Episode 45:
Occupational Health
Host: Ken Rayner
Guest: Jasmine Kalsi

Announcer

It is time for the *IHSA Safety Podcast*.

Ken Rayner:

Welcome to the IHSA Safety Podcast. I'm Ken Rayner, and I'm your host for this podcast on occupational health. My guest joining me today is Jasmine Kalsi, IHSA's Occupational Hygienist. Welcome, Jasmine. Great to have you here.

Jasmine Kalsi:

Hi, Ken. Thanks for having me.

Ken Rayner:

Jasmine, would you share some information about your background with our listeners, including your work as an occupational hygienist?

Jasmine Kalsi:

Yeah, for sure. I'll just start off with my educational background and then I'll follow up with my work history. I have a bachelor's of science with a major in chemistry from Simon Fraser University. Following that, I obtained my Master's in Occupational and Environmental Hygiene from the University of British Columbia. After I finished my master's, I joined the Manufacturing Safety Alliance of BC in the role of an Occupational Hygienist. So I was there for about four, four and a half years. My role mainly revolved around working with manufacturing clients, working on air quality testing, noise evaluations, risk assessments, fit testing, and just working with clients in general on developing their OHS programs to help them achieve core. After that, I moved to Ontario. I joined Unity Health Toronto, so I was actually at the St. Michael's Hospital in downtown Toronto in the role of Occupational Hygienist.

Following that role, I joined IHSA in May of this year in the role of occupational hygienist working under stakeholder relations. In terms of designation, I currently hold my ROH. This stands for the Registered Occupational Hygienist under the CRBOH and the stands for the Canadian Registration Board of Occupational Hygienists.

Ken Rayner:

Okay. So we have definitely invited the right person here today to talk about occupational health. And Jasmine, what I'm interested in is we've been overloaded in the past two and a half years with news and information about COVID, and I almost feel like during that time that other hazards that make up occupational health have maybe been forgotten or overlooked. So can you provide our listeners with an introduction or maybe even better said a re-introduction to what is occupational health and what do we mean by that?

Jasmine Kalsi:

Yeah, for sure. So occupational health in the simplest way, it just relates to a worker's health and general well-being. So in the grand scheme of things, this can be in context of physical health or mental health at work. So when we consider a worker's health, this is when we start thinking about potential occupational diseases. So this means, okay, a worker who is at work can be exposed to anything which can negatively affect their health. So under a health, and when we think about occupational diseases, this is where we start thinking about biological hazards, chemical hazards, and even physical hazards. So this can be something like maybe a worker is lifting too heavy, which can cause them back pain, or maybe they're working with a chemical which is causing them to a cough, or maybe a worker is just hammering away and not realizing the hazard of the loud impact noises. So all of this would fall under the realm of occupational health.

Ken Rayner:

Okay, very helpful, thank you. So we've had numerous podcasts that we've done on mental health with Cathy Martin, and in the same context, we have a lot of our listeners that are very well-versed and very experienced in addressing safety hazards, driving, falls from heights, electrical hazards, but maybe weren't as well versed in addressing mental health hazards. Now I'm believing that may be the same with recognizing occupational hazards in workplaces today in the same way. So maybe what tips do you have for an employer or supervisor who's listening to this podcast and wants to become more knowledgeable on how to recognize and address occupational hazards in their workplace?

Jasmine Kalsi:

Yeah, for sure. So in terms of the experience of addressing safety hazards, and then just saying that, okay, probably there is not a lot of exposure in recognizing occupational hazards, and this would be to an extent, yes, and I could consider due to a fact that agents that cause diseases, we typically don't see them. We physically can't see them with the naked eye, or sometimes the effects we do experience, we experience them a few years later. It could be 10, 15 years later. So for example, one of the highest occupational disease fatalities within the three sectors that we represent is mesothelioma. And we all know this comes from asbestos-fibre exposure. So one thing that came out in the last three years was the importance and recognition of occupational health at work. So in terms of tips for employers, whoever is listening to this podcast, so in the end, the theory and concept around occupational hygiene and just between different hazards is relatively based on the same key principles.

