

Monthly Mailbag and New Home Project Updates

Andrew Pace: We are back from vacation refreshed and ready to go. So our first topic is mailbag. Today we're going to talk about a questions from our listeners as well as projects that are going on around the country and some current trends we're seeing in construction that we need to be careful of. So stick around for Non Toxic Environments.

Welcome back to Non Toxic Environments. Jay, it's very good to be with you today.

Jay Watts: Andy all rested up after the long holiday?

Andy: All rested up after the long holiday. We're finally into the throws of summer. At least here in Wisconsin. You know, we have our huge variance in temperature and humidity from winter to summer...

Jay: Wasn't it snowing on the 3rd of July?

Andy: I think it was, it certainly wouldn't be out of the realm of possibility.

Jay: Well, that's what I was wondering when you said that. Out here in California during the 4th of July, and it's not like Washington DC where we can drive tanks down the mall. But we're a Navy town. In contrast to that, the Navy actually got a couple over the mothball destroyers and actually put them on flatbed trucks and they drove 'em up and down Broadway street on

the fourth. No, I'm kidding. Come on. We gotta do, we can do better than Washington DC out here in San Diego, right?

Andy: That's right. So I thought it would be fun today and let me know what you think about this because folks, as much as it sounds like we preplan all of our episodes, actually, we preplan a number of them...

Jay: Don't give away our secret!

Andy: I have to tell one little secret sometimes we'll call each other and say, what do you feel like talking about today? And I believe that these turn into some of our absolute best episodes.

Jay: I agree. Because they're so spontaneous.

Andy: Exactly.

Jay: Sometimes they spontaneously combust.

Andy: They do. And those are the ones we dump out and we rerecord.

Jay: Actually we probably should save those archive. The people may want to hear those.

Andy: Yeah. You know, once we become famous, I'll publish them like they do for movies. You know, those dump reels. I thought it might be kind of interesting to talk about some current projects because yeah. As y'all know, I do consulting on specifically new home builds and

currently I've got three or four new home builds that are all in the exact same spot of they are just getting ready to either pour their foundation or they're just getting ready to start framing the house.

Jay: Wow. It's right at the beginning. Are these geographically spread out and wide range?

Andy: They actually, they are, we're talking a couple in the Carolinas. One in the St Louis area, another one up in a state of Washington. And then actually now that I think about it, there's several that are really in the same spot right now as far as construction timing.

Jay: What's interesting about that is of course the geographic range and the climatic issues you have to deal with when you're doing a new home construction

Andy: Vastly different from area to area. That's for sure. And so we've had episodes before Jay, we've talked about the process of building a home. And we are currently working on something, super secret, extra special that we'll probably talk about later on this year. But I don't want to get too far involved in the entire process of home-building because that is the jist of the super secret special plan we have. However, I'd like to talk about what's going on in the state of new home construction right now because it's a really apropos, not only to these projects but to others who are listening and either going through the same thing or they are hoping to start building soon.

Jay: This is going to be good. What state are we starting in?

Andy: Well, let's just start with some generalities. What I'm finding and all of my projects that I'm working on now across the country, and this does not really matter where from a geographic standpoint, there is a very big problem with a framing lumber coming to job sites with a visible mold spots. So visible black spots from mold and it's only getting worse. So it comes on site. The framing contractors not really paying attention to this. And they're framing out the house, they're doing what's called the rough framing. Before insulation gets put in is where you have to actually deal with this. So being very mindful of this, lumber coming to job sites right now has a higher amount of mold on it. And I believe it's because of how construction is right now in that it's extremely popular right now to be building. Construction projects are not at an all time high, but there's certainly up there and there's a lack of properly dried framing lumber. Because of that, materials come to the job site, it may have some mold on it and it's just getting worse because it sits on site for awhile, or it's just not dry enough and the elements start to attack it. So I want to make everybody well aware of this. If they have a project that they're working on right now, that you need to be mindful of this, after the home gets framed, rough framed and then you put the sheathing on the outside of the house, that's your structural panel material, usually OSB or plywood or something like a zip wall system. Once you've created that structure, now is the time to apply the Caliwel Industrial coating on all of the inside cavity walls, and the studs, and be mindful of what's happening in all the interior framing as well because if you've got mold spores on that wood, and let's say it's in a wet wall situation behind your shower or a kitchen sink, that could become a mold problem in the future. So you want to spray those areas down with the Calwell industrial.

