

CERTIFICATE

of Product Conformity (QAL1)

Certificate No: 0000051689_02

Certified AMS: PM-1820 WS for dust

Manufacturer: ENVEA
111, Boulevard Robespierre
78304 Poissy Cedex
France

Test Institute: TÜV Rheinland Energy GmbH

**This is to certify that the AMS has been tested
and found to comply with the standards
EN 15267-1 (2009), EN 15267-2 (2009), EN 15267-3 (2007)
and EN 14181 (2015).**

Certification is awarded in respect of the conditions stated in this certificate
(this certificate contains 7 pages).
The present certificate replaces certificate 0000051689_01 dated 31 July 2021.



Suitability Tested
EN 15267
QAL1 Certified
Regular
Surveillance

www.tuv.com
ID 0000051689

Publication in the German Federal Gazette
(BAnz) of 01 August 2016

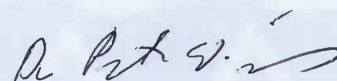
German Environment Agency
Dessau, 29 July 2022

This certificate will expire on:
31 July 2027

TÜV Rheinland Energy GmbH
Cologne, 28 July 2022



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Test institute accredited to EN ISO/IEC 17025 by DAkS (German Accreditation Body).
This accreditation is limited to the accreditation scope defined in the enclosure to the certificate D-PL-11120-02-00.

Test report:	936/21232239/A dated 12 February 2016
Initial certification:	19 August 2016
Expiry date:	31 July 2027
Certificate:	Renewal (of previous certificate 0000051689_01 of 31. Juli 2021 valid until 31 July 2022)
Publication:	BAnz AT 01.08.2016 B11, Chap. I No. 1.1

Approved application

The tested AMS is suitable for use at plants according to Directive 2010/75/EU, chapter III (13th BImSchV:2015), chapter IV (17th BImSchV:2009), 30th BImSchV:2009, Directive 2015/2193/EC (44th BImSchV:2021), TA Luft:2002 and at plants according to the 27th BImSchV:2013. The measured ranges have been selected so as to ensure as broad a field of application as possible.

The suitability of the AMS for this application was assessed on the basis of a laboratory test and a three-month field test at a plant for the thermal recycling of industrial solvents.

The AMS is approved for an ambient temperature range of -20° to +50°C.

The notification of suitability of the AMS, performance testing and the uncertainty calculation have been effected on the basis of the regulations applicable at the time of testing. As changes in legal provisions are possible, any potential user should ensure that this AMS is suitable for monitoring the emission limit values relevant to the application.

Any potential user should ensure, in consultation with the manufacturer, that this AMS is suitable for the installation at which it will be installed.

Note:

The legal regulations mentioned do not correspond to the current state of legislation in every case. Each user should, if necessary, in consultation with the competent authority, ensure that this AMS meets the legal requirements for the intended use. In addition, it cannot be ruled out that legal regulations governing the use of a measuring device for emission monitoring may change during the lifetime of the certificate.

Basis of the certification

This certification is based on:

- Test report 936/21232239/A dated 12 February 2016 of TÜV Rheinland Energie und Umwelt GmbH
- Suitability announced by the German Environment Agency (UBA) as the relevant body
- The ongoing surveillance of the product and the manufacturing process

Publication in the German Federal Gazette: BAnz AT 01.08.2016 B11, Chap. I No. 1.1,
Announcement by UBA dated 14 July 2016:

AMS designation:

PM-1820 WS for dust

Manufacturer:

Environnement S.A., Poissy Cedex

Field of application:

For plants requiring official approval and for plants according to the 27th BImSchV

Measuring ranges during the performance test:

Component	Certification range	Supplementary measurement ranges			Unit
Dust	0 - 15	0 - 7.5	0 - 30	0 - 100	SL

0 – 15 scattered light units (SL) \cong 15 mg/m³ dust

Software versions:

Controller Software: 8.45

Sensor Software: 2.06

Restrictions:

None

Notes:

1. The dust concentration is determined in wet flue gas under operational conditions.
2. The maintenance interval is four weeks.

Test report:

TÜV Rheinland Energie und Umwelt GmbH, Cologne
Report No.: 936/21232239/A dated 12 February 2016

Publication in the German Federal Gazette: BAnz AT 26.03.2019 B7, chapter IV
notification 33, Announcement by UBA dated 27 February 2019:

**33 Notification as regards Federal Environment Agency (UBA) notice
of 14 July 2016 (BAnz AT 01.08.2016, chapter I number 1.1)**

The current software versions of the measuring system PM-1820 WS for dust of
the company Environnement S.A. are:

Controller Software: 9.04
Sensor Software: 2.13

Statement issued by TÜV Rheinland Energy GmbH dated 2 October 2018

Publication in the German Federal Gazette: BAnz AT 24.03.2020 B7, chapter IV
notification 37, Announcement by UBA dated 24 February 2020:

**37 Notification as regards Federal Environment Agency (UBA) notices
of 14 February 2016 (BAnz AT 01.08.2016, chapter I number 1.1) and
of 27 February 2019 (BAnz AT 26.03.2019 B7, chapter IV 33rd notification)**

The company Environnement S.A., Poissy, France, has changed its name and
now operates under the name ENVEA.

