ICRA for Occupied Facilities Syllabus

Time: 24 hours

Maximum Class Size: 12

Prerequisites: None

Course Description:

The Occupational Safety and Health Administration (OSHA) provides regulations for all industries formulated to protect the employees. There are regulations that are common among various industries. Construction work in hospitals, however, must adhere to additional regulations specific to this industry. These regulations are designed to not only protect the employees, but also the patients. The ICRA for Occupied Facilities class addresses healthcare worksites, hospital infections, patient and worker hazards, infection control equipment, Infection Control Risk Assessment, Interim Life Saving Measures and safe work practices. In addition, participants will have the opportunity to practice various scenarios that include identifying the correct class of infection control precautions, gathering appropriate equipment and materials and identifying the required personal protective equipment. Participants will set up a work area using various types of barriers, and setup, monitor, maintain and remove Negative Air Machines. Participants will be introduced to maintenance issues, learn how to identify and remedy room hazards, minimize noise and clear dust and debris. They will also clean a construction area with a HEPA vacuum, install and remove filter bags and disassemble and wrap a HEPA vacuum for transport. Lastly, participants will learn worksite deconstruction, barrier removal and final cleanup.

Goals/Objectives/Student Learning Outcomes:

- Define ICRA and briefly explain why it is used.
- Describe how healthcare worksites differ from regular worksites.
- Identify potential hazards for patients in a healthcare setting, and describe how each is transmitted.
- List typical situations in healthcare worksites where various pathogens are common and ways to reduce their transmission.
- Describe how noise and vibration can negatively impact patients in a healthcare setting and methods to avoid this.
- Explain how mechanical systems, medical gas lines, and water systems present hazards in healthcare construction and methods to avoid them.
- Identify potential hazards to workers in a healthcare setting.
- Explain the steps involved in creation of an ICRA.

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Goals/Objectives/Student Learning Outcomes:

- Identify the infection control measures prescribed in a variety of worksite situations.
- Identify the specific equipment and materials commonly used in infection control tasks.
- Explain the use of Interim Life Safety Measures in a healthcare worksite.
- Explain the importance of using designated areas for breaks, as defined by the risk assessment.
- Recount the topics covered in an ICRA-based work safety briefing.
- Gather task-specific equipment and materials to meet specific needs.
- Put on appropriate protective equipment/clothing to meet a defined requirement.
- List potential hazards to patients, visitors, staff, and workers in a healthcare setting.
- Explain the importance of minimizing dust in healthcare construction.
- Identify tasks that create dust and methods for preventing its spread.
- Explain why odors can be a problem in a healthcare setting and methods for controlling them.
- Identify routes for hazards to enter an ICRA site from outside the work area and list ways for managing each.
- Explain the effective use of safety and warning signs outside an ICRA site.
- Explain the importance of sealing air vents and methods for doing this.
- Describe safe work methods for transporting and placing tools and materials into the workplace.
- Identify different types of barriers used and guidelines for choosing them.
- Describe safe and effective construction of doorways in barriers.
- Explain the importance of anterooms and list different types.
- Construct a barrier based on ICRA requirements with the goal of minimizing dust, debris, and/or noise/vibration as needed.
- Explain the importance of sealing barriers and list some common methods for sealing them.
- Identify any concerns/issues in a worksite that could impact negative air pressure, such as holes, penetrations, etc.
- Explain the importance of sticky mats.
- Describe effective trash gondola maintenance.
- Demonstrate the proper placement and maintenance of sticky mats in order to control tracking dust.
- List the two main functions of a negative air machine (NAM) in an ICRA work environment.
- Give a definition of negative air pressure and explain its importance in an ICRA work environment.
- Label the parts of a NAM and explain how it works.

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Goals/Objectives/Student Learning Outcomes:

- Explain what a micron is and state the U.S. standard for HEPA filters.
- Describe the terminology related to the selections of a NAM for a worksite (CFM, ACH).
- Calculate CFM and ACH to select an appropriate NAM for a worksite.
- Describe precautions related to plugging in a NAM at a hospital site.
- Identify areas where a NAM's exhaust air can be discharged.
- Explain why negative air pressure must be maintained throughout a job.
- List three basic methods to ensure a NAM is working properly.
- Describe methods for monitoring air flow, including the use of an anemometer.
- Describe methods for monitoring air pressure, including the use of a manometer.
- Define 'inches of water' and 'Pascal'.
- Describe the use of a handheld air particle counter for monitoring air particle counts.
- Describe the process for safe change of NAM filters.
- Describe the process for safe removal of NAM from a worksite.
- Demonstrate how to position, set up, operate, maintain, and dismantle a negative air machine in a specified work area.
- Identify at least three areas of ongoing maintenance concerns in an ICRA environment.
- Identify issues or concerns regarding a workroom's integrity.
- Describe the importance of keeping all doors closed within the construction area.
- Identify the corrosive actions to be taken to remedy hazards present in a work area.
- Describe methods for resealing any holes and/or penetrations to maintain the integrity of a work area.
- Identify signs of debris, accumulation of dust, opened doors/windows, wet ceiling tiles, presence of insects, footprints, or any other signs of infection control hazards in a work area.
- Identify the importance of using designated areas for work breaks and lunch breaks as defined by the risk assessment.
- Identify how to manage or avoid hazards unique to the healthcare environment, such as sharps, biohazards or medical waste.
- Describe methods for maintaining the integrity of barriers in a work area.
- Describe the importance of keeping entry and exit paths free of debris.
- Describe the importance of hosing down an outside activity, such as a roadway or defined area that creates dust.
- Explain how to keep loose debris and dust covered and controlled when loading for hauling, moving from work area, and unloading.
- Identify the importance of containing stored construction waste before transport in containers.