Jay: Okay. I mean that's pretty straight forward and it's just a spray job that goes in as another. This is another step now who's going to do that Andy? Is it going to be the framer or is there going to be a paint contractor rodeo on job site? How's that work?

Andy: That's actually a really good question, Jay, because it came up yesterday in conversation with a client and the builder was a very good company to work with and as that project moves forward I'll be talking about it too. The builder actually asked about that and he said, now are there factory trained applicators? Do we have to use specific equipment? You know, what do we need to do to make sure that it works at optimal level? Honestly, you need somebody who knows how to operate paint spray equipment and that's it.

Jay: Okay, so qualified paint contractor could handle it.

Andy: Painting contractor, or even just somebody who's a DIYer who doesn't mind using equipment. I've done it myself. I'm not a painting contractor, but I like to tinker with things and it's actually a fairly simple application. Caliwel recommends two coats of their product. Now I believe that you can put on one good coat and just making sure you're covering all the areas properly and it works just fine. The point of this is if you're going to take care of this issue, whether you see it or not, it's actually a really good time to do it because after this and once the installation and the drywall goes up, you can't. You know, keep in mind that in new construction, the average home has between 400 and 600 gallons of moisture in the air just from the processes involved in drywall and mudding and painting and so forth. And because of that, that moisture has to go somewhere. And if you've got mold on the wood and you've got the perfect storm of a situation, you could potentially have a, a serious problem on your hands.

Jay: I'm thinking about getting your paint contractor engaged in the early stages of a construction project like this. I know it's unusual, but it makes a lot of sense to me. Just because the contractor may not be familiar with some of the processes and products that

they're going to be asked to use and the earlier they're involved, the better chance there is that they're going to get their heads wrapped around the ideas may have some time to even play in sample products so that when the time comes for them to be on the job site officially they're ready to go. There's not a learning curve. There's no confusion. There is no back and forth dialogue about what to do and not what to do. They've gotten engaged early in the process and I think that makes a whole lot of sense. The other thing about doing Caliwel, you know where it is, it's not like you can come out to the job site and not see that they miss someplace. It's not going to be the color of wood. It's going to be the color of Calwell, which is white, isn't it Andy?

Andy: Yeah. White or a gray on the product. But you're right. And that makes a big difference. This is really interesting because, what you're basically saying here Jay, is you gotta have a team who's all on board.

Jay: Correct.

Andy: And folks, we've said this how many times in other episodes. If your entire team is on board, if everybody involved in the process has the same goal, which is to build you the healthiest house that they possibly can, then the project will run smoother. And Jay, you're right, getting the painting contractor involved now means that they have a little more interest.

Jay: Exactly. And they're invested in the project.

Andy: Right. And imagine in the traditional construction. The painter comes in about two months before or less before the homeowners move in and now for the first time on the job, they get there and they really don't know what's going on besides, they have to paint the

