

Daniel Knight ATTAIN Transcript

[00:00:00] My name's Daniel Knight, at the ExxonMobil Baton Rouge Complex. Been here at this site for roughly 25 years, and, uh, I've spent the last, uh, handful of years working with the site mechanical PM group, which consists of all your lubrication, PMs, uh, some safety critical checks on steam turbines.

And a, and a variety of other tasks that fall under the reliability realm. Good deal. How big is that, that facility that you guys are at down there, that complex? So, uh, our refinery is the second largest refinery in North America. We have a chemical plant that is tied to our refinery that, uh, it's significant size.

We, uh, we make a number of products here. Everything that you can possibly make from crude is, uh, the, at least the base stocks are made [00:01:00] here. We do have some finished fuel products, uh, and then of course all the base stocks for lubricants.

With the facility of that size and the equipment you're working with, what were some of those things that that led you, to looking for a solution to, to do things a little bit better?

Yeah, we, so we're, we're always looking to optimize and we had mountains of paperwork that we couldn't do anything with. It's a very manual process. We were trying to take the pertinent data from the paperwork and compile it, and spreadsheets that takes somebody basically sitting in front of a computer and working on nothing but that.

Every day, every week. It's very manual. It's very time consuming. And because of that, it's one of those efforts that nobody really wants to put all of themselves into. Mm-hmm. Uh, it's hard to get, it's hard to get the, the decision makers the equipment [00:02:00] owners, uh, machinery specialists, machinery engineers.

It's hard to get them involved to, to go look at, at just numbers on a spreadsheet. Uh, whereas if, if they can look at detailed information about equipment and have it at, at their fingertips anytime they want it, then it becomes useful and you begin to see that ball rolling more and more. Picking up a good head of steam, which is where we're at now.

When I, when I speak to paperwork, uh, we'd send crews out day to day with packets of paperwork that may be, it may be 10 pages today, tomorrow it may

be 30 pages worth of stuff. And they're going out there and they're completing all this. So not only on, on the receiving end of the data, but on the entry end.

If you've got that much paperwork that these mechanics are having to fill out as they're completing these PMs, you're gonna get [00:03:00] the bare minimum on there. They're not gonna sit there and write you a detailed answer in the comment section on paperwork, just because number one they probably feel like they don't have time.

And two you know, these guys are out there working in operating units. They're working in a lot of cases with lubricants. So that means gloves on, gloves off, or you get paperwork that is not legible. So when we, when we look at where we were and where we wanted to go, we had an idea. Where we wanted to go as far as a transition from our time-based PMs, which we've been using for years, to a strictly condition-based PM program.

And that's why it became so important for us to be able to look at the data in a usable [00:04:00] way. And then, um, out of that we, we began looking at how we get where we want to go. From where we're at now, and we recognized we didn't have the vehicle to get us there. Mm-hmm. That, that's when I started looking around at, at some different programs and, um, red List was kind of dumped in my lap by, um, Moser, which is a division of our lubricants side.

And, um. At the time red List was working with Moser and, and still are, but as it looked a little different back then. So, um, Mo Serv had kind of a vested interest to push Red list and thankfully so, um, we began our relationship a few years back and, um, we've been growing it ever since.

As you were going through and looking at Rev this initially, were you starting to look for [00:05:00] solutions to kind of, to take away the paperwork and kind of help you with the data visualization, kind of getting real actionable data, helping you get away from time-based to condition-based monitoring?

Honestly, it as much as it, it was the software itself, it was the people at Red List that, that, that drew me to it.

Um, trying to sell me a product was one thing, but you could tell that. The folks at Red List, Trevor, you've been one of them. Genuinely wanted to see us succeed and were willing to, to do whatever was necessary to make that happen. As far as the software itself so the asset tagging in the field, that makes it kind of a, an ease of use.

