



WEBINAR CD-ROM — ACGIH® Heat Stress and Strain TLV®: Information for 2006

Publication #WB-001 \$325

The potential for health hazards from work in hot environments depends heavily on the level of heat stress presented by the environment, the work demands, and the clothing requirements, as well as on the level of acclimatization. Because there is a great deal of inter- and intra-individual variation in the physiological responses to heat stress, heat strain provides further guidance for protecting workers.



This 2-½ hour webinar, presented by **Thomas E. Bernard, PhD, CIH**: 1) provides valuable information on proper application of the ACGIH® Heat Stress and Strain TLV® in the workplace, 2) provides guidance on protective clothing adjustments, 3) outlines controls, and 4) generates discussion on the 2006 proposed changes to the TLV®. The webinar also features case studies.

After viewing this webinar, you will gain an understanding of:

- How the Heat Stress and Strain TLV® was developed
- How to use the TLV® in the workplace
- How to apply the “Action Limit” and clothing protection factors newly proposed in the TLV®
- How to manage potential sources for heat stress and strain

System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers

ISBN: 978-1-882417-68-1. © 2006.

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WEBINAR TEST — ACGIH® Heat Stress and Strain TLV®: Information for 2006

Publication #WB-001TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar on the heat stress and strain TLV® for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — ACGIH® TLVs®: Practical Applications in the Workplace

Publication #WB-005 \$325

This 2-½ hour webinar, presented by **Patrick N. Breyse, PhD, CIH** and **Ian A. Greaves, MD, BMedSci, MB BS, FRACP, FAAAS** explores the TLVs® to assist the user in their application in the workplace. It focuses on several common issues such as:



- How are the TLVs® developed and who are the TLVs® intended to protect
- Proper use of TWAs, STELs, Ceiling and Excursion Limits
- Proper utilization of TLVs® for occupational risk assessment in the workplace
- Misuse of the TLVs®
- Importance of the *Documentation* in the proper application of TLVs®
- Purpose and use of particle size selective TLVs®
- Understanding the carcinogenicity, skin and sensitizer notations
- Understanding the PNOS exposure guideline
- Proper evaluation of exposure to mixtures
- Conversion of TLVs® in ppm to mg/m³
- Meaning and use of “TLV® Basis”

After viewing the webinar, you will be able to understand:

- The purpose of the Threshold Limit Values (TLVs®)
- The need to review the Documentation when applying the TLV®
- Strengths and limitations of TLVs®
- How to apply a TLV® in the workplace
- How to utilize a TLV® to conduct an occupational risk assessment

System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers

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WEBINAR TEST — ACGIH® TLVs®: Practical Applications in the Workplace

Publication #WB-005TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar on practical applications of TLVs® in the workplace for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

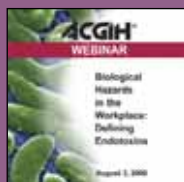
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WEBINAR CD-ROM — Biological Hazards in the Workplace: Defining Endotoxins

Publication #WB-002 \$325

One of the key agents leading to respiratory disease in a variety of occupational and environmental settings is Endotoxin, or lipopolysaccharide (LPS) components of the outer membrane of Gram-negative bacteria. Endotoxin has been associated with organic dusts in settings such as agriculture and aerosolized metal machining fluids.



While endotoxin in residential settings can exacerbate asthma, there is recent evidence that exposure to endotoxin (and other factors) in infancy may be protective — the hygiene hypothesis. Gene-environment interactions also appear to be important. While there have been advances in understanding exposure-response relationships, adoption of exposure guidelines for endotoxin remains controversial, partly due to limitations of current exposure assessment methods.

This 2-½ hour webinar, presented by **Donald K. Milton, MD, DrPH** and **Stephen J. Reynolds, PhD, CIH** provides valuable background information on endotoxins (what are endotoxins, their characteristics and health effects), sampling and analytical methods, exposure reduction/controls, and other related topics. After viewing the webinar, you will be able to:

- Define the terms endotoxin, Lipopolysaccharide (LPS), 3 hydroxy fatty acid (3-OHFA). (What is endotoxin?)
- Describe methods for endotoxin exposure measurement (advantages and disadvantages, limitations, difficulties with interpretation).
- Identify industries and environments with endotoxin exposure.
- Explain basic pathophysiology and health effects of endotoxin.
- Describe strategies for reducing endotoxin exposure and health effects.

System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers

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WEBINAR TEST — Biological Hazards in the Workplace: Defining Endotoxins

Publication #WB-002TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar on endotoxins for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — Biomonitoring: Development and Practical Application of Guidance Values

Publication #WB-006 \$325

This 2-½ hour webinar, presented by **Larry Lowry, PhD**, **John Cocker, PhD**, and **Heiko Kafferlein, PhD** in July 2007, uses solvents like dimethylformamide and glycol ethers to describe health-based limits; and PAHs (polycyclic aromatic hydrocarbons) for non health-based limits.



