



Post Conference Course:

- Fundamentals of toxicological hazard assessments
- Risk-based approach to adequate hardware solutions

Containment

30 September – 1 October 2008, Vienna, Austria

SPEAKERS:

Bruce Davis

Astra Zeneca, UK

Dr Andreas Flückiger

F. Hoffmann-La Roche, Switzerland

Frank Generotzky

Baxter Oncology, Germany

Paul Gurney-Read

Gurney-Read Consulting, UK

Dr Peter Müller

Carbogen Amcis, Switzerland

Ernst Sander

PhC Pharma Consult, Germany

Jolande Schoemaker

Schoemaker Consultancy, The Netherlands

Dr Harald Stahl

Niro Pharma Systems, Germany

Dr Clemens Stief

Pfizer, Germany

HIGHLIGHTS:

Theory

- Management of Occupational Health Risks
- Determination of the right level of Containment based on toxicological and pharmacological data
- Assessment of the Containment performance according to SMEPAC
- Risk based approach to Containment using RISK-MAPP

Case Studies:

- Carbogen Amcis: Containment solutions for API development & production
- Pfizer: Containment technology for Development of high potent compounds
- Baxter: Containment for Sterile Manufacturing
- Containment for high active Biologicals
- Pfizer: NEWCON facility of the year - fully automated oral solid dosage facility



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Objectives

This event aims at examining the state of the art in the currently widely discussed field of containment. It will deal with the definition of limits, the possibilities offered by measurement technology and verifying safety factors. The use of different devices, equipment as well as practical examples for room concepts are demonstrated through case studies with different pharmaceutical applications in primary, secondary and R&D facilities.

Background

In the past, safety measures in the handling of active pharmaceutical ingredients (APIs) were often generic. For instance, due to the lack of exposure limits it was impossible to verify the effectiveness of these safety measures quantitatively through measurements. However, in the meantime it has become a standard for pharmaceutical companies to set internal exposure limits for the compounds they handle. So the concept of MAC values defined by authorities has been complemented by the analogous concept of OEL/OEB values specified by pharmaceutical and API manufacturers. Another issue has been raised by EMEA and is still under discussion. Section 3.6 and 5.18 of the GMP Guide provide guidance for the production of high-risk substances. As the wording has left some room for interpretation an update of the guide is under examination. The most important issue is the decision whether or not dedicated facilities will be made mandatory for certain substances. From the industry's perspective this decision should only be based on a scientific risk analysis.

During this conference the following questions represent some of the issues discussed:

- How are iOEL Limits calculated?
- How much containment do I need?
- What should a risk analysis contain?
- Which impact does containment have on facility design and operation?
- How are exposition measurements carried out correctly and how should the results be interpreted?
- What are the different technical solutions?
- Which kind of zone and layout concepts are reasonable?

Target Group

Line managers and technical experts responsible for handling potent drugs and who are in charge of implementing the appropriate practical measures. Further target groups are users of containment systems who wish to update or enhance their know-how as well as engineers and planners who design, install and qualify such facilities.

Moderator

Dr Harald Stahl

Programme

Principles of Assessing and Managing Occupational Health Risks in Potent Compound Handling

- Legal requirements regarding worker safety
- Assessing the hazard: potency and toxicity of the compounds. Occupational exposure limits and health hazard categories
- Ensuring the right level of process containment: Design exposure limits as drivers for equipment selection. The illusion of "closed processes".
- Dedicated facilities or risk-based acceptance of multi-purpose manufacturing?

Dr Andreas Flückiger, *F. Hoffmann-La Roche*

Exposures to pharmaceuticals at the workplace must be controlled to below acceptable limits. For most APIs, the manufacturer himself needs to develop these limits and compliance with them must be documented. Protection of the workers from overexposure must be achieved primarily by technical means and not by means of personal protective equipment. Equipment must have adequate containment so that the required exposure control is ensured at least in all routine situations. Existing facilities must be upgraded accordingly. The toxicological and pharmacological basis of assessing APIs with the objective of worker protection is the same as the one justifying GMP cleaning validation criteria and acceptance of multi-product use of a facility.

