

Advancing Food Safety & Quality Through Hygienic Design

EHEDG Advanced Course on Hygienic Design

6th April – 8th April 2020



Novotel Christchurch Cathedral Square
Christchurch

Organizer: EHEDG New Zealand <https://ehedg.co.nz>

Date: 6 – 8 April 2020

Training Venue: NOVOTEL Christchurch Cathedral Square, 52 Cathedral Rd. Christchurch
<https://accorconferences.co.nz/hotels/novotel-christchurch-cathedral-square/>

Course Overview:

The objective of this course is to provide knowledge and insight into the hygienic design of equipment and hygienic engineering aspects especially for the food, but also for the cosmetics, pharmaceutical, biotechnology and chemical industries. The course is aiming to:

- create awareness of the EHEDG Organisation
- explain the benefits and importance of Hygienic Design
- provide understanding on the key Hygienic Design criteria for equipment and facilities, including detailed engineering concepts
- communicate the Key Learning Points (KLPs) from all relevant EHEDG guidelines and EHEDG teaching aids such as training modules, case studies and videos
- The course is given from a very practical viewpoint. The theoretical fundamentals of the different subjects are given in a short and concise way, continuously relating these to practice by means of examples on video, pictures or samples. Small groups are preferred in order to make the course interactive.

Target Groups and their Acquired Competencies

- **Designers from Technical Engineering, Process Development and Quality Assurance**
 - After completion of the EHEDG Advanced Course on Hygienic Design, the qualified participant should be able to discharge successfully the role of sole responsible expert in hygienic design for design, construction or operational teams involved with food machinery or food processing.
- **Management, Marketing and Sales Staff from Design & Mechanical Engineering Companies and Food Manufacturers**
 - Sales and marketing professionals need to have sufficient knowledge of hygienic design to assure that sale and development of existing or new products comply with the above requirements. After completion of the EHEDG Advanced Course on Hygienic Design, the qualified participant should be in a position to discharge successfully the role of executive manager or marketing or sales professional in an organisation involved in designing, installing, maintaining or operating and cleaning food machinery or food processes and systems in such a way that hygienic safety is established and maintained.
- **Operators, Maintenance Engineers, Installers and Sanitarians**
 - After completion of the EHEDG Advanced Course on Hygienic Design, the qualified participant should be competent to operate, maintain, install and clean food machinery or processes in such a way that its hygienic safety is established and maintained, provided the general training is complete.
- **Auditors, Inspectors, Testers, Consultants and Certifiers**
 - After completion of the EHEDG Advanced Course on Hygienic Design, the qualified participant should be competent to verify or test the conformance of hygienic equipment and associated systems and documentation to recognised standards, including [EHEDG Document 8](#).

Course Detail & Timetable

Day 1: Monday 6th April	
Timetable	Topic
8:45 – 9:15	Registration and introduction of delegates
9:15 – 9:45	EHEDG Introduction
9:45 – 10:30	Legal Requirements
10:30 – 10:50	COFFEE BREAK
10:50 – 12:10	Hazards Controlled Through Hygienic Processing
12:10 – 12:55	LUNCH
12:55 – 14:10	Hygienic Design Criteria
14:10 – 15:25	Materials of Construction & Surface Treatment of Stainless Steel
15:25 – 15:45	COFFEE BREAK
15:45 – 16:45	Welding Stainless Steel Tube Systems
16:45 – 17:15	Case Study – Part 1
Day 2: Tuesday 7th April	
8:15 – 9:30	Static Seals & Pipe Couplings
9:30 – 10:40	Valves
10:40 – 11:00	COFFEE BREAK
11:00 – 12:00	Pumps and Homogenizers
12:00 – 12:45	LUNCH
12:45 – 14:00	Cleaning & Disinfection
14:00 – 14:45	Verification and Certification
14:45 – 15:05	COFFEE BREAK
15:05 – 17:00	Case Study Part 2
19:00	Course dinner
Day 3: Wednesday 8th April	
8:15 – 9:30	Food Factory Design and Process Layout
9:30 – 10:40	Dry Materials Handling - General
10:40 – 11:00	COFFEE BREAK
11:00 – 12:15	Equipment Installation & Maintenance, Lubricants
12:15 – 12:50	LUNCH
12:50 – 13:30	Case Study Preparation of Final Presentations
13:30 – 15:00	Case Study Presentations on Equipment
15:00 – 15:20	COFFEE BREAK
15:20 – 16:20	Hygienic Design – Final exam Questionnaire

Course Qualification

A certificate for successful completion of the final exam – “EHEDG Advanced Course on Hygienic Design” will be delivered to participants. Participants will be offered the opportunity to have their name published in the Training Section of the EHEDG website.

Trainers

The course will be overseen by EHEDG Certified Trainer, Andy Timperley, Chairman of the EHEDG Working Group for Certification. The course content will be delivered in part by Andy; Shane Mason – Engineering Manager, Pentair New Zealand; and David Lowry, Managing Director of Lowry Food Consulting and Chairperson of EHEDG New Zealand. Shane and David are completing probationary qualifications for EHEDG Certified Trainer requirements with assessment from Andy during this course. See a profile for the three presenters below.

