



CALL FOR TENDERS

EVALUATION AND UPGRADE OF

INTRODUCTORY AND ADVANCED STACK TESTING COURSE

The Introductory and Advanced Stack Testing courses run by the Clean Air Society of Australia and New Zealand (CASANZ), cover the theory and Australian Standard methods for measurement and analysis of the concentration of gaseous and particulate emissions from stack sources. The course(s) presents standardised stack testing methodology as detailed in Australian Standards, USEPA and CARB methods.

CASANZ is calling for tenders from suitably experienced professionals to upgrade and enhance the existing course structure and materials as well as present the course in early February 2016. The course is of 5 days duration and must include a site visit. The successful suppliers is requested to assist in co-ordinating a suitable site and access for up to 15 participants.

Responses to this Call for Tender should, as a minimum, include:

- A short summary (eg, bullet-point list) outlining the coverage of material proposed under each topic. This may include a description of the proposed session topics, focus of topics and anticipated format, which may include a combination of:
 - Lecture-style presentations;
 - Case studies;
 - Practical demonstrations;
 - Written exercises; and
 - Interactive group discussions.
- A short summary of the presenter's experience, knowledge and skills relevant to each topic. CVs should be provided for each presenter (responses will be considered for presenters from more than one organisation providing it is made clear how the course objectives will be met);
- An outline of non-presentation activities to be included (eg, practical demonstrations of equipment, site visits, etc);
- A quotation to undertake the work broken down according to the deliverables (eg, time and expenses, split by hourly or daily rates, where applicable);
- A time schedule including delivery of draft material for review;
- A proposed location for the training course and confirmation of availability to deliver the course in early February 2016.

Deliverables are expected to be completed for review no later than 18 January, 2016.

Topics presented at past courses include:

Introductory Course Topics

Introduction

- Purpose of Stack Testing
- Units and Conversion Factors
- Safety Considerations
- Quality Assurance: calibration, proficiency & accreditation

Preliminary Determination methods

- USEPA Method 1 & AS4323.1 - Sample Plane Assessment,
- USEPA Method 2 - Measurement of Stack gas Velocity
- USEPA Method 3 - Stack Gas Molecular Weight Determination
- USEPA Method 4 - Moisture Content

Iso-kinetic Sampling for Particulates

- AS4323.2
- USEPA Method 5 and 17
- Particulates / Condensable - USEPA Method 202

Combustion Gases

- SO₂ - USEPA Method 6 and variants
- NO_x - USEPA Method 7 and variants
- CO - USEPA Method 10

Stack Gas Continuous Emissions Monitoring Systems (CEMS)

- Overview of CEMS and their operation
- CEMS calibration methods and requirements in different states

Advanced Course Topics

Isokinetic Sampling Advanced Topics – Particulates and Semi-Volatile Organic Compounds

- Introduction
- Particulates
 - Particulate Sampling Advanced Topics
 - Particle Sizing - USEPA Method 201A (PM₁₀ and PM_{2.5})
 - Particle Sizing – In-stack Particle Sizing CARB Method 501
- Semi-Volatile Organic Compounds
 - PAHs - USEPA 0010 / CARB 429
 - Dioxins and Furans - USEPA Method 23

Volatile Organic Compounds and Odour

- Odour and Odour Causing Substances – General Overview
- Specific Methods
 - H₂S - USEPA M11 / 15
 - TRS - USEPA Method 16A/16B
 - VOC - USEPA Method 18 and 25
- Specific Method - Odour
 - AS4323.3 – Odour from point sources

Inorganics and Other Topics

- Inorganics
 - Sulphuric Acid and Sulphur Trioxide – USEPA Method 8
 - Mercury - USEPA Method 29, Ontario Hydro, M30B, M101
 - Heavy Metals - USEPA Method 29
 - Chromium (VI) - USEPA 0061, CARB 425
 - Fluorides / Chlorides - Method 26, 26A and 13B
- Other Topics
 - Representative Sample Collection
 - High Moisture/Low Velocity Sampling

The intellectual property for this training course will be retained by CASANZ including slides, handouts and practical exercise materials. All materials must reflect CASANZ style guide and copyright.

All enquiries and requests for examples of current materials should be directed to the CASANZ Administration Officer, Vicki Callaway at admin@casanz.org.au or telephone: +61 3 9723 6588.

Tenders should be submitted to the CASANZ Office by Tuesday, 17 November, 2015.