house. Get them involved early on and they feel part of something and they understand that this is a different, more elevated project. That's a great idea. And so anyway, Caliwel, wanted to talk about that because of the fact that it's high humidity season in most of the country. The other thing that I wanted to talk about is the actual foundation work itself. A couple of things have come up and I'll make this brief because I know we've got to get to some listener emails. Pouring the foundation these days, and I'm going to refer to houses that have either a crawl space or a basement right now, not just a slab on grade. So in today's world, if you are going to be building a basement, digging in and pouring a foundation, it's going to be a poured concrete wall. Concrete block isn't used that much anymore. Other forms of construction like insulated concrete form, you really are just pouring a concrete wall. Things to think about before this process starts. First of all, make sure that the concrete that's used doesn't contain Fly Ash. Fly Ash is the sludge that's scraped from the smokestacks of coal fired energy plants. From an environmental standpoint, Fly Ash is actually a recommended because you are recycling something that otherwise wouldn't have a place to be used. Here's the downside. Fly Ash is, like I said, it's the sludge from burning coal. Well, what happens when you burn coal is the byproduct is mercury. So that Fly Ash contains a mercury that Fly Ash in your concrete, whether it's in your walls, floors, wherever, will always give off mercury. So you want to make sure that there's no Fly Ash used in your project. Another thing to consider is the foundation itself, the exterior waterproofing. We've talked about this, Jay, you've got to decide if this is going to be a livable space in that lower level. And if it is, you definitely need a real waterproofing system down there, not just damp proofing, not just sprayed on asphalt cutback material, but something that's really proper for that. I won't get into names right now because there are a lot of them that are out there, but just know that, have that in the back of your mind as you're dealing with your contractors.

Jay: Right? And maybe it sounds simplistic, but it's exterior where we're trying to keep moisture at bay from the outside, right? Not trying to fix something that's going to be coming in through a system that wasn't dealt with properly on the exterior.

Andy: Exactly. Right. And so as we talked about with the Calwell issue with your foundation walls, your best bet is to mitigate the water from the outside before even touches your foundation. Because if you wait until after the fact, you have to do what's called a negative side waterproofing material. And folks, those materials aren't very healthy. And so we try to avoid those when all possible. Alright, so we've talked about, uh, what's going on in construction right now. The other thing is just generally speaking, folks understand that the building process right now taking much longer than it has been in years past. Patience is a virtue. You're going to need a lot of it in the process.

Jay: I know we've talked about that- planning and patience, the two P's here.

Andy: So think about that when you're planning your new build and the contractor says, all right, it's going to be 8 to 10 or let's say. They're being really hopeful. I'm seeing projects taking 12 to 15 months even longer in certain areas, and it's becoming problematic because you take out a building loan, a new construction loan, it's usually for a certain amount of time. There's a time limit there. So you've just make sure you plan that. So that nobody's surprised. Nobody wants to be surprised during this process. It's stressful enough. You don't need surprises.

So that's it. I just wanted to bring those things up because I get a number of clients that are in the same area, the same part of the process. And I thought I'd just touch on those items as long as we are back together this week.

Jay: Yeah. You know, and I think the fact that they're at the early stages kind of leads to other followup podcast. We can do as you get more information on how the builds are going, the obstacles, the challenges that the clients are facing. The good stories too. You know what went really well, what's really working here and we can keep our listeners updated on these things. The idea I think folks is that maybe what we're saying will apply exactly to what you're doing. And you know, we have SpeakPipe available for you, so if you can always leave questions, but Andy will remind you that at the end of our cast, as we always do. The mailbag is full. It gets full over long weekends, four days. And boy, a lot of people are writing!

Andy: I really love doing this show and everybody hears this. Both of us, we love doing the show, but what we really love is answering customer questions. Yeah. So please keep pumping them into us.

Jay: Pump them in. Yeah. Okay. So this is Bailey writing, right jumping right forward here Andy. It's a pretty simple one, but I think people have this project problem a lot. It says, I'd like to purchase an unfinished maple bed frame and stain it myself. Okay. However, I am a complete amateur. I read that maple is difficult to stain. What products will I need? Do I need a sealant to go over this stain? Do you recommend trying to stain maple or would this be just too cumbersome of a project for someone with low skill level? Thank you. Bailey.

Andy: Bailey, first off, thank you for the question and thank you for being honest. And what I mean by that is you're not embellishing your product knowledge or your skill level. That actually makes it a little bit easier for Jay and I to recommend the right materials.

