

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ANTHONY INC.,
Petitioner,

v.

CONTROLTEC, LLC.,
Patent Owner

IPR2025-00636
Patent 7,421,847

Record of Oral Hearing
Held: July 16, 2026

Before HUNG H. BUI, SCOTT DANIELS, and BARRY L. GROSSMAN,
Administrative Patent Judges.

IPR2025-00636
Patent 7,421,847

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P R O C E E D I N G S

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JUDGE GROSSMAN: All right. We're here for a hearing in IPR2025-00636, Anthony Incorporated versus ControlTec, LLC. And we're looking at U.S. Patent Number 7,421,847. Judge Bui is with me here in the courtroom; on the screen is Judge Daniels. Judge Daniels can see and hear everything in the courtroom except for the screen on the sidewall where you put up your slides.

So one of the things I'll ask is that when you put slides up, if you do, please make sure you reference the slide number so that Judge Daniels, who has the electronic record in front of him, can get to the slide, and also so the court reporter can make note of it so that a month from now when we're writing this decision, we can also know what slide we should be looking at. And if you don't do it, I'll give you a gentle reminder, hopefully.

In terms of the electronic records, we have them before us. At least for me, if I'm not looking directly at you while you're speaking, it's not -- I'm looking at my screens, it's not because I'm distracted by other things, it's because I'm looking at the documents and the record in this case. It's easier for me to read them on the two screens that are right here at the bench in front of me than it is to look at the screen on the sidewall.

You both are experienced at this. And we've had a related case in this matter and which I know you're familiar with, which was the IPR2025-00559, so you -- won't waste time going over all the general rules and guidelines. You each got an hour. And you can reserve some time. I don't think there are any outstanding motions for us to decide on in this case, other

1 than going to a final decision after we hear your presentations. But if you
2 think differently, let me know.

3 And unless you have any questions with that, we'll get started.
4 We're going to start with the Petitioner who's got the burden of proof. When
5 you make your appearance, when you get to the podium, just clearly state
6 your name and spell it for the court reporter. She's got copies of the
7 demonstratives, but she -- make sure we get your names right on the record.
8 And let me know how much time, if any, you'd like to reserve for your sur-
9 reply or your rebuttals.

10 So with that, any questions from the Petitioner? Any questions
11 from Patent Owner?

12 MR. DARBY: No.

13 JUDGE GROSSMAN: Okay. Petitioner, you can begin whenever
14 you're ready.

15 MR. DARBY: May I begin?

16 JUDGE GROSSMAN: Yes, please.

17 MR. DARBY: Excellent.

18 JUDGE GROSSMAN: Begin whenever you're ready. Thank you.

19 MR. DARBY: Thank you, Your Honors. Kenneth Darby for the
20 Petitioner, Anthony Incorporated. I'll be presenting today with my
21 colleague, Ms. Whitney Reichel. We'll be using 40 minutes for the opening
22 and reserve 20 minutes for rebuttal.

23 JUDGE GROSSMAN: Okay.

24 MR. DARBY: If we could, I'll start at Slide 3, which is our case
25 overview slide. And Judge Grossman, to your point, this '847 Patent at issue
26 in today's proceeding is a divisional of the '181 Patent that we spoke about

1 last month in the prior IPR proceeding.

2 So getting to this petition. This petition challenges all 20 claims of
3 the '847 Patent and does so in four grounds, 1A through 1D, which we have
4 summarized here on Slide 3. Much as before, we're going to focus on the
5 independent claims today. And we're going to focus on Grounds 1A and 1B
6 involving the Carter and the Bunch references.

7 The way we see it, those grounds and those claims cover the vast
8 majority of the disputed issues in the case. And then we'll also be
9 addressing the objective indicia raised by the Patent Owner. Ms. Reichel
10 will be addressing that in our rebuttal today.

11 JUDGE GROSSMAN: One difference in this case is the Bunch
12 reference. I think all of the other references, the Carter reference, King, and
13 Gatling are all the identical references that we've considered in the previous
14 case; is that correct?

15 MR. DARBY: You got that right, Your Honor. And they're used
16 in this case for much the same way they were used in the other case. Little
17 wrinkles here and there with the claim language, but the themes are the
18 same.

19 With that, I'll turn to Slide 4 and get into the '847 Patent. This is
20 the exact same disclosure, exact same technology at issue that's in the '181
21 Patent. And so I'll be brief. But I think we all know that the '847 Patent is
22 about anti-sweat or condensation control apparatus and methods that are
23 applied on refrigerated display cases. And that the underlying physics
24 behind it is pretty straightforward, that condensation forms whenever the
25 surface temperature -- the temperature of a surface drops below dew point.

