ACCIDENT INVESTIGATION IN FOOD PROCESSING AND HANDLING ENVIRONMENTS

COURSE OUTLINE

- **There are two types of workplace incidents…**
  - Accidents.
  - Near misses.

- **We first need to discuss what the difference really is.**
  - The National Safety Council (NSC) defines an “accident” as an “unplanned, undesired event, not necessarily resulting in injury, but damaging to property and/or interrupting the activity in progress”.
  - On the other hand, a "near miss" is a narrowly avoided accident that could have resulted in an injury or the loss of equipment or materials, but did not.

- **"Near misses" can warn you about a problem before any real damage happens.**
  - You won't always have a "near miss" to learn from.
  - So if an accident does occur, the first thing you need to do is to get treatment for anyone who is injured.

- **If someone needs first aid and you're qualified to give it, that should be your initial priority.**
  - Then medical personnel should be called.

- **Once any victims are taken care of, the appropriate supervisors and managers should be notified if they aren't already at the scene.**
  - Next, the area where the incident occurred should be secured with safety tape so that no one else can get hurt.
  - This will also help to prevent any "evidence" of what took place from being disturbed.

- **Only after these things are done can an “accident investigation” begin.**
  - In the case of a “near miss”, since no one was injured, you can report the incident to your supervisor so they can begin the investigation process.

- **If an accident does occur in your work area, the last thing you want to do is sweep it “under the rug”.**
  - This will only result in similar incidents happening in the future.

- **So whenever you have an accident, there needs to be an accident investigation. This will…**
  - Let you and your coworkers learn from your mistakes.
  - Reduce repair costs.
  - Help to prevent future accidents.
  - Improve workplace safety overall.

- **But before an investigation team starts to work, they have to create a plan.**
  - They'll determine what resources they need, who will be involved, how long it will take, and if any third-party agencies need to be contacted.

- **The next step is to observe the accident scene.**
  - The team will look for anything that could have contributed to the incident, such as an uneven surface, wet floor, or an exposed electrical cord.
  - They might even label important items and take photographs of the area.

- **After that, they'll conduct interviews with anyone who was involved with or witnessed the event.**
  - This is where you come in.
  - The investigators need as much help as you can give them.
  - Be honest and provide any information that you have.

- **Even if you did not witness the accident, investigators may want to talk with you.**
  - This is especially true if you are familiar with the area where the incident occurred, or the task being performed at the time of the accident.
  - Remember, the information is being gathered to help determine the exact cause of the accident, not to place blame on anyone.

- **The investigators might ask you…**
  - What did you see at the time of the accident?
  - What was the lighting like when the event took place?
  - Were all company procedures being followed?
  - Was proper supervision being provided?
  - Other questions regarding the circumstances that existed when the incident took place.

- **Lastly, the investigators will take a look at your facility's documentation that will help them develop a "complete picture" of the situation, such as…**
  - Training records.
    - Work procedures.
  - Floor plans.

- **The team can only start to determine the cause of the accident when…**
  - The facility is inspected.
  - Interviews have been conducted.
  - Documents have been read.

- **Determining the cause of an accident is not always easy.**
  - After all, most accidents have several "contributing" factors.

- **This is where "Root Cause Analysis" comes in.**
  - It's used to figure out what the true cause of an accident is, rather than what it might appear to be at "first glance".

- **Root Cause Analysis looks at…**
  - What led up to the incident.
  - Whether there was a "domino effect" involved… a cascading sequence of events that eventually caused the problem.

- **Some of the events may have taken place days, weeks, even months before the accident actually occurred.**
  - So it's important that the analysis is thorough.

- **Factors that investigators will look for include things such as…**
  - Faulty or poorly maintained equipment.
  - The absence of appropriate policies and procedures.
  - The lack of proper training.

- **Once the investigators have listed the factors that they feel could have contributed to the incident, they will look at the underlying "cause and effect" of each of them.**
  - For instance, if a worker didn't follow the standard procedures to safely complete a task, that might have been because they hadn't been trained to do so.

- **To analyze each factor like this, an investigation team might use tools like fishbone charts or scatter plot diagrams.**

- **The "fishbone" chart gets its name from its shape, which resembles a fish skeleton!**
  - The problem goes at the "head" of it, and each rib represents possible causes.
  - Smaller bones branch off from the ribs, listing potential underlying issues.

- **A "scatter plot diagram", uses a different technique to identify the relationship between potential "causes" and a resulting problem.**
  - Once investigators identify a problem and a potential cause, they'll gather data that will show the strength of the correlation between the two.

- **For instance, let's say investigators think that some shifts' extended hours are the potential cause of many of the accidents in your facility.**
  - To test this theory, they would create a chart with the number of accidents on the "x-axis" and the length of different shifts on the "y-axis".
  - Then they would plot points based on how many accidents occurred during each shift length.

- **If a clear pattern such as a line or a curve is shown among the "scattered" data points, there is a strong connection between the length of shifts and the number of accidents that are occurring.**
  - If not, they might need to consider a different cause.

- **You can help with these processes by providing data for the diagrams and charts.**
  - So you should offer as much information as you can regarding any accident that you see or are involved in.
  - This includes information such as which workers were there, the location where the accident occurred and the conditions in the work area.

- **A successful Root Cause Analysis relies on detail.**
  - So it will also help if you are familiar with the safety practices that are typically used in the area where the accident occurred… and can let investigators know if they were being followed.

