

*Robert Bruce Lung:* Good afternoon, folks from the Waste Reduction Network. I'm glad that y'all could join us today. Today is August 7. It's 1:00 PM Eastern Time and we've got our quarterly webinar for y'all today. Thanks for joining us. A couple housekeeping notes I'll mention right now. This webinar is gonna be recorded. So in a couple weeks we'll have a link ready for y'all so you can see the whole thing at your own pace. Also, all the attendees are gonna be in listen only mode. So that means that your microphone is muted. If you have questions, we ask that you put them in through the Q&A box or ask during the Slido portion of this webinar. Thank you very much for respecting that.

Today I'd like to just say a quick note. I think a lot of y'all know me. I'm Bruce Lung, also known as Robert Lung. I work in the efficient energy and decarbonization office supporting the Waste Reduction Network. I'm very pleased to be able to introduce a colleague of mine we'll be supporting on the Better Building side, Ms. Marta Drzymala. Marta brings a diverse skill set to the role and as a fellow at DOE with a wealth of experience in sustainability and certification of operations. Prior to joining DOE, she served as the director of certification operations at GBCI overseeing the comprehensive delivery of lead for that organization.

She's had a suite of green business and sustainability products for nearly a decade. She works closely with reviewers and project teams throughout all aspects of their engagement. She also has a master of science and interior architecture and design from Drexel University and previous experience working with commercial and academic clients as part of an architectural practice in the city of Philadelphia. So welcome, Marta.

*Marta Drzymala:* Thank you so much, Bruce, for such a warm welcome and I am so excited to be part of this amazing network.

*Robert Bruce Lung:* Thank you. So now what we're gonna get into is the meat of our webinar today. So we have an agenda for you. Basically, we've gotten through the welcome introductions and I'm gonna start presenting the speakers. Today's speakers come from two automotive companies. One of the things that we wanted to do was to highlight the experiences they had with the recent training that we offered virtually through our Virtual Impact Training Network. It was a waste reduction training and it went for about eight weeks.

What happens with the Virtual Impact Trainings as opposed to the in-person types of impact trainings is that the attendees are the

ones that go out into their plants and collect the data, develop their conclusions and analysis, and then find – save the opportunities and then quantify them. Then the last week they do a report out of what they found. So we have two women from two great companies that are gonna share with us their experiences from this training and also what they're able to do with it past the training. So our first speaker today, actually I think don't we have some Slido.

I'm just gonna show a couple slides right here for folks. These are companies that are in the Waste Reduction Network. We've got a great group of about 62 or 63 companies and we're working – we're definitely able to handle more. So if you have any other colleagues in other Better Buildings, Better Plants, Better Climate Challenge partners, feel free to let them know that they're able to join this network. Next slide please. Just to give you a quick reminder on the team. We've had a little bit of a turnover. I'm still here. I was working with y'all during the pilot.

John O'Neil is the technical program lead from the industrial energy and decarbonization office. I think AMO, we probably should have taken that out. Then you just met Marta. ICF is supporting us with a young man named Nadar Sobhani who is very on top of things and hope y'all get to know him as well. Then we have, of course, Jasmine Padgett, from RE Tech Advisors who is also doing a great job.

So next. We have a few pages on the Better Building Solutions Center that have resources and we're constantly updating these as things go – as we make them. So I think the most recent resource was a waste energy calculator. So we definitely like people to view that page and access those results. There will also be new case studies and such when they appear when they're ready. Next slide, please. Just to give you a quick idea for the Reduction Network. We do ask that companies come in with a goal. They can use one of the goals in the buckets we have right here, the categories, diversion, absolute, zero, intensity, and so forth or you can do a solution out of Solution Center. That's another option.

Once you're in the network you'll be eligible for data analysis and support with your data, technical support, other resources and solutions, and then recognition and working group participation. Next slide, please. So now we're gonna ask everyone before we get to the speakers to go to slido.com where we have some polls to ask for y'all. The easiest thing to do is if you're either on a computer or have a smartphone, mobile device, go to slido.com and enter in the

code WRN. We'll give folks a few more seconds to get on there. Just to make clear, the code is WRN, not DOE.