26 And so the crux of the patent and the crux of the prior art that we'll

1 talk about today is that you want to turn on that heater before your surface
2 temperature gets to dew point. That's how you --

3 JUDGE GROSSMAN: Is the condensation based just on those
4 -- the two data points which you said temperature and dew point. Because I
5 think in the claims, we're talking about three data points. We're talking
6 about frame temperature, then we're talking about ambient temperature, and
7 also dew point. I think there's a sensor that will measure both ambient
8 temperature and dew point. So do you need all three of those measurements
9 to determine whether the condensation is anticipated? Or if I understood
10 what you just said a second ago, there were only two data points, just
11 temperature and humidity?

12 MR. DARBY: Two ways of saying the same thing in this
13 particular proceeding. So in this particular -- involving this particular patent,
14 the way in which dew point is determined is based on monitoring relative
15 humidity and monitoring the ambient temperature. And so when we say
16 dew point and surface temperature, that encompasses all three.

17 There are other ways to determine dew point. You don't have to
18 monitor relative humidity and ambient temperature separately. There are
19 other ways to get dew point. But in these particular claims, as to specifically
20 the anticipating aspect of it -- and we'll dive into this here shortly -- the
21 claim does say the three of those things.

22 JUDGE GROSSMAN: Thank you.

23 MR. DARBY: And so what we just talked about, and I think what
24 the patent tells us is how does a system know whenever dew point
25 -- whenever a surface temperature is nearing dew point Well, it does so
26 using those three sensors, the surface temperature, ambient temperature, and

1 relative humidity. And the patent also tells us that this technology was a
2 known technology.

3 And as I think you've seen in the record, not only was it known as
4 the patent tells us, we have some of the excerpts summarized here on the
5 slide. But it was also commercialized and even described as being common.
6 And in fact, if you look into some of the briefing earlier on in the case, even
7 Patent Owner said that condensation control was an already solved problem.

8 And they said that in their discretionary denial brief, that Paper 6 at
9 page 12, an already solved problem. And so what we're talking about here --

10 JUDGE GROSSMAN: What we're going to look at is that
11 problem was solved, but whether this particularly distinctly claimed way of
12 solving it is patentable.

13 MR. DARBY: Yes.

14 JUDGE GROSSMAN: There are lots of other ways you could
15 take a rag and wipe off the condensation and that solves a lot of the problem,
16 but they're doing it differently. So we're going to focus on -- yes, I think it's
17 pretty clear that people have been clearing condensation in lots of different
18 ways for a long time. But we'll focus on the details of what's claimed in
19 these 20 claims.

20 MR. DARBY: Absolutely, Your Honor. And with that, I will turn
21 to the -- I'll turn to the claims. If we turn together to Slide 7. We have them
22 summarized, the independent claims here on this slide just to help us get
23 organized in terms of the three independent claims at play and where the
24 overlap is and where they might differ slightly.

25 So you'll notice on the left-hand side of the slide is Claim 8. And
26 Claim 8 is a representative claim as it pertains to this particular patent and

1 the disputed issues in the case. And so we've color coded them here so you
2 can see the overlap. You'll notice that all three claims --

3 JUDGE GROSSMAN: Did you start with Claim 8 because in your
4 view that's the broadest claim?

5 MR. DARBY: We started with Claim 8 because with respect to
6 the condensation control aspects, which we think are the main thrust of the
7 case, that it's a -- it's the representative claim. It's the right one to look at.

8 So for example, in the blue is where we have highlighted the
9 condensation control aspects. And if you meet Claim 8 in terms of
10 condensation control, you meet Claim 1, which is very similar language, and
11 you meet Claim 14, which is even broader language.

12 JUDGE GROSSMAN: And all of these claims are related to the
13 claims in the prior case in that the parent case. The parent case was directed
14 to a system. And this is directed to the method of implementing that system.

15 MR. DARBY: Yes, with some particulars. And we can talk about
16 that if we turn, for example, to Slide 9 where we have the claim language.
17 And this is for the condensation control claim language.

18 And I do want to highlight for you what the -- it's highlighted on
19 the slide. What is the key language? Anticipating the formation of
20 condensation at the display case and activating and deactivating the
21 frame/door heater responsive thereto. And the thrust of it is quite similar to
22 the parent case. But we don't have the means plus function here. And that is
23 a meaningful difference.

24 Here, we have the broad functional method claim language. And
25 so whereas in the prior case had means plus function. And we were looking
26 to the corresponding structure, the algorithm, in the preferred embodiment of

1 the patent. Here we're not forced to do that.