Jay: It makes it a lot easier. It makes it a lot easier because some people come into a project and they've done projects before and they've used other products and they think they're going to appropriate all those ideas they learned with another product. And sometimes that works just fine. In fact, most of the time it does. But there are times, especially with a new product that you've never used, a new product meaning a product that's been on the market a long time. It's new to you because you never used it. Right. So my point about that is that these products that have been on the market have a good track record. So it's not like it's new rocket science. You have to go to Harvard to learn about here. Right? But you have to be aware that there may be some subtle differences in technique and you need to, as we've always stressed, you need to do a little bit of playing around a little testing, getting the materials you're going to use, getting the surface you're going to put them on and do some experiments before you dive into the final project. That way you have a good understanding of what you're going to do. Maple is hard to stain don't you think?

Andy: Yeah. Maple is a very dense wood and so it has a tendency to get a little blotchy. So that's why if you look at some of the brands of a healthier furniture that are on the market, a lot of times their maple furniture is just sold as a clear finished product. Because these are companies that want to use water-based, healthier products, but they also know the limitations. So here are a couple of tricks that have worked over the years. First of all, water pop in the wood. What that means is you are taking the raw maple and just take a clean spray bottle with pure water, distilled water if you have it. Because that way you won't inject any minerals into the wood, fog the surface with this water and then immediately stain. Right now we're really working with the AFM Durotone stain quite a bit. What happens is wood is very hydroscopic. Wood loves water, it'll soak up all the moisture that's around it and wood generally is dry when you get it for furniture. As soon as you had put a water-based stain on a dry piece of wood, the

water in the stains soaks into the woods so fast that it doesn't allow proper time, an even amount of time for the part of the stain, the actual pigments to penetrate in an evenly color the wood. So that's why you get blotchiness. That's why you get lap lines and so forth. So if you pre-wet the wood, then stain, it slows down the rate of penetration, it may lighten up the stain a little bit too, but it's not going to look as blotchy. So that's one tip. Another tip, and it happens to work quite a bit, and some people choose this is to pre-seal the wood with what's called a sanding sealer, and then stain. This is a little trickier. You've got to really got to test this. And like you said, Jay testing is going to be the key here. This is where we take a product like the AFM Polyureseal BP or the Acrylacq and we mix it 50/50 with distilled water. Then use that as what's called a spit coat or a seal coat. You apply it to the surface of the wood, allow it to dry ample amount of time so you can then sand down the high spots. We've talked about how woodgrain raises with water. So you sand down the high spots or screen the high spots and then you stain. And so what this will also do is it'll seal the pores of the wood somewhat so that nothing soaks in right away and causes that uneven blotchiness.

Jay: And of course that same sealer is your top coat. In the second part of her question, you do really need a sealer over. All the stain is doing is really just imparting color to the wood. All right? You need a protective coat. So the same spit coat clear sealer that Andy's referencing can be the top coat used. Use it in full strength, use it full strength.

Andy: Exactly. Just a quick note on that. Specifically any water-based finish and obviously the AFM Acrylacq or Poly BP are both water-based. They are available in different sheen levels, so different levels of shine. None of them are more or less durable. None of them are more or less sealing than the others. It just comes down to your own personal preference. But if you are

going to use anything but a gloss as your final finish, you want to make sure that all of your base coats are done in gloss. And then just the final coat is either gloss, satin or matte.

Jay: Right and that's to ensure you keep the clarity of the color and the grain figure. Multiple coats of a lower sheens can add what we like to call is a little bit of milkiness to the surface if you have to do multiple coats. So this is a hedge against that. You start with your gloss and use your gloss as your build up coats. And then your final coat, as Andy said, is one of the lower sheens.

Andy: Perfect.

Jay: So you have a mailbag question there. Anything?

Andy: I do not have a mailbag question. You know why? Because I turned off my email on my computer here because I wanted to be hundred percent focused on the task at hand. My apologies.