So our first question is, "What sector-based working groups would be most relevant to you?" And you can select all of the ones that apply. We'll give folks about 30 seconds to respond and then show the results real quick. All right. Transportation equipment is coming up in the lead. We're getting some pretty good responses. Keep them coming. Maybe one or two more seconds for folks to finish up. Good. Well, I think that should take care of it for the first one. If we can jump to the next one, please, Jasmine. There we go.

So we also wanted to ask if there are other sector-based working groups that would be relevant to you besides the ones that you first responded to. This is a Word Cloud by the way. There you go. All right. Green buy products. Good. Excellent. I think we're getting a pretty good listing class. Food processing. Excellent. Good. I think we'll give people a few more seconds real quick to finish up. Well, I think we can close this one down and move on to the next one. So which solution-based working groups are of most interest to you? For example, remanufacturing, composting, recycling. We're looking to see what type of solution to waste is most important for y'all.

Recycling. There we go. Packaging. Okay. We'll give folks a few more seconds just to wrap up real quick. Composting. Very good. Excellent. Good. Well, we'll go ahead and close this one down. I think there's one person who needs to finish. Very good. Employment engagement. Very good. Excellent. I think we can then move to the next one. So that was our last poll question. So thank y'all very much for participating and for providing that important feedback.

Like I mentioned earlier, we've got two great women from two great companies I wanna introduce real quick. First, Alanie Hooton from Honda Development and Manufacturing of America. She is an environmental engineer at Honda Development and Manufacturing, working at the Indiana auto plant with seven years of environmental and safety experience. So she's gonna be talking about the waste reduction that they do at Honda as well as some of the benefits that they gain from the training. Then Tami Moore is a safety and sustainability manager at Navistar. I just realized, Navistar has been around for almost 200 years, but Tami has more than 25 years of experience in occupational safety and more than 12 years' experience in environmental sustainability. So I think

we'll start with Alanie Hooton and whenever you're ready, Alanie, go on.

*Alanie Hooton:*

Hey. Thanks, Bruce. So today I'm just gonna go over a few items gained from doing the virtual and plant waste reduction training. So next slide. So first just an overview of the Indiana auto plant for Honda. We are just right outside of Greensburg, an hour south of Indianapolis. The facility is a stamping, welding, painting assembly, full assembly plant for the Civic hatchback and the CRV. It's about a little over 1,600 acres is the whole area there.

Then as far as waste goes, so the two things we kind of thinking about how waste that's coming out of this plant, one, being the product itself. So any scrapping of the product. When you think about car, tires, glass from windows. We got seats, metal from the stamping of the bodies of the material. We got plastic from bumpers and the dashboards. So all of that finding, finding homes if there's any scrap from that waste. Then the other one is process related waste. So that could be oils and greases from the machines themselves, paint, any waste paint residues there, sludges. We do have a wastewater treatment facility on site that has sludge waste, paint sludges as well, and then parts packaging.

So the next few slides I have here I'm going over the hierarchy controls that we reviewed during the training. So some solutions on first just reducing the amount of waste, trying to find opportunities to eliminate the waste up front and then going from there finding other sources to either recycle or reuse the product. Then ultimately, we do – I guess we follow the same hierarchy at the plant and then any other waste that we cannot find a reuse, we typically do a waste energy. We do have one waste stream that we do landfill for regulatory requirements is our wastewater sludge. So that's just the overview of our waste streams and what I'll be covering today.

But next slide. So the first one here, source reduction. This has been a long time project prior to me, but something that I didn't initially consider as a source reduction. It was just inherent to the process of using returnable containers. What we find, especially with post-COVID, is the amount of abnormal with supply chain and the increase in that packaging has gone up. So finding ways to manage that. So we do have a packaging team that works with suppliers on setting up what those returnables would look like. Any new model changes or any new vehicles that we'd be producing at the plant, they do have to go through a whole team to set up those returnable packages.

So we have three million containers in that supplier loop and there is an approval process. If these materials can't be shipped in the returnable packaging, if it has to be shipped in a cardboard, they do have to go through an approval process. Then of course any parts that are not shipped in returnables we have cardboard waste, we have plastic wrap, bubble wrap. We have pallets. So part of the resources required to manage those is of course the manpower to handle that material, additional equipment maybe needed, and then space. So this has been one project that's been always ongoing.