2 JUDGE GROSSMAN: In Claim 8, clause C, the top of your Slide
3 9, it refers to the three items that we mentioned earlier that you're looking at
4 frame temperature, ambient air temperature, and relative humidity. In all
5 these claims, we're limited -- in order to meet those limitations, we need to
6 have -- is it your view that we need to have three data points?

7 MR. DARBY: You need to have three data points to anticipate
8 condensation. And I want to put a real fine point on that -- we'll get later to
9 why it's significant -- to anticipate condensation. And the claim goes on to
10 say is that once you've anticipated the condensation, responsive to that
11 anticipation, you activate and you deactivate the heater.

12 JUDGE GROSSMAN: And the way you anticipate the formation
13 of the condensation based on some physics formula relating to temperature
14 and humidity and dew point?

15 MR. DARBY: That's correct. And in fact, I would submit that
16 you do it the same way in the '847 Patent and in the primary reference, the
17 Carter reference, that you anticipate and basically virtually the exact same
18 way.

19 And so we can just hop to that now. In fact, I'd turn your attention
20 to Slide 11, where we have our mapping now, to this again, broad functional
21 claim language. And again, the anticipating is the same, the '847, as it is in
22 Carter.

23 How does it work? Well, you take the same three sensor inputs,
24 the same monitoring, relative humidity, ambient temperature, and surface
25 temperature, and you use those things to get a dew point reading.

26 And when the surface temperature drops to a set point above dew

1 point, you've anticipated condensation. Those are the conditions where
2 condensation is ripe to occur.

3 JUDGE GROSSMAN: And when you say the set point on your
4 Slide 10, on the sort of in the middle section, the bottom rectangular portion,
5 which is -- I think has the explanation that Carter anticipates condensation.
6 And just to make it clear that there's no confusion, Carter is not used as a
7 102 anticipation reference, it's used as a 103 reference, I think.

8 MR. DARBY: It's used as a 103 reference. That's right.

9 JUDGE GROSSMAN: So when we're using the word anticipate
10 here, when Carter anticipates, it's not to be confused with the patent law
11 phrase that Carter anticipates. The claim happens to use the word
12 anticipation. And I think you're referring to the claim language --

13 MR. DARBY: Yes.

14 JUDGE GROSSMAN: -- that Carter anticipates that. But when
15 we get down to that bottom square, it's on your Slide 10 -- and I think you've
16 got a different slide up on the screen. But yeah, your Slide 10, the bottom
17 middle rectangular bracket, it refers to the dew point plus 2 degrees. Is that
18 what you refer to as some set level of anticipating?

19 Because the physical formula for determining when the
20 condensation will be there is the same. And you want to anticipate that. So
21 if it'll be at X temperature or X dew point, Carter is saying set it at X plus 2
22 degrees. And that means when you're getting close to that dew point level,
23 you're going to kick in. And that is what you refer to as anticipating the dew
24 point?

25 MR. DARBY: Couldn't have said it better myself, Your Honor. I
26 think you've nailed it. And critically, the patent -- the '847 Patent does it the

1 same way. And you can see this in 14B, Figure 14B of the patent. It writes
2 that it takes dew point, it compares it to surface temperature with some set
3 point, some -- because you want to turn on the heater before you get there.

4 And I think that's a key aspect of anticipating anything is that
5 you've determined that it's going to happen before it actually happens. True
6 in Carter; and true in the '847.

7 JUDGE GROSSMAN: Just to use an analogy, which are never
8 good to use, but it's the one that comes to mind if you know that the water is
9 going to freeze at 32 degrees Fahrenheit, and you don't want it to freeze.
10 Maybe you put your heater on at about 33 degrees, so you've anticipated the
11 freezing and then prevented it.

12 MR. DARBY: Aptly said, yes sir. So on those first two aspects
13 -- and I'll turn us back to Slide 11 just briefly. Those first two aspects, the
14 anticipating aspect and the activating of the heater aspect, I don't think we
15 have any dispute with the Patent Owner on those particular things.

16 JUDGE GROSSMAN: Okay. Just for the record, we're now back
17 -- we're on your Slide, I think number 11.

18 MR. DARBY: Eleven, that's correct. So the anticipating of the
19 condensation, which works just like the '847, the activating the heater, which
20 works very similar to the '847, I don't think we have any dispute there. I
21 think similar to the last case, it's about the deactivating, right?

22 But here, as we pointed out earlier, we don't have the means plus
23 function. So we don't need a map to the preferred embodiment. We need to
24 only address and concern ourselves with the broad functional language in the
25 claim. And again, that language simply requires deactivation of the heater
26 responsive to the anticipating. If you've anticipated responsive to that

1 anticipation, you have to deactivate.