Jay: Well don't worry cause my bags full. I have to kind of go through them. So here's one, this is from Joanna and she lives in San Francisco in the Bay area. I just purchased a home and in order to sell the home, a new fresh new coat of paint went out through throughout the whole home. It smells horrible and the smell gives me a headache, boy we've heard that before. This is so simple. We've answered this before. What product can I use to seal this? Is is a sealer effective? Well, I think so. Will I have to repaint with the safer paint, one coat primer, two coats of paint? We're happy with our color and happy to keep it. If we can just seal off the off gassing. Alright, so here we go. So this is a common problem folks, where people have

purchased a home or they're a renter moving into a new rental. In the case of where the home has been sold, the old owners or sellers have painted the house to try to improve its price point. And of course, typically when you're moving out of a house and you're just painting it to move out, you're not gonna probably pick the highest quality paint you want to keep your costs down. Some product that maybe we wouldn't want to be around might be used. And of course the new owner gets in there and they can't tolerate it. So that's one. Sometimes when you're in a rental, you're not painting because the landlord is not gonna let you do that, but you do need to deal with the problem. So there's where a clear finish is an option, of course, the question always comes up, well, what is my landlord going to say if I start messing around with coating over the surface? And you know, we have to kind of work around that. I usually say, sit with your landlord and tell him the problem and say, listen, are you willing to work with me on this? These are my options and let's talk about it.

Andy: This is a tough situation because I can see it from both angles. I've got some good friends right now that just went through the process of selling their home. The realtor's recommendation was that you got to paint every room. You gotta make it look fresh. And it's also a psychological thing when people walk into a home and they smell fresh paint. Not our clients of course, but I'm talking the others who aren't as affected by these chemicals, they think, it was just freshly painted. Isn't that nice? New car smell? Same thing. New car smell. Right. And so I walk into his space like that and you know what I think right away. Yeah. What are they trying to cover up? What water stains are they trying cover up? If it's a rental situation, I'd like to tell the landlord, if you're planning on repainting, don't I'll take it as is, let me take care of it. If you work it out with them, maybe he allows you to move into this space a few weeks early or gives you a break on the rate, maybe you know, that that helps to pay for the paint and the surface. But quite honestly, folks, the question itself, do I have to repaint? In

order to get that paint to stop off gassing you have to seal it. And if you want to call it sealing or painting, you're essentially doing the same thing. And so AFM makes a wonderful product called Acriglaze, which is I think the best way to describe it as it's essentially a clear paint. Our FRAT testing has shown that it's just as effective at sealing up a chemical off gassing as are the other coatings that AFM makes. And it's the same technique of rolling it on a surface as paint is. So people are a little more accustomed to how that works. If you are concerned about whether or not it looks like you've added a coat of paint on it or not, it's clear. So you don't have to worry about that. It's not that big of an issue, but paint will off gas. The estimate that we've seen for many years now is that paints, even the zero VOC paints that are out there will off gas for at least two and a half to four and a half years after they reach a full cure. So while the odors may eventually go away or you'll get used to them and therefore won't smell them, the chemicals are still there. How much is still there? Well, it's kind of a moot point. How much does it take to have an effect on you? Well, that's different for everybody. So therefore, you've got to assess and decide what the best plan of attack is. We can certainly help you find the right product for your situation.

Jay: Right. That's good. Good input there. I guess I just round that out by saying, when you're stuck in a situation where you're trying to make your mind up, the best thing you can do is just try to keep your air as fresh as possible, as clean as possible. Wherever you may be, keep as much good ventilation as you can to kind of keep that air fresh so you're not struggling if indeed you're in the property and you have to wait because there's decisions have to be made and it's taking longer than you expect

Andy: And keep the humidity down folks and humidity down.

Jay: Yes, yes.

Andy: This time of the year a humidity is going to be higher in most parts of the country and as we've talked about before, humidity, moisture is wreaking more havoc in our homes than we all give it credit for. You need to get your humidity well below 50%. Try to get it in a 35% range if you can. I know it's tough sometimes this time of the year, but at least keep it below 50% to ward off mold. But if you keep it in that 30%, 35% range, you'll also eliminate a lot of that flushing action that occurs when a moisture vapor comes off of a surface and carries with it chemicals. So moisture is a key.