The examples help to explain how guidance values are developed and their practical applications in the workplace. Approaches to biomonitoring are presented from the United States and European perspectives.

After viewing the webinar, you will be able to understand:

- How U.S. and European organizations develop biological monitoring guidance values
- The criteria used in setting biological monitoring guidance values
- Practical use and application of biological monitoring guidance values
- The strengths and limitations of the guidelines
- The range between reference and benchmark levels
- The difficulties of, and approaches to, setting health-based guidance values for carcinogens and sensitizers.

System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers

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WEBINAR TEST — Biomonitoring: Development and Practical Application of Guidance Values

Publication #WB-006TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar on biomonitoring for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

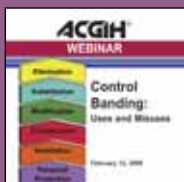
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WEBINAR CD-ROM — Control Banding: Uses and Misuses

Publication #WB-009 \$325

Control Banding describes a user-friendly qualitative assessment process that allows the user to quickly determine appropriate engineering controls required to protect workers based on readily available information on chemical hazards and potential for exposure. This process is intended for small and medium sized enterprises, but large corporations are also considering its application. This webinar, presented by **Paul Hewett, PhD, CIH**, **Bruce D. Naumann, PhD, DABT**, **Mark R. Stenzel, CIH** and **Paul F. Wambach, CIH**, presents and critiques the version of Control Banding promoted by the United Kingdom Health and Safety Executive (HSE) and the International Labour Organization (ILO) and provides information on the Control Banding system used in the pharmaceutical industry.



Control Banding should be viewed as an “expert system.” As such, it is broken into its component parts – Hazard Group Prediction Model, Exposure Limit Prediction Model, Exposure Prediction Model, and predefined control strategies. Each component is described and critiqued. Additionally, diacetyl, an artificial butter flavoring ingredient with no exposure limit, is used as an example to illustrate how Control Banding is applied, and to demonstrate both its strengths and weaknesses. For example, varying information on the health hazards (e.g., the assigned risk-phases) and/or exposure assumptions can make significant differences in the final decision to improve or not improve controls. Specific recommendations on using and applying Control Banding are presented to improve the effectiveness of the existing Control Banding scheme, including the need to perform verification studies.

System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers

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WEBINAR TEST — Control Banding: Uses and Misuses

Publication #WB-009TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar on control banding for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — Demonstrating the Value of Your EH&S Program in Tough Economic Times

Publication #WB-013 \$325

With the gravity of our current economic forecast and the growing number of layoffs announced daily from organizations both large and small, it is important to demonstrate the financial importance of Environmental Health & Safety (EH&S) to upper management. Whether you have a large corporate program, a small department, or a single hygienist or technician, you can demonstrate the value of your efforts to eliminate hazards and minimize risks using financial analysis tools such as Return on Investment (ROI), Net Present Value (NPV), and Payback Period, as well as other non-financial measures of the impact on business processes and objectives. These are not just terms used in the finance department, they can effectively be used in EH&S to demonstrate the value of your Prevention through Design initiatives. This webinar, presented by **Elyce A. Biddle, PhD**, **Donna S. Heidel, MS, CIH** and **Dee Woodhull, MS, CIH, CSP**, demonstrates tools to help the EH&S professional validate the worth of their program and help those who are already doing so by serving as an important benchmark in the process. Case studies of companies implementing these techniques are presented.



After viewing this webinar, you will understand:

- The four areas where industrial hygiene activities can provide value to the organization.
- How to express the value of industrial hygiene activities in the language of management.
- How the value of industrial hygiene activities can be expressed in qualitative (non-financial) terms that are meaningful to management.
- The relationship between industrial hygiene and other activities, such as the production process, within the organization.

System Requirements: Windows 2000, 2003, XP or Vista • Intel x86 (Pentium 400MHZ +) or compatible processor • 128 MB or greater RAM • Sound Card

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WEBINAR TEST — Demonstrating the Value of Your EH&S Program in Tough Economic Times

Publication #WB-013TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar *Demonstrating the Value of Your EH&S Program in Tough Economic Times* for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — Derived No Effect Levels (DNELs): What Are They and How Will They Change the Occupational Health (OEL) Landscape?