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Goals/Objectives/Student Learning Outcomes:

- Explain how appropriate methods and/or tools are used to ensure that noise is kept to a minimum.
- Use correct procedures to change filter bags in a HEPA vacuum.
- Disassemble and wrap a HEPA vacuum for transport out of work area.
- Identify the importance of entering and exiting the work area only through designated entry/exit ways.
- Describe procedures for handling/using (dispose of, clean, vacuum) clothing/equipment before entry to and exit from the work area.
- Identify the importance of washing hands prior to entering and leaving the work area.
- Describe ways to ensure you don't take pathogens home with you.
- Explain common ICRA precautions for the cleanup stage of the project.
- Identify the importance of removing debris in clean containers with covers, along predetermined routes.
- Explain methods to deconstruct barriers on a worksite.
- Identify methods of cleaning up the work area in accordance with infection control practices.
- Clean and cover tools and equipment for removal form the worksite.
- Deconstruct barriers and perform final cleanup and inspection on a worksite.

Standards Addressed:

The 24-hour ICRA for Occupied Facilities course addresses the OSH Act of 1970's directive to assure safe and healthful working conditions for today's workers. In healthcare settings, these regulations are designed to not only protect workers, but also the patients.

Classroom Rules and Procedures:

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

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Textbooks/Readings/Materials:

- LIUNA: *ICRA for Occupied Facilities IG*
- LIUNA: *ICRA for Occupied Facilities* PG
- ICRA for Occupied Facilities Student Workbook
- LIUNA: *ICRA* PowerPoint
- LIUNA DVD: *Barrier Construction in Occupied Facilities*

Tools/Equipment/Other Materials:

- Computer
- LCD Projector
- Flipchart/markers
- Whiteboard/expo markers
- Highlighters

Cleaning/dust control materials:

- HEPA Vacuum
- Extension Cord
- Water Sprayer
- Sticky mats
- Spray cleaner/disinfectant
- Cleaning rags
- Trash gondola
- Dry mop
- Dusting spray
- Wet mop
- Mop bucket
- Cleaner/disinfectant for mopping

Barrier materials:

- Blue painter's tape
- Plastic film
- Vent mask film
- Mobile container cube
- Zip Wall extension poles
- Self-adhesive zippers
- Negative air machine
- Fire tape
- Fire caulk

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Tools/Equipment/Other Materials continued:

Cleaning/Dust Control materials:

- Mobile containment cube
- Ladder
- Blue painter's tape
- Plastic sheeting
- Trash bags
- Vent mask film
- Zip Wall extension poles
- Modular wall panels
- Modular door panels
- Self-adhesive zippers
- Utility knife or zipper slit cutter
- Fire tape
- Fire caulk
- Sticky mats
- Negative Air Machine

NAM

- Extension cord
- 2 pre-filters (one to replace) or filter (depending of type of NAM's pre-filtering
- 2 internal filters (one to replace)
- 1 HEPA filter
- Flex duct
- Duct tape, long zip ties, or large hose clamp for securing flex duct to NAM

Monitoring

- Blue painter's tape & strip of flagging tape, ribbon or sheet of paper
- OR plastic tube and ping pong ball
- OR anemometer
- Manometer
- OR differential pressure gauge on NAM
- OR round-dial differential pressure gauge
- OR electronic differential pressure monitor
- Particle counter

Cleaning

- Trash bags
- HEPA vacuum
- Extension cord
- Spray cleaner
- Cleaning rags

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Tools/Equipment/Other Materials continued:

- Plastic sheeting
- Tape for plastic sheeting
- HEPA vacuum
- Extension cord
- Extra vacuum filter bag
- Trash bags
- Spray cleaner/disinfectant
- Cleaning rags
- Plastic sheeting & tape (If HEPA vac is too bit to fit in trash bag)
- Trash gondola or garbage container with lid
- Tool tote buckets or toolbox or drywall cart
- Trash bags
- Plastic sheeting
- HEPA vacuum
- Extension cord
- Spray cleaner/disinfectant, cleaning rags
- Dry mop, dusting spray
- Wet mop, mop bucket
- Cleaner/disinfectant
- Hand sanitizer

Personal Protective Equipment

- 20 pairs of gloves
- 20 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 20 hard hats
- 20 dust masks
- 20 boot covers
- 20 disposable head covers
- 20 disposable coveralls

Course Requirements

To receive credit for the course, participants must:

- Be present for full 24-hours
- Participate in all classroom exercises
- Pass a written exam

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Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment
- Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

Assessment and Grading

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on activities and exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Safety

Failure to maintain and use PPE may result in dismissal from the course.