2 JUDGE GROSSMAN: When you say deactivate, so you're
3 anticipating your condensation. You have a set point at plus 2 degrees of
4 whatever it should be. And you activate. And then at some point, the frame
5 is now warm enough, it's gone up enough that you don't need the heater
6 anymore. And that's when you -- at some point, is there a second set point at
7 which you deactivate?

8 MR. DARBY: Not required by these claims. Right. Not required
9 by these claims. So in these claims, based on the anticipating responsive to
10 it, you have to activate and deactivate to your point when you -- when the
11 anticipation phase is over because there's no more risk of condensation.
12 We're far enough away. It's not going to -- we're not risking condensation
13 anymore. Now, we're going to deactivate. And that's all these particular
14 claims require.

15 JUDGE GROSSMAN: So in theory then if I understand your
16 explanation is that when I -- as in Carter, they have dew point plus two.

17 MR. DARBY: Mm-hm.

18 JUDGE GROSSMAN: So when you get up to dew point plus
19 three, you're above dew point plus two, you can deactivate. And if you drop
20 down to dew point plus two again, you turn it back on. Or would you
21 constantly be turning it on and off based on whether you're at that set point
22 -- set activation?

23 MR. DARBY: And it's one way to configure a system. It's not
24 how Carter configures his system. In Carter, you heat up until the surface
25 temperature reaches ambient.

26 JUDGE GROSSMAN: Right. So yeah. And Carter has a second

1 set point, which is ambient temperature. So when you get up to ambient, do
2 you turn it off?

3 MR. DARBY: Right. You're far enough away now, the risk of
4 condensation is over, the anticipation phase is over, and you deactivate.

5 JUDGE GROSSMAN: The claims don't have a second set point to
6 determine when you're far enough away from anticipating that you can
7 -- you're comfortable deactivating. It just that you deactivate at some point.

8 MR. DARBY: Yes, absolutely. In fact, the claims don't have a
9 first set point in this -- in these particular claims. We don't have a set point
10 at all, just utilizing those three things. You have to anticipate. Once you've
11 anticipated, responsive to that, you have to activate and deactivate. You
12 have to operate the heater responsive to --

13 JUDGE GROSSMAN: Right.

14 MR. DARBY: -- anticipating condensation. Exactly.

15 JUDGE GROSSMAN: Okay. Thank you.

16 MR. DARBY: Absolutely. And so I think one way to think about
17 it is what we said in the petition, which is the discussion I think we just had.
18 If we turn to Slide 12, this is an excerpt from the reply on the left-hand side
19 of the slide. And this is us looking at it through another lens.

20 Yet another way to think about this, to know that heater
21 deactivation is responsive to the anticipating, is that they're part of the same
22 causal control loop, that the anticipating triggers a sequence of events that
23 will lead you to deactivate. That's responsive. So that's how we know
24 deactivation is responsive to the anticipating step.

25 And so that's the mapping. I think it's pretty basic. I think it's
26 pretty straightforward, particularly given the claim language at hand.

1 I do want to talk about a few of the arguments that have been
2 raised by the Patent Owner on this particular point, just to make sure we
3 cover those and respond to them. We're on Slide 15 now. And you can see
4 in the navy blue strip at the top of the slide, this is a quote from the Patent
5 Owner response.

6 JUDGE GROSSMAN: This is your Slide 15?

7 MR. DARBY: Yes.

8 JUDGE GROSSMAN: Okay.

9 MR. DARBY: This is a quote from the Patent Owner response,
10 page 21, "Carter makes no use of the dew point reference at shutoff." And I
11 think this goes to what we were talking about earlier. These claims don't
12 require dew point at shutoff. That's not what these particular claims say.
13 Where they said that is in Dependent Claim 16.

14 And that's the only claim I would submit in this set of 20 claims,
15 Dependent Claim 16, that has claim language that would actually involve
16 dew point for deactivating the heater. It would require that.

17 And so we know that the applicant knew what language to use.
18 They used it in Claim 16. If they wanted to narrow their independent claims
19 in that fashion, well, they certainly could have added that claim language.
20 They could have added means plus function or step plus function language if
21 they wanted us to go look at their corresponding structure and the preferred
22 embodiment. But they decided not to do that.

23 And so I would submit that the thing we cannot do is we cannot
24 import limitations from the specification. Federal Circuit has told us that
25 we're not allowed to do that in claim construction.