Jay: This is excellent cause it's book ending our podcast today. We started with Andy mentioning the fact that new construction lumber comes to the job site and it's got mold in it or has mold on it. So here's the question I was referring to earlier, Andy and the one I think you're really gonna love. So this comes from somebody in Canada actually, and they say, I want to seal the MVOCs off gassing smell coming from a concrete floor. The area has been remediated for mold, but the smell remains. The floor was recently, 10 months ago, painted with a brand one part epoxy paint. I would prefer a clear color finish that isn't slippery. But the most important characteristics are odor sealing and bonding to the existing finish. Thanks in advance. And Andy, I know you're going to want to love to explain to everybody what MVOCs are.

Andy: Well folks, let me preface my answer by saying this. When Jay and I decided just a few minutes ago, this is what we're doing for today's show. He says to me, and the last question I asked you, you're gonna love this. I'm not going to tell you anything about it, but you're gonna love it. So thanks Jay.

Jay: Well, I set you up, boy. I know because you're going to deliver the one, two punch. It's going to be good. I love it.

Andy: So, MVOCs are essentially what are called microbial volatile organic compounds. So microbial VOCs are essentially different variations of carbon-based molecules. All right? So it's not just your traditional VOCs we know, but these are specific types of volatile organic compounds that come from specific chemicals. VOCs are coming from certain chemicals, but these MVOCs are typically coming from things like fungus and mold, bacteria, that kind of thing.

Jay: They're actually breaking down they're metabolizing, right? And as they do that, they're letting off these VOC.

Andy: Well, and it's very interesting because you find this is where science and synthetics and, and nature, natural chemistry come together. You've got a fungus that's growing on a surface. And that fungus can actually release things like ethanol and other chlorinated hydrocarbons and things like that. It's just it's really amazing science.

Jay: Terpenes, sulfur, nitrogen, you know, stuff like that.

Andy: And so here's the really interesting thing, and I know we've talked about VOCs quite a bit, probably every episode it comes up one way or another, right. The fact of the matter is that VOC as we know it, is a specific carbon based chemical or series of chemicals that could contribute to outdoor air pollution. MVOCs that are part of the fungus and mold and so forth aren't necessarily regulated as a VOC in our building materials and therefore they don't show up on tests the same way. And this is very, very difficult sometimes to actually prove what's going

on. You have to use specific type of testing. But you know, whenever you hear that somebody is in the basement and the basement has this strong musty basement smell

Jay: Like dirty socks or or cheese or something, right?

Andy: 99 times out of a hundred, that smell is derived actually from the smell of concrete. The smell that concrete gives off is a combination the aggregates and concrete lime in concrete. And when moisture comes through it, and we talked about this flushing action or flashing, what happens is that moisture carries with it the smell of the concrete. It comes across as a musty basement smell. Well, every once in awhile, rarely, but it does happen, that musty basement smell can also be from a specific MVOC that is an aspergillus fungus. So if you do notice that you're having a severe reaction the same way you would with a mold exposure and it's got this smell and it's not just an annoying smell, but it's actually causing health issues, you're going to want to get tested for the MVOCs.

Jay: Right. And so kind of kind of preventative in this case. He wants to seal it up. So what's your take on actually sealing it and containing it?

Andy: You really can't necessarily contain MVOCs is using water-based coatings. You have to rid them of the surface. So this is going to be using certain types of cleaning materials. Steam hot water, boiling hot water kills off molds and fungus. So I would definitely get a professional to test the air, test the surfaces. Maybe even do some dust testing to see what's actually occurring, what has occurred there. And then go through their cleaning process and test again to make sure you got it all.

Jay: Some this stuff can pervade the house. As you mentioned earlier, making sure that you've got your HVA systems in good condition, you can keep your humidity down year-round, not just part of the year, all the time, year round. You know, if there's some porous materials that may need to be removed because it'd been contaminated. I think of carpeting. We know we did a show a couple times, a couple times back about carpeting and the problems with carpeting. All those things are important to solve the problem.