Tool for anybody. You don't necessarily have to be fully trained on Red List to be able [00:06:00] to use it. You just have to have an account. And, you know, our, our run the mill assistant operators out in the units can go anybody that has an account can go out there, scan the tag and pull up pertinent details for that piece of equipment and for us.

That's big because one of the things we struggle with a lot is process going out and putting the wrong lubricant in equipment just because they didn't know what to put in there. We don't have a good system for documenting all this stuff. We basically rely on tags that are hung on the equipment separate from the red list tags.

And those are plastic tags hung with a plastic tie wrap. And anything can happen. These tags get knocked off and next thing you know, process needs to top off the oil In this piece of equipment, they don't have the information because it's 11 o'clock at night on Christmas Eve [00:07:00] and nobody wants to answer the phone.

So then naturally they're gonna go and they're gonna put some lubricant in there because oil is all right. As we all know that's a problem. That's as old as time in these type facilities. Mm-hmm. We know, we recognize that we'll still struggle with some of that, but this will eliminate a lot of the problem.

Some of the other features, uh, I'll speak specifically to the mobile app. The mapping features has been very helpful for us, uh, as we have. Turnover in these crews. We need a way to get these new folks up to speed pretty quickly. Uh, as far as navigating the plant I mentioned mm-hmm.

We have a very big facility here. Uh, it's, it's, it's more like a small city than it is an actual plant and, um mm-hmm. It, it can be intimidating, but with the mapping feature, it can [00:08:00] take our guys. If not right to the piece of equipment within feet of it. Mm-hmm. And, and that right there will reduce our guys having to spend time going to ask operations to come and show 'em where their equipment is, or them just wandering around kind of aimlessly, because they don't wanna take the time to go ask.

Uh, but both of those things will reduce cost and that's. What we're trying to get to is increase reliability and reduce cost. Same thing everybody's, everybody's trying to accomplish all in an attempt to help the bottom line. Uh, with those two features particularly, um, it's gonna help us out a lot.

Speaking to my position in particular, the reporting functionality within Red List. Is very critical [00:09:00] and one of the reasons I, I love Red List for that is Red List is not selling necessarily a canned product there, it's very customizable. On the report side of it, we have some reports that we've used here at the site for years, uh, generated through Tableau. They'll get you to a certain level of detail, but then after that you have to go do a bunch of extra work in SAP.

To get to the level of detail that you need. Mm-hmm. So what we've asked Red List for is to give that to us in a one stop shop. We've got some reports where we can go take, for example, looking at PM compliance. We can look at our blanket work orders, which is going to cover a PA number of pieces of equipment in a fac [00:10:00] specific unit.

You'll have an object list on that blanket work order that lists the individual pieces of equipment. We can see everything that's done, everything that's not done all in the same place. That, again, saves time, saves energy it reduces frustration. All these things work towards the same goal. These reports, I can export them.

Send them out to all the, the invested parties. Uh, or they can access 'em themselves as long as they have a, an account in red list. We have seen where some of the managers have started to look at these reports, uh, as we bring more and more units online with red list. We're getting more interest in how this is saving us money, and I direct everybody straight to a handful of, of the reports [00:11:00] that are pertinent to their needs.

We've got some other stuff like my contract management, they, there's reports that they're using that reduced other manual processes that we had. I'll give one example. Um, you've got your bulk supply tanks for oil mist generators in the units. We have to fill those tanks weekly having something that we can print out and put in the hand of the driver of that truck, uh, and which is telling him, go put this much here and go put this much here, versus.

The previous process where I had a contract supervisor sitting there with a pen and paper trying to look at what the inventory levels were and then writing all this out, and then

taking time, his time away from other things that were critical, such as, you know, time in the field supervising his workers. [00:12:00] We've got on these reports, we've got several versions of most of those reports just because as we

see things that we like and don't like on them, we go back to the team and they modify to fit our needs.