Publication #WB-017 \$325

The European Union (EU) REACH regulation has prompted hazard and exposure assessments and risk characterizations of thousands of existing substances currently in commerce in the EU. Derived No Effect Levels (DNELs) are examples of the information being generated as a result of the new requirements, and are used for purposes of risk characterization. There are some concerns that DNELs will become de-facto occupational exposure limits (OELs) – an issue this webinar addresses. To adequately assess how DNELs compare to OELs, it is important to understand how they are derived and how they will be applied or used in Europe. Just as OELs have limitations and conditions regarding their use, the same can be said for DNELs and that comparison is made as well. Finally, the benefits of DNELs and how they could fit into the OEL derivation process are discussed. This webinar is presented by **John Mikan, CIH** and **T. Stuart Webster, MS, CIH**.



After viewing this webinar, you will:

- Understand what a DNEL is, the level of customization, and how DNELs are derived.
- Understand the aspects that are to be considered when deriving a DNEL.
- Understand the real-world application of DNELs in Europe.
- Know how DNELs compare to OELs.
- Be aware of the potential direct and indirect benefits of DNELs.
- Be aware of the limitations and boundaries of use.
- Understand how a DNEL might be used in OEL development.
- Know where the data can be found and what ECHA and stakeholders might do with the DNELs and associated information.

System Requirements: Windows 2000, 2003, XP or Vista • Intel x86 (Pentium 400MHZ +) or compatible processor • 128 MB or greater RAM • Sound Card

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WEBINAR TEST — Derived No Effect Levels (DNELs): What Are They and How Will They Change the Occupational Health (OEL) Landscape?

Publication #WB-0017TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar *Derived No Effect Levels (DNELs): What Are They and How Will They Change the Occupational Health (OEL) Landscape?* for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — The EH&S Professional's Role in Emergency Response and Planning

Publication #WB014 \$325

This webinar, presented by **Anthony J.**

Intrepido, MS, MPH, CIH and **Lieutenant**

Colonel Dennis Palalay, focuses on the role the

environmental health and safety (EH&S) profes-

sional plays in planning and responding to emer-

gency events. Emergency response planning is

known by many names – hazard planning, business continuity, and disaster planning, just to name a few. However it is labeled at your organization, emergency response planning is a critical business need for today and beyond and the EH&S professional plays a critical role in the process. Their role is not only to ensure that those initially affected by the event are protected, but to protect the responders and all members of the incident command. In most cases, the EH&S professional must collaborate with all departments within an organization to execute a proper emergency response plan. The plan generally anticipates and prepares for incidents that take place within the walls of the organization, but more and more the EH&S professional is asked to develop plans that take into account "unplanned events" such as natural disasters, utility outages, and chemical, biological, radiological and nuclear weapons (CBRN) events and other catastrophic incidents of national significance. This webinar walks through the critical steps in planning and operating, discussing various types of emergency events, and describes the elements of a successful response plan.



After viewing this webinar, you will be able to:

- Summarize and describe hazard analysis approaches to different types of incidents.
- List and discuss the competencies and skill sets needed to enhance planning and operating in response to an emergency.
- Describe the importance of the EH&S professional's personnel connections and integration within the Incident Command System staff and departments.
- Provide critical input to the emergency response plan and list resources available to assist planners.
- Understand lessons learned from the perspective of the industrial hygienist and safety professional in previous emergency responses.
- Plan, train, and conduct exercises within the Incident Command System to prepare for emergency response.

System Requirements: Windows 2000, 2003, XP or Vista • Intel x86 (Pentium 400MHZ +) or compatible processor • 128 MB or greater RAM • Sound Card

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WEBINAR TEST — The EH&S Professional's Role in Emergency Response and Planning

Publication #WB-014TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar *The EH&S Professional's Role in Emergency Response and Planning* for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — Ethical EH&S: Effective Implementation of Corporate Social Responsibility in the Global Economy

Publication #WB-015 \$325

One of the biggest ethical challenges for occupational and environmental health professionals today is ensuring that corporate supply chains in the global economy effectively protect the health of workers, surrounding communities, and the environment. Numerous reports by the media and non-governmental organizations (NGOs) over the last 15 years have documented how even first-tier suppliers for international "brand name" companies have frequently operated unsafe, unhealthy, and polluting factories. The conditions in second- or third-tier suppliers' plants are worse. The current global economic crisis threatens to make matters worse as cost-cutting measures can accelerate a "race to the bottom" in factory conditions and the adjacent communities. A comprehensive perspective on meeting industrial hygienists' ethical responsibilities in an effective, sustainable and profitable manner will be presented in this webinar by **Glenn Barbi, MS, CIH, Garrett Brown, MPH, CIH** and **Lynda Yanz**, and will focus on:

- how a "triple bottom line" approach fulfills companies' ethical responsibilities and adds measurable value to business operations.
- how effective workplace safety in global supply chains is only possible with the active involvement of informed and empowered workers playing a direct role in plant-level OH&S programs.
- the biggest failures of corporate social responsibility programs over the last decade, and on what human rights NGOs expect from occupational health professionals and the companies that employ them.

