# Hitachi Zosen INOVA

# **HZI** Laboratory

Analytical Services – On-site Measurements – Consulting



### Expertise and Understanding of Customers' Needs

The laboratory of Hitachi Zosen Inova (HZI) is focused on meeting the demands of Waste to Energy (WtE) plant operators. Our range of services is as broad as the variety of questions arising in connection with thermal waste treatment. We verify compliance with emission limits and performance guarantees, measure relevant process parameters, carry out root cause analysis in case of operational problems and support you in solving process-related issues.

#### **Highly Qualified Staff**

We are a well-rehearsed team. You always deal with a single contact person who is responsible for a quick, efficient and flexible solution to your problem. Thanks to their experience in the WtE-field, our employees are able to relate analytical questions and process problems. The HZI laboratory has been an integral part of the company for over 70 years. We work hand in hand with other HZI experts to assure that you get the best possible support even for complex problems. Thanks to our participation in internal and external R&D projects we are always up-to date on the newest developments in the industry.

#### Sampling Made Easy

In order to gain reliable information on waste, bottom ash, wastewater or air pollution control residues, representative sampling is a must. We have long-term experience and all the necessary equipment for performing these tasks: mobile crushers, mills, precision scales, filtration equipment and automatic sampling systems. If requested, we can train your staff on site and help you set up a proper sampling plan.

In this case you will receive detailed sampling manuals, suitable tools and containers, and conservation chemicals in order to assure that the analysis results best represent the investigated process.





**Bernhard Thull** "For many years TÜV Süd has successfully worked together with the laboratory of Hitachi Zosen Inova Ltd for planning and executing testing campaigns on WtE plants. We appreciate their fast response times, profound process knowledge, good working practice and reliable analysis results."

Bernhard Thull, Manager Business Development, TÜV SÜD Industrie Service GmbH, Germany

# Chemical Analysis: In the Laboratory and on Site

Our laboratory is equipped with state-of-the-art analytical tools. We offer a broad range of analytical methods based on European and international standards and guidelines. Many specialised methods have been developed and/or optimised by our staff for non-standard problems. Even in complex cases or when dealing with samples of unclear origin, we can draw on our extensive

experience to determine, what analytical methods are best to achieve the optimal solution. An additional benefit for our customers is our database with thousands of reference data from other energy WtE-plants. The confidentiality of your data has top priority, so any reference data are only used in anonymised form for any kind of comparison. If analysis is required directly on site, we are able to treat and analyse your sample using our specialised mobile test equipment.

René Nigg "At the laboratory of Hitachi Zosen Inova Ltd I always get excellent support. Quick analysis times allow optimisation of the operation. Because I receive prompt information about emissions and other process parameters, I am always confident the environmental safety of the plant is assured."

### Measurement Services: Most Direct Characterisation of the Process

During commissioning, retrofit or optimisation of the plant, it is often essential to measure process parameters directly. We are your competent and reliable partner for planning and execution of measurement campaigns. We are experienced in the measurement of thermal parameters, emissions, flow distributions, noise immissions and surface temperatures. We prepare the measurement programme, carry out the measurements, evaluate the results and provide recommendations in a final report.

#### **Full Range of Laboratory Services**

If you carry out measurements by yourself, you can still count on our professional support. Sampling containers, test kits for qualitative and semi-quantitative analysis (e.g. for pH, water hardness, ammonia), mobile test equipment (e.g. photometer, data logger, conductivity meter) are only a few examples. Are you planning your own laboratory on site? We are ready to support you in the selection of the necessary equipment, train your staff on analytical methods and provide you all required sampling and testing procedures.

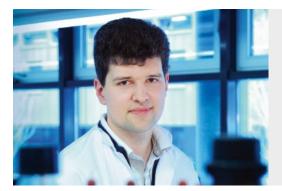
#### **Benefits for Our Customers**

- All relevant WtE-testing and analytical methods consolidated under one roof
- Reliable and precise analyses on a short term period
- Efficient consulting services thanks to the know-how of the company
- Sampling, measurements and analyses at your plant
- Direct support for official inspection



Contact – Experts with Long-Term Experience

Our staff consists of highly qualified chemists and technicians with many years of experience in the WtE-field. You can count on us.



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