There's been changes to packaging. So sometimes there's returnables with maybe plastic or cardboard sleeves that sometimes have to get recycled or disposed of. So this is just an ongoing maintenance of adding additional returnables. So next slide. This project here is another source reduction to try to find ways to reduce the waste so we're not trying to find or look recycling options. So this one, for instance, is a sealer. This is actually a waste energy waste stream. There is about 200 drums annually disposed of in this process.

So this is our door line where we're adding sealers to the door frame. You can see the two drums here in the corner and what was changed or found to reduce that waste source is adjusting the plunger. So instead of that concave surface, they were able to modify the existing unit to a flat surface. So just changing that style of plunger estimated about 44 pounds of sealer that was able to be reused that product didn't have to go out as waste in the drum or the liner there. So that investment was paid back within a month with the amount of sealer waste and product use that they could still use.

So next slide. All right. This one is not a source reduction, but it was one that this past year we were able to find an alternative use for our RTO media. So we have three regenerative thermal oxidizers in our paint department and there is a ceramic material that is used to hold that heat and transfer it for VOC abatement. And then this media has to be changed out. It is every – we have three units, about every other year that one of the units are getting changed out.

So that was previously sent out as waste to energy. Then we found a vendor that was able to use this material for soil remediation. They were able to grind it up. It's ceramic, so a clay material that they were able to use for soil abatement. So that was 60 tons of

waste for that change out able to divert from a waste energy to a reuse.

Then next slide. So our current challenge working through – this was a topic used during the training is finding ways to help improve our plastic recycling. One, finding plastic vendors, recycling vendors is difficult. A lot of times they only accept certain plastic. So our plastic films and wraps, those are pretty common. We're able to find some outlets for those. Where it gets a little bit more difficult is like, for instance, in this picture here, different plastic pieces.

Sometimes the hard thing there is also on collection. So there could be a process where a couple different pieces are being generated and they may be different grades of plastic that have to be kept separate. So understanding what kind of grades the plastic is, understanding that rebate or cost, depending on the grade, and then how does the vendor need that material collected. So during this past spring we did go out and visit the vendor that we'd been using and understanding their segregation process. Then our goal for the year is working – Indiana does have a circular economy work group. So trying to work with finding more local vendors within the state to maybe find some of those niche plastic recycling opportunities.

Then next slide. So just for instance, on our collection, not only is it getting the right containers out there. So this is an example of one that we trialed. It allowed you to look from the side if it's contaminated or not because that was the big thing is making sure that these plastic waste streams were not being contaminated. This one specifically we put out there and then a day or so later we went to check on it and realized that they had switched to a different type of plastic piece. So that one was another a-ha moment that with the ever-changing models and supplier types, we're getting different types of plastics.

Having the visuals to training to say it's only these type of plastic grades was a big one focused on right now. Because a lot of times people think plastic is plastic. A plastic bottle and a plastic grocery bag can be recycled together and it's just trying to enforce and train team members on what types of plastic are truly able to be recycled together. Then focusing on those collection areas with the biggest volume whether that be volume or maybe rebate, just so we focus on certain areas and not try to be overwhelmed with a lot of different plastic pieces that might be out there. So that's where we've been focusing now on training visuals and then auditing,

making sure we're providing feedback back to the teams when they're doing well or not on keeping those pieces segregated.

Next slide. That might be it for those. Yep. So I guess big takeaways from that training is source reduction. A lot of times I spend more time on whenever we get a waste what do we do with it, versus trying to focus more upstream similar to the returnable packaging. If we didn't put those solutions in place for returnables, then we're having four or five times the amount of cardboard. So taking the time to first reduce that source would alleviate the need to put in all these solutions on the backend there.

Becoming more involved in construction projects. That's one that we're always doing some type of construction, renovation, add on. So it's important to get in on those conversations early on with the waste contractor to help reduce and divert that waste 'cause whenever it gets all mixed together it's again, we're trying to solve the problem on the backend. So that was – had a section on construction waste that was really helpful.