26 And so one thing we can ask ourselves is -- well, I guess before I

1 move on to that, I do want to talk about the sur-reply just briefly. And so
2 one of the things we saw in the sur-reply is actually a concession from the
3 Patent Owner about this dew point issue. They say on page 10 of the sur-
4 reply that this particular aspect of the claims doesn't expressly recite dew
5 point.

6 So I think they know that dew point is not required for this
7 particular aspect of the independent claims. And that really should have
8 been the end of the debate, if you ask me.

9 But they didn't stop there. They instead raised a new claim
10 construction argument, which we would submit as it comes too late and in
11 fact it was waived and forfeit because it wasn't in the Patent Owner
12 response. But I'll just quote what they say, this is sur-reply, this is page 10.
13 They say the claims, quote, "unambiguously require monitoring the very
14 variables used to calculate dew point, case frame temperature, ambient air
15 temperature, and relative humidity, and using all three to control both
16 activation and deactivation."

17 That's not what the claim say, and I think we just talked about that.
18 And so we don't think they're entitled to that construction, not only because
19 they raised it too late, but because it's erroneous.

20 Okay. Moving to Slide 16. What would happen in this case if you
21 were to narrow the claim in the way that Patent Owner suggests? We submit
22 there'd be no different outcome, that the claims would still be obvious. And
23 the reason for that is because it would have been obvious a person of skill in
24 the art would have been motivated to modify the heat to ambient
25 deactivation approach in Carter to use a dew point setting.

26 We talked about this very same argument in the prior case. The

1 claim language was different. And so I won't belabor the point. But the two
2 main takeaways are that there's a clear motivation that it would add
3 efficiency and operational advantages this modification, and those haven't
4 been refuted by the Patent Owner.

5 And then second, that Carter already uses a dew point setting for
6 activation. So what we're talking about here is Carter already recognized
7 you can use a dew point setting for activating. We submit that it's obvious
8 because it would bring predictable advantages to use a similar approach for
9 deactivation. So even if you were to narrow this claim down, it would still
10 be obvious.

11 Okay. With that, I think I will shift gears here and move on to the
12 preambles. And I'll turn to Slide 26. So the preamble language, and again,
13 Claim 8 is representative that requires a method of condensation control at a
14 refrigerated display case. A display case has to have a door, a frame, and at
15 least one frame/door heater.

16 Patent Owner argues the preambles are limiting. And we don't
17 disagree with them on that. But we instead show in the prior art where this
18 feature is taught and otherwise rendered obvious.

19 With that, I'll turn to the Bunch reference.

20 JUDGE GROSSMAN: And when we talk about the preamble,
21 which is a refrigerated display case, a door, a frame, and at least one
22 frame/door heater, does that -- is there a dispute about what is a display
23 case? For example, does a display case have to have a glass door that you
24 can see what's inside before you open the door? Or can I have a display case
25 that requires the customer to first open the door and then look inside and
26 they'll see what's displayed?

1 MR. DARBY: The parties haven't had that particular dispute. I
2 would submit that it's reasonable to say if you are able to look at what's
3 inside, that that's a way to display something.

4 But it's not an argument that the parties have had. Instead, in
5 Ground 1A, the petition submits that it would have been obvious to apply
6 Carter's teachings to a display case, something with, for example, a window
7 or a glass door. And then in Ground 1B, we have Bunch, which expressly
8 teaches a refrigerator display case.

9 JUDGE GROSSMAN: So you're using Bunch sort of in your
10 Ground 1B to -- in case we need a glass door, Bunch provides that glass
11 door. And I think 1B, you're applying that again to all 20 claims, not just the
12 ones based on Claim 8.

13 MR. DARBY: Exactly. And I think you can really focus in on
14 Ground 1B, superset of the claims, covers all the claims to your point. I
15 think it narrows down some of the disputed issues.

16 So on Slide 27, we have the Bunch reference presented here. This
17 is a patent from 2004, and it's very similar to the '847 and to Carter.

18 JUDGE GROSSMAN: There's one more, before we go too far
19 away from that in terms of maybe in the preamble.

20 MR. DARBY: Mm-hm.

21 JUDGE GROSSMAN: One of the other important words I think
22 in that preamble is refrigerated. And there's a dispute about what the
23 technology in this case is related to. And that dispute is one of the major
24 points of the Patent Owner's case is the qualifications for an expert. So the
25 claim says refrigerated. It doesn't say HVAC and refrigeration. So does that
26 work, refrigeration, is that limiting the scope of this to just refrigerating and

1 not HVAC as well?

