Mike (00:00):

This podcast episode reflects the opinions of the hosts and guests, and not of Greenberg Traurig, LLP. This episode is presented for informational purposes only, and it is not intended to be construed or used as general legal advice, nor a solicitation of any type. Hello, everybody. Welcome to the next episode of the Work Place Safety Review podcast. Today's special guest, Mr. Rod Harvey. Mr. Harvey has over 35 years of technical experience in performing and managing environmental health and safety consulting projects.

Mike (00:56):

He has broad experience providing industrial hygiene, indoor air quality, built environment, safety, environmental services to a wide range of clients in both the private and the public sectors. Rod received his bachelor's degree in biology from Lawrence University in Appleton, Wisconsin, and his master's degree in environmental engineering from Illinois Institute of Technology in Chicago, Illinois.

Mike (01:23):

He's a certified industrial hygienist, certified safety professional, certified hazardous material manager, and a registered professional engineer in the state of Illinois. Wow, that's a lot, Rod. He's a member of several professional organizations. He has extensive experience with asbestos, including building inspections and abatement designs, exposure assessments involving chemical and physical hazards, and environmental health and safety auditing and training.

Mike (01:53):

Rod has given numerous presentations regarding asbestos, silica and the topic for today, heat stress, hex chrome, and OSHA's medical surveillance requirements. Welcome, Rod. We're so glad to have you here today.

Rod Harvey (02:08):

Thank you very much, Mike. It's a pleasure to be here with you guys.

Adam (02:11):

Hey Rod, it's Adam here. Before we talk about heat stress, given your background, the biology, can you tell the audience briefly how the heck you wound up in the safety and health world?

Rod Harvey (02:22):

Sure. Yeah. Like a lot of people in this business, I didn't go into it directly, but I don't think stumbled into it is correct, but came in sideways. I graduated with my master's degree in 1986. The Asbestos Hazard Emergency Response Act had just been signed, and everybody and their brother was doing asbestos inspections of schools. That's how I started off for three years of nothing but asbestos and on the consulting side.

Rod Harvey (02:46):

Then went to work for a broader environmental health and safety consulting firm, did a lot of engineering. That's when I got my professional engineer's license. Then about 2000, I got certified as an industrial hygienist. And began to do a lot more of my work in the field of health and safety, and have progressed through that in the last 22 years.

Adam (03:08):

We wanted to talk today about heat stress and your experience with it, and OSHA's National Emphasis Program. And as a starting point, can you tell the audience a little bit about your experience working with or consulting clients related to heat stress?

Rod Harvey (03:23):

Sure. I've worked on several different heat stress citations from OSHA representing the employers. Couple of those have been with indoor environments in the general industry setting.

Rod Harvey (03:34):

Then with the United States Postal Service, I've represented them on seven different citations, five of them were bundled from the summer of 2016. Then there were two other later ones that are pending in the system right now.

Mike (03:46):

Are you surprised that OSHA launched this National Emphasis Program on heat stress, or did you see this coming down the pike?

Rod Harvey (03:55):

Well, I think I saw it coming down the pike. I'm not surprised. OSHA has actually done a pretty good job in awareness of heat stress for the last 12, 15 years. They've got a lot of great information on their webpage. They've teamed with NIOSH, there's a heat stress app, so there's a lot of information. I think it's worth noting that they did start a rulemaking process on heat stress at the same time.

Rod Harvey (04:16):

Of course, that will take several years if it does come to fruition. I think it's a little interesting to have a National Emphasis Program for a hazard that there isn't a specific standard for. I don't know if it really adds much to what they've already been doing in terms of awareness.

Mike (04:34):

To be sure, one of the things that Adam and I have talked about quite often in the last year or two regarding the subject matter, is what do you consider heat stress to be?

Mike (04:44):

I know what heat is and various levels, but what does it mean to have heat stress? What does the stress mean in that phrase, if you will?

Rod Harvey (04:54):

Yeah. I think that the terms heat stress and heat strain are used, you need to define your terms. And heat stress is essentially the overall amount of heat burden on the body, whether that's environmental heat, air temperature, relative humidity, wind speed, or whether it comes from internal heat, from exertional heat. Our muscles do a great job of moving us around, but they're very inefficient machines.