Then more in-depth waste audits. So during this training doing those waste audits there were a lot of things that I took from that. For instance, our plastic wrap, plastic films, that was a pretty straight forward waste stream. We had a vendor. We send a lot of plastic wraps out. So I thought that was a pretty clean waste stream, not one to focus on, but actually going out and doing the audits and seeing where we were having contamination in certain areas was definitely helpful. Next slide. That might be it. Yep. All right. Well, thank you.

*Robert Bruce Lung:* Thank you very much, Alanie. That was really cool. I think now we'll turn it over to Tami Moore of Navistar. Whenever you're ready, Tami, go ahead.

*Tami Moore:* There we go. Unmute. Maybe you can hear me now. Tami Moore. I'm the safety and sustainability manager for the parts distribution centers in Navistar. We have ten PDC's, seven that are in the US, two in Canada, and one in Mexico. If you'd like to – I don't see my presentation yet. There we go. If you wanna go ahead and switch to the next slide. So Navistar falls under the TRATON umbrella, which also includes Scania, MAN, and Volkswagen truck and bus.

You can see some of our different Navistar brands at the bottom of the slide, International, IC Bus. We have International Used Truck Centers. Fleetrite is our Navistar brand parts and then our OnCommand is a platform for connectivity so you can see where

your trucks are at any time, which is great, something we've been really proud of. Go ahead and move to the next slide, please. So I identified our Midwest and national, it's actually two PDC's under one roof in Joliet, Illinois. This facility is just under a million square feet. So it's slightly – I think it's a little less than 900,000 square feet. So it's a pretty big facility.

They are super organized, already have some great sorting practices in place with identified hoppers and receptacles. They have returnable containers that we started implementing. We have some customers that we send 60 percent of our parts to or 60 percent of the amount of shipments that we send out are to specific customers. So we've identified ways to reduce the amount of cardboard we're using by using returnable containers. You'll see those in that gray plastic totes on the right.

So go ahead and move to the next slide. So my focus was looking at landfill diversion. So 75 percent – approximately 75 percent of the waste going into our compacters for landfill consisted of plastic wrapping, binding, packaging materials like dunnage, those types of items, cardboard cores and other pieces, label backing, office paper. And you'll see from the pictures that I shared in the slide that they can be easily sorted further. So they have those great practices in place already just identifying that they needed to be put in a receptacle rather than the garbage. However, those items were then being put in the compacter.

So go ahead and move to the next slide. So when I initially did some comparison the – we were on the path to increasing our landfill waste this year over last year. So that was a huge concern. So I'm looking at reducing this by at least 40 percent, if not more, before the end of the year. So hopefully we'll be able to exceed that goal that we set. If you'd like to move to the next slide. So the waste streams that we have found are most challenging are primarily plastic. Just like Alanie said, it's very difficult to find an outlet for plastic recycling. So those are one of the items that we're trying to find an outlet locally. Then it also depends on logistics too, where you are in the United States. Not everyone has the same recycling opportunities.

So the shrink wrap is one of the most challenging for us. So we're working on making sure we're identifying the appropriate downstreams for those items. We just met with waste management and they're assisting with trying to find a local downstream for us to utilize for plastic waste as well as some other items like our

label backing and the cardboard cores, which we can put in with our other cardboard.

Go ahead and move to the next one. So within of the items that we're also looking at is making sure that we're reducing our waste and recycling and efforts to support our TRATON sustainability initiatives. A lot of our customers are requesting that we follow the greenhouse gas metrics. There's a lot of other sustainability initiatives here in the US that we're trying to work on as well as we follow ISO for a lot of our manufacturing facilities.

Go ahead and move to the next slide. Some of the key takeaways from going through this process, which was a great workshop. I really appreciated the opportunity to have this workshop to work through so many different items and identify how we can better reduce our landfill waste. I've been working with sustainability initiatives for quite some time, but when you're generally working in a specific industry, you don't always have that opportunity or that awareness or visibility of other opportunities. So some of those takeaways are we had a lot of different industries in our workshop and so there were some other ideas that we were able to identify to help us reduce our landfill waste and those costs too.