Assessing the containment performance of pharmaceutical equipment - Meeting the objectives of the SMEPAC committee containment testing guideline

- Need for guide and developmental history
- Equipment performance testing
- Placebo selection
- Test enclosure
- Measurement / Sampling methodology
- Interpreting results
- How the guide has been used since publication

Paul Gurney-Read, *Gurney-Read Consulting*

A risk based approach to containment using RISK-MAPP - Balancing manufacturing/supply and patient requirements

This presentation will cover the ISPE RISK-MAPP approach and how it has developed, following discussions with industry and regulators from EU, US and Japan. It will provide information on practical tools to establish potential operator-exposure risks and patient cross-contamination risks and provide a methodology to understand these risks and to minimise them, also taking into account ICH Q9.

Bruce Davis, *Astra Zeneca*

Case Studies

Case Study Highly potent APIs: Containment requirements from development to production

- The main targets: Workers' and patients' safety.
- Quick comparison of containments for medicinal products, biologics, and APIs.
- Containment options and approaches to dealing with regulatory requirements and different categorizations... incl. the ominous „default categorization“.
- Scale- and development phase-dependence of technical solutions with illustration of practical cases.

Dr Peter Müller, *Carbogen Amcis*

Case Study: Containment for Sterile Manufacturing Operations

This case study shows how Baxter evaluated and implemented isolator technology in their sterile manufacturing departments. The presentation starts with the analysis how to choose the right barrier system in accordance to the requirements of the process. Some examples will be presented and the qualification strategy with focus on GMP and EHS will be pictured. Finally a comparison will be carried out between the drug manufacturing in isolators and drug manufacturing in a standard sterile room.

- Evaluation of EHS and GMP risks based on the “Critical Triangle” relationship between: Operator Safety – Product Safety – Environmental Safety.
- Important criteria for designing an isolator according to the requirements of the manufacturing process and the authorities.
- Presentation of methods to evaluate and verify the correct design of the isolator during the DQ phase of the project.
- Key aspects for the qualification and validation of sterile isolators according to Baxter experience.
- Lessons Learned from the last isolator project with regard to efficiency, flexibility and product quality.

Frank Generotzky, *Baxter Oncology*

Pfizer NEWCON Illertissen, a new milestone in pharmaceutical engineering



Rapidly growing demands for the smoking cessation product Chantix and future capacity for highly potent compound lead Pfizer Global Manufacturing to expand the existing capacity at Pfizer Manufacturing Deutschland GmbH in Illertissen, Germany.

Pfizer together with PhC Pharma Consult built the New Containment (NEWCON) Facility for Oral Solid Dosage, a fully automated oral solid dosage facility. Winner of the 2008 Facility of the Year Award (FOYA) for Process Innovation, the NEWCON facility features the highest degree of process automation within the production plant with numerous online process analytical technologies to ensure not only greater safety, but also manufacturing efficiency.

- Design principles
- Process innovation
- Increase of efficiency

Ernst Sander, *PhC Pharma Consult*

Case study: A Biosafety Level 3 Pilot Containment Facility for Biologicals

- Facility design
- Segregation of live and inactivated organisms
- Handling personnel flow
- Handling multiple products in the same facility
- Containment and prevention of cross-contamination as a quality system

Jolande Schoemaker, *Schoemaker Consultancy*

DevCon – a case study at Pfizer, Freiburg

The presentation of the Pfizer DevCon facility covers a case study of designing and realising a facility to provide containment technology for the development of new potent compounds. Part of this presentation is a video of the DevCon illustrating the processes and some background information to this project.