So I would ask employers to educate themselves on carrying out hazard assessments. So you want to identify those hazards, what your workers possibly can be exposed to. So we want to look into the severity of exposure or the likelihood of exposure and rate the potential outcomes. And then from there, you prioritize what needs your attention first. So to address biological or chemical hazards, you want to know the types of products you have in the workplace. Usually you would read the safety data sheet, and typically what we usually see is we see a big binder, but when we ask the employer or any representative, it's like what's in the binder for the safety data sheets? They're not able to answer what's actually in there.

So the safety data sheet is a very important piece of document, and it will actually tell you exactly what you're dealing with. There's certain sections in there that will specify the material composition. So what

type of chemicals does the product make up, and within it also specifies recommended practices or even recommended PPE to prevent any exposures or even the safe handling for those particular chemicals. And then we have the physical hazards. So a common one is noise. So for example, to identify even if there is a risk, and even just to get a preliminary idea, you can download a noise measuring app on your phone. And from there you can just see how loud certain tools are when they're in use using the app itself. I should caution, the app doesn't replicate the actual devices we use to measure noise, but you can get an idea if there is a risk of exposure to loud noises. Just keep that in mind. They're not too accurate as well. So again, if there's anything you're not familiar with, I would also suggest to just research it online.

There are abundance of resources. Some tools that employers may find helpful. This includes the pocket guide to chemical hazards. So this is a tool I frequently use. It's developed by the National Institute for Occupational Safety and Health. It's known as NIOSH. I use this tool a lot when I research particular chemicals or when I'm trying to learn more about them. So it gives you information on potential exposure routes. It'll give you an idea on the symptoms of exposure. In some cases, it even gives you an idea of the type of respiratory protection, which is recommended for that particular chemical. Another resource is the Canadian Centre for Occupational Health and Safety. This is CCOHS. They have a lot of valuable resources, and they categorize them on their website as chemical, physical, or biological. They also have an ergonomic section as well. And lastly, we have our website, which is ihsa.ca. We have plenty of resources. We have magazine articles on various occupational health topics. We have safety talks. We also have our construction health and safety manual, which covers common health topics quite in depth.

Ken Rayner:

Great. So those are great websites to leverage, and we'll definitely have those links on the podcast site. So now you've given some guidance on where to find information on how to address hazards. How about an employer who wants to more confidently, now they have an understanding of what hazards are prevalent in their workplace. How do they now more confidently address those biological, physical, and chemical hazards?

Jasmine Kalsi:

Yeah, for sure. So to confidently address biological, physical, or even a chemical hazard, and we want to make sure they're taken care of, I would first suggest covering the points I mentioned before. So doing the risk assessment. And after that, you use the hierarchy of controls to determine if your controls are even effective for the identified hazards. So with the COVID-19 pandemic, another thing that came out was there was more awareness generated around the hierarchy of controls. So the hierarchy of controls is pretty much a thought process for implementing controls in the workplace, and this applies to any type of hazard, whether it be a chemical, physical, or biological. So you start off with the question, are you able to eliminate the hazard or substitute the hazard for something that would cause less harm? So that would be your first option in controlling the hazard. And sometimes this is not practical.

Sometimes we're using certain products, we just have to use it. There's no replacement out there on the market. So the next question would be to ask yourself, are you able to modify or design something which would reduce the exposure at the source? So this would be considered as an engineering control.

So a good example, which you may be familiar with would be having local exhaust ventilation for welding fumes. So if engineering controls is not an option, the next one would be administrative controls. So administrative controls is pretty much changing the way work is done. For example, we can look into reducing a worker's exposure time via shift rotation or introducing work practices like having safe work procedures or sending those workers out for further training or education. And lastly, we have in the hierarchy, we have our personal protective equipment. So this is, we are very familiar with. This involves placing equipment on workers to reduce exposure.

