

CERTIFICATE

of Product Conformity (QAL1)

Certificate No.: 0000035011_01

Certified AMS: UmweltOffice

Manufacturer: Siempelkamp NIS Ingenieurgesellschaft mbH
Industriestr. 13
63755 Alzenau
Germany

Test Institute: TÜV Rheinland Energy GmbH

**This is to certify that the Emissions data evaluation (DAHS)
has been tested and certified according to the standards**

**Uniform Practice in monitoring emissions*,
Teletransmission definition 2005,
EN 14181 (2004), EN 15267-1 (2009) and EN 15267-2 (2009)**

Certification is awarded in respect of the conditions stated in this certificate
(this certificate contains 11 pages).



Suitability Tested
EN 15267
QAL1 Certified
Regular
Surveillance

www.tuv.com
ID 0000035011

Publication in the German Federal Gazette
(BAnz.) of 02 March 2012

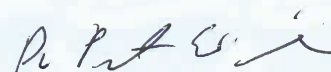
This certificate will expire on:
01 March 2022

German Federal Environment Agency
Dessau, 28 February 2017

TÜV Rheinland Energy GmbH
Cologne, 27 February 2017



Dr. Marcel Langner
Head of Section II 4.1



ppa. Dr. Peter Wilbring

www.umwelt-tuv.eu
tre@umwelt-tuv.eu
Tel. + 49 221 806-5200

TÜV Rheinland Energy GmbH
Am Grauen Stein
51105 Köln

Test institute accredited to EN ISO/IEC 17025:2005 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

* Uniform Practice in monitoring emissions,

- Circular from Federal Environment Ministry of 2005-06-13 - IG I 2 - 45053/5 and from 2010-08-04 - Az.: IG I 2 - 51134/0

Certificate:
0000035011_01 / 28 February 2017

Test report: 936/21216122/A of 19 October 2011
Initial certification: 02 March 2012
Expiry date: 01 March 2022
Certificate: renewal (previous certificate 0000035011 dated from 16 March 2012 with validity up to the 01 March 2017)
Publication: BAnz. 02 March 2012, No. 36, p. 920, chapter III, No. 1.1

Approved application

The certified data acquisition and handling system (DAHS) is suitable for continuous emissions data acquisition, evaluation and remote data transmission at plants with continuous monitoring.

The suitability of the data acquisition system for this application was assessed on the basis of a laboratory test and a more than three months field test at a coal fired power plant. Additionally a waste incinerator was simulated.

The AMS is approved for a temperature range of +5 °C to +40 °C.

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

Basis of the certification

This certification is based on:

- Test report 936/21216122/A of 19 October 2011 of TÜV Rheinland Energie und Umwelt GmbH
- Suitability announced by the German Federal Environment Agency (UBA) as the relevant body
- The ongoing surveillance of the product and the manufacturing process

Publication in the German Federal Gazette: BAnz. 02 March 2012, No. 36, p. 920, chapter III, No. 1.1,
Announcement by UBA from 23 February 2012:

AMS name:

UmweltOffice

Manufacturer:

NIS Ingenieurgesellschaft mbH, Alzenau

Field of application:

Emission data acquisition, evaluation and remote transmission for plants with continuous monitoring

Measuring ranges during suitability test:

- Analog data transmission
- Emission remote data transmission

Software version:

Data evaluation	UmweltOffice:	7.0.7
	Oracle-Datenbank:	11.2
Data acquisition:	TALAS/e:	4.2 (018)
	TALAS/net:	5.2 (020)
	TALAS/7:	7.0 (002)
Test and configuration:	TService:	5.3 (002)
	TAP42:	4.2 (017)
	TAP52:	5.2 (020)

Restrictions:

none

Note:

The emission data acquisition and -evaluation consist of two parts, the front-end system for the acquisition of analog and status signals and a PC with the program package UmweltOffice. As front-end-systems TALAS/e, TALAS/net, TALAS/7-CMR-Box and the TALAS/7-IO-modules IO8/AI, IO8/DI, IO8/AIDI, IO4/AI, IO4/DI, IO4/AIDI, IO4/DIDO are available.