- Design criteria
- Architectural and Structural Design
- Containment / EHS
- Pressure cascades
- Video Presentation

Dr Clemens Stief, *Pfizer*

Post Conference Course – 1 Oct. 2008 (13.30 – 17.00 h)

Choosing the Post Conference Course allows you to further advance your knowledge in Containment in smaller groups.

Key-questions of this session are: how can I estimate the necessary exposure limits and how much containment do I need therefore.

By booking the post conference course you will participate in both post conference lessons:

Translating the product requirements into appropriate hardware solutions- a risk based approach

When designing a facility for potent drugs not only the OEL or ADI of the API needs to be considered. In this workshop all parameters- other than the drug's potency- will be discussed. These factors include f.i. the dilution of the API, the number of operations per day, the presence/absence of operators. Based on these factors a risk based tool will be introduced allowing to determine the achievable containment level with various hardware solutions. A real case will be presented and discussed.

Dr. Harald Stahl

How potent is this compound? Fundamentals of toxicological hazard assessment

- No risk assessment possible without proper hazard assessment
- What can you get out of a Safety Data Sheet?

- Gaining an understanding of how occupational exposure limits are set
- Health Hazard Based Categorisation/Banding systems
- The principle of “acceptable daily dose” as the common basis to determine acceptable worker exposure and to determine acceptable levels for cleaning validation: occupational toxicology meets GMP.

Risk assessment is a fundamental requirement in occupational health legislation but also applies to GMP (ICH Q9). Both types of risk assessment are only possible if a robust hazard assessment is available, i.e. the toxicological and pharmacological characteristics of each API must be determined. In this workshop, real-life examples of such assessments will be conducted in an interactive way. Pitfalls will be pointed out. Justification for a risk-based approach to multi-product use of a facility, even for highly active compounds, will be discussed.

Dr. Andreas Flückiger

Social Event



On 30 September 2008, you are cordially invited to a social event. This is an excellent opportunity to share your experiences with colleagues from other companies in a relaxed atmosphere.

Speakers

Bruce Davis

AstraZeneca, UK

After obtaining his engineering degree, Bruce Davis went to AstraZeneca, UK, where, as Formulation Manager, he is now responsible for new pharmaceutical factories (final galenical production). Chairman of the ISPE Guide for Sterile Manufacturing Facilities, which was sponsored by FDA. Bruce is chairman of the ISPE Board of Directors for 2007-2008.

Dr Andreas Flückiger

F. Hoffmann-La Roche, Switzerland

An occupational physician by training, Andreas Flückiger is the head of the occupational health services of the Roche Group for 20 years. He is active in leading roles in numerous national and international associations such as the Swiss Society of Occupational Medicine, the International Association for Occupational and Environmental Health in the Chemical Industry (Medichem), in the Scientific Committee of the European Council for Ecotoxicology and Toxicology of Chemicals (ECETOC) and the International Society for Pharmaceutical Engineering (ISPE).

Frank Generotzky

Baxter Oncology, Germany

Mr. Frank Generotzky earned his Diploma for Engineering from the University of Applied Science Lippe / Höxter. Since 1996 Frank has designed and installed several

production-lines in standard Cleanroom Technology as well as in Isolator Technology at Baxters Plant in Halle / Germany. Starting in 2001 Frank headed the production department for sterile cytotoxic drugs. In his present role, Frank is responsible for the strategic development of the Pharmaceutical Technology. His team designs, plans and realizes investment projects according to customer and market requirements

Paul Gurney-Read

Gurney-Read Consulting, UK

Paul is a containment consultant with Gurney-Read Consulting, which he established nearly 5 years ago. He is a Chartered Chemical Engineer who has worked in the Pharma industry for 25+ years with manufacturing companies, a vendor, a consultant and two contractors. He has specialised in Containment for the last 15 years, has presented numerous papers, is the past chair of the ISPE European Containment conference and was chairman of the SMEPAC committee.

