails data type in the EU Registry data model and contains information specific to the production facility.

- **ProductionFacility_localId** Used to link to the parent ProductionFacility table.
- **streetName** Correlates directly to this attribute in the EU Registry data model.
- **buildingNumber** Correlates directly to this attribute in the EU Registry data model.
- city Correlates directly to this attribute in the EU Registry data model.
- postalCode Correlates directly to this attribute in the EU Registry data model.
- confidentialityReason This field is populated with a valid URL for the relevant value in the
 code list 'ReasonValue' in the EEA Data Dictionary folder for the EU Registry.

EPRTRAnnexIActivityType

This table is analogous to the EPRTRAnnexlActivityType data type in the EU Registry data model. Where there is more than one Other Activity to be reported separate records repeating the ProductionFacility_localId and the mainActivity values should be created.

EPRTRAnnexlActivityTypeld – There is not 1..1 multiplicity between the parent
ProductionFacility and this table since a facility can have more than one Other Activity.

Therefore, this ID (which is internal to the Access template) acts as the primary key for this table. This field is populated with an auto-number.

- **ProductionFacility_localId** Used to link to the parent ProductionFacility table.
- mainActivity This field is populated with a valid URL for the relevant value in the code list 'EPRTRAnnexlActivityValue' in the EEA Data Dictionary folder for the EU Registry.
- otherActivity This field is populated with a valid URL for the relevant value in the code list 'EPRTRAnnexIActivityValue' in the EEA Data Dictionary folder for the EU Registry.

Function

This table is analogous to the Function INSPIRE data type which is used in the EU Registry data model. Where there is more than one economic activity to be reported then separate records repeating the ProductionFacility_localId should be created.

- FunctionId There is not 1..1 multiplicity between the parent ProductionFacility and this table since a facility can have more than one NACE code. Therefore, this ID (which is internal to the Access template) acts as the primary key for this table. This field is populated with an auto-number.
- **ProductionFacility_localId** Used to link to the parent ProductionFacility table.
- NACEcode —This field is populated with a valid URL for the relevant values in the code list 'NACEValue' in the EEA Data Dictionary folder for the EU Registry. This field correlates to the 'activity' attribute in the EU Registry data model.

CompetentAuthorityEPRTR

This table is based upon both the CompetentAuthority and the AddressDetails data types in the EU Registry data model and contains information specific to the production facility. Where there is more than one competent authority to be reported then separate records repeating the ProductionFacility_localld should be created. A field for the attribute confidentialityReason is not included here since it is not expected that the address of a competent authority would be confidential.

- CompetentAuthorityEPRTRId There is not 1..1 multiplicity between the parent
 ProductionFacility and this table since a facility could have more than one competent
 authority for E-PRTR reporting. Therefore, this ID (which is internal to the Access template)
 acts as the primary key for this table. This field is populated with an auto-number.
- **ProductionFacility localId** Used to link to the parent ProductionFacility table.
- organisationName Correlates directly to this attribute in the EU Registry data model
- individualName Correlates directly to this attribute in the EU Registry data model.
- **electronicMailAddress** Correlates directly to this attribute in the EU Registry data model.
- telephoneNo Correlates directly to this attribute in the EU Registry data model.
- faxNo Correlates directly to this attribute in the EU Registry data model.
- $\bullet \quad \textbf{streetName} \textbf{Correlates directly to this attribute in the EU Registry data model}.$
- **buildingNumber** Correlates directly to this attribute in the EU Registry data model.
- **city** Correlates directly to this attribute in the EU Registry data model.
- **postalCode** Correlates directly to this attribute in the EU Registry data model.

ProductionInstallation

This table is analogous to the ProductionInstallation feature type in the EU Registry data model although various ancillary tables are used to hold some of the installation information.