2 MR. DARBY: I would say that it relates to refrigeration, which is
3 part of HVAC and R and most HVAC units have refrigeration parts of the
4 cycle. And so I think when we say HVAC and R is an understanding there
5 -- and I think the experts would basically agree on this, which is that
6 encapsulated within that in an HVAC system, the vast majority of them have
7 a refrigeration component of it.

8 So I do think -- to be fair, I think the refrigeration is a component
9 of it. We don't see that as a problem in terms of defining the level of skill in
10 the art. We think HVAC and R absolutely encompasses that. And that Dr.
11 Henze absolutely has the appropriate skill level as it relates to refrigeration.
12 So we wouldn't shy away from that or ask you to not hold that the preamble
13 isn't limiting. We haven't argued that. And we wouldn't ask you to do it.

14 JUDGE GROSSMAN: Is there any evidence that you could point
15 us to that draws the equivalency between HVAC and R and just plain old
16 refrigeration?

17 MR. DARBY: Sure. Let me make sure I understand actually what
18 you're saying.

19 JUDGE GROSSMAN: The claim says refrigeration
20 -- refrigerated.

21 MR. DARBY: Mm-hm.

22 JUDGE GROSSMAN: And the issue, I think, in your claim
23 construction -- not claim, I'm sorry, I misspoke on claim. Your level of
24 ordinary skill is you use the words HVAC and R in your claim.

25 MR. DARBY: Yes.

26 JUDGE GROSSMAN: And we adopted those in our decision to

1 institute because it was unopposed.

2 MR. DARBY: Mm-hm.

3 JUDGE GROSSMAN: Patent Owner took no position. So we had
4 testimony of an expert. We had argument by the Petitioner. And that's what
5 we accepted.

6 MR. DARBY: Mm-hm.

7 JUDGE GROSSMAN: We haven't decided that claim
8 construction yet. That'll only be decided in our final written decision.

9 MR. DARBY: Mm-hm.

10 JUDGE GROSSMAN: So as we're looking at that claim
11 construction, if we were to take out the phrase HVAC and R from your
12 proposed construction and just use the word refrigerated, would your experts
13 still qualify as an expert?

14 MR. DARBY: I think the expert would still qualify. But one thing
15 I do want to say is that the HVAC piece of that, I do want to just highlight
16 that the claims also say condensation control. And condensation control,
17 you'll see that in a lot of HVAC.

18 Again, these cycles have refrigeration component of them. But
19 you'll see that, for example, if you're designing an HVAC system for a
20 building, condensation --

21 JUDGE GROSSMAN: Is there a place I can see it that's
22 evidentiary in the record, and so that -- where I can see that equivalent
23 -- where they draw the equivalency between HVAC and R and refrigeration
24 or HVAC and R and condensation?

25 MR. DARBY: Absolutely. Let me provide some record citations
26 for you, Your Honor.

1 JUDGE GROSSMAN: And if you want to save it for your rebuttal
2 time, fine, and not take time now. Or if you've got it readily available, that
3 would be fine too.

4 MR. DARBY: No. I'm happy to give you the record cites now. I
5 think the major discussion on this or one place you can find a significant
6 discussion on this is in Dr. Henze's -- his supplemental declaration, actually,
7 in extensive detail talks about this. This is paragraph 16 through paragraph
8 30. And he goes through and gives multiple examples where you would find
9 some of these same technological challenges relating to various aspects.

10 And so let me see if I can find a couple of them to highlight for
11 you. So paragraph 19, for example, he's talking about HVAC systems. And
12 he's saying here that you can experience, for example, windows that would
13 experience condensation risk to cooling coils. And so that again is a -- we're
14 talking about HVAC here, not particular to refrigeration necessarily, but you
15 run into some of the same condensation control problems.

16 He goes on to provide further examples in this particular section.
17 And again, that's paragraph 16 through 30 of the supplemental declaration.
18 And that's Exhibit 1061. Another thing I'd point you to is the deposition
19 testimony from the Patent Owner's expert, Mr. Pollock. And he talks about
20 some of this as well. For example, both he and Dr. Henze, they both say that
21 scientific principles apply to HVAC building systems, the same ones that are
22 applied here.

23 And so I point you to, again, this is the deposition transcript of Mr.
24 Pollock, Exhibit 1062. This is page 89, lines 3 through 8. And so what the
25 question is here is are the scientific principles associated with dew point
26 sensing in a refrigerated display case, are those same principles used to sense

1 dew point in other applications? And he goes on to confirm that yes, that's
2 correct.

3 JUDGE GROSSMAN: Thank you.

4 MR. DARBY: And again, Dr. Henze provides an extensive
5 discussion on that same topic. Okay. So turning to the Bunch reference.
6 Bunch and the '847 Patent and Carter are all quite similar. They all have the
7 same overarching goal. They want to prevent condensation, and they want
8 to do so in an energy efficient way.