So go ahead and move to the next slide. So some of the updates that I have. So those hopper contents with the plastics and cardboard cores, et cetera. So we found that a lot of the cardboard waste that was in the hoppers weren't actually going into the compacters for cardboard – I'm sorry – not compacters, the bailors for cardboard. So we have two bailors that were set up in the facility, one vertical, one horizontal bailor for cardboard. We were only utilizing those for items that were staged in those areas, not necessarily the hoppers. So at some point that behavior changed.

So now we're working on getting that behavior back and working through that process to not put those cardboard boxes and other items in the compacter and getting them to the bailor where they need to go. We're also entertaining the potential to utilize that vertical bailor for plastic bailing. So we may get an additional bailor for that practice, depending on the vendor that we end up working with for our plastic compacting. So we're working on improving our sorting practices and horizontal bailing and eliminating hand feeding to our bailors too.

So one of the items that we identified for safety reasons is rather than hand feeding those bailors, using a bin that we can dump from the forklift so there's less hand feeding and safer practices for that.

Paper shredding, we're working on vendor for that for shredding paper and for the label backing too so that's not going into the landfill. Let's see. If you wanna go ahead and move to the next slide.

Oh, I had a couple more things. You can leave it right on this one. We are looking at some alternatives to the landfill as waste to energy with waste management as well. So that was one of the other opportunities. Then we're looking at potentially sustainability parking practices. So for those who have electric vehicles or hybrid vehicles, giving them the opportunity to park closer. We haven't established any charging areas yet, but that's potentially on our horizon as well. So I think that was it for me. Thank you so much.

*Robert Bruce Lung:* Thank you very much, Tami. That was really good. I'm glad to hear y'all got a lot out of the training. I think one thing that I heard or got from both of y'all is the need to look at the source before the waste even happens so you can understand what you may be able to use more wisely or how you can reduce some of the waste streams that will eventually come through a production process. I think that's probably one of our biggest takeaways as well from the training content.

I think what we'll do now is we can go to Slido for the Q&A. If you haven't already done so, just slido.com and put code WRN to submit and upload questions. Then as they come in we will begin looking at them. All right. Excellent. So one question from anonymous is, "Are waste streams currently being used for waste-to-energy being continually considered for true diversion, recycling, and reuse versus a destructive downcycled end?" Tami or Alanie, if y'all wanna take that on.

One thing I will say is that there are some waste streams that unfortunately cannot be used in any other productive way. A good example is fiberglass tailings. So, in that case getting some energy from – by combustion is a way to do that. So I know, Alanie or Tami, if y'all wanna go ahead and answer this one.

*Alanie Hooton:* I can jump in here. We do have – so our plant is part of a regional group. We have some plants in Ohio, Alabama, Georgia. Part of our annual goal is setting waste reduction targets and focusing on that waste to energy waste stream. Like I said, the waste water sludge is one waste stream we do send to landfill. So that next layer of focus is that waste to energy. So finding ways to audit those waste streams and look at what's in that and what things could we divert for recycling.

*Robert Bruce Lung:* Excellent. I think we'll move on to the next one here. It says, "How do you prioritize waste streams to focus? How many examples are included extra costs for doing that prioritizing?" That's an important point because there are gonna be some times when it's gonna be more expensive to recycling or treat some kind of waste stream than simply send it to landfill.

*Tami Moore:* I think we focus on the quick ones too. So where ever you can reduce your waste and reduce your cost as quickly as possible to show the benefit as quickly as possible. We like those quick wins to be able to showcase.

*Robert Bruce Lung:* Okay. Alanie, feel free to jump in if you want to.

*Alanie Hooton:* Yeah. I guess the first waste stream that came to my mind is our e-waste. We have a lot of plastic pieces within the car that has an electronic waste in it. So we send that material to a vendor in Tennessee. So it's a little bit more cost since also the transportation piece of it. Those are those hard to manage plastic pieces that can't really – we don't really have manpower to fully assemble those pieces. So we do pay that cost of sending it to a vendor that's gonna shred it and disassemble it more. So we do try to divert that material versus just sending it straight to waste to energy. We also have our dashboard sometimes will have metal pieces that have to be disassembled. So we do pay an extra cost there for them to disassemble those pieces versus sending waste to energy.