Test report:

TÜV Rheinland Energie und Umwelt GmbH, Cologne
Report No.: 936/21216122/A of 19 October 2011

Publication in the German Federal Gazette: BAnz AT 23.07.2013 B4, chapter V notification 9, Announcement by UBA from 03 July 2013:

9 Notification as regards Federal Environmental Agency notices of 23 February 2012 Federal Gazette (BAnz. p. 920, chapter III, no. 1.1)

The current software versions of the emission calculator UmweltOffice manufactured by NIS Ingenieurgesellschaft mbH are as follows:

- UmweltOffice: 7.1.1
- Oracle-Datenbank: 11.2
- TALAS/7: 7.1 (001)
- TALAS/net: 5.2 (023)
- TALAS/e: 4.2 (018)
- TService: 5.3 (007)
- TAP: 5.3 (003) (for TALAS/net)
- TAP: 4.3 (003) (for TALAS/e)

Statement of TÜV Rheinland Energie und Umwelt GmbH of 14 February 2013

Publication in the German Federal Gazette: BAnz AT 05.08.2014 B11, chapter V notification 29, Announcement by UBA from 17 July 2014:

29 Notification as regards Federal Environmental Agency notices of 23 February 2012 (Federal Gazette (BAnz.) p. 920, chapter III, no. 1.1) and of 3 July 2013 (Federal Gazette (BAnz) AT 23 July 2013 B4, chapter V, notification 9)

The current software versions of the emission calculator UmweltOffice manufactured by NIS Ingenieurgesellschaft mbH are as follows:

- UmweltOffice: 7.1.8
- Oracle Database: 11.2
- TALAS/7: 7.1 (008)
- TALAS/net: 5.2 (024)
- TALAS/e: 4.2 (018)
- TService: 5.3 (008)
- TAP5: 5.3 (004)
- TAP4: 4.3 (004)

Statement of TÜV Rheinland Energie und Umwelt GmbH of 14 February 2014

Publication in the German Federal Gazette: BAnz AT 26.08.2015 B4, chapter V notification 2, Announcement by UBA from 22 July 2015:

2 Notification as regards Federal Environment Agency (UBA) notices of 23 February 2012 (Federal Gazette (BAnz.) p. 920, chapter III number 1.1) and of 17 July 2014 (Federal Gazette BAnz AT 05.08.2014 B11, chapter V notification 29)

The current software versions of the UmweltOffice emission calculator, manufactured by NIS Ingenieurgesellschaft mbH, are:

- UmweltOffice 7.1.11
- Oracle database: 11.2
- TALAS/7 7.1 (011)
- TALAS/net 5.2 (026)
- TALAS/e 4.2 (018)
- TService 5.3 (010)
- TAP5 5.3 (005)
- TAP4 4.3 (005)

Statement of TÜV Rheinland Energie und Umwelt GmbH of 8 December 2014

Publication in the German Federal Gazette: BAnz AT 14.03.2016 B7, chapter V notification 20, Announcement by UBA from 18 February 2016:

20 Notification as regards Federal Environment Agency (UBA) notices of 23 February 2012 (BAnz. p. 920, chapter III number 1.1) and of 22 July 2015 (BAnz AT 26.08.2015 B4, chapter V notification 2)

Calibration range monitoring in accordance with EN 14181 (2014 edition) was added to the software operated by the UmweltOffice data evaluation system from Siempelkamp NIS Ingenieurgesellschaft mbH. The software operated by the UmweltOffice data evaluating system now includes a digital modbus interface (EIA-485, serial and TCP/IP above Ethernet) according to VDI 4201 parts 1 and 3.

The current software versions of data evaluating system UmweltOffice are:

- UmweltOffice 7.2.00
- Oracle database: 11.2
- TALAS/7 7.2 (000)
- TALAS/net 5.2 (027)
- TALAS/e 4.2 (018)
- TService 5.3 (013)
- TAP5 5.3 (013)
- TAP4 4.3 (013)

Statement of TÜV Rheinland Energie und Umwelt GmbH of 15 October 2015

Publication in the German Federal Gazette: BAnz AT 01.08.2016 B11, chapter IV correction 1, Announcement by UBA from 14 July 2016:

**1 Correction of Federal Environmental Agency notice of 22 July 2015
(BAnz AT 26.08.2015 B4, chapter V notification 2)**

The manufacturer's official company name in the aforementioned notice related to the UmweltOffice emission calculator is incorrect and should read as follows:

Siempelkamp NIS Ingenieurgesellschaft mbH
(instead of NIS Ingenieurgesellschaft mbH).