Course Registration

Numbers: This course is limited to the first 24 persons who apply

Course Fees: NZ\$2150 + GST

Discounts: EHEDG Company or Institute members – 10% discount. Additional discounts apply for multiple registrants (see details on registration site)

Registration: Details at www.nzifst.org.nz.

Links: <http://ehedg.co.nz> ; <https://www.ehedg.org/training-education/>

Location: Novotel Christchurch Cathedral Square is in the centre of the city. Visit their website for accommodation details: <https://accorconferences.co.nz/hotels/novotel-christchurch-cathedral-square/>

Andy Timperley Profile



Andy Timperley is a Hygienic Design Engineer, working as a Consultant to the Food Industry. He has over thirty five years' experience in engineering related disciplines since joining a Fluid Power Research Association in 1980 and subsequently Campden BRI in 1988. Since leaving Campden BRI in 2006 his main activities include;

- Providing consultancy on equipment selection and system design issues.
- Conducting hygienic design audits of food factories and troubleshooting.
- Conducting third party inspections of equipment and issuing Certification documentation in conjunction with the EHEDG Certification Scheme.
- Conducting third party verification (TPV) inspections of equipment on behalf of 3-A Sanitary Standards Inc. to support the application of 3-A and P3-A symbols.
- Conducting basic and advanced hygienic design training courses in conjunction with EHEDG and for specific Companies
- Providing material for guideline documents on hygienic design of equipment and food factories.
- Producing Hygienic Design Guidelines and Test Methods in conjunction with the EHEDG.

Andy also provides hygienic design consultancy to the European Standards Organisation (CEN) as the named UK Hygiene Expert responsible for hygienic design issues relating to plenary and machine specific 'C' Standards which are then published in the UK by the British Standards Institute. In February 2004, Andy became the first European based Certified Conformance Evaluator (CCE) for 3-A Sanitary Standards Inc. In June 2006 Andy was elected Chairman of the EHEDG Test Methods Sub-group and continues to be the Chairman of the re-named EHEDG Working Group Certification. In January 2009, Andy qualified as a CCE for the P3-A group of Standards for pharmaceutical equipment. Andy was appointed as an EHEDG authorised trainer in July 2009 and continues to provide EHEDG Basic and Advanced Courses on Hygienic Engineering.

Andy has his own company – Timperley Consulting: www.timperleyconsulting.co.uk

Shane Mason



Shane Mason is a very experienced professional mechanical engineer, currently working as Engineering / R&D Manager for Pentair Flow Technologies Pacific Pty. Ltd based in Hamilton, a position which he has held since 1992. His career began at MIRINZ designing, building and testing prototype mechanical de-boning equipment for lamb carcasses. He then moved to NDA Engineering in Hamilton as an R&D Engineer / Technical Sales Manager developing farm milk holding tanks and ancillary equipment. He solely developed new techniques for Hydro-forming of stainless steel vessel domed ends for both road tankers and large fabricated liquid storage silos.

In his role with Pentair he has had sole responsibility for the re-development and ongoing support of all products in the current Pentair Hygienic Valve portfolio and including a HOVAP Hygienic pump range. The projects involved: plastic and electronic component design, PLC BUS protocol variants, integration of other OEM pneumatic valves and electronic proximity switches, tooling design and elastomeric seal design.

A key element of this work has been application of hygienic design principles and he has undertaken both 3-A and EHEDG certification requirements for the products and markets. Shane has successfully completed a Certified EHEDG Advanced Training Course.

David Lowry



David has 40 years' experience in the NZ and global food industry with a primary focus on microbiological quality and safety of food manufacturing operations. David has worked closely with food professionals and regulators across all industry sectors, with special focus on red meat, seafood, poultry, produce, dairy, RTE foods and bottled water operations. He has strong expertise in pathogen and shelf-life troubleshooting, and particularly the importance of hygienic design and effective hygiene programs in food quality and safety.

His professional career started at MIRINZ undertaking fundamental and process-related microbiological research for the meat industry and other aligned protein sector industries, mainly addressing key pathogens, spoilage profiling and predictive modelling and direct technical support to process operations. He then moved to ECOLAB focusing on cleaning and sanitation program development with multiple leadership roles in the Australian and New Zealand operations as well as 6 years spread across Ecolab's global business based in the US and Asia Pacific. David now has his own consultancy company – Lowry Food Consulting Ltd. - <https://www.foodinc.co.nz/>

His extensive experience in microbiological troubleshooting and incident prevention, and the desire to drive hygienic design improvements and efficiencies in the food industry led to his mission to establish a regional section of EHEDG as a primary resource for the NZ Food Industry where he is currently the chairperson of EHEDG New Zealand. Dave has successfully completed a Certified EHEDG Advanced Training Course. He is a Fellow of NZIFST and is a regular presenter at Food Industry Conferences and other training events.