

**Title:** Pork Industry Health and Safety Training – Seminars and Online Courses – **NPB #07-226**

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**Date Submitted:** January 30, 2009

### Industry Summary

This program was designed to provide training in occupational health and safety to managers and workers while enhancing the National Pork Board's occupational health and safety materials including the use of the Pork Production Safety System (PPSS). Through the provision of introductory talks at the 2008 Iowa Pork Congress and the 2008 World Pork Expo, 11 interactive online sessions, and an online forum, industry safety personnel were provided free, convenient training materials to meet the health and safety needs of today's producer whether it be a small independent operator or a large operation with many employees.

A working group consisting of 17 persons who included industry safety personnel, researchers, educators, and an OSHA consultant was convened to develop the overall course outline. Working within this group, the course topics were developed and the best speakers were identified for each area. The suggested speakers were contacted, and in most cases, the suggested speaker was able to participate and lead that course topic. For each session, an attendance sheet and a brief quiz were provided for those who wished to receive certification for attending the sessions and completing the coursework.

An evaluation survey was sent to the Pork Board's Roundtable Safety list after the series was completed which confirmed the need for increased health and safety training in the pork industry. The responses also showed that our topic areas were deemed relevant and needed. In addition, responders noted a need for a variety of course offerings such as short courses in person, workbooks, and supplemented by online training activities. The results indicate further need and demand for training. Based on the results of the project and discussions with National Pork Board Staff, we have developed a concept for a follow-on program that will be compatible and synergistic with the training programs of the National Pork Board.

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These research results were submitted in fulfillment of checkoff-funded research projects. This report is published directly as submitted by the project's principal investigator. This report has not been peer-reviewed.

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## Scientific Abstract

The health and safety of employees working in the pork industry is a prominent concern of today's producers. With the change in production over the last two decades leading to an increased concentration of production and an increasing reliance on hired workers, additional health and safety concerns have arisen. These concerns can be minimized through education and preventive activities such as the Pork Industry Health and Safety Training series. This program was designed to enhance the pork industry's access to occupational health and safety materials including the National Pork Board's Pork Production Safety System (PPSS).

Through the provision of introductory talks at the 2008 Iowa Pork Congress and the 2008 World Pork Expo, 11 interactive online sessions, an online forum, and quizzes the industry safety personnel were provided free, convenient training materials to meet the health and safety needs of today's producer whether it be small independent operations or large operations with many employees. Working with industry safety personnel, researchers, and an OSHA representative the course objectives and topics were discussed and refined. Each session was led by either an industry representative or researcher or a combination of both. Recordings of the sessions were added to the course website so viewers could watch the presentation again or if they were unable to attend, watch it for the first time.

Participation in the live sessions varied from two to 23 with an average of eight sites (a site could have more than one person viewing) per session. Although attendance rates were lower than expected, participants acknowledged the need and benefit of the training. However, timing and logistics of attending the live sessions proved to be difficult for some. Future endeavors should include multiple approaches for engaging the industry such as short courses in person, workbooks to be supplemented by online training activities.

## Introduction

The main objective of this project was to enhance health and safety training available to the pork industry and its employees through online sessions, certification, and an increased awareness of the PPSS materials. Ron McGill, OSHA Area Director, stated in 2006 at the Worker Safety Roundtable meeting in Memphis, TN, "Federal-level OSHA officials performed 18 swine farm inspections between October 2004 and May 2006. Eleven of the operations inspected were found to be non-compliant, and financial penalties were assessed to these operations" (<http://www.pork.org/NewsAndInformation/WebFeaturePage2.aspx?Id=147>). With increased inspections from OSHA in the past 5 years, the need for additional training and methods for dissemination has been highlighted.

The PPSS materials were developed in a handbook and DVD format. The Pork Industry Health and Safety Training series expanded on these materials and introduced an online component to complement the PPSS materials. This goal of this project was to utilize the increasing popularity of online distance courses to educate already busy professionals by providing educational opportunities at their convenience.

## Objectives

**Objective 1:** Enhance safety and health training in the pork industry by conducting seminars and online courses

**Objective 2:** Convene a planning committee of producers, educators, and researchers to determine the details of methodology, topics, delivery method details, cultural and language issues, evaluation, and future planning.

**Objective 3:** Increase the use of the National Pork Board's Pork Production Safety System training materials

## Materials and Methods

A working group of industry personnel, researchers, educators, and an OSHA representative were convened to develop the course content and suggest knowledgeable speakers. Through review of the PPSS materials and conference calls between the working group, the eleven course topic areas were decided on. Once the topics were agreed upon, members of the working group began suggesting speakers who would excel in teaching the topic material. The UI team contacted the suggested speakers and asked for their participation in the program. If the first suggested speaker was unavailable, we moved on to the second choice or asked the first choice if they would recommend another speaker.