After viewing this webinar, you will be able to:

- Recognize the challenges in leading change in thought regarding corporate social responsibility in the executive suite.
- Understand how to create positive interactions with non-company "stakeholders" including worker, community, environmental, and human-rights organizations.
- Identify and describe the key operational problems with "conventional" corporate social responsibility programs focused on corporate codes of conduct and monitoring systems.
- Understand the business case for responsible global supply chain stewardship.
- Describe the key areas where informed, empowered workers can make essential contributions to effective plant occupational health and safety programs as part of global corporate social responsibility programs.
- Understand the point-of-view of organizations in the "global south" when they evaluate the social and environmental impacts of transnational corporations operating in the developing world.

This webinar fulfills both the ABIH applicant and Diplomat requirement for at least 2 hours of ethics education.

System Requirements: Windows 2000, 2003, XP or Vista • Intel x86 (Pentium 400MHZ +) or compatible processor • 128 MB or greater RAM • Sound Card

ISBN: 978-1-607260-23-3. © 2009.

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WEBINAR TEST — Ethical EH&S: Effective Implementation of Corporate Social Responsibility in the Global Economy

Publication #WB-015TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar *Ethical EH&S: Effective Implementation of Corporate Social Responsibility in the Global Economy* for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — Explosive Dusts in Industrial Ventilation Systems

Publication #WB-016 \$325

Combustible dust explosions may not be the first hazard the industrial hygienist or safety professional thinks about when reviewing their ventilation design plan but it is more common and more dangerous than one might realize. Recent industrial dust explosion occurrences have caused deaths and other serious injuries such that industrial hygienists and other safety professionals should consider all options available to them to safeguard their facility. Thus, the ACGIH® Industrial Ventilation Committee hosted this webinar aimed at educating the EH&S community on the importance of preparing for and preventing dust related incidents in industrial ventilation systems. This webinar, presented by **Jonathan F. Hale, MS** and **Marty Schloss, PE**, explains how dust explosions occur, how to employ both dust control and ignition control methods to prevent dust explosions, and how to maintain compliance with current and future regulations.

Topics covered in this webinar include:

- Explanation and definitions
- Typical explosion event
- Types of dust
- Sources of ignition
- Dust collection system hazards
- Electrical classifications
- Explosion prevention systems
- Dust explosivity testing protocol
- Compliance

After viewing this webinar, you will be able to:

- Understand the mechanism of how dust explosions occur in the workplace.
- Formulate a knowledge-based plan on how to approach an explosive dust situation in their facility.
- Understand how to determine if the type of dust in their facility will support an explosion or deflagration.
- Understand the regulatory framework that exists today and is being



enforced, and understand which local authority has jurisdiction in their area as well as the status of federally enforceable legislation for the future.

- Understand how to prevent explosions and deflagrations in the workplace.

System Requirements: Windows 2000, 2003, XP or Vista • Intel x86 (Pentium 400MHZ +) or compatible processor • 128 MB or greater RAM • Sound Card

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WEBINAR TEST — Explosive Dusts in Industrial Ventilation Systems

Publication #WB-016TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar *Explosive Dusts in Industrial Ventilation Systems* for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time. © 2010.



WEBINAR CD-ROM — Incorporating Lean Six Sigma Into Occupational Health and Safety

Publication #WB-020 \$325

Lean Six Sigma has quickly grown in popularity as an improvement initiative over the past 15 years. Businesses are using it to achieve significant improvements in operating efficiencies and profitability. Though very different from each other, the strategies used in Lean and Six Sigma provide complementary tools for achieving these results. Implementation strategies and use differ widely among industries and even within companies. This seminar will help identify applicability to Health and Safety topics and environments based on audience input.



After viewing this webinar, you will be able to:

- Obtain a better understanding of Lean Thinking and Six Sigma as separate initiatives.
- Discover how Lean and Six Sigma work together seamlessly.
- Understand how Lean Six Sigma supports and/or supplements current improvement initiatives.
- Describe the achievement levels in Lean Six Sigma (i.e., Blackbelt, Greenbelt, etc).
- Learn the DMAIC problem solving methodology.
- Learn how to evaluate your environment for opportunities to use these tools.
- Identify which tools will be the most effective based on the type of issue you are trying to solve.

System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers

ISBN: 978-1-882417-81-0. © 2007.