For the COVID-19 pandemic, it was masks, but other PPE also includes safety glasses, gloves, and respirators. So this would be a very quick high-level summary on the hierarchy of controls. So again, this principle can be applied to any particular hazard. The idea is it would be best to control at the source. So we would focus in on elimination, substitution, or engineering. But if not, you can work your way through the hierarchy or even sometimes even implement a combination of all aspects of the hierarchy for each category as a control method. And just one last point I should mention. It's important to re-evaluate the hazard even after controls are implemented. And the reason why I say this is that sometimes even with the best intention, we implement controls, but when they're practically put into place, they don't work for the task or sometimes they don't work for the worker. So it's a good idea to re-evaluate your controls, look at the hazard regularly. So we're always in that constant state of improvement.

Ken Rayner:

Thank you very much for that very concise explanation on the hierarchy of controls. That's terrific, Jasmine. Now Jasmine, much like we do with physical hazards and mental health hazards, we use safety talks, which is one of our most popular downloads from our website to help promote information and how to address certain topics or certain hazards. And you've recently done this with 10 new safety talks on occupational health. So maybe you could let the listeners what those 10 safety talks are about and maybe pick three to share with our listeners some high level and note why each one's important, and we'll make sure that the safety talks are available via links on the webpage.

Jasmine Kalsi:

Yeah, for sure. So yeah, as you mentioned, again, we do have a lot underway for occupational health. The safety talks are in development, and they are in the process of being put up on our website. So I'll just start off with listing off the titles for our listeners so they have something to reference. So we have safety talks that will be available on our website on asbestos tool cleanup, asbestos type-three operations, a safety talk on respiratory sensitizers, a talk on hydrogen sulfide, the hantavirus, isocyanates, diesel exhaust, insect bites, monkeypox, as well as just a generic one on infectious diseases. So in terms of the top three I'll talk about, I'll start off with the asbestos type three operations. So originally on our website we had safety talks on asbestos type one and type-two operations. Type three-operations was the one that was remaining.

So we developed a safety talk to address specific controls for this particular type of operation as controls do vary between the three different types. As I mentioned before, we developed this one because asbestos related diseases make up quite a few fatalities under our sectors. Another one would be diesel

exhaust. Regardless of what sector you are in, whether it be transportation, construction, or utilities. Workers at some point are working with equipment which produces diesel exhaust.

So I should mention that diesel exhaust is considered as a carcinogen. So what that means is it causes cancer. It's a cancer causing agent towards humans, so it increases your risk of developing lung cancer. So we developed a safety talk to highlight the risks around it as well as some controls and practices a worker or supervisor employer can consider within the workplace.

Lastly, we have our safety talk on respiratory. So sensitizers are those agents which can cause an allergic reaction upon repeated exposure. Sometimes they're referred to as occupational asthma. So within our sectors, workers can be working with isocyanates, which is considered a sensitizer or mineral oils such as lubricants, certain wood dust, as well as rosin flux. So these are common sensitizers. I know there's not a lot of awareness around the respiratory sensitizers. So we developed this safety talk just to create awareness on these types of agents as well as related controls.

Ken Rayner:

Wow, that's a lot for me too. Those are all... A lot of that's new to me, Jasmine. So thank you so much. I look forward to diving into those safety talks and learning a little bit more about each one of those, and we'll have those ready on the IHSA Safety Podcast. So thank you so much for joining us today and talking about occupational health. I've learned a lot. I know our listeners will as well. It's been great having you here. Thank you, Jasmine.

Jasmine Kalsi:

All right. Thanks for having me, Ken.

Ken Rayner:

Great. And thank you for listening to the *IHSA Safety Podcast.* Be sure to subscribe and “like” us on your podcast channel and visit us on ihsa.ca for a wealth of health and safety resources and information.

Announcer:

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