Dr Peter Müller

CARBOGEN AMCIS, Switzerland

Peter M. Mueller did his PhD-thesis at ETHZ and worked for 2 years at MIT, for 10 years in Roche Basel's medicinal chemistry and CNS-pharmacology research, and for 10 years as head of R+D of Roche's fragrances and cosmetics division. He left Roche in 1995 and soon was C.O.O. of AMCIS AG Bubendorf. Today, he is consultant and one of CARBOGEN AMCIS' key experts regarding containment and highly potent APIs.

Ernst Sander

PhC Pharma Consult GmbH, Germany

Ernst Sander (Dipl.-Ing.) has been the Managing Director of PhC PharmaConsult Heidelberg since 2004. His previous experience has included a number of positions as Managing Director of various Consulting and Engineering Companies in the Life Science Industry. This has given him the benefit of a long-term involvement with international design projects, from the conceptual design stage through to implementation and validation. This range of design, renovation and upgrade project experience has included scope for process engineering, logistics, IT systems and overall integrated design.

Jolande Schoemaker

Schoemaker Consultancy, The Netherlands

Jolande Schoemaker is currently located in The Netherlands and works as a consultant to the pharmaceutical industry. Previous to her current role she was the Director Quality Affairs at Crucell. Jolande gained a wide field of experience in many aspects of the pharmaceutical and biotechnology industry, including formulation of drugs, manufacturing of sterile pharmaceutical products, hospital care and clinical trials, Regulatory Affairs, Quality Control and Quality Assurance. Furthermore, she was involved in many regulatory inspections, including some conducted by the US FDA, the Canadian and the British Inspectorate.

If the bill-to-address deviates from the specifications on the right, please fill out here:

Reservation Form (Please complete in full)

Containment

30 September – 1 October 2008, Vienna, Austria
 I would like to register for the conference only (30 Sept. – 1 Oct. 2008)
 I would like to register **for both** the conference and the post conference course (30 Sept. – 1 Oct. 2008)

Mr. Ms.

Title, first name, surname

Company

Department

Important: Please indicate your company's VAT ID Number **PO Number if applicable**

Street/P.O. Box

City

Zip Code

Country

Phone/Fax

E-Mail (please fill in)

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Dr Harald Stahl

Niro Pharma Systems, Germany

Harald Stahl worked for 3 years in the Pharmaceutical Development of Schering AG in Germany. At that time his main interest was the aseptic production of pellets. Since 1995 he served within GEA Process Technology in various positions. Presently he owns the position of a Senior Pharmaceutical Technologist of Niro Pharma Systems. He has published more than 20 papers on various aspects of pharmaceutical production.

Dr Clemens Stief

Pfizer, Germany

Dr Stief studied Pharmacy and gained his PhD in Pharmaceutical Technology in 1994. After several management positions at Gödecke / Parke-Davis Dr Stief became Team Leader Operations of the Product and Process Development at Pfizer GmbH in Freiburg. He is the qualified person manufacturing for clinical supplies and responsible for the manufacture of solid dosage forms in a high containment area.

General Terms of Business

If you cannot attend the conference you have two options:

1. We are happy to welcome a substitute colleague at any time.
2. If you have to cancel entirely, we must charge the following processing fees:

Cancellation

- until 2 weeks prior to the conference 10 % of the registration fee.
- until 1 week prior to the conference 50 % of the registration fee.
- within 1 week prior to the conference 100 % of the registration fee.

CONCEPT reserves the right to change the materials, instructors, or speakers without notice or to cancel an event. If the event must be cancelled, registrants will be notified as soon as possible and will receive a full refund of fees paid.

CONCEPT will not be responsible for discount airfare penalties or other costs incurred due to a cancellation.

Terms of payment: Payable without deductions within 10 days after receipt of invoice.