The PM-1820 WS measuring system manufactured by ENVEA has remained oth-
er-wise unchanged.

Statement issued by TÜV Rheinland Energy GmbH dated 1 October 2019

Certified product

This certificate applies to automated measurement systems conforming to the following description:

The measuring system PM-1820 WS is an extractive dust measuring system.

The complete system consists of the main unit, a scattered light sensor and a control unit. The PM-1820 WS works as a bypass system. The dust concentration is determined by the principle of scattered light measurement.

The system continuously samples moist exhaust gas containing water droplets by creating a mass flow over the PM-1820 WS sensor head using a pressure differential generated by air flow over an air funnel. A partial gas flow is extracted from the waste gas via a measuring gas probe. The sample gas flow is passed over a heating chamber, which evaporates the water droplets and thus eliminates their influence on the dust readings. The temperature of the sample gas stream is approximately 280 °C.

General notes

This certificate is based upon the equipment tested. The manufacturer is responsible for ensuring that on-going production complies with the requirements of the EN 15267. 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 systems shall be subject to regular surveillance.

If a product of the current production does not conform to the certified product, TÜV Rheinland Energy GmbH must be notified at the address given on page 1.

A certification mark with an ID-Number that is specific to the certified product is presented on page 1 of this certificate. This certification mark may be applied to the product or used in advertising materials for the certified product.

This document and the certification mark remains property of TÜV Rheinland Energy GmbH. With revocation of the publication the certificate loses its validity. After the expiration of the certificate and on requests of the TÜV Rheinland Energy GmbH this document shall be returned and the certificate mark must not be employed anymore.

The relevant version of this certificate and its expiration is also accessible on the internet: gal1.de.

History of documents

Certification of PM-1820 WS is based on the documents listed below and the regular, continuous monitoring of the Quality Management System of the manufacturer:

Initial certification according to EN 15267

Certificate No. 0000051689_00: 19 August 2016
Expiry date of the certificate: 31 July 2021
Test report 936/21232239/A dated 12 February 2016
TÜV Rheinland Energie und Umwelt GmbH
Publication BAnz AT 01.08.2016 B11, chapter I number 1.1
UBA announcement dated 14 July 2016

Notifications

Statement issued by TÜV Rheinland Energy GmbH dated 2 October 2018
Publication BAnz AT 26.03.2019 B7, chapter IV notification 33
UBA announcement dated 27 February 2019
(Software changes)

Statement issued by TÜV Rheinland Energy GmbH dated 1 October 2019
Publication BAnz AT 24.03.2020 B7, chapter IV notification 37
UBA announcement dated 24 February 2020
(Producer formerly Environnement S.A.)

Renewal of certificate

Certificate No. 0000051689_01: 31 July 2021
Expiry date of the certificate: 31 July 2022

Renewal of certificate

Certificate No. 0000051689_02: 01 August 2022
Expiry date of the certificate: 31 July 2027

Calculation of overall uncertainty according to EN 14181 and EN 15267-3

Measuring system

Manufacturer	Environnement S.A.
Name of measuring system	PM-1820 WS
Serial number of the candidates	38654 / 38655
Measuring principle	Scattered light extractiv

Test report

Test laboratory	936/21216218A
Date of report	TÜV Rheinland
	2011-10-14

Measured component

Certification range	Dust	0 - 15 mg/m ³
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Calculation of the combined standard uncertainty

Tested parameter

	u	u ²
Standard deviation from paired measurements under field conditions *	u _D 0.127 mg/m ³	0.016 (mg/m ³) ²
Lack of fit	u _{lof} 0.081 mg/m ³	0.007 (mg/m ³) ²
Zero drift from field test	u _{d,z} 0.130 mg/m ³	0.017 (mg/m ³) ²
Span drift from field test	u _{d,s} -0.217 mg/m ³	0.047 (mg/m ³) ²
Influence of ambient temperature at span	u _t 0.006 mg/m ³	0.000 (mg/m ³) ²
Influence of supply voltage	u _v 0.021 mg/m ³	0.000 (mg/m ³) ²
Influence of sample gas flow	u _b 0.078 mg/m ³	0.006 (mg/m ³) ²
Uncertainty of reference material at 70% of certification range	u _{rm} 0.121 mg/m ³	0.015 (mg/m ³) ²

* The larger value is used :

"Repeatability standard deviation at span" or

"Standard deviation from paired measurements under field conditions"

Combined standard uncertainty (u _c)	$u_c = \sqrt{\sum (u_{max,j})^2}$	0.33 mg/m ³
Total expanded uncertainty	$U = u_c * k = u_c * 1.96$	0.64 mg/m ³

Relative total expanded uncertainty

Requirement of 2010/75/EU	U in % of the ELV 10 mg/m ³	6.4
Requirement of EN 15267-3	U in % of the ELV 10 mg/m ³	30.0
	U in % of the ELV 10 mg/m ³	22.5

The performance test was carried out with the identical measuring system PCME QAL 181 WS (previously: PCME STACK 181 WS) from PCME Ltd.