Rod Harvey (05:20):

And there's a lot of waste heat that they create that then puts additional burden on the body. So heat stress is that overall burden beyond sitting in a comfortable environment with a shirt and slacks on. And heat strain is the physiological reaction that the body has to the heat stress upon it.

Adam (05:42):

Rod, you talk about heat stress and heat strain. Another thing Mike and I have talked about is do you see a difference between outdoor heat in the construction site?

Adam (05:52):

That's just the sun's beating down on you versus heat at an indoor facility, where the facility or the process generates the heat. Do you see those as different occupational hazards or hazards at all?

Rod Harvey (06:07):

Outdoor and indoor are hazards. I do believe they're different. Indoor generally you're looking at a source, whether it's a blast furnace or something else generating that heat as part of the industrial process. It's relatively consistent. The operations around that are relatively consistent. So day in and day out, you know what that heat stress level is going to be. You can use administrative controls, and engineering controls, and PPE if necessary to mitigate that hazard, and day in and day out, you can do it.

Rod Harvey (06:36):

You can also introduce the term commoditization, you can get your workers up to speed on that a little more gradually. We may be doing two hours of that the first day of the work and expanding that, so after five days able to do the whole shift. Outdoor heat is variable, it changes every day. One of the problems with the climatization is come June and you get your first hot spell. The average temperature goes from 80 degrees to 97 degrees for a five day stretch.

Rod Harvey (07:09):

You're an outdoor worker, you can't really get ready for that. You can't plan for it, can't get ready for it. And really the other way to look at it is the outdoor heat for that outdoor worker is an inherent hazard. How is the employer supposed to address that inherent hazard? I think that's where given all of OSHA's information and awareness deals with mitigating the hazard, but they don't really provide the employer with much guidance on what they should be doing to mitigate that hazard.

Mike (07:41):

Rod, so this may be more of a commentary question, but I'll try to get a question in here. Outdoor heat, as you're aware, the Supreme Court recently held that Congress did not delegate to OSHA the authority to regulate, if you will, COVID in the workplace. Basically, it was this can't be an occupational hazard.

Mike (08:05):

It's more of a national health crisis, if you will. So when you're talking about outdoor heat, can the same concept be used, meaning it is outdoors? Various heat stress can happen, but is it really an occupational hazard, like COVID not really being an occupational hazard?

Rod Harvey (08:26):

I see your point in that whether you're on the job or not on the job, you're going to be exposed to this outdoor heat, as long as you're in the outdoors. All of us are hopefully getting out of the house on a daily basis. I look at it more like the noise and OSHA has a noise standard. It's analogous, but there's some key differences between noise and heat. OSHA addresses that with noise in the idea that you're going to have noise exposures the job, but you're going to have noise exposures off the job, and as part of your hobbies and things that you do along those lines.

Rod Harvey (09:01):

That's something that needs to be looked at by the physician. It's a pretty normal occasion to challenge the threshold shift and blame it on work. I do think just like they recognize noise is an on the job hazard, I think it's appropriate to recognize heat as an on the job hazard. Because your work environment, it may require to you to do exertional work or other activities that can exacerbate that environmental heat that would be strictly job related.

Mike (09:31):

Good point. Another question that we have is I've been doing OSHA-related work for 20 years, and I've been in lots of warehouses all over America that don't have air conditioning. With this new NEP and going under the hierarchy of controls, engineering controls starting out, work practices, administrative controls, PPE.

Mike (09:54):

Do you see OSHA coming out and doing inspections and inspecting employers in places, let's say, the outskirts of Dallas, Texas in the middle of July, that's a warehouse that is not air conditioned? Do you think there's a possibility that OSHA might issue citations to that company because they don't have any air conditioning in a huge warehouse, if you will?

Rod Harvey (10:17):

The key things that OSHA has put into their training or their awareness is work, rest and shade. In the last year with the emphasis program and the other things that they've done, they've added training and commoditization to that list. I don't know that they would do that in terms of air conditioning. Although I think it would be on a site by site basis, if there's no other refuge for workers to get to work, rest or shade, that can provide a relief from the heat. I wouldn't be surprised if they issued a citation.

Rod Harvey (10:47):

The issue is I don't think in the situation you described, that's going to meet the bar of a General Duty Clause violation if there's no standard. I don't think you can get to a point where you've got to require employers to have air conditioning, in order to give the workers a place of refuge. I think a shaded area with proper ventilation is going to be adequate. Maybe I answered that question both ways.

