HAZARD RECOGNITION IN FOOD PROCESSING AND HANDLING ENVIRONMENTS

COURSE OUTLINE

- **According to the Occupational Safety and Health Administration (OSHA), there is a significant number of workplace injuries and deaths a year.**
  - More than 3 million injuries and illnesses.
  - More than 5,000 deaths.

- **It's natural to think that all of these people are "unlucky".**
  - But "luck" has nothing to do with it.
  - The accidents and injuries that happen on the job are simply a matter of numbers.

- **The more hazards there are in a workplace, the greater the risk that goes with working there.**
  - All that risk is basically "accidents waiting to happen".
  - And if nothing is done to prevent them, eventually those accidents will occur.

- **There's a direct connection between the number of hazards in a workplace and the number of accidents, injuries and fatalities that occur there.**
  - We can see that connection in a "pyramid" diagram.

- **At the bottom is the total number of hazards that were found in a group of workplaces.**
  - The next level up is the number of accidents that almost happened as a result. These are called "near misses".
  - The level above that is the number of minor injuries that resulted from the accidents that did happen.

- **The fourth level shows the major injuries that were caused by the accidents.**
  - At the top is the number of deaths that occurred.

- **As hazards increase at the bottom of the pyramid, the number of accidents, injuries and fatalities increase as well.**
  - For every 20,000 hazards that exist in a workplace, studies show there will be 1,500 "near misses", 300 minor injuries, 27 major injuries and one fatality.

- **Depending on your work environment, the ratios between these numbers may vary.**
  - But no matter what your job is, when hazards go unnoticed or unrecognized, and nothing is done to control or eliminate them… accidents will happen.

- **However, the diagram also illustrates something hopeful. When we drive down the number of hazards in the workplace…**
  - … the other numbers go down, too.

- **The more hazards we can identify, and control or eliminate, the fewer accidents, injuries and fatalities will occur.**
  - This is the goal of “hazard recognition”…
  - to make the workplace safer by finding hazards and removing them or reducing their risk.

- **There are two types of hazards that cause workplace accidents and injuries…**
  - “Hazardous conditions”.
  - “Unsafe acts”.
  - Most accidents are caused by a combination of the two.

- **“Hazardous conditions” are any situations you can encounter that could harm you.**
  - Spotting these conditions might seem like a no-brainer… especially when they're right in front of you.
  - But many hazards are harder to identify than you'd think.

- **Hazard recognition takes a systematic approach to this process, dividing risks into general categories. One way to organize them is by…**
  - Physical hazards, such as things that have the potential to cause you to fall or be struck by something, crushed, cut, burned or electrocuted.
  - Ergonomic hazards, such as situations that require frequent lifting, awkward movements and repetitive motions, or tasks that subject you to vibration.
  - Chemical hazards, including flammables, cleaning solutions, solvents, pesticides, and any fumes that these substances produce.
  - And biological hazards, such as viruses, bacteria, mold, insects and parasites.

- **These are all hazardous conditions that become even more dangerous when they are combined with the "unsafe acts" that people perform.**

- **"Unsafe acts" are the opposite of "safe work practices", and they make bad things happen.**
  - For example, changing a ceiling light 15 feet above the floor creates the potential for the physical hazard of falling.
  - Having a forklift operator raise you up to the light fixture on the bare forks of his lift truck is an unsafe act… which makes falling a lot more likely.
  - Climbing up to the fixture on a ladder you know is damaged is another type of an unsafe act that can lead to trouble.

- **Other examples of unsafe acts are…**
  - Pulling the grounding prongs out of the cords on your electric tools so you can plug them into two-prong outlets.
  - Disconnecting a machine guard that "gets in the way".

- **Unsafe acts are not only dangerous… they can also be "habit-forming".**
  - Actions always have consequences, and often they're immediate. Normally, we only have to put our hand on a hot stove once to learn that we shouldn't do it again.
  - But at work, the consequences don't always occur right away.
  - So when we get away with an unsafe act, we may say to ourselves, "Hey, I saved a lot of time here, and nothing bad happened!"

- **Because we don't get "burned" the first time, we're tempted to do the same thing again.**
  - But every time we do it, we're coming closer to an accident, injury… or worse.

- **Another problem is that some hazardous conditions and unsafe acts can be so "obvious" or "general" in nature that we can tend to overlook them, like…**
  - Clutter or spills on the floor can lead to trips and falls.
  - Insufficient lighting can hide other hazards so you can't see to avoid them.
  - And exits that are locked or blocked can be lethal in an emergency.

- **Some unsafe acts can fly under the radar as well, such as…**
  - Having a couple of drinks before coming to work.
  - Not wearing personal protective equipment when you're in a hurry.
  - And assuming that "someone else" will deal with a hazard that you just noticed.

- **Obviously the best time to identify hazards is before they cause accidents or injuries. Hazard recognition uses a couple of tools to do this…**
  - Job hazard analysis.
  - Pre-shift and pre-operation inspections.

- **In "job hazard analysis", a manager or supervisor studies a planned project or new process ahead of time, to identify its potential hazards and develop ways to prevent or control them.**

- **Each job is broken down into a list of specific tasks. The supervisor then examines…**
  - Each step of every procedure.
  - The location where it will be done.
  - Any equipment that will be used to do it.