*Robert Bruce Lung:* Perfect. Thanks. There's one that just got uploaded a minute ago here. "Does Honda or any companies that you partner with plan to do a policy application to increase effective recycling locally or nationally?" They give you examples like source separation to increase the economic viability of recycling.

*Alanie Hooton:* Yeah. Sorry. I was trying to unmute myself. Yeah. I'm not sure on actually policy piece of that. I guess that's not really – I do know at a regional level circular economy is our end goal of when we get a car back, how can we take that apart and send each little piece back into remanufacturing of the car. So I do know that's an end goal. Finding those vendors or means to actually disassemble that locally and getting it back into that circular economy piece is definitely a goal for the company as a whole.

*Robert Bruce Lung:* Great. Thanks. The next one is I guess to both of y'all. It says, "Do either of our presenters work to ensure that haulers or companies receiving waste are actually recycling or reusing materials and not

just trashing it once it's received?" I guess he says it's something we often hear about in residential recycling efforts. Now Tami, I think you were saying you all are working with waste management.

*Tami Moore:* We are. Unfortunately, they don't cover all aspects due to some cost and whatever is available in the area. So we're looking at partnering. So like I was saying, the Midwest PDC was where I had focused as a test pilot. So to implement this same process throughout the other PDC's I have to look at what's going to be available for recycling purposes and waste purposes in those locations. Of course Canada and Mexico also follow other regulations. They don't follow the same as the US. So looking at those other potential challenges, we have to make sure that we're working with the right partners. But waste management also partners with other waste haulers or designated facilities to make a more broad or have a broader scope of waste reduction.

*Robert Bruce Lung:* Thank you. I don't know, Alanie, if you wanna add to that?

*Alanie Hooton:* Yeah. So our – we do have internal audits with our waste vendors. Our waste contractor that we use also goes out and does audits. So like I said, went to the plastic vendor recently and watched them. Actually, while we were there recycling, they were grinding our – the padding on the dashboards. So yeah. We do go out and actually audit the sites to make sure that they are receiving the wastes and truly recycling that.

*Robert Bruce Lung:* Terrific. Yeah. I would imagine – I don't know if y'all know this, but may have some kind of contractual provisions that say when the waste hauler takes our waste a certain amount has to be recycled and stuff like that. And if they don't do it that can be a breach of contract. So – I don't know who this is directed to, but the next question says, "How large is your team focused on working on these efforts? Who do you partner with internally the most?" So I guess maybe they're asking if you partner with, say, another corporate sustainability team member or the maintenance section or something like that.

*Tami Moore:* Well, if you don't mind me answering. I'm fortunate to have a large corporate oversight. So we have an environmental group as well that manages sustainability. So we have that opportunity or that resource to work with them as well, which I'm working on partnering with them to identify some opportunities in Canada and Mexico because I'm more familiar with those opportunities in the

US. However, it's not just the corporate team. I'm also working with the onsite team.

That's the most important because they're the participants that have to have those behaviors in place and that management team there to help enforce and keep moving that process along and making sure that we're following what we should be doing or what we say we're doing. So it's from upper management to plant side and making sure that like that previous question, that your downstream is also managing as they're expected.

*Robert Bruce Lung:* Perfect. Yeah. Then how about, Alanie, if you wanna add to that real quick.

*Alanie Hooton:* It's similar to Tami. I definitely work at the plant closely with the departments, our waste contract team. We have about 16 employees that just focus on waste. So working with those team members, but we do have a regional environmental team that is more focused on that circular economy that I talked about. There's a sustainability head that's working on that big picture or piece.

*Robert Bruce Lung:* Perfect. Next question seems a little similar and is focused directly to Honda. So Alanie, if you want, feel free to answer. "How does Honda plant have established methods or partners for processing various wastes to be able to recycle each component of the waste stream?"

*Alanie Hooton:* That's a tough one. We're still in those stages. Right now we really only have one vendor that we're sending a lot of those, I said plastic e-waste pieces, but at the end of the day a lot of the components itself of the car to fully recycle back we'd either have to get more manpower on site to be able to disassembly these units into a waste stream that a vendor will take or finding those vendors that can destruct those components with the multi materials. That's definitely still a common piece that we're still working on is finding more vendors.