• **ProductionInstallation_localId** – This is the first of two components that make up the INSPIRE identifier for the production installation. It is assigned by the data provider and likely may well be a

national identifier, provided this satisfies INSPIRE requirements for uniqueness, persistence, traceability and feasibility. For more information and recommended examples, see Annex 4 of the EU Registry Data Model Documentation. Values for this field must be unique amongst all production installations in the reporting country. This field will be used to link to multiple other tables that hold some installation information.

- **ProductionInstallation_namespace** This is the second of two components that make up the INSPIRE identifier for the production installation and should identify the data source. This field should be populated with the same value for all production installation records (and indeed, for identifiers for all entities). Use of the ISO2 country code plus the acronym CAED (for Competent Authority for Environment Data) is recommended, e.g. "ES.CAED".
- ProductionInstallation_thematicId This is the first of two components that make up the
 ThematicIdentifier for the production installation. It is a unique identifier internal to each reporting
 country's own national reporting system. The field is an opportunity for the reporting country to
 provide an additional identifier but it is not mandatory.
- ProductionInstallation_thematicIdScheme This is the second of two components that make up
 the ThematicIdentifier for the production installation and should identify the scheme used to assign
 the identifier, if one is provided.
- **baselineReportIndicator** This field is populated with a valid URL for the relevant values in the code list 'BaselineReportValue' in the EEA Data Dictionary folder for the EU Registry.
- pointGeometryLat Latitude of the approximate centre of the production installation using the ETRS89 (2D)-EPSG:4258 coordinate reference system with a 1-meter precision (i.e. to five decimal places).
- pointGeometryLon Longitude of the approximate centre of the production installation using the ETRS89 (2D)-EPSG:4258 coordinate reference system with a 1-meter precision (i.e. to five decimal places).
- publicEmissionMonitoring Member States should describe how the results of emission
 monitoring have been made available to the public, in accordance with Article 24(3)(b) of the IED.
 The attribute may be left unpopulated if the installation reported is not within the scope of the IED
 or if emission monitoring is yet to have taken place.
- publicEmissionMonitoringURL This field is populated with the URL at which the results of
 emission monitoring are found. This may be left unpopulated if the installation reported is not
 within the scope of the IED or if a website has not been developed.
- **installationType** This field is populated with a valid URL for the relevant value in the code list 'InstallationTypeValue' in the EEA Data Dictionary folder for the EU Registry.
- remarks This is an optional field which allows reporting countries to provide additional information about the installation.
- dateOfStartOfOperation correlates directly to this attribute in the EU Registry data model.
- statusType This field is populated with a valid URL for the relevant value in the code list 'ConditionOfFacilityValue' in the EEA Data Dictionary folder for the EU Registry.
- ProductionFacility_localId Used to link to the parent ProductionFacility table.

ProductionInstallation Ancillary Tables:

ProductionInstallationFeatureName

This table is based upon the FeatureName data type in the EU Registry data model and contains information specific to the production installation.

- **ProductionInstallation_localId** Used to link to the parent ProductionInstallation table.
- nameOfFeature Correlates directly to this attribute in the EU Registry data model.
- confidentialityReason This field is populated with a valid URL for the relevant value in the code list 'ReasonValue' in the EEA Data Dictionary folder for the EU Registry.

eSPIRS+ETSIdentifiers

This table is based upon the eSPIRS and ETS identifier attributes in the EU registry data model. Each individual eSPIRSIdentifier or ETSIdentifier should only be populated once in the whole table. If there are multiple identifiers that apply, add new rows to the table. Where the number of relevant eSPIRSIdentifiers and ETSIdentifiers are different, leave the relevant attribute blank instead of repeating the identifier. For example, if there are two appropriate eSPIRSIdentifiers and one appropriate ETSIdentifier for a single ProductionInstallation then this installation should have two separate entries in the eSPIRS+ETSIdentifiers table, and the ETSIdentifier should be left blank for the second entry.