Advertising the course to potential participants was an important and a continual process during the program. The initial advertising for the program was done through a presentation at the 2008 Iowa Pork Congress. In addition, a presentation at the 2008 World Pork Expo was used to explain and advertise the program to potential participants. The ongoing advertising consisted of The University of Iowa sending out several emails the week of a session to attendees of the 2007 Worker Safety Roundtable meeting. In addition, the University had worked with the Iowa Pork Producers Association to send announcements to their members, as well as, writing an article on the series for their quarterly publication. The National Pork Board assisted in advertising by including information in the "Insider", "Leader Letter", web features, and sending announcements to the Worker Safety Roundtable listserv.

A website was developed ([www.porktraining.com](http://www.porktraining.com)) as another venue for advertising, but in addition, it was designed as an information portal for users. On the homepage of the site, the dates and topics of each session were listed. Also, on this page, a prominent link to the PPSS materials was added. The website had a resources section with links to: 1) Pork Checkoff resources, 2) National Ag Safety Database resources, 3) OSHA resources, 4) OSHA topics, and 5) other resources as well as citations and abstracts from relevant research articles. In addition, a forum was created for users to ask questions and receive responses from peers and experts. Lastly, the website provided links to recorded sessions, attendance sheets, and quizzes.

The online sessions were delivered to participants using the web-conferencing software, Adobe Acrobat Connect. A one year license was purchased for this product. This program allowed for additional flexibility in participant interaction and ease of later viewing of the recorded sessions. The day of the session, materials such as the PPTs, quizzes, and attendance sheets were uploaded to the session and participants could download the quizzes and attendance sheets to fill out and later return to The University of Iowa. During the session, participants were able to type questions, or if they had a microphone available, they could ask their questions directly to the presenter or other audience members.

Evaluation of the series was done by reviewing attendance for each session, gathering feedback from participants prior to and following each session and an evaluation survey. The survey was created using Survey Monkey and sent electronically to the Worker Safety Roundtable listserv.

## Results

### ***Objective 1: Enhance safety and health training in the pork industry by conducting seminars and online course***

Two seminars were conducted in accordance with this objective. A one hour time slot was secured at the 2008 Iowa Pork Congress and a 40 minute time slot was secured at the 2008 World Pork Expo. These seminars introduced the participants to the project team and the project goals.

11 one hour online course were conducted in accordance with this objective.

- April 10 – **Manager Responsibility and Liability**– Nathan Whatley, McAfee and Taft
- April 17 – **Slips, Trips, Falls** – Joe McNertney, Iowa Select Farms

- May 1 – **Confined Spaces** – Bob Aherin, University of Illinois
- May 15 – **Emergency Action Plan** – John Shutske, University of Minnesota
- May 29 – **Electrical Safety** – LaMar Grafft, University of Iowa
- June 12 – **Personal Protective Equipment** – Kelley Donham, University of Iowa
- June 26 – **Housekeeping** – Dan Bemby, Southeastern Tennessee Community College
- July 10 – **Animal Handling** – Gordon Moore, Hitch Consulting
- July 24 – **Lockout/Tagout** – LaMar Grafft, University of Iowa
- August 7 – **Fire Safety** – Gary Downey, Kirkwood Community College
- Aug. 21 – **Hazard Communication** – LaMar Grafft, University of Iowa

Unfortunately, the interest in receiving certification for this course was lacking. We had several different sites turn in some exams, but not enough were collected to grant certification for those participating.

An evaluation survey was developed and sent to the Worker Safety Roundtable listserv. While the response rate was low, we received four responses from the listserv and the feedback was constructive and relevant. Selected results from this survey can be seen below and will be used in developing future offerings to this population.

**Summary: Each session’s topic is listed below. Please rate the importance of this topic.**  
 (1= very important, 2=important, 3=somewhat important, 4=not important)

Topic	Average Score	Ranking
Animal Handling	1.00	1
Manager Responsibility	1.25	2
Emergency Action Plan	1.50	3
Electrical Safety	1.50	3
Personal Protective Equipment	1.50	3
Housekeeping	1.75	4
Slips, Trips, Falls	1.75	4
Lockout/Tagout	1.75	4
Fire Safety	2.00	5
Hazard Communication	2.00	5
Confined Spaces	2.25	6

**Summary: Please rate the importance of the following statements to your company.**  
 (1= strongly agree, 2= agree, 3=neutral, 4=disagree, 5=strongly disagree)

Question	Average Score
There is a need for additional health and safety training for our personnel.	1.25
Train-the-trainer courses (in person) would be beneficial for our company, so our managers and safety personnel can train employees with the information provided.	1.50
Safety presentations are most effective when conducted by	2.25

industry personnel.	
Providing online training for managers and safety personnel is an efficient way to disseminate information to our company.	2.50
Safety presentations are most effective when conducted by experts and consultants	2.50
An online safety course with a certificate of completion would be useful for training our managers, safety personnel, and employees.	2.50
Online training can be incorporated into our company training program for employees.	2.75