9 So I'm on Slide 27. And this is the top box on the right-hand side
10 of the slide. It's a quote from Bunch just telling us that what's desirable, so
11 his goal is to prevent condensation with the minimum amount of heat and
12 consequent energy expenditure. And that's the same thing we saw in Carter;
13 that's the same thing we saw in the '847 Patent.

14 And the question here is not whether Bunch teaches refrigeration
15 -- refrigerated display case but whether the combination is sustainable,
16 which we submit that it is for all the reasons in the petition and that we've
17 discussed in the reply on Slide 28.

18 JUDGE GROSSMAN: I also note on 27 --

19 MR. DARBY: Yes.

20 JUDGE GROSSMAN: And there's a paragraph in Bunch that
21 caught my attention, which is -- and you've got it on your Slide 27, so I'll ask
22 you about it now. It talks about display cases such as refrigerators with glass
23 doors or what they call open-air coffin coolers.

24 And it also draws the analogy to refrigerators and freezers. That's
25 that paragraph that's in the second one, shopkeepers display refrigerated or
26 frozen products. So does that refrigerators and freezers provide any, I guess,

1 equivalency with HVAC where you're talking about -- it's not just a
2 refrigerator, it covers a refrigerator, it covers a freezer, it covers things that
3 are involved in cooling, which would include HVAC.

4 MR. DARBY: I think that's absolutely true. And I think it goes to
5 the aspect of display as well. Right. These same kinds of systems are used
6 not only on display cases where you would need a window or something like
7 that but in other things, like these sort of coffin coolers and freezers that are
8 disclosed here. So the technology is widely applicable. You see it
9 throughout HVAC that includes a variety of different applications.

10 And I think you see it in a variety of cooling applications as well.
11 Anytime you have a situation where surface temperature can drop towards
12 dew point, you're going to have these same condensation control issues. It's
13 very widely applicable.

14 And so again, just going back to the level of skill, I think it would
15 be wrong for us to say that it's only refrigerators, and that even more
16 narrowly that it's only refrigerated display cases. Because we know from the
17 prior art time and again, we know from both of the experts that the principles
18 at play are widely applicable.

19 Both experts have said that, the prior art telling us that, and I
20 believe we have the patent telling us that. The '847 Patent says condensation
21 control of the type it's using has been used in -- and this is a quote, I don't
22 have the specific line number for you, but it says, "a variety of applications."
23 I think we have to hold true to that when we're defining the level of skill.

24 JUDGE GROSSMAN: Thank you.

25 MR. DARBY: So Slide 28, we have the Carter-Bunch
26 combination. And it's pretty simple. It's just taking the sensors and the

1 control scheme of Carter and applying it to the refrigerated display case that
2 Bunch describes. The motivation, Slide 29, there are multiple of them. I
3 think perhaps chief among them is that --

4 JUDGE GROSSMAN: One of the things that -- we've gone from
5 Claim 8, which was the Ground 1A, and now we're in -- combining it with
6 Ground 1B as well which includes all 20 claims. And one of the differences
7 as you get into the other independent claims is you've got a series of display
8 cases that run together. In Claim 8, I think you're -- it only has one display
9 case.

10 So you've got some limitations in Claims 1 and 14 that relate to a
11 series of display cases. Is there any dispute that the references you're relying
12 on in 1B apply to a series of display cases rather than just a single coffin-
13 type display cases as Bunch mentioned?

14 MR. DARBY: I don't believe we do. Counsel, you can correct me
15 if I'm wrong. I don't think we have a dispute about that. In fact, I think what
16 you're seeing on -- let me see if I can go back to get you a clear picture of
17 this. Let's go to the Slide 28. This is the combination figure. But you can
18 see it on the left-hand side of the slide with the blue annotations, that's
19 Bunch. And Bunch has multiple refrigerated display cases. So I don't think
20 we have a dispute about that in the combination.

21 To the motivation, simply put, Carter's system would do a better
22 job at exactly what Bunch is trying to do. Anticipating condensation, that's
23 exactly what Carter does. That's what Bunch wants to do. But even Bunch
24 will tell you that the preset cycling that is disclosed in Bunch can be
25 insufficient.

26 And so the skilled artist in understanding that would have looked

1 for a better way to do it. And that's what Carter is. That rationale, I don't
2 think we have a dispute on that either. I think where the dispute is about
3 various aspects of the -- of rebuttal points that the Patent Owner has raised.
4 We could talk to those.