- **Once the hazards associated with the tasks have been identified, a plan is developed to control or eliminate them. The plan may include:**
  - "Administrative controls", such as safe work practices and policies.
  - "Engineering controls" … physical safety measures that are built into the workplace.
  - Having employees wear various types of personal protective equipment.

- **Employees can play an important part in job hazard analysis as well.**
  - Since no one knows your work better than you do, your supervisor may ask for your input on the job and how to best do it safely.

- **Hazard recognition uses pre-shift and pre-operation inspections to make this process systematic.**
  - With hazard recognition these inspections are required at the start of a shift or before beginning a particular task.
  - Detailed checklists are developed to make sure that they are thorough.
  - As with job hazard analysis you may be asked to contribute your knowledge of the equipment that you use or tasks that you perform to create these checklists.

- **It's important to identify hazards before we begin to work, to prevent as many accidents and injuries as possible.**
  - We also need to be able to identify and deal with them in "real time", as they develop.
  - The hazard recognition process can help with this as well.

- **At the start of the day and throughout your shift, you should make a habit of asking yourself… "What are the hazards here?"**

- **Try to spot all of the types of hazards that might exist in your workplace… physical, ergonomic, chemical and biological. This could include…**
  - Places where you could fall, such as a scaffold or a wet floor.
  - Situations where objects could hit you, like materials that are being transported, or equipment with unguarded moving parts.

- **Ask yourself what forms of hazardous energy may be present?**
  - Pay special attention when electricity, steam or hydraulic pressure is being used.

- **Identify tasks that require heavy lifting and repetitive or awkward motions.**
  - And power tools and machinery that could generate harmful vibration.

- **Make yourself aware of any potentially hazardous chemicals, cleaning products or pesticides that you could come into contact with.**
  - Remember, their fumes can be hazardous as well.

- **Look for biological hazards such as…**
  - Mold inside the ventilation system.
  - Ticks or fire ant colonies on the grounds.

- **If you do wear personal fall protection on a scaffold, make sure that you know how to…**
  - Inspect it.
  - Put it on.
  - Work with it safely.

- **Ask yourself if the tools and equipment you'll be using are appropriate for your job and location… and whether they are in good working order.**

- **Look for things such as rickety ladders, frayed power cords, hammers with loose heads and cutting tools with dull or broken blades.**
  - If you find any pieces of broken equipment, fix them or take them out of service!

- **In addition to identifying hazardous conditions, you need to avoid unsafe acts as well.**
  - You can avoid doing them yourself by sticking to your company's "standard operating procedures" and "safe work practices".

- **Keep an eye on your coworkers too, to see if…**
  - They're following SOPs and safe work practices.
  - They're wearing proper PPE.

- **When you do identify a hazard, you need to take action.**
  - If you can remedy the situation, do it.
  - If you can't correct it yourself, speak up.
  - Report it to your supervisor, so they can take steps to control or eliminate the hazard.
  - Warn your coworkers about the risk as well, so they can avoid it too.

- **If you see a coworker doing something unsafe, call it to their attention.**
  - Make sure they understand why it's dangerous.
  - Remind them that doing things safely is the only responsible way to do them.

- **As hard as we may try, it's not always possible to eliminate risks before they cause problems.**
  - Recognizing hazards "after the fact" is better than not knowing why something happened at all.

- **When accidents or “near misses” do happen it's crucial to learn as much as possible about why they occurred, so they can be prevented from happening again.**
  - That's the goal of "accident investigation".

- **Accident investigation searches for the "root causes" of what happened.**
  - On the surface these might appear to be "obvious", but the circumstances behind accidents can be more complicated than you might think.

- **For example, take the case of a worker who fell off a step ladder.**
  - Coworkers say that the employee was standing on the very top step of the ladder when they fell.
  - That's an unsafe act, and it goes against the company's standard operating procedures… but is it the root cause of the accident?

- **When investigators looked more closely, they discovered that the step ladder was the tallest ladder in the facility but was still not tall enough to reach the highest shelves safely.**
  - The employee who fell had to stand on the top step to get to those shelves.

- **This type of information can help determine what measures will really be effective in controlling or eliminating a workplace hazard.**
  - The "obvious" cause of the ladder accident was an employee performing an unsafe act.
  - But the root cause was an equipment problem.
  - In this situation, to prevent a similar accident from happening in the future, the company will need to buy a taller ladder.

- **It's important to remember that what you know could be essential to an accident investigation…**
  - … even if you do not witness the accident firsthand.

- **If you are familiar with the task being performed at the time of the accident, or the location where it occurred, you could provide valuable information.**
  - So let the people who are conducting the investigation know that you may have some insight as to why the incident occurred.

*** * * SUMMARY * * ***

- **Most workplace accidents and injuries result from a combination of hazardous conditions and unsafe acts.**
- **Hazard recognition tries to identify hazards and neutralize them ahead of time.**
- **The hazard recognition process looks for "categories" of risks, such as physical, ergonomic, chemical and biological hazards.**
- **Once you identify the potential hazards in your work area, you need to take steps to protect yourself and your coworkers from them.**
- **An accident investigation tries to determine an accident's root cause, so steps can be taken to prevent similar incidents from happening again.**
- **Now that you understand the principles and procedures behind hazard recognition, you have the tools you need to head hazards "off at the pass" and make your facility a safer place to work... for everyone!**