Mike (11:14):

Yeah, to be sure.

Adam (11:16):

Hey, Rod. Now that OSHA has issued the NEP and I know we've not talked about it. I know like you said, you were involved in some heat-related OSHA litigation.

Adam (11:26):

Now that OSHA's issued this NEP, do you think that OSHA will have more success litigating heat stress cases, or do you think it's going to be same old, same old?

Rod Harvey (11:34):

I think in terms of success in litigating, I think it'll be the same old, same old. I don't think they address the major issues that the Occupational Safety and Health Review Commission is found in their decisions, vacating some of the citations that OSHA has made. It's interesting in the NEP Appendix C, is example language for a citation for area directors to use in issuing citations. Two things I noticed in there is one, they still use the term excessive heat as the hazard.

Rod Harvey (12:08):

And the review commission judges have been very clear that excessive heat just is not set a bar. It's not identifiable, it's not quantifiable. An employer can't be expected to know what excessive heat is, without putting something like that on it. The other thing that they've done in that draft language and Appendix C, is it's still included the National Weather Service heat index chart, which again, the judges have been very clear in vacating these.

Rod Harvey (12:32):

That data is there's no scientific basis for some of the information on that chart. And to cite that chart, it just doesn't inform the affected community enough to tell them when there's a hazard and when there isn't, and how they mitigate that hazard.

Adam (12:49):

Rod, for our audience, because I think we all three of us know what you're talking about here with the review commission. Can you briefly tell the audience, and I'm asking you to put your lawyer hat on, that should be our jobs, to tell us what the review commission held in their recent case a few years ago about heat stress and excessive heat?

Rod Harvey (13:10):

Sure. And you can correct me where I don't interpret it correctly. The review commission and about the same time that we were at trial for the postal service cases, the five bundled citations. The review commission, one of the judges delivered their decision on another case, which was Department of Labor versus Sergio, which was a roofing company that had a fatality. The defendants in both cases had very similar arguments. That was you haven't met the duty or the bar of a General Duty Clause violation.

Rod Harvey (13:46):

One, the main thing being that there has to be an identifiable hazard that is recognized. I think I told you that I believe heat is a hazard, but without a standard of OSHA's to go by, I just don't know what an employer is supposed to do about that. The heat index is just not sufficient. I would argue that WetBulb Globe Temperature, which is a step up from there, still isn't sufficient in informing employers what they should be doing. I think hopefully when OSHA, if and when they come out with a standard.

Rod Harvey (14:21):

It'll be more of a performance-based standard, where employers have to take certain actions at perhaps, one or two, or three threshold temperatures or WetBulb Globe Temperatures. Here's the problem, I think, with what OSHA has done with these cases that have gone to trial before the review commission. There's been an injury, a heat illness, whether it's an injury, a hospitalization or a fatality, they go out and do their inspection. They look at the records, it was a hot day.

Rod Harvey (14:53):

Okay, there must have been a violation, based on a hazard of heat. In the five cases that I was involved with, very clearly, some of those were not heat-related illnesses. Some of them were arguably heat-related, some of them may have been heat-related or may not. Or the heat may have been an underlying cause with something else related to it. The idea that there has to be an injury, of course, if that's the case, OSHA's not obligated to prove that the injury was caused by the heat.

Rod Harvey (15:21):

I think it sets them up for a challenge that they can't meet, to meet that General Duty Clause violation. I don't think the NEP does anything to change that. I think until that happens, if they continue to do citations of excessive heat because the heat index is high, you're going to see those vacated. The point I wanted to make about the injury coming first, if there's a lack of an injury, so they're out doing their inspections, it's over 80 degrees.

Rod Harvey (15:48):

The NEP now says, "Okay, compliance health and safety officer, include heat as part of what you're looking for, even if that's not the reason you're on site doing your inspection." What are they going to do in a 96 degree day? Even though they've mitigated the hazard and nobody's suffering from any heat-related illnesses, are they going to write a citation because it's hot outside?

Mike (16:07):

Yeah. That's the million dollar question, because without some evidence of a heat stress or heat strain, I'm not sure how they would prove their case, if you will.

