

PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

Multiple Emissions Reporting System (MERS)

Manufactured by:

RWE Generation UK PLC

Trigonos Windmill Hill Business Park
Whitehill Way
Swindon, Wiltshire
SN5 6PB

has been assessed by Sira Certification Service
And for the conditions stated on this certificate complies with:

**MCERTS Quality and Performance Standards and Test Procedures for
Environmental Data Management Software, Version 4, (December 2017)
in respect of:**

**Part A - Generic Software Quality
Part B - Data Management General Aspects
Part C1 – CEMS data management applications – Generic Requirements
Part C2 - CEMS Data Management Applications - EN14181 Requirements**

Project No.: 80048324
Certificate No: Sira MC120197/05
Initial Certification: 24 June 2011
This Certificate issued: 08 July 2020
Renewal Date: 30 June 2025



Emily Alexander
Environmental Project Engineer

MCERTS is operated on behalf of the Environment Agency by

Sira Certification Service

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Approved Site Application

Any potential user of the certified software should:

- 1) Ensure that it is suitable for the platform on which it will be installed (if necessary in consultation with the software producer)
- 2) Ensure that the selection and operation of the software is appropriate to the application

Basis of Certification

This certification is based on the following Test Report(s) and on Sira's assessment and ongoing surveillance of the product and the manufacturing process:

- Information Engineering, RWE npower, Report, Issue 1.0, 4th April 2012 carried out under Sira project reference 16S0332A and assessments reports referred to therein.
- Information Engineering, RWE npower, Report, Issue 1.0, 8th November 2013 carried out under Sira project reference 16S32169 and assessments reports referred to therein.
- Information Engineering, RWE npower, Report, Issue 1.0, 18th November 2015 carried out under Sira project reference 16S32169B and assessments reports referred to therein.
- Information Engineering, RWE npower, Report, Issue 1.0, 26th April 2017 carried out under Sira project reference 70122479 and assessments reports referred to therein.
- Information Engineering, RWE Generation UK, Report, Issue 1.0, 30th June 2020 carried out under Sira project reference 80048324 and assessments reports referred to therein.

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Product Certified

Product	Version	Remarks
Multiple Emission Reporting System (MERS)	2.2	Later minor changes to the certified version are permitted in accordance with the conditions of the standard
Multiple Emission Reporting System (MERS)	2.3	Later minor changes to the certified version are permitted in accordance with the conditions of the standard
Multiple Emission Reporting System (MERS)	2.4 R1	Later minor changes to the certified version are permitted in accordance with the conditions of the standard
Multiple Emission Reporting System (MERS)	2.4 R2	The product is very stable and will not undergo further development beyond that required for bug fixing and adaption to different versions of the platforms it uses as they appear. For 2.4 R2 there have been no significant changes since R1 and the detailed compliance stated in the R1 report remains valid.

Software Modifications

In the event of a major release the developer shall provide brief supporting evidence to the Certification Body who will advise whether recertification is necessary.

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Certified Performance

The application is able to perform the following tasks:

- MERS can perform the following calculations:
 - Monthly means.
 - Monthly maxima and minima.
 - 30-minute or hourly means, either clock-based or event-based.
 - Percentiles of 30-minute mean or hourly mean values over a calendar or rolling year.
 - Daily means or 48-hourly means, either clock-based or rolling.
 - Percentiles of daily mean or 48-hourly mean values over a calendar or rolling year.
 - Aggregation of clock-based unit means to LCP means.
 - Application of confidence correction to reported mean values.
 - Mass emissions from Continuous Emissions Monitors based on clock-based means and measured gas flow or calculated gas flow based on efficiency.
 - Unit and LCP operating hours.
 - Flue Gas Desulphurisation efficiency (based on mass release).
 - Duration of unabated operation.
- MERS can generate QAL3 Shewhart or CUSUM reports as specified in EN14181.
- MERS allows users to generate standard format reports or trends of historical data. Reports can be saved to PDF format or saved as an Excel spreadsheet file.
- Standard EA monthly and QAL2 valid calibration range reports can be generated.
- MERS reports are fully customizable to match users' permit or site requirements.
- MERS performs invalidation of hourly means and calculation of invalid days.
- MERS can perform mean and mass release calculations on both a unit and LCP basis.
- Application of ELV compliance reporting rules during periods of malfunction or breakdown of abatement equipment.

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Description

MERS is a flexible, modular reporting system that has been developed to report power station emissions in accordance with both the Large Combustion Plant Directive (LCPD), and the Industrial Emissions Directive (IED). It can also be configured to report to other standards. MERS uses Microsoft Excel as its front end and SQL Server as its database. Instrument and other plant data are retrieved at a maximum resolution of 1 second from the power station PI data historian using the existing IT infrastructure.

The results are calculated in two stages; during data retrieval from the PI system and when reports are executed. This flexible arrangement allows the users to validate the data prior to producing reports. The majority of data collection and validation is carried out automatically. There are separate plug-in calculation modules that process the emissions data from PI into the required data sets (for example hourly averages). In addition there are plug-in calculation modules to enable entry of manual-only data. Pre-configured reports can be run to extract the emissions data. These reports can be executed over variable time periods in addition to the standard reporting time periods. Reports can contain any combination of single results, result lists and charts containing data from single or multiple plug-in calculation modules. Once generated, most reports can be saved either in PDF format or as a Microsoft Excel spreadsheet. Statutory reports that do not require externally-sourced data are automatically generated in PDF format and cannot be modified.

An extensive audit log system is provided which logs all changes to the application including user monitoring (log in/out), configuration and data changes and validation warnings during the calculation and reporting processes. Users are able to track historical changes to the configuration and manually edited data and where they have affected the results using the Audit History feature. MERS also contains a database security system which can detect database changes made externally to the application.

General Notes

1. This certificate is based upon the equipment tested. The Manufacturer is responsible for ensuring that on-going production complies with the standard(s) and performance criteria defined in this Certificate. The Manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management system shall be subject to regular surveillance according to 'Regulations Applicable to the Holders of Sira Certificates'. The design of the product certified is defined in the Sira Design Schedule for certificate No. Sira MC120197/05
2. If certified product is found not to comply, Sira Certification Service should be notified immediately at the address shown on this certificate.
3. The Certification Marks that can be applied to the product or used in publicity material are defined in 'Regulations Applicable to the Holders of Sira Certificates'.
4. This document remains the property of Sira and shall be returned when requested by the company.

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