Speaking of customizing and modifying, I don't know of, of anything that's taken. Red list team more than four or five days to go in and make the change. And that's some of your more complex changes there. Now we're talking about changes. We're not talking about the initial setup. Mm-hmm. I'm, I don't know if anybody's curious about, um, any of the initial setup.

I can speak to that from, from our end. Um, okay. What, um, what that entailed is, and I'll say this first, and this, it sounds, [00:13:00] uh, may sound a little, a bit crude, but the old saying garbage in, garbage out. We, we messed up in how we provide the information to Red List and that caused us a ton of rework.

With that being said, they were extremely patient with us. They helped us. Kind of modify the data to, to look like what it needed to correctly upload the assets. They did all that primarily remotely. So from their place, they set all of our assets up. Once they had our assets set up, then they came out to us and spent.

The first time they came with us, they were here for a week with us doing nothing but walking the units and tagging our, our equipment out there. Did an excellent job teaching our guys how to do all this stuff there ourselves, uh, because that's the goal. While they have told us that [00:14:00] they will be there to support us in any way necessary.

They've also committed to training us to a level where we will be able to do it all ourselves. That way we don't have to rely just on the red list team. They've gone above and beyond when it, when it comes to that. They've been very helpful with navigating us towards help videos, tons of help videos that, that they've got, uh, as I mentioned before, we had some rework because of mistakes on our end.

Mm-hmm. Yeah. How many, how many units are you guys currently utilizing Red List in, across the refinery? So, uh. As of right now we're covering a, about 80% of, of the refinery. We, we, we have yet to expand into the, the chemical plant, uh, on a large scale. We do have some uses in the chemical plant.

We, we do expect to [00:15:00] in the, in the coming year, we expect to. Expand to cover the entire complex as far as, um, as my work goes when it pertains to some other areas, um, we have, uh, our power distribution group, which is an electrical group that there, there, they're using red list across the complex for their work.

We have some other specific groups. That have come online such as our, our Koch movement team from the coker units. Uh, that's a historically reliability strained area just because of the nature of the operation. And, uh, we haven't had really good pm structure there. Red list is aiding in that by not only.

Helping to create the necessary forms, [00:16:00] uh, but helping to modify some existing forms that they had. And then tying all that back to the assets and also including technical data such as procedures or guidelines that, that may be pertinent to that particular task for that asset. They've never had all that in one place.

Like I mentioned, they, some of that, they've never had it all, but the mechanics in the field will have all that at their fingertips now. And you know, it really, it helps in training people, but it, it helps in making sure that the task is performed consistently each time it's done, no matter who's doing it.

And that, and that, that, that goes. For all of my group and some of the other groups that are doing it as well, because that's what we're striving for. We want consistency across the board. We wanna make sure that these tasks are executed correctly each [00:17:00] cycle, uh, that way, you know, you don't introduce doubt anyway if you know that you have consistency in how it's being done and you're running into problems, well, the, the problem likely exists elsewhere.

I mentioned forms just now. One of the things that has been great for us is the ability to create and customize these forms. So we had what we call field sheets and that's what the guys took out and they. Had some information that was pertinent to the equipment, and then we captured our As found aslef information there.

So we took that red list, digitized that for us. And then on some of these forms we've taken what we had and customized it because like we've mentioned, dealing with paperwork or dealing with spreadsheets, uh, can be a nightmare. When you're talking about. [00:18:00] Modifying a form template in Red List.

It is very easy. You know, I, we have some folks that aren't extremely computer literate and they have caught on to how to do all this and what they don't know, they know where the, the help modules are. And they also know that they can pick up the phone and get somebody from the red list team on the other end of the line quickly and, um, and help in those changes.

And so you brought up a couple times, you mentioned forms. You're doing kind of some as found as left stuff there, they're doing some maintenance work. Can

you just dive in a little bit more specifically into some of the different types of work that you're, you're managing there? I mean you mentioned some of the Yeah.