- eSPIRS+ETSIdentifiersId There is not 1..1 multiplicity between the parent
 ProductionInstallation and this table since an installation could have more than one eSPIRS
 or ETS Identifier. Therefore, this ID (which is internal to the Access template) acts as the
 primary key for this table. It is populated with an auto-number.
- **ProductionInstallation localId** Used to link to the parent ProductionInstallation table.
- eSPIRSIdentifier Correlates directly to this attribute in the EU Registry data model.
- ETSIdentifier Correlates directly to this attribute in the EU Registry data model.

PermitDetails

This table is analogous to the PermitDetails data type which is used in the EU Registry data model.

- PermitId There is not 1..1 multiplicity between the parent ProductionInstallation and this
 table since an installation could have more than one permit. Therefore, this ID (which is
 internal to the Access template) acts as the primary key for this table. It is populated with
 an auto-number.
- ProductionInstallation_localId Used to link to the parent ProductionInstallation table.
- permitGranted Correlates directly to this attribute in the EU Registry data model.
- **permitReconsidered** Correlates directly to this attribute in the EU Registry data model.
- permitUpdated Correlates directly to this attribute in the EU Registry data model.
- dateOfGranting Correlates directly to this attribute in the EU Registry data model.
- $\bullet \quad \textbf{dateOfLastUpdate} \textbf{Correlates directly to this attribute in the EU Registry data model}.$
- permitURL Correlates directly to this attribute in the EU Registry data model.
- **enforcementAction** If no permit has been granted under Article 5 of the IED, this field is populated with a description of what enforcement action has been taken.

IEDAnnexIActivityType

This table is analogous to the IEDAnnexlActivityType data type in the EU Registry data model. Where there is more than one Other Activity to be reported separate records repeating the ProductionInstallation_localId and the mainActivity values should be created.

- IEDAnnexIActivityTypeId There is not 1..1 multiplicity between the parent
 ProductionInstallation table and this table since an installation can have more than one
 Other Activity. Therefore, this ID (which is internal to the Access template) acts as the
 primary key for this table. This field is populated with an auto-number.
- **ProductionInstallation_localId** Used to link to the parent ProductionInstallation table.
- mainActivity This field is populated with a valid URL for the relevant value in the code list 'IEDAnnexlActivityValue' in the EEA Data Dictionary folder for the EU Registry.
- otherActivity This field is populated with a valid URL for the relevant value in the code list 'IEDAnnexlActivityValue' in the EEA Data Dictionary folder for the EU Registry.

otherRelevantChapters

This table allows the population of more than one relevant value for an installation, i.e. handling multiplicity of more than 1 for this attribute in the EU Registry data model. Where there is more than one Other Relevant Chapter to be reported then separate records repeating the ProductionInstallation_localId should be created.

- OtherRelevantChaptersId There is not 1..1 multiplicity between the parent
 ProductionInstallation table and this table since an installation can be subject to more than
 one Other Relevant Chapter. Therefore, this ID (which is internal to the Access template)
 acts as the primary key for this table. This field is populated with an auto-number.
- **ProductionInstallation localId** Used to link to the parent ProductionInstallation table.
- otherRelevantChapters This field is populated with a valid URL for the relevant value in the code list 'RelevantChapterValue' in the EEA Data Dictionary folder for the EU Registry.

CompetentAuthorityPermits

This table is based upon both the CompetentAuthority and the AddressDetails data types in the EU Registry data model and contains information specific to the production installation. Where there is more than one competent authority to be reported then separate records repeating the ProductionInstallation_localld should be created. A field for the attribute confidentialityReason is not included here since it is not expected that the address of a competent authority would be confidential.