Andy: It's very easy, it's very commonplace for things like the Safecoat products to seal up chemical off gassing from flooring and carpeting and painted surfaces and so forth. But MVOCs because they are natural chemicals- different beast.

Jay: I call them organics. I say there's the organics and there's a synthetics, right? And so our company AFM has done a nice job dealing with synthetics, but when you're talking about the organics as a kind of a different ballgame.

Andy: Exactly. So that's a really good, not only a question for everybody to hear, but for the person who asked us that question, feel free to reach back out and let's have a conversation off air, and maybe what we learn about your situation and we put together a plan on how to remediate and take care of that, we'll report back to all of our listeners at a later to let you know how it all went down.

Jay: Yeah, I think that adding that letter is going to be news to a lot of people. They know what the problem is, but they don't know how to describe it. Oh yeah, it smells like an old gym. It smells moldy, musty, blah, blah, blah. What is that? Well that's the MVOC, the microbial volatile organic compound.

Andy: Right. As the science improves on this, what we're finding is that... I've always said that VOCs are irrelevant when it comes to human health. It doesn't matter to me whether an ingredient is a VOC because the way VOCs are regulated and with the way they are reported, it doesn't actually give us any good information. A manufacturer can use acetone in their paint and they don't have to disclose it as an ingredient or as a VOC.

Jay: Right. It's exempt.

Andy: Right. And so then by that standard, VOCs are irrelevant. However, something like this is a different story and this is where I wish it wasn't called an MVOC. I wish it had a completely different acronym

Jay: To kind of distance it from the VOC issue.

Andy: Yes, exactly. But I think that in in the next 12 to 24 months, we're going to be reading an awful lot about this. I believe that the whole mold issue, humidity issue in construction, this has really started to come to a head right now as is things like electromagnetic fields, microwaves and radio-frequency and so forth. That's all going to get really, really important on new home constructions.

Jay: You know, the fact that we're seeing changes in our environment, we're seeing more rain, we're seeing more flooding. These are all going to be at the top of people's a talk list when they're starting to rebuild and fix up homes that have been damaged by some cataclysmic event.

Andy: Without a doubt. And that's, so let me just say this, everybody listening, this is why Jay and I do this show. Neither one of us are perfect experts on everything we talk about. You know, we have our expertise in certain things, but we are still learning. Both of us have been in this business for a long time and we're still learning every single day. And so if there's something that Jay or I said that maybe is different than what you've heard or you have a different take on it, I'll be the first to to say, well, I made a mistake and maybe I didn't say things exactly proper, but what we want to do most importantly is get this information out there to people and let's start having that conversation.

Jay: Exactly right.

Andy: And so on that note, we want you to reach back out to us whether via email andy@degreeofgreen.com or on the website and go to the SpeakPipe app and leave us a voice message right on the website and let us know if you have some information about these topics that maybe we missed, we need to clarify. We always love getting feedback and telling us, how we need to improve our show and improve our delivery of this information. And if you have any ideas of topics, we'd love to hear from you. We've got a couple of really good interviews lined up for the next couple of months. I'm looking forward to talking to folks about a whole variety of things that we really haven't delved into yet and one of them being EMFs, electromagnetic fields.

Jay: It's going to be a good one.

Andy: It's going to be great. I'm really looking forward to it and as always, folks, please go to iTunes and give us a five star rating if you are so inclined all every time we get a five star rating or review of the show or both. It makes it easier for others who are trying to learn, to find the show. We have been one of the fastest growing shows in all of iTunes for alternative health as it relates to building. And we're still there. We're still climbing up the charts and it's becoming a very popular show all because of our loyal listeners. So thank you all so much. Jay, great questions today and as always, great conversation.

Jay: Andy, as always and I look forward to next week.

Andy: All right folks, we'll be back with you in a week.

Jay: Take care everyone.