Rod Harvey (16:18):

Yeah. And along those lines, part of the obligation under a General Duty Clause violation is it has to be a serious hazard that is likely to result in illness or death. The problem is we've lumped all of the heat strain or heat illnesses into one group of heat illness, but that includes heat rash, it includes heat cramps, it includes dehydration. The vast majority of heat-related illnesses associated with the occupational setting are those.

Rod Harvey (16:50):

You'd be hard-pressed to call those serious illnesses. As a matter of fact, in the trial we were at, the Department of Labor attorney admitted that. I'm sorry, our medical expert admitted that you would call most of these serious, so there were no serious injuries that occurred. These are on days when the postal service is putting thousands and hundreds of thousands of mail carriers out on the street.

Mike (17:17):

Rod, reading the NEP and some information from OSHA over the years, they claim that one of the reasons why they came up with this NEP, is a lot of the data they've been receiving from BLS, and injury and illness logs. Do you think that it's possible or it's pretty likely that employers will now take a second look, if they're going to label something heat-related, if you do have an illness in the workplace?

Mike (17:46):

Meaning, well, it really wasn't heat, it was something else because it's called no good deed goes unpunished. If OSHA shows up and you've got a couple things on your logs that says heat stress, well now all of a sudden, it's a recipe for citation. I wonder if this may be counterintuitive to their goal and employers will under-record, if you will?

Rod Harvey (18:09):

I think that's a possibility. Yeah, I think that may be an unintended consequence of this to avoid any record that you've got heat-related illnesses.

Rod Harvey (18:21):

It could result in a nuance effect of doing your OSHA recordkeeping and resulting in under-reporting. I think that's a possibility.

Adam (18:30):

Hey Rod, last question. I know we've talked a lot about the potential issues with the NEP and OSHA bringing cases. But if you were a safety manager or IH for an employer, and you had employees, whether outdoor or indoor heat and they were potentially exposed, what advice would you give the company?

Adam (18:48):

What would you be telling employers, as we enter the hot months, at least on the Northeast and I guess in Chicago, what would you tell them? What should you do?

Rod Harvey (18:57):

Again, it has to do with mitigating that hazard. I think the way you do that, is you have a written program in place. That written program includes training, training given at the beginning of the summer, in the spring, during the start of the hot season. Then frequently, standup talks or toolbox talks throughout the hot season to keep that awareness. One of the key things with training is the symptoms, signs, and symptoms of heat-related illness. That's important, not so you can recognize it yourself, but what happens if you're suffering from a heat-related illness, you lose that self-awareness.

Rod Harvey (19:35):

You need to be able to recognize that in coworkers, so that's a very key thing. Changing schedule if you can or working different hours, that's not always possible, but if you can. Then I think a key thing is, and we're going to see us moving towards this, is doing biometric monitoring with wearable devices, or even just with thermometers and other devices for stopping work when the body temperature starts to exceed 101 degrees. That's when you're starting to lose your cooling ability in your body, and can shut down your work before heat stroke sets in and address the issue.

Rod Harvey (20:15):

I think better than temperature, I think heart rate is something that you should look at, two different heart rates. At the beginning of a break, take the heart rate immediately when the break starts and if it's below 110, great. Then take the heart rate again three minutes later for your recovery heart rate. And if it's below 90, go back to work. If it's 90 and it's less than 10 beats per minute less than what it was at the beginning of the rest break, that's fine. But if it's more than 10, that's good, that's a good recovery.

Rod Harvey (20:52):

Less than 10 beats per minute after three minutes of rest, means that you should probably be building in more rest cycles. It's that recovery heartbeat that's key. And to have a wearable on your arm or on your wrist that can do that, and even transmit that data to the central office. It can be monitored with a computer. I think that would be the way to go to start preventing some of these heat illnesses.

Mike (21:19):

Hey, Rod. Thank you so much for being on the show today about a very timely topic. Very interesting topic that I'm sure our audience is going to find very interesting and worthwhile in carrying out their duties as EHS professionals. Thank you again for being on the show.

Rod Harvey (21:37):

Thank you very much, Mike and Adam. I appreciate being here and being able to talk about this subject.

Mike (21:42):

You bet, you bet. Stay tuned everybody, to the next episode of the Work Place Safety Review podcast. Stay safe out there, America.