Notice:

Moreover, the aforementioned notice shall be amended as follows:

In October 2014 the NIS Ingenieurgesellschaft mbH changed its company name. The official manufacturer name is: Siempelkamp NIS Ingenieurgesellschaft mbH.

Statement of TÜV Rheinland Energie und Umwelt GmbH of 18 January 2016

Certified product

This certificate applies to systems conforming to the following description:

The data acquisition and handling system (DAHS) comprises the UmweltOffice program pack and various frontend systems for the acquisition of analog and status signals.

The following systems serve for analog and status signal acquisition:

- TALAS/e
- TALAS/net
- TALAS/7-IO-Module

The **TALAS/e** and **TALAS/net** systems are used for recording analog and status signals. The analog signals change into digital signals via 12-bit analog-digital converters. The temporal resolution of the analog signals is 100/sec. In addition, the modules allow for averaging, conversion according to the calibration function, normalisation and validation of the measured values.

The normalised and validated mean values as well as the status signals are passed on to a downstream computer for further processing. The raw signals are also forwarded as 5-sec mean values for data archiving.

The ring memory saves all incoming mean values for 5 days. Additionally, TALAS/e saves the measured raw values for >70 min, while TALAS/net does this for >36 hours (depending on the parameterized number of channels). In the event that the connection to the downstream computer is down, the pending data transmission takes place after the connection is restored.

The **TALAS/7-IO-Module** serve for A/D-conversion. They have a sample rate of 40/sec and 16-bit analog-digital converters. The program TALAS/7 performs the acquisition of data from the input modules, averaging, conversion according to the calibration function, normalisation and validation of measured values, and transfers these to the UmweltOffice. The raw signals are also forwarded as 5-sec mean values for data archiving. TALAS/7 can run on the same PC as UmweltOffice as well as on an independent PC.

The PC connected downstream of the data acquisition modules is equipped with the UmweltOffice program pack, and serves the functions of data storage and further processing. The computer carries out data classification and evaluation in compliance with the regulations, and generates the required messages and protocols.

The PC equipped with the program UmweltOffice can obtain and process data from many data acquisition units. For this purpose, clusters are set up in the program for each data acquisition unit. Data acquisition can be thus performed for each cluster individually or for many clusters combined. The same is applied to remote data transmission.

TALAS/e comprises:

- an analog input card with 7 analog input units (optional: up to 5 additional A/D cards)
- two cards with 16 digital input units (optional: up to 4 additional digital cards)
- optional: up to 4 analog output cards with 8 output units each
- optional: up to 6 digital output cards with 16 output units each
- processor: Motorola 68.000 12,5 MHz
- multi-user multitasking real-time operating system OS-9/68K
- 640 kByte CMOS-RAM for data (battery-buffered, power supply $\hat{=}$ 14 Tage)
- EPROM for programs
- programmable Watchdog
- serial interface

TALAS/net is equipped with:

- an analog input card with 7 analog input units (optional: up to 3 additional A/D cards)
- two cards with 12 digital input units (optional: up to 4 additional digital cards)
- optional: up to 2 analog output cards with 4 output units each
- optional: up to 2 digital output cards with 7 output units each
- processor: Motorola MC68EN302 25 MHz
- multi-user multitasking real-time operating system OS-9/68K
- 1 MByte static RAM
- 1,5 MByte program memory, split into:
 - 0,5 MByte system EPROM for operating system
 - 1 MByte Flash EPROM for application software
- 8 MByte Flash EPROM as data storage (non-volatile)
- up to 16 MByte dynamic RAM
- internal temperature monitor
- programmable Watchdog
- Ethernet interface
- serial interface

The following **TALAS/7-IO-Module** versions are available:

Module	AI	DI	AO	DO
TALAS/7 – IO8/AI	28	1		1
TALAS/7 – IO8/DI		29		1
TALAS/7 – IO8/AIDI	14	15		1
TALAS/7 – IO8/AO		1	14	1
TALAS/7 – IO4/AI	12	1		1
TALAS/7 – IO4/DI		13		1
TALAS/7 – IO4/AIDI	6	7		1
TALAS/7 – IO4/DIDO		7		7
TALAS/7 – IO4/AO		1	6	1
TALAS/7 – IO4/DO		1		13

AI = analog input, DI = digital input, AO,DO = analog, digital output

Analog inputs

- Resolution : 0,763 µA (15 Bit)
- Sampling interval : ca. 25 ms
- Measuring range : 0 ... > 24 mA
- Resistance : 50 Ohm
- non-polar, galvanically isolated to one another and to the module

Digital inputs

- external voltage : 12 ... 230 V AC/DC
- Potential-free contacts : requires a 24 V power supply
- Internal resistance : > 50 KOhm
- Sampling interval : ca. 2 ms
- non-polar, galvanically isolated to one another and to the module

The downstream computer with the UmweltOffice program pack is an industrial PC with the following minimum configuration:

- Intel Dual Core 2 or equivalent processor
- 2 GB for 32bit Windows 7 or 4 GB for 64bit Windows 7 / Server 2008
- 2 hard discs > 160 GB
- Ethernet interface for TALAS/net and TALAS/7-IO-Module
- serial (RS 232) / USB interface for TALAS/e and modem
- parallel interface / USB interface for printer
- Operating system Windows7 or Windows Server 2008
- DCF77 receiver
- external modem

CD / DVD-ROM (optional: burner)

The data are saved on the PC's second hard disc for data mirroring, on a backup drive such as CD burner, and/or through an Ethernet interface for data storage on a second PC. A printer connected to the PC is required for issuing daily protocols, messages and limit value exceedances.

The tests of the data evaluating-system CEM-DAS occurred on basis of following requests:

- Uniform Practice in monitoring emissions, Circular from Federal Environment Ministry of 2005-06-13 - IG I 2 - 45053/5 and from 2010-08-04 - Az.: IG I 2- 51134/0
- Teletransmission for emission data (EFÜ) / interface definition revised edition dated 28 September 2005
- EN 14181 2004
Stationary source emissions
Quality assurance of automated measuring systems
(Use of this regulation with regard to the data evaluating of emission measuring systems), as well as EN 14181 2015 regarding the extension of the calibration range
- Technical guideline VDI 4201
Performance criteria on automated measuring and electronic data evaluation systems for monitoring emissions - Digital interface -
part 1 - General requirements
part 3 - Specific requirements for Modbus

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 can be applied to the product or used in publicity material for the certified product.

This document as well as 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: qal1.de.

Certification of UmweltOffice 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. 0000035011: 16 March 2012
Expiry date of the certificate: 01 March 207

Test report: 936/21216122/A of 19 October 2011
TÜV Rheinland Energie und Umwelt GmbH, Cologne
Publication: BAnz. 02 March 2012, No. 36, p. 920, chapter III, No. 1.1,
Announcement by UBA from 23 February 2012

Notifications according to EN 15267

Statement of TÜV Rheinland Energie und Umwelt GmbH of 14 February 2013
Publication: BAnz AT 23.07.2013 B4, chapter V notification 9
Announcement by UBA from 03 July 2013
(New software)

Statement of TÜV Rheinland Energie und Umwelt GmbH of 14 February 2014
Publication: BAnz AT 05.08.2014 B11, chapter V notification 29
Announcement by UBA from 17 July 2014
(new software)

Statement of TÜV Rheinland Energie und Umwelt GmbH of 8 December 2014
Publication: BAnz AT 26.08.2015 B4, chapter V notification 2
Announcement by UBA from 22 July 2015
(new software)

Statement of TÜV Rheinland Energie und Umwelt GmbH of 15 October 2015
Publication: BAnz AT 14.03.2016 B7, chapter V notification 20
Announcement by UBA from 18 February 2016
(new software)

Statement of TÜV Rheinland Energie und Umwelt GmbH of 18 January 2016
Publication: BAnz AT 01.08.2016 B11, chapter IV correction 1
Announcement by UBA from 14 July 2016
(change of manufacturer name)

Renewal of the certificate

Certificate No. 0000035011_01: 28 February 2017
Expiry date of the certificate: 01 March 2022