- **Once the investigators have gathered all the data they need, they should be able to determine the "root cause" of the accident. This could include things like…**
  - A lack of instruction or supervision.
  - Poor planning.
  - Not enough space to work safely.
  - Damaged equipment.
  - An employee who is tired or stressed.

- **One of the best ways to understand accident investigations is to look at some examples of them!**
  - Case studies help you understand
  - not just how the process works in concept… but in practice, as well.

- **To start, let's say a worker is standing on the top step of a ladder, which is against workplace policy.**
  - He falls off and requires immediate medical attention.

- **At first glance, this may appear to be an easy investigation.**
  - It's obvious that the worker broke a rule that was supposed to keep him safe and lost his balance.
  - What more could there be to it?

- **The worker's actions are certainly a factor.**
  - But there could also be other reasons that this accident occurred.
  - To help prevent something like this from happening again, we need to look deeper.

- **We know a person fell off a ladder.**
  - We also know that he was standing on the top step.
  - By continuing the investigation, we eventually discover that he was using the tallest ladder in the facility.

- **So while the worker's carelessness is a factor, the lack of proper equipment is the "root cause" of this accident.**
  - In order to prevent similar incidents from occurring in the future, the facility needs a taller ladder.
  - This will allow workers to reach the highest materials without standing on the ladder's top step.

- **Let's look at another example.**
  - A worker is fixing a machine, and he's suddenly shocked.

- **We might conclude that since there was electricity involved, the situation was inherently hazardous.**
  - Therefore, there wasn't much that could be done to make it safer.

- **But there could be other factors to consider.**
  - After all, there are procedures that should be followed to do electrical work safely.
  - For instance, should the equipment that was being worked on have been locked out?
  - If it should have been, why wasn't it?

- **So one thing we need to look at is whether the worker who was repairing the machine had been given training on lockout/tagout procedures.**
  - If he had received lockout/tagout training, we would also need to determine if the worker had been following the procedures that he had been taught.

- **In this example, the investigator found that the worker never attended the lockout/tagout class he was scheduled for, and therefore didn't know the danger he was putting himself in.**
  - So they determined that the root cause of the accident was really a lack of training.

- **Now let's apply Root Cause Analysis to a third situation… this time involving personal protective equipment (PPE).**
  - There's another fall at your facility.
  - This time, a worker tumbles down a flight of steps while they are leaving for their break.

- **There was no clutter on the stairs to cause them to trip and no damage to the stairs themselves.**
  - So initially, you might think that the worker was just clumsy.

- **But after some investigating, we find that the worker was working around hazardous fumes before they took their break, and they hadn't been wearing a respirator.**
  - As a result, the worker felt dizzy and their vision was blurry, which is why they lost their balance as they went down the stairs.
  - So the "root cause" of this accident was actually that the worker wasn't using the proper PPE for the job they were doing.

- **When it comes to accident investigation there is good news and bad news.**
  - The bad news is that even when you try to do everything right… accidents will happen.
  - The good news? You can always learn from them.

- **There are typically four areas that may need to be improved after you've determined the cause of an accident…**
  - Policies.
  - Training.
  - Equipment.
  - Communication.

- **Looking at each of these areas, you, your supervisor, and your accident investigation team can work together to create a Corrective and Preventive Action (CAPA) plan.**

- **The "corrective" part focuses on providing an immediate fix to the cause of the accident.**
  - This might involve replacing a piece of faulty equipment or patching a leaking container.

- **But the "preventative" action is where "learning from the accident" comes in.**
  - What can you do to make sure this type of thing doesn't happen again.

- **Some examples of "preventative action" are…**
  - Revising related work procedures.
  - Scheduling more frequent equipment inspections.
  - Conducting additional employee training.

- **For instance, if a piece of equipment malfunctions and injures a worker, the "corrective" action would be to repair the faulty equipment.**
  - And the "preventative" part of the CAPA plan could be to schedule more frequent inspections of the facility's machines.

- **If the task that the injured worker was doing is inherently hazardous itself, your company could take preventative action by putting new "workplace rules", or "Standard Operating Procedures" in place.**

- **Another common factor in workplace accidents is miscommunication.**
  - For instance, let's say one worker discovers that a tool is malfunctioning.
  - They fail to communicate this to their coworkers and walk away to inform their supervisor.
  - In the meantime, someone else tries to use it, and injures themselves in the process.
  - In this case, preventative action could involve better training for employees on workplace communication.

- **Once an accident investigation team has defined the cause of an accident and developed a plan for avoiding similar situations in the future, there is one last thing to do.**

- **The only way your facility can truly "benefit" from an accident is if everyone knows…**
  - What happened.
  - What the contributing factors were.
  - What corrective and preventative actions are being taken.

- **So all workers should get a copy of the investigation team's final report.**
  - And there should be extra copies stored and made available to new employees as well.

* * * SUMMARY * * *

- **The two types of incidents that can occur in the workplace are "accidents" and "near misses". No matter how minor either one may seem, you should always report them.**

- **An accident investigation includes creating a plan for how the investigation will proceed, examining the scene of the incident, talking to witnesses, and looking at relevant documentation.**

- **While there can be many factors that contribute to an accident, it's important to determine its "root cause" so you can take the right preventative action.**

- **When there's an accident, the true cause is often not what it initially appears to be. So an accident investigation always needs to "dig deeper".**

- **After the "root cause" of an accident is determined, a Corrective and Preventative Action (CAPA) plan should be designed, to help avoid similar problems in the future.**

- **Accident prevention begins with accident investigation. By being an active participant in finding the underlying causes of accidents in your facility, you can help to make sure they occur less often… and your facility is always as safe as possible!**