**Summary: Our Company could best utilize:**

(1= strongly agree, 2= agree, 3=neutral, 4=disagree, 5=strongly disagree)

Question	Average Score	Ranking
Short courses in person for managers and personnel	1.75	1
Workbooks for employees to work through	2.25	2
Videos (including the Pork Checkoff Pork Production Safety System	2.50	3
Other type of training would be useful, please describe	2.50	3
Online web-based training - viewing live sessions or recorded sessions during work hours	3.25	4

**Other, please describe:** OSHA compliance courses, Animal handling inspection procedures

**Summary: Please provide any comments you may have regarding the training sessions.**

1. They were informative and I liked the interaction. It was hard to concentrate being at my desk with the other tasks in front of me.
2. Informative in some instances. Honestly the first session could have been conducted in a better way. It really was too in-depth, very beneficial information and a great topic, however it the material covered by the presenter was too much for the time period.
3. Good

**Summary: If you were to conduct these sessions, what would you include?**

1. I liked the sessions that required interaction, then you had to pay attention.
2. Same major topics with different approach. Basically the "buy in" for safety is the big issue for most companies whether small or large. Management must be on board or the rest is useless.
3. More scenarios, real life problems and situations

**Objective 2:** *Convene a planning committee of producers, educators, and researchers to determine the details of methodology, topics, delivery method details, cultural and language issues, evaluation, and future programming.*

A presentation was made by Dr. Risto Rautiainen, a project team member, to the 2007 National Pork Board Worker Safety Roundtable meeting introducing the series concept to the attendees. An email was later sent to attendees of the Roundtable meeting as well as other industry representatives asking for participation in the planning committee. The committee consisted of twelve industry representatives, four researchers, and one Iowa OSHA representative (Adrienne Magill, Jodie Harker, Hiram Roman-Chavez, Juan Rubio, Ruben Vasquez, Dan Bembry, Shashi Patel, Liz Wagstrom, Jim Lummus, Gordon Moore, Joe McNertney, Allen Mires, Wendy Hoadley, Kelley Donham, Risto Rautiainen, LaMar Grafft, Aaron Kline). This group was convened five times via conference call to develop the program content and to evaluate the program's progress after several initial sessions.

This group was instrumental in developing the course topics and suggesting the speakers for each of the topics. They also steered the concept of who this program should be tailored to. Our original proposal was to reach the workers in the facilities, but the group suggested this was too broad and the course should be tailored to safety personnel and managers. Additionally, our original proposal stated conducting the seminars in Spanish and English, but as the working group steered the project towards more safety personnel and managers, it was decided that the need for dual simulcasting was unnecessary as the majority of safety personnel and managers spoke English.

The group also shaped the time of delivery such as frequency and time of day based on what they believed to be the best time for workers to participate in the online sessions.

**Objective 3:** *Increase the use of the National Pork Board's Pork Production Safety System training materials.*

It was a continual goal to promote the PPSS materials during these online courses. In the course of each session, PPSS materials were mentioned. In addition, videos from the DVD were used in several online sessions. A link to the [www.porkboard.org](http://www.porkboard.org) webpage on how to order PPSS was included on the homepage of this project's website.

## **Discussion**

One of the important results from this project is the confirmation of the need for increased health and safety training in the pork industry. Through discussions with the working group, with participants before and after sessions, and the evaluation survey it was confirmed that the industry wants and needs additional training opportunities to meet the changing needs of today's production methods and to bring about OSHA compliance. This type of training should be focused on managers and safety personnel who in turn can educate the individual workers in a "train-the-trainer" program. This program would train the company safety managers who in turn train the individual building managers who then provide training to the building employees.

Online courses are not the best delivery method for reaching the busy safety managers and personnel in the companies. A short course such as one or two day in person courses would be the ideal method for initial training possibly in conjunction with additional online mini-courses on select topics as a continual education tool. Short courses could be developed and timed to coincide with other annual meetings such as the Worker Safety Roundtable meetings.

The topics developed for this training series should be applicable to future training activities. As the topics were developed through a consensus process of the working group which consisted of industry safety personnel, the topics should represent the most important areas of concern to the industry. The top five categories ranked in order of importance based on the evaluation survey were:

1. Animal Handling
2. Manager Responsibility
3. Personal Protective Equipment
4. Emergency Action Plan
5. Electrical Safety

The end result of an educational program should consist of a certificate of completion. This would certify the receiver to conduct occupational health and safety activities within a company in a “train-the-trainer” approach. A certificate can be a sign of professional accomplishment and good for the public relations of the company.