- CompetentAuthorityPermitsId There is not 1..1 multiplicity between the parent
 ProductionInstallation table and this table since an installation can have more than one
 competent authority for permits. Therefore, this ID (which is internal to the Access
 template) acts as the primary key for this table. This field is populated with an autonumber.
- **ProductionInstallation_localId** Used to link to the parent ProductionInstallation table.
- organisationName Correlates directly to this attribute in the EU Registry data model
- individualName Correlates directly to this attribute in the EU Registry data model.
- **electronicMailAddress** Correlates directly to this attribute in the EU Registry data model.
- **telephoneNo** Correlates directly to this attribute in the EU Registry data model.
- faxNo Correlates directly to this attribute in the EU Registry data model.
 streetName Correlates directly to this attribute in the EU Registry data model.
- **buildingNumber** Correlates directly to this attribute in the EU Registry data model.
- city Correlates directly to this attribute in the EU Registry data model.
- **postalCode** Correlates directly to this attribute in the EU Registry data model.

CompetentAuthorityInspections

This table is based upon both the CompetentAuthority and the AddressDetails data types in the EU Registry data model and contains information specific to the production installation. Where there is more than one competent authority to be reported then separate records repeating the ProductionInstallation_localld should be created. A field for the attribute confidentialityReason is not included here since it is not expected that the address of a competent authority would be confidential.

- CompetentAuthorityInspections There is not 1..1 multiplicity between the parent
 ProductionInstallation table and this table since an installation can have more than one
 competent authority for inspections. Therefore, this ID (which is internal to the Access
 template) acts as the primary key for this table. This field is populated with an autonumber.
- **ProductionInstallation_localId** Used to link to the parent ProductionInstallation table.
- **organisationName** Correlates directly to this attribute in the EU Registry data model.

- individualName Correlates directly to this attribute in the EU Registry data model.
- electronicMailAddress Correlates directly to this attribute in the EU Registry data model.
- telephoneNo Correlates directly to this attribute in the EU Registry data model.
- faxNo Correlates directly to this attribute in the EU Registry data model.
- **streetName** Correlates directly to this attribute in the EU Registry data model.
- buildingNumber Correlates directly to this attribute in the EU Registry data model.
- city Correlates directly to this attribute in the EU Registry data model.
- postalCode Correlates directly to this attribute in the EU Registry data model.

BATConclusions

This table allows for the identification of the Commission Implementing Decisions on BAT conclusions that are applicable to any of the activities carried out at the installation. The table has 0..* multiplicity so may be left unpopulated if the installation reported is not within the scope of the IED or the IED installation is not subject to a BAT conclusion.

- BATConclusionId There is not 1..1 multiplicity between the parent ProductionInstallation
 table and this table since an installation can have more than one relevant BAT conclusion.
 Therefore, this ID (which is internal to the Access template) acts as the primary key for this
 table. This field is populated with an auto-number.
- **ProductionInstallation_localId** Used to link to the parent ProductionInstallation table.
- BATConclusion This field is populated with a valid URL for the relevant value in the code list 'BATConclusion' in the EEA Data Dictionary folder for the EU Registry.

<u>StricterPermitConditionsType</u>

This table is based on the StricterPermitConditionsType data type in the EU registry data model. It gives information on whether the permit sets stricter emission limit values than the lower value of the BAT-AEL range and whether those stricter emission limit values were set pursuant to Article 14(4), Article 18 of the IED or both of those Articles.

- StricterPermitConditionsId There is not 1..1 multiplicity between the parent
 ProductionInstallation table and this table since an installation can have more than one
 relevant BAT AEL. Therefore, this ID (which is internal to the Access template) acts as the
 primary key for this table. This field is populated with an auto-number.
- **ProductionInstallation_localId** Used to link to the parent ProductionInstallation table.
- StricterPermitConditionsIndicator This is a Boolean data type, i.e. a tick box (TRUE when ticked) to identify the circumstance that the permit sets stricter emission limit values than the lower value of the BAT-AEL range.
- BATAEL This field is populated with a valid URL for the relevant value in the code list 'BATAELvalue' in the EEA Data Dictionary folder for the EU Registry.
- Article14(4) This is a Boolean data type. It should be marked TRUE if the stricter emission limit values were set pursuant to Article 14(4) of the IED.
- Article18 This is a Boolean data type. It should be marked TRUE if the stricter emission
 limit values were set pursuant to Article 18 of Directive 2010/75/EU. Both Article14(4) and
 Article18 can be marked TRUE in the case that the stricter emission limit values were set
 pursuant to both articles.