5 JUDGE GROSSMAN: So would you say -- and maybe a broad
6 summary of it is well, Bunch is clearly turning on and off the heater. It's got
7 set points. And Carter is also activating and deactivating, as the claim says.
8 But Carter just activates and deactivates in a different way than Bunch.
9 They're all deactivating or activating.

10 MR. DARBY: Right. Yes. Different ways of cooking an egg.

11 JUDGE GROSSMAN: The system is you either turn on the heater
12 or you turn off the heater when you need it. And Bunch has one way of
13 determining when you need it. And Carter has a different way of
14 determining when you need it.

15 MR. DARBY: Absolutely. Yes. I think that's absolutely the case.
16 So Bunch has the preset cycles. Maybe it comes on once every hour on the
17 hour for 15 minutes or so.

18 All right. But the system is blind in the sense that if the conditions
19 are changing, it won't know. And so it won't know to turn on the heaters
20 before the condensation starts because it doesn't know that the conditions are
21 becoming ripe for condensation. Carter system does. And so that's what the
22 nature of the combination is.

23 And to your point, I think -- and this is one of the disputed issues.
24 Is there a change in operating principle? We submit that there is not. There
25 is the same operating principle. You want to turn on the heat. You want to
26 turn on the heat to prevent the condensation. And that's true in both

1 references.

2 Beyond this operating principal issue, which I really think we just
3 covered. There's another argument about teaching away. We could turn to
4 Slide 32 for that. Patent Owner says that Bunch teaches away from the
5 combination. We submit that's not true.

6 The language from Bunch is on the left-hand side of the slide. It's
7 talking about some prior devices that used a humidistat and turned on the
8 heaters whenever the humidity went above a certain level. That's not how
9 Carter works. Carter uses humidity but also ambient air temperature to get
10 dew point in conjunction with surface temperature.

11 JUDGE GROSSMAN: And when you have on your slide, you
12 -- your Slide 30, is that where --

13 MR. DARBY: We were on 32. I'm ahead of you.

14 JUDGE GROSSMAN: Or you're on 32 when you're -- one
15 question I had then, it was on Slide 30, the supplemental declaration of Dr.
16 Henze. And you've got it marked as undisputed.

17 MR. DARBY: Yes.

18 JUDGE GROSSMAN: And that undisputed in that there's no
19 parallel deposition on the other side that disputes it, or they just haven't
20 challenged it in their sur-reply? I'm not exactly sure what you want me to
21 take away from -- what does undisputed mean? Just as a label on that
22 second declaration.

23 MR. DARBY: Sure. What we mean by that is that it's no
24 countervailing evidence in terms of expert testimony from the other side, but
25 also critically, no cross-examination. They decided not to depose him. So
26 he put forward this additional analysis responding to exactly what they said.

1 They decided not to even ask him any questions about it. So that's
2 what we mean by undisputed. To the extent there's attorney argument in the
3 sur-reply, it's attorney argument. And attorney argument is not evidence.

4 So we talked about the teaching away. If we turn briefly just to
5 Slide 32 -- or excuse me, 33, there's another --

6 JUDGE DANIELS: Counsel, can you just -- can we stay on 32 for
7 a second --

8 MR. DARBY: Yes.

9 JUDGE DANIELS: -- and just tell me -- just explain this to me
10 again. So the humidistat that Bunch is talking about here, it's just sensing
11 humidity. And then it turns on a heater to dry the air out. That's what it's
12 saying is inefficient.

13 MR. DARBY: My understanding of this is that it's talking about
14 the same kind of heater we've been talking about. But it's just triggering it
15 based on humidity alone. Whenever the humidity in the store goes beyond a
16 certain level, we're going to activate the heater, which is fundamentally
17 different from Carter. Because Carter is giving you --

18 JUDGE DANIELS: Okay.

19 MR. DARBY: -- the clearer picture by using dew point to
20 anticipate.

21 JUDGE DANIELS: Okay. Thank you.

22 MR. DARBY: Absolutely. So briefly, on Slide 33, there's an
23 argument from the Patent Owner about there being a requirement for
24 substantial reengineering. We submit that they're looking at this through the
25 wrong lens, that obviousness is not about bodily incorporation or building a
26 system. And we're instead looking at the combined teachings and whether

1 the skilled artisan would have been motivated to combine the teachings of
2 the references with a reasonable expectation of success.

3 The other thing I'd say is that, again -- and this is Dr. Henze's
4 testimony in his supplemental declaration that they chose not to ask him any
5 questions about. He takes on each and every one of these things that they
6 say you'd have to reengineer. And he explains why the person of skill in the
7 art, as he's defined it, would be able to handle all of these issues that they
8 