*Robert Bruce Lung:* Thanks, Alanie. That leads into the next question here. The person is asking, "Does either company represented partner with other companies near them to bring down diversion costs through quantity and consolidation of lower value materials or those with smaller waste streams?"

*Tami Moore:* This is something that we discussed in – we had a recent environmental audit here at the corporate headquarters and one of the – we're all looking to have zero waste for all of our facilities.

One of the items here that we discussed during that audit was composting, so food waste and things like that. You have to generate a certain amount of tonnage to even have that opportunity with your waste hauler or your waste management company. That's a potential not necessarily in the near future, but in the not too far future hopefully that we may have that opportunity with the local hotels.

We're in a pretty populated area right outside of Chicago in the Lisle, Naperville area and we have a lot of hotels, a lot of other industries, a lot of corporate offices around us that have on site cafeterias. So that's a potential opportunity for us in the hopefully not too distant future, but it requires a certain amount of input to have that opportunity.

*Robert Bruce Lung:* Excellent. I know a couple of questions that come to my mind, if you're interested in answering them, I noticed both of y'all are from the transportation product sectors. One of the waste streams that I've always heard about – this is pressed more in the engine and transmission making is swarf and how to deal with swarf because those are little small shavings of metal that are connected with other fluids, oils, and stuff like that. I wasn't sure if y'all found a policy or method for dealing with that kind of waste stream.

*Alanie Hooton:* We are – actually we have our metal recycler takes some of our metal shavings, but actually that is something recently we've had a waste stream that's usually been more dry, solid metal savings that has more of the oils and greases. So looking to add an oil separator to help clean those findings up more, but that is a waste stream that we do have. We've historically sent to a metal recycler.

*Robert Bruce Lung:* Okay. So presumably that metal recycler would separate out the oils and greases and fluids and stuff?

*Alanie Hooton:* Yeah. Traditionally it's been a pretty solid material. We actually just had some drums where we've brought them in and they've looked at it and it's got more fluids than normal. So we do have to look into either an oil separator or other means to pull some of those fluids out of that.

*Robert Bruce Lung:* Tami, I didn't know if y'all have any insight on swarf and how to deal with it?

*Tami Moore:* Well, unfortunately, I personally don't. I work on the parts distribution side and not on the manufacturing side. However, I can only imagine that it is. So if you like I'm more than happy to ask

our manufacturing site for their practices on swarf and I can get back to you at a later time.

*Robert Bruce Lung:* Terrific. Thanks. The other quick question I was gonna ask about, I noticed I think it was maybe Alanie's slides, you talked about ISO or using some ISO standards. Can you give us an idea of which standard you guys apply for waste reduction and how helpful or how easy or difficult it was to apply?

*Alanie Hooton:* I'm not sure if that was Tami. We are ISO 14001 certified. On the waste side that's more of just how we're managing waste, almost more so on the compliance piece of it, how we're doing training with employees. I don't think – we don't get too much in the details of waste diversion I feel like in that certification.

*Robert Bruce Lung:* Great. Tami, I'm sorry. It might have been your slides that I saw that in there.

*Tami Moore:* It was. Thank you for noticing that. We currently are working on implementing ISO 50001 in our facilities. Although our PDC's are not ISO certified, we carry over that umbrella over those facilities and follow the same policies and procedures. So it's currently in implementation process right now. So I don't have some full statistics for you yet, but we're finding opportunities as we implement.

*Robert Bruce Lung:* Good. Excellent. Just to make everyone on the webinar aware, the ISO 50001 standard is the energy management standard and we at the DOE have two programs related to it. There's 50001 Ready which is a self-paced program. You go through the online tool called a 50001 navigator and when you complete the 25 tasks then you'll be eligible for DOE recognition. If you wanna get your plant certified to ISO 5101, we've got a program called Superior Energy Performance that would be for that particular reason.

So well, if there's no other questions from the crowd, thank y'all for joining today. We've been really happy to have you here. This is our contact information. Like I said, these slides will be shared in a couple of weeks. We look forward to having another quarterly webinar in hopefully about three months and then we'll go from there.

*[End of Audio]*