BATderogationType

This table is based on the BATDerogation data type in the EU registry data model. It gives information on whether a derogation was granted under Article 15(4) of Directive 2010/75/EU.

- BATDerogationId There is not 1..1 multiplicity between the parent ProductionInstallation table and this table since an installation can have more than one relevant BAT AEL.
 Therefore, this ID (which is internal to the Access template) acts as the primary key for this table. This field is populated with an auto-number.
- **ProductionInstallation_localId** Used to link to the parent ProductionInstallation table.
- BATDerogationIndicator This Boolean field indicates whether an installation is subject to derogation under Article 15(4) of the IED.
- publicReasonURL This field is to be populated with the URL at which the specific reasons for the derogation are made available to the public.
- BATAEL This field is populated with a valid URL for the relevant value in the code list 'BATAELvalue' in the EEA Data Dictionary folder for the EU Registry.
- derogationDurationStartDate Where applicable, this should be populated with the date
 of the start of the derogation.
- derogationDurationEndDate Where applicable, this should be populated with the date of the end of the derogation.

SiteVisitsType

This table is based on the siteVisits data type in the EU registry data model. The table may be left unpopulated if the installation reported is not within the scope of the IED.

- **ProductionInstallation_localId** Used to link to the parent ProductionInstallation table.
- siteVisitNumber This field should be populated with the number of site visits to the
 production installation which were carried out by the competent authority during the
 reporting year.
- siteVisitURL This field should be populated with either the specific URL of the last site
 visit report, or a generic URL explaining how individual visit reports can be publicly
 accessed.

ProductionInstallationPart

This table is analogous to the ProductionInstallationPart feature type in the EU Registry data model although various ancillary tables are used to hold some of the installation information.

- ProductionInstallationPart_localId This is the first of two components that make up the INSPIRE identifier for the production installation part. It is assigned by the data provider and likely may well be a national identifier, provided this satisfies INSPIRE requirements for uniqueness, persistence, traceability and feasibility. For more information and recommended examples, see Annex 4 of the EU Registry Data Model Documentation. Values for this field must be unique amongst all production installation parts in the reporting country. This field will be used to link to multiple other tables that hold some installation part information.
- ProductionInstallationPart_namespace This is the second of two components that make up the
 INSPIRE identifier for the production installation part and should identify the data source. This field
 should be populated with the same value for all production installation part records (and indeed,
 for identifiers for all entities). Use of the ISO2 country code plus the acronym CAED (for Competent
 Authority for Environment Data) is recommended, e.g. "ES.CAED".
- ProductionInstallationPart_thematicId This is the first of two components that make up the
 ThematicIdentifier for the production installation part. It is a unique identifier internal to each
 reporting country's own national reporting system. The field is an opportunity for the reporting
 country to provide an additional identifier, but it is not mandatory.