Important: This is a binding registration and above fees are due in case of cancellation or non-appearance. If you cannot take part, you have to inform us in writing. The cancellation fee will then be calculated according to the point of time at which we receive your message. In case you do not appear at the event without having informed us, you will have to pay the full registration fee even if you have not made the payment yet. **You are not entitled to participate in the conference until we have received your payment (receipt of payment will not be confirmed)!**



Date

Tuesday 30 September 2008, 10.00 – 18.15 h
(Registration and coffee 09.30 – 10.00 h)
Wednesday 1 October 2008, 08.30 – 12.30 h

Post-Conference Course

Wednesday 1 October 2008, 13.30 h – 17.00 h

Venue

Renaissance Wien Hotel
Linke Wienzeile/Ullmannstr. 71
1150 Wien, Austria
Phone +43 1 89 102
Fax +43 1 89 102 300

Fees

Conference

Non-ECA Members EUR 1,490.- per delegate plus VAT
ECA Members EUR 1,341.- per delegate plus VAT
APIC Members EUR 1,415.- per delegate plus VAT
(does not include ECA Membership)
EU GMP Inspectorates EUR 745.- per delegate plus VAT
The conference fee is payable in advance after receipt of invoice and includes conference documentation, lunch and dinner on the first day and all refreshments.
VAT is reclaimable.

Conference & Post Conference Course

Non-ECA Members EUR 1,890.- per delegate plus VAT
ECA Members EUR 1,701.- per delegate plus VAT
APIC Members EUR 1,795.- per delegate plus VAT
(does not include ECA Membership)
EU GMP Inspectorates EUR 945.- per delegate plus VAT
The conference fee is payable in advance after receipt of invoice and includes conference documentation, dinner on the first day, lunch on both days and all refreshments.
VAT is reclaimable.

Accommodation

CONCEPT HEIDELBERG has reserved a limited number of rooms in the conference hotel. You will receive a room reservation form when you have registered for the event. Please use this form for your room reservation or be sure to mention "VA 5670 ECA Event" to receive the specially negotiated rate for the duration of your stay. Reservation should be made directly with the hotel not later than 30 August 2008. Early reservation is recommended.

Registration

Via the attached reservation form, by e-mail or by fax message. Or you register online at www.gmp-compliance.org.

Conference language

The official conference language will be English.

Organisation and Contact

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For questions regarding content:

Dr Robert Eicher (Operations Director) at +49-62 21/84 44 12, or per e-mail at eicher@concept-heidelberg.de.

For questions regarding reservation, hotel, organisation etc.:

Ms Marion Weidemaier (Organisation Manager) at +49-62 21/84 44 46, or per e-mail at weidemaier@concept-heidelberg.de.

About CONCEPT HEIDELBERG

Founded in 1978, CONCEPT HEIDELBERG is the leading organiser of seminars on pharmaceutical production, quality control, quality assurance and GMP in Europe. This year more than 240 events will be organised by CONCEPT HEIDELBERG. ECA has entrusted CONCEPT HEIDELBERG with the organisation of its events.

What Is ECA?

The European Compliance Academy (ECA) is an independent educational organisation chaired by a Scientific Advisory Board with members of the pharmaceutical industry and regulatory authorities. The ECA will provide support to the Pharmaceutical Industry and Regulators to promote the move towards a harmonised set of GMP and regulatory guidelines by providing information and interpretation of new or updated guidances.

What Are the Benefits of ECA?

First benefit:

During the membership, you enjoy a 10 % discount on the regular participation fee of any European Conference organised by ECA in co-operation with CONCEPT HEIDELBERG.

Second benefit:

The GMP Guideline Manager Software with a large number of guidelines, e.g. EC Directives, FDA Guidelines, ICH Guidelines, will be forwarded to you when you are using your membership for a conference registration.



How Do You Become a Member of ECA?

By participating in one of the European Compliance Conferences or Courses marked with ECA, you will automatically become a member of ECA for two years – free of charge. Conferences and Education Courses organised by ECA will be realised in co-operation with CONCEPT HEIDELBERG. More information about ECA can be obtained on the Website <http://www.gmp-compliance.org>