The bulk tank stuff. So just kind of talk through some of the specific use cases you guys are, are doing day to day in the field, in red list. Yeah, sure. Uh, take for example wet [00:19:00] sump lubrication changes. Or more accurately referred to here, just oil changes, okay? Dress it up to make it sound more than it is, but it's oil changes.

All right, so that's the majority of the, the PM work that we're gonna see on rotating equipment is your, it's gonna either be your, your wet sump Lubrication PMs, or your Grease PMs. We have separate forms for each of those. Uh, we, we have different types of forms in red list for different types of oil changes.

Uh, when it was just our, our field sheets that we had, it all looked the same. It no matter whether it was a a 200 gallon force lubrication system. Or if it was a, a little old process, overhung pump that's got two gallons in it. Okay. It all looked the same. So we were, again, we were [00:20:00] limited on the information that we were collecting.

So what we were populating for the as found as left. Uh, now because we have more specific forms, we can, we can ask some, some more detailed questions without. Requiring the, the mechanics in the field to spend a lot more time. Okay. We have dropdowns on these forms where they can quickly select. We have selection set up where if we select a certain thing, there's a comment box that pops up that requires them to put some type of comment in.

But again, they're, they're texting or that you have a talk to text feature. So, um, it's a lot easier than trying to write something out and, uh, for me, trying to understand their handwriting. Mm. You know, I don't have to have a decoder ring to try to decipher what they're writing. So, um, yeah, we, [00:21:00] so we, we have forms for the oil changes, the greases.

We have forms for various types of oil, miss PMs and inspections. We have, um, we have forms for what we call a turbine, a GI, which is a annual general inspection. This is our, our steam turbine safety critical test that we do that's an entire mechanical procedure that the red list team took and digitized for us.

And what's really nice about that is. We have a unique procedure for each steam turbine. It's got unique, uh, information such as model number, serial numbers

different RPMs, uh, different types of controls and things. So they, they were able to take that and create that separate procedure for each turbine.

And we have a lot of turbines. [00:22:00] We, you know, we at the site we've got nearly 500 turbines out here. So that's a, that's a, a lot of work for the red list team that they accomplished in a very short period of time.

So since you've gone live, you've done, we've got your, your different groups, your oil mist, your oil change, your steam turbine. Um, what are, what are some of the biggest impacts or some of the biggest changes you've seen? Since going live and, and going red this out with, with your teams?

Yeah. So again, the, the type and the amount of data that's collected. Is one of the changes that we're seeing. We haven't discussed the comms hub, the communication hub feature in, in red list. That's one that's been very helpful. In the past, the guys may or may not stop and they have two-way radios that they carry part of the time.

They have, they all have cell phones, but they may not stop right then and [00:23:00] communicate. A problem that they found to you by the time they finish their day, they've forgotten about it now. So now with the comms hub, as they're in this asset and they're completing the pm, they can go right there to the comms hub and drop a comment in there and just tag whoever it needs to go to, and that person gets a notification.

Right then and there, and we can address problems in real time versus maybe days later, or if all, if at all. That I should have mentioned that sooner, but that's been a, a large impact for us. And the fact that everything, every bit of conversation that's had about an individual piece of that, uh, equipment is.

Stored there. So you may get a text about something, a voicemail, an email. Two [00:24:00] weeks from now, you don't remember whether you got that in a text, a voicemail, an email. So you're searching all over the place. Now we have everything right there in the comms hub. So all we have to do is you can go back to the comms hub itself, you can go through the asset and everything for that asset is linked right there.

It's a lot cleaner. It's a lot less time consuming. And, uh, again, we, we get to the information we need and a lot less time. That's awesome. Yeah, I think especially with the, the amount of equipment that you're working with there obviously it's got some time on site with you guys. I think that's, that, that communication piece and making sure everyone's on the same page and talking

about the same stuff too, I think, with, with the different units, there's a lot of, uh, you know, pump, pump number 100 or pump number three, or whatever it is. Yeah. Being able to have that, uh, the photo, the location, all the information with that asset and the communication, you know, the messaging right there with it kind of eliminate, at least from what I've seen, some [00:25:00] of that confusion, um, about, you know, hey, which pump, which area, which unit are you talking about here?