- ProductionInstallationPart_thematicIdScheme This is the second of two components that make
 up the ThematicIdentifier for the production installation part and should identify the scheme used
 to assign the identifier, if one is provided.
- plantType This field is populated with a valid URL for the relevant value in the code list 'PlantTypeValue' in the EEA Data Dictionary folder for the EU Registry.
- totalRatedThermalInput correlates directly to this attribute in the EU Registry data model.
- pointGeometryLat Latitude of the approximate centre of the production installation part using the ETRS89 (2D)-EPSG:4258 coordinate reference system with a 1-meter precision (i.e. to five decimal places).
- pointGeometryLon Longitude of the approximate centre of the production installation part using the ETRS89 (2D)-EPSG:4258 coordinate reference system with a 1-meter precision (i.e. to five decimal places).
- untreatedMunicipalWaste A Boolean value which correlates directly to the attribute in the EU Registry data model. If the related InstallationPart is an LCP then this attribute will be ignored and omitted by the FME conversion process. If the related InstallationPart is not an LCP and this field is left unpopulated then this will be interpreted as a FALSE value by the FME conversion process.
- heatReleaseHazardousWaste A Boolean value which correlates directly to the attribute in the EU Registry data model. If the related InstallationPart is an LCP then this attribute will be ignored and omitted by the FME conversion process. If the related InstallationPart is not an LCP and this field is left unpopulated then this will be interpreted as a FALSE value by the FME conversion process.
- publicDisclosure Correlates directly to this attribute in the EU Registry data model.
- publicDisclosureURL Correlates directly to this attribute in the EU Registry data model. Field should be populated with a URL.
- **remarks** This is an optional field which allows reporting countries to provide additional information about the installation part.
- dateOfStartOfOperation correlates directly to this attribute in the EU Registry data model.
- statusType This field is populated with a valid URL for the relevant value in the code list 'ConditionOfFacilityValue' in the EEA Data Dictionary folder for the EU Registry.
- ProductionInstallation_localId Used to link to the parent ProductionInstallation table.

ProductionInstallationPart Ancillary Tables:

$\underline{ProductionInstallationPartFeatureName}$

This table is based upon the FeatureName data type in the EU Registry data model and contains information specific to the production installation part.

- ProductionInstallationPart_localId Used to link to the parent ProductionInstallationPart table
- nameOfFeature Correlates directly to this attribute in the EU Registry data model.
- confidentialityReason This field is populated with a valid URL for the relevant value in the code list 'ReasonValue' in the EEA Data Dictionary folder for the EU Registry.

Derogations

This table allows the population of more than relevant values for an installation part, i.e. handling the permitted multiplicity of more than 1 for this attribute in the EU Registry data model. Where there is more than one derogation to be reported then separate records repeating the ProductionInstallationPart_localId should be created.

- DerogationsId There is not 1..1 multiplicity between the parent
 ProductionInstallationPart table and this table since an installation part can be subject to
 more than one derogation. Therefore, this ID (which is internal to the Access template) acts
 as the primary key for this table. This field is populated with an auto-number.
- ProductionInstallationPart_localId Used to link to the parent ProductionInstallationPart table
- derogations This field is populated with a valid URL for the relevant value in the code list 'DerogationValue' in the EEA Data Dictionary folder for the EU Registry.

Specific Conditions

This table is based on the SpecificConditionsType data type in the EU registry data model. Where there is more than one specific condition to be reported then separate records repeating the ProductionInstallationPart_localId should be created.

- SpecificConditionsId There is not 1..1 multiplicity between the parent
 ProductionInstallationPart table and this table. Therefore, this ID (which is internal to the
 Access template) acts as the primary key for this table. This field is populated with an autonumber.
- ProductionInstallationPart_localId Used to link to the parent ProductionInstallationPart table.
- specificConditions This field is populated with a valid URL for the relevant values in the code list 'Article51Value' in the EEA Data Dictionary folder for the EU Registry.
- conditionsInformation This field should be populated with a description of the nature of the change to the operating conditions which has been authorised under Article 51 of the IED.
- **SpecificConditionsPermitURL** This field should be populated with a URL for the permit which sets out the operating conditions.

CapacityWasteIncinerationType

This table is analogous to the CapacityWasteIncinerationType data type in the EU Registry data model.

- ProductionInstallationPart_localId Used to link to the parent ProductionInstallationPart table.
- totalNominalCapacityAnyWasteType Total nominal capacity of the waste incineration or waste co-incineration plant. This should be reported in units of tonnes per hour.
- **permittedCapacityHazardous** Total permitted capacity for hazardous waste incineration and co-incineration. This should be reported in units of tonnes per hour.
- permittedCapacityNonHazardous Total permitted capacity for non-hazardous waste incineration and co-incineration. Values should be reported in units of tonnes per hour.