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WEBINAR TEST — Incorporating Lean Six Sigma Into Occupational Health and Safety

Publication #WB-020TEST \$25

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WEBINAR CD-ROM — Industrial Hygienists' Ethical Dilemmas: Basic Principles and Resolution Strategies

Publication #WB-019 \$325

Industrial hygienists, like all professionals, routinely confront ethical dilemmas. The American Board of Industrial Hygiene (ABIH) has introduced an enforceable code of ethics and ACGIH® and AIHA have published member ethical principles. This webinar will provide industrial hygienists with an overview of the code and principles, the rationale for their existence, and the importance of ethical codes to professions. Participants will review basic ethical principles, evaluate the important ethical issues facing our profession, and learn effective strategies for avoiding and resolving ethical conflicts. Several ethical dilemmas will be presented as case studies. Participants will use multiple tools and resources to resolve these scenarios. Industrial hygienists will gain a deeper understanding of ethical behavior and the multiple factors that influence it.



Agenda

1. What are "ethics" and why are they important to a profession?
2. Professional ethics codes
 - a. Industrial hygiene associations' member ethical principles
 - b. International Code of Ethics for Occupational Health Professionals
 - c. ABIH enforceable code
3. The industrial hygiene profession and ethical issues
4. Strategies for avoiding and resolving ethical dilemmas
5. Case studies

After viewing this webinar, you will be able to:

- Define ethics and ethical behavior
- Describe the importance of ethics to professions
- Summarize the ABIH ethics requirements and describe how this code is different from the key industrial hygiene associations' member ethical principles and the International Code of Ethics for Occupational Health Professionals
- Identify multiple ethical issues faced by industrial hygienists
- Recognize strategies that can be used to avoid ethical dilemmas
- Discuss resolution approaches to ethical dilemmas

This webinar fulfills both the ABIH applicant and Diplomat requirement for at least 2 hours of ethics education.

System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers

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WEBINAR TEST — Industrial Hygienists' Ethical Dilemmas: Basic Principles and Resolution Strategies

Publication #WB-019TEST \$25

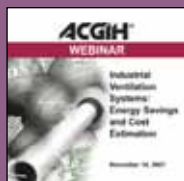
This test is to be taken in conjunction with our 2-½ hour webinar Industrial Hygienists' Ethical Dilemmas: Basic Principles and Resolution Strategies. Webinar attendees who have paid for the test with registration should have received a copy of the test and do not need to purchase this downloadable test. Webinar attendees who viewed the webinar with a registrant, but did not themselves register, may receive a certificate of completion by purchasing this test and completing it and its evaluation and sending it to ACGIH® within the allotted time. © 2010.



WEBINAR CD-ROM — Industrial Ventilation Systems: Energy Savings and Cost Estimation

Publication #WB-007 \$325

This 2-½ hour webinar, presented by **Doug L. Edwards, PE** and **Gerhard W. Knutson, PhD, CIH** in November 2007, addresses energy savings and cost estimating, two common concerns in ventilation systems. The first half of the webinar focuses on "Ventilation System Cost Estimating," addressing factors affecting the installation and operating costs of industrial ventilation systems (i.e., developing a project budget, determining economic advantages of multiple control options, estimating annual operating and maintenance costs, and reporting of costs to upper management). The second half of the webinar, entitled "An Energy Savings Primer for Industrial Ventilation Systems," provides background information and important knowledge on how to save energy by employing the proper control and application of industrial ventilation systems. Industrial exhaust systems are energy intensive in their operation; therefore, this presentation discusses the energy use of the ventilation system components and provides methods for calculating the actual amount. Focus is placed on approaches to reduce energy use of the exhaust systems and safeguards for systems where air can be re-circulated back into the plant.



After viewing the webinar, you will be able to understand:

- The financial considerations affecting the installation and operation of ventilation systems
- How to evaluate the component and operating costs of a ventilation system
- How to save energy by properly controlling industrial ventilation systems
- How to create an energy management plan
- The energy audit process
- How to evaluate the pros and cons of an energy project

System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers

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WEBINAR TEST — Industrial Ventilation Systems: Energy Savings and Cost Estimation

Publication #WB-007TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar on industrial ventilation systems for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — Managing Energy in Ventilation Systems: Variable Frequency Drives (VFDs)

Publication #WB-011 \$325

This 2-1/2 hour webinar is presented by **Jonathan F. Hale, M.S.**, founder and co-owner of Jackson-Hale Environmental Technologies, an innovator in the industrial pollution-control industry and **Gerry A. Lanham, PE**, President of KBD/Technic, Inc., a CECO Environmental Company.



Ventilation systems are inefficient by nature. Over 40% of the horsepower (HP) in most plants is expended on powering fans and pumps. In ventilation systems for large buildings, variable frequency drives (VFDs) on fans will save energy by allowing the volume of air moved to match the system demand. Current VFD costs have decreased in recent years to a point where they can be incorporated into almost all ventilation designs. They also have flexibility of control and offer considerable electrical energy savings through greatly reduced electric bills. VFDs also have special requirements to provide stable operation and to maximize energy savings potential. This webinar provides key information regarding the use of VFDs as well as how they work to reduce plant operating costs. Practical examples are demonstrated during the webinar.

After viewing this webinar, you will be able to understand:

- How the use of variable speed systems can help a large building save energy
- How VFDs can be used for improved system reliability and system life
- How system and fan curves interact
- The system curve in a variable pressure system
- How air density affects fan and system curves

System Requirements: Windows 2000, 2003, XP or Vista • Intel x86 (Pentium 400MHZ +) or compatible processor • 128 MB or greater RAM • Sound Card

ISBN: 978-1-607260-00-4. © 2008.

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WEBINAR TEST — Managing Energy in Ventilation Systems: Variable Frequency Drives (VFDs)

Publication #WB-011TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar *Managing Energy in Ventilation Systems: Variable Frequency Drives (VFDs)*. Webinar attendees who have paid for the test with registration should have received a copy of the test and do not need to purchase this downloadable test. Webinar attendees who viewed the webinar with a registrant, but did not themselves register, may receive a certificate of completion by purchasing this test and completing it and its evaluation and sending it to ACGIH® within the allotted time.

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WEBINAR CD-ROM — Nanotechnology Health and Safety: Case Studies in the Occupational Setting

Publication #WB-008 \$325

Nanotechnology has quickly moved from an innovative idea to a technology that is created, produced, and used in the workplace. The state of the science is constantly evolving thus creating a myriad of questions on the “how-to” of worker health and safety. This webinar, presented by **Charles (Chuck) L. Geraci, PhD, CIH, Mark D. Hoover, PhD, CHP, CIH** and **Tabitha V. Maher, MS**, will discuss the uncertainties associated with the hazards and potential risks of working with engineered nanoparticles; describe ways to help manage exposure to engineered nanoparticles; and illustrate how occupational health and safety controls, both engineering and administrative, can be implemented to better manage worker health and safety. Additionally, this webinar will present case studies that will highlight how select organizations that use engineered nanoparticles in production facilities (metal oxide and metal alloy), as well as research laboratories, are addressing the safety and health issues behind this new technology. This webinar will focus on several points such as:



- Known health effects data and their implications for risk characterization and risk management
- Hazard identification and exposure assessment
- Evaluating and characterizing risk
- Procedural approaches for completing an evaluation
- Conducting a real-time assessment: qualitative and quantitative tools
- Types of controls, PPE, and how to verify effectiveness
- Employee communication
- Communicating information to management

After viewing this webinar, you will be better able to understand:

- The potential hazards and associated risks of engineered nanoparticles
- The current state of knowledge in terms of health data in the occupational setting

- How to develop a procedural approach for characterizing risk in a workplace utilizing engineered nanoparticles
 - How to evaluate and employ effective PPE and control practices
 - Methods for communication in workplaces utilizing engineered nanoparticles
 - How select companies are utilizing control methods and PPE, and controlling risk when dealing with engineered nanoparticles
- System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers
ISBN: 978-1-882417-82-7. © 2007.

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WEBINAR TEST — Nanotechnology Health and Safety: Case Studies in the Occupational Setting

Publication #WB-008TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar on nanotechnology for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — Pandemic Influenza: Minimizing Risk and Preparing for the Possibilities

Publication #WB-004 \$325

This 2-½ hour webinar is presented by **Gail Bennett, MSN, CIC**, Executive Director of ICP Associates; **John Mikan, CIH**, President of Experien Health Sciences, Inc; and **T. Stuart Webster, MS, CIH**, Managing Principal of Experien Health Sciences, Inc.



This webinar addresses the following thought-provoking questions and helps prepare attendees to articulate to their management a business case for a Pandemic Influenza Preparedness Plan:

- How will your organization handle employees who are out of work due to contracting the flu, caring for sick family members, or even due to fear of exposure?
- How will your organization deal with the possibility of quarantine?
- What if your raw material suppliers are not prepared?
- What if you are unable to meet demand or contract obligations?
- How long can your business survive an economic downturn or reduced production situation?

After viewing this webinar, you will gain an understanding of:

- Why there is concern regarding the H5N1 virus.
- The predicted impact both domestic and abroad of an H5N1 derived flu pandemic.
- How to communicate to your management team why business risks can outweigh societal risks.

- Need to articulate how the influenza pandemic may impact your business and explain the need for a preparedness plan.
 - Measures to decrease the risk of acquiring the flu.
 - Areas of influenza preparation needed by all businesses.
- System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers
- ISBN: 978-1-882417-73-5. © 2006.

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WEBINAR TEST — Pandemic Influenza: Minimizing Risk and Preparing for the Possibilities

Publication #WB-004TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar on pandemic influenza for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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- Learn how 1-hydroxypyrene levels can be used to determine whether exposure interventions are effective.
- System Requirements: Windows version only • Adobe Acrobat Reader 5.0 or later • Audio Speakers
- ISBN: 978-1-882417-72-8. © 2006.

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WEBINAR TEST — Polycyclic Aromatic Hydrocarbons (PAHs): Controlling Exposure Using Biological Monitoring

Publication #WB-003TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar on polycyclic aromatic hydrocarbons (PAHs) for individuals interested in receiving a certificate of completion. An evaluation must also be completed and both should be submitted to ACGIH® within the allotted time.

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WEBINAR CD-ROM — Polycyclic Aromatic Hydrocarbons (PAHs): Controlling Exposure Using Biological Monitoring

Publication #WB-003 \$325

This 2-½ hour webinar is presented by **Glenn Talaska, MSPH, PhD**, professor of Environmental Health at the University of Cincinnati School of Medicine and Vice-Chair of the ACGIH® BEI® Committee; **John Cocker, PhD**, Head of the Biological Monitoring Section of the Health and Safety Laboratory in the United Kingdom and also a member of the ACGIH® BEI® Committee; and **Peter Boogaard, PharmD, PhD**, Senior Toxicology Consultant at Royal Dutch Shell's global headquarters in The Hague (The Netherlands).



The webinar addresses the basis for ACGIH® PAHs BEI® using 1-HP, provides guidance on how to use the BEI® to recognize exposure risks, and compares the U.K. HSE approach to the ACGIH® BEI®.

After viewing this webinar, you will gain an understanding of:

- Understand the basis for the ACGIH® PAHs BEI® using 1-hydroxypyrene
- Understand the correct sample timing and data interpretation
- Understand how to control for confounding exposures like smoking and dietary intake
- Learn how exposure in different industries affects 1-hydroxypyrene levels
- Learn the different approaches to controlling exposure of the ACGIH® BEI® Committee and the British Health and Safety Executive
- Learn to use 1-hydroxypyrene to differentiate between airborne and dermal exposure



WEBINAR CD-ROM — Thermal Stress: Exploring Common Problems

Publication #WB-018 \$325

Thermal stress is the combination of environment, work demands, and clothing that increases the risk for thermal disorders. Thus, there are many variables that can affect a worker's exposure to thermal stress. The TLV® for Heat Stress and Strain has undergone major changes in the past 10 years and the TLV® for Cold Stress is currently under review for future changes. This webinar will update OH&S professionals on the rationale of the Heat Stress and Strain TLV® and present information on control alternatives such as work/rest cycles and short-term exposure times. The webinar will also address the Cold Stress TLV® and discuss hazards such as local tissue damage and hypothermia. The risk factors for these hazards will be presented along with suggested exposure limits.



After viewing this webinar, you will gain an understanding of:

- How the Heat Stress and Strain TLV® was developed
- How cold stress represents a workplace hazard
- What the minimal protective practices are (e.g., general controls)
- How to manage potential sources of thermal stress
- How to determine the appropriate controls to use in thermal stress situations

System Requirements: Windows 2000, 2003, XP or Vista • Intel x86 (Pentium 400MHZ +) or compatible processor • 128 MB or greater RAM • Sound Card

ISBN: 978-1-607260-32-5. © 2010.

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WEBINAR TEST — Thermal Stress: Exploring Common Problems

Publication #WB-018TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar *Thermal Stress: Exploring Common Problems*. Webinar attendees who have paid for the test with registration should have received a copy of the test and do not need to purchase this downloadable test. Webinar attendees who viewed the webinar with a registrant, but did not themselves register, may receive a certificate of completion by purchasing this test and completing it and its evaluation and sending it to ACGIH® within the allotted time.

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WEBINAR CD-ROM — TLVs® and Adjustments due to Worker Conditions

Publication #WB-012 \$325

This is part two, of a two-part webinar series focusing on the TLVs® for Chemical Substances and the proper application of the values during unusual conditions. This webinar is presented by **John D. Elias, MPH, CIH, ROH, CRSP** and **Rachel Rubin, MD, MPH**, with **David C. May, ScD, CIH, PE** serving as the TLV®-CS Education Development Coordinator. It addresses worker conditions including age, gender, and health concerns.



The role of the environmental health and safety professional is to determine how exposures at the workplace affect the health of the employee. However, it is also important to consider how the health of the employee affects workplace exposure assessment. When there is significant variability in employee health conditions it can become a challenging undertaking to properly apply the TLVs®. This webinar focuses on adjustments to the TLVs® due to worker physical conditions and the biological variability of the workforce when accounting for certain factors such as: Age and Gender; Non-occupational Exposures; and Health Related Concerns.