So, um, that's one of the, I've seen. We have a P one on every unit. Every, every, everybody at every facility's probably got a P one. P one. Yep. Yeah, that, that's exactly right. It there, there's, there's a lot less lost in translation. There's, you know, um, there's no confusion because you're looking at the asset link to the comment.

Mm-hmm. So, um, yeah. And again I like being able to tag people and that to, even if I don't have your cell phone number if you're in red list, I can find you. All I gotta do is at John Smith and there you are.

Is there anything else, um, kind of as we wrap up that you wanna kind of point out? Any specific experiences or impacts or anything you've seen with Red this, that you'd wanna share [00:26:00] here? I think I'd be doing the tool, an injustice if I didn't speak to some of the anticipated cost savings that we're looking at.

Like I mentioned, we're trying to reduce costs. We're, we're trying to become more reliable. We anticipate once we go complex Y with this tool that we're gonna see a, a significant cost savings when we transition, when we are able to transition to strictly condition-based PMs. Then we'll be looking at less.

When you talk about wet sump lubricants, we will be purchasing less, uh, wet sump lubrication. Uh, we will be using fewer consumables. We will be able to, um, reduce head headcount. Then on, on the, on the, the back end of things the less you have to interact with that equipment, meaning the less you have to open it up, the less likely you are to fail a piece of [00:27:00] equipment because what history has told us is the majority of times when we actually introduce contamination into equipment, when we open it up.

So it stands the reason if, if you don't have to go there to. Perform any type of maintenance on that equipment. Because you, you've extended frequencies through your condition-based PM PRO program, then you're gonna be more reliable. Mm-hmm. And that all equates to, uh, the bottom line. It's, it's not, and

a, again, it's gonna be different for everybody based off of your facility size and how you're using a tool, but.

We, we do anticipate an annual savings of over a million dollars. Mm-hmm. And even for a site of this size that's nothing to sneeze at. Yeah. No, that's great. And I think we're, from what I've seen so far, right, we're about a year and a half into this, right. [00:28:00] Working, kind of working our way through the refinery probably takes.

Probably another year to to, to get through the rest of the, the chem plan, get the entire complex done. But I mean, we're already seeing that. Yeah. You know, that kind of, that ROI we're, we're starting to see some of those bottom line savings as we're, as we're moving through. We are, we're, and, and you guys are helping us capture some of that information. And, um. It's not lost on our managers. Uh, they, they wanna see this return on investment and return on investment to them means less cost. And, and they're beginning to see it.

And you know what we've shown them about the expectation for next year. They're excited about, as we are as you guys are for us. So, uh, we we're gonna keep on moving forward and, uh, keep on pushing towards completion with this and, and then look to see where else we can use the tool.

Because [00:29:00] honestly, it, at every turn it seems we find another use case for the tool. Uh, you know, we've mentioned, uh, our cooling tower groups, our auto garage, which is, is in dire need of, a multipurpose tool like this. We've begun work with, uh, rentals group and then you have some other mechanical groups out there, not to mention all of your process groups who have, uh, a ton of mechanical, uh, process procedures, excuse me.

And, and you guys have already started digitizing procedures for them and. Piloting some of that. So yeah, we're, we're branching out in all directions and you know, it's just a matter of keeping your mind open to what else we may be able to do with a tool that's powerful.

Well Daniel, thank you for the time. We really appreciate it.

Sure. I hope it, I hope it helps somebody else. And if, [00:30:00] uh, if Anybody'd like to speak directly to me about any questions they may have, uh, you get in touch with the red list folks and they'll, they'll get us linked up. Awesome. Thanks Danny. Appreciate it. Okay, bye.