



सीएसआईआर-एनपीएल भारत प्रमाणन योजना  
CSIR-NPL India Certification Scheme  
(NPLI CS)

(सीएसआईआर-राष्ट्रीय भौतिक प्रयोगशाला: राष्ट्रीय मापन संस्थान, भारत)  
डॉ. के.एस. कृष्णन मार्ग, नई दिल्ली-110012, भारत  
(CSIR-National Physical Laboratory: National Metrology Institute of India)  
Dr. K. S. Krishnan Marg, New Delhi-110012, India

VERIFICATION CERTIFICATE

Application No.: 26040136  
Certificate No.: NPLI CS/CEMS/VC-2026-110

Date of issue: 08/05/2026  
Valid up to: 07/05/2031  
or any modification in CPCB  
Guideline

This is to certify that the  
Continuous Emission Monitoring System  
Model: LD500  
Make: OPSIS

Manufactured by:  
Opsis AB  
P.O. Box 244 S-244 02 Furulund, Sweden

Issued to:  
Nevco Engineers Pvt. Ltd.  
90A-2nd Floor, Amritpuri B, East of Kailash, Opposite Iskon Temple, New Delhi-110065

Previously Certified by:  
ETV joint verification statement (issued by EPA & Battelle), Dated: September 2004

*has been verified under CSIR-NPL India Certification Scheme (NPLI CS) and found suitable as per the defined guidelines of CPCB. This certificate is valid up to the next renewal date as mentioned in the previously issued certificate or any change notified by the CPCB in its Guideline, which will be applicable to this product or any part of this product. This certificate holder must have to submit the "Annual Surveillance Test" report to NICB for annual performance validation of this product.*

  
Chairman Certification Committee  
(NPL India Certification Scheme)

NPLI CS, CSIR-National Physical Laboratory  
(National verification agency for certifying instruments and equipment for monitoring emissions and ambient air)  
Dr. K. S. Krishnan Marg, New Delhi-110012, India

Fax : 91-11-45609310  
NPLI CS : 91-11-45608287  
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Website: www.nplindia.org

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## 1. Details of Verified Parameter:

1.1 The product LD500 verified after assessment of previously ETV joint verification statement (issued by EPA & Battelle), Dated: September 2004 for the following certification ranges:

Sr. No.	Gases	Certified Range
1	NH <sub>3</sub>	0.8 to 2.5 ppm, 2.14 to 8.15 ppm

Table 1

1.2 The ETV joint verification statement (issued by EPA & Battelle), Dated: September 2004 for the Product LD500 is only valid with the following components:

- 1.2.1 Laser Diode Gas Monitoring System
- 1.2.2 Laser Control and Data Sampling System
- 1.2.3 Fiber optic based signal cable
- 1.2.4 Automatic Calibration Unit

1.3 The certified operational conditions of the Product LD500 are

- 1.3.1 Ambient Temperature Range: Stack components 342.2°C to 359.4°C
- 1.3.2 IP rating: Not provided

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**CSIR-NPL India Certification Scheme**  
**(NPLI CS)**

(सीएसआईआर-राष्ट्रीय भौतिक प्रयोगशाला: राष्ट्रीय मापन संस्थान, भारत)  
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1.4 The certified performance of Product LD500

Sr. No.	Test Parameters		NH <sub>3</sub>
1	Response time	Rise time	53 s
		Fall time	57 s
2	Linearity	Slope	1.198 ±0.036
		Intercept	-0.52±0.21
		r <sup>2</sup>	0.970
3	Precision		1 ppm
4	Standard Deviation	Week 1	2.43%
		Week 5	0.96%

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## सीएसआईआर-एनपीएल भारत प्रमाणन योजना CSIR-NPL India Certification Scheme (NPLI CS)

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### 2. Acceptability of the product for use in Indian Conditions:

- 2.1 The measuring instrument **LD500** complies with the Indian environmental conditions.
- 2.2 The **LD500** system is an optical open-path emission monitoring system to measure  $\text{NH}_3$ . The Beer\_lambert absorption law is used to determine the gas concentration.
- 2.3 The uses of **LD500**, depending on the parameter-specific Emission Standards for Indian industries as described in Table 8 of the 1st Revised Guidelines for Continuous Emission Monitoring Systems, August 2018 published by CPCB.
- 2.4 The use of **LD500** technology for measurement of flue gases, depending on "Technical Selection & Suitability for Gaseous CEMS" as described in Table 5 of the 1st Revised Guidelines for Continuous Emission Monitoring Systems, August 2018 published by CPCB.

### 3. General Note:

After assessment of the **ETV joint verification statement (issued by EPA & Battelle), Dated: September 2004**, the Certification Committee (NPLI CS) reconfirmed that the product passed the acceptability criteria for Indian uses and is eligible for this Verification Certificate.

It is the responsibility of M/s Nevco Engineers Pvt. Ltd., 90A-2nd Floor, Amritpuri B, East Of Kailash, Opposite Iskon Temple, New Delhi-110065 (On behalf of Opsis AB, P.O. Box 244 S-244 02 Furulund, Sweden) to inform CSIR-NPL about the manufacturing modifications in the model no. **LD500**.

It is also the responsibility of M/s Nevco Engineers Pvt. Ltd., 90A-2nd Floor, Amritpuri B, East Of Kailash, Opposite Iskon Temple, New Delhi-110065 (On behalf of Opsis AB, P.O. Box 244 S-244 02 Furulund, Sweden) to provide the list of installation of this equipment (with geographic coordinates) to CSIR-NPL for surveillance.

This Verification Certificate is only valid for the **Model No. LD500**.

**The validity of this Verification Certificate is upto 07/05/2031 or any modification in CPCB Guideline.**

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