

# **W. M. HUITT CO. ONLINE TRAINING COURSE - MODULE VI**

## **BIOPROCESSING PIPE DESIGN AND ENGINEERING 90 Minute Course Synopsis**

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**Course Description:** This course will provide the Pipe Designer and CAD Operator with the information they need to design piping for a bioprocessing facility. It includes those aspects of piping design as covered under the ASME-BPE Standard. It will provide plant maintenance personnel with a better understanding of the requirements and issues of installed pipe and tubing systems as they relate to the pharmaceutical industry. Mechanical, Process, and Utility Engineers will get the information they need to better understand the piping design requirements inherent to the pharmaceutical industry. Fabricators, pipe fitters, and journeymen will better understand the reasoning behind the added emphasis placed on cleanliness, uniformity, consistency, and quality assurance throughout the fabrication and installation process.

**Who Should Attend:** This course is useful to the CAD operator; the experienced piping designer who needs to gain more insight into the added requirements; plant maintenance personnel who repair and reconfigure piping in hygienic services; mechanical, process, and utility engineers who need to make assurances as to the validity of the design; and the fabricator who needs to understand the reason for the added examination and documentation requirements when working with hygienic fluid systems.

### **Abstract of the Online Course**

This course revolves around the criteria defined in the ASME-BPE Standard. The course will cover the subject matter in the BPE Standard and apply it to design situations in class. We will discuss expectations of a hygienic piping system, surface finishes, rouging, passivation, design parameters, fabrication, installation, examination, inspection, and documentation.

In addition to what is contained in the ASME-BPE Standard, much of what we discuss will relate back to the B31.3 Code. The BPE Standard provides the fundamental requirements for hygienic piping that are over and above those requirements defined in B31.3.

Two key aspects are Paramount in any hygienic piping system. They are: cleanability and documentation. We will step through the process to show what is required to achieve both.

## **BIOPROCESSING PIPE DESIGN AND ENGINEERING 90 Minute Course Agenda**

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- I. A perspective on the world of High Purity
- II. How bioburden drives much of the design in bioprocessing
- III. Crossover applications of the BPE Standard
- IV. Structure of the BPE Standard
- V. The BPE – Chapter by Chapter
- VI. Documentation requirements
- VII. Behind the curtain – Current BPE testing to validate acceptable practices
- VIII. Ongoing harmonization with other industry standards organizations

### **END OF COURSE**

\* It will be beneficial to have with you in class the latest version of the ASME BPE – Bioprocessing Equipment Standard (2009 for \$225.00US). The standard can be ordered directly from ASME by clicking on the following link or by copying and pasting it to your browser:  
[http://www.asme.org/products/codes---standards/bioprocessing-equipment-\(2\)](http://www.asme.org/products/codes---standards/bioprocessing-equipment-(2))