After viewing this webinar, you will be better able to understand:

- The purpose of the TLVs® and the variables that should be considered when modification is needed due to an employee's physical condition.
- The impact age may play when assessing an exposure.
- The exposure accommodations to consider for reproductive issues.
- How non-occupational exposures can interact with a workplace exposure.
- Special considerations of medication-dependent employees.
- How to work with the employee to ensure proper evaluation factors.

System Requirements: Windows 2000, 2003, XP or Vista • Intel x86 (Pentium 400MHZ +) or compatible processor • 128 MB or greater RAM • Sound Card

ISBN: 978-1-607260-07-3. © 2009.

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WEBINAR TEST — TLVs® and Adjustments due to Worker Conditions

Publication #WB-012TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar TLVs® and Adjustments to Worker Conditions webinar. Webinar attendees who have paid for the test with registration should have received a copy of the test and do not need to purchase this downloadable test. Webinar attendees who viewed the webinar with a registrant, but did not themselves register, may receive a certificate of completion by purchasing this test and completing it and its evaluation and sending it to ACGIH® within the allotted time.

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WEBINAR CD-ROM — TLVs® and Adjustments due to Workplace Conditions

Publication #WB-010 \$325

This is part one, of a two-part webinar series focusing on the TLVs® for Chemical Substances and the proper application of the values during unusual conditions. It discusses adjustments due to workplace conditions and focuses on both ambient workplace conditions and time and work shift adjustments.



The ACGIH® Threshold Limit Values (TLVs®) for Chemical Substances are developed to be used as guidelines in the occupational setting to control health hazards. These TLVs® are intended to be applied at normal temperature and pressure conditions as well as during a typical 8-hour day, 40-hour workweek. In today's dynamic work setting, it is important for occupational health and safety professionals to understand the considerations surrounding the application of the TLVs® during unusual conditions. This webinar, presented by **Doug Wylie, CIH, ROH, CRSP, CRM, CIM** and **Dean Lillquist, PhD, MSPH, CIH**, focuses on deviations due to Ambient Conditions; Workplace Conditions; and Time and Work Shift Adjustments. Additionally, a review of the approaches to adjusting occupational exposure limits is discussed, including the methodology and examples of real-time demonstration of the models.

After viewing this webinar, you will be better able to understand:

- The purpose of the TLVs® and the variables that should be considered when modification is needed.
- How deviations in work conditions affect the application of the exposure limit.
- The basic principles of pharmacokinetics in relation to the TLVs®.
- The application of the TLVs® in unusual ambient conditions.
- The options for comparing air-sampling results to the TLV®.
- The different approaches to adjusting exposure limits for non-standard work shifts.
- The risks of overexposure due to unusual workplace conditions.
- Special considerations that should be given when there is exposure to multiple substances (mixtures).

System Requirements: Windows 2000, 2003, XP or Vista • Intel x86 (Pentium 400MHZ +) or compatible processor • 128 MB or greater RAM • Sound Card

ISBN: 978-1-882417-99-5. © 2008.

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WEBINAR TEST — TLVs® and Adjustments due to Workplace Conditions

ACGIH®

Publication #WB-010TEST \$25

This test is to be taken in conjunction with our 2-½ hour webinar TLVs® and Adjustments to Workplace Conditions webinar. Webinar attendees who have paid for the test with registration should have received a copy of the test and do not need to purchase this downloadable test. Webinar attendees who viewed the webinar with a registrant, but did not themselves register, may receive a certificate of completion by purchasing this test and completing it and its evaluation and sending it to ACGIH® within the allotted time.

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DOWNLOADABLE PRODUCTS



Aerosol Sampler Calibration

A Monograph of the ACGIH® Air Sampling Instruments Committee

Publication #ASI2 \$25

This monograph will be included in a future ACGIH® Signature Publication that will be entitled: *Air Sampling Technologies: Principles and Applications*. It reviews the calibration techniques relevant to aerosol samplers, such as sizing instruments, devices for measuring concentrations, and size selective samplers. Test facilities, generation of test aerosols, and testing procedures are emphasized.

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Air Sampling and Program Development for Occupational Hygiene Interventions in Developing Countries

A Monograph of the ACGIH® Air Sampling Instruments Committee

Publication #ASI10 \$25

This monograph will be included in a future ACGIH® Signature Publication that will be entitled: *Air Sampling Technologies: Principles and Applications*. It provides general guidance for the development of occupational hygiene interventions particularly in developing countries, emphasizing the importance of considering exposure assessment and air sampling instruments in the context of comprehensive, multidisciplinary, well managed and sustainable hazard prevention and control programs. Some guidance is provided as to the recognition of hazards, as well as to prevention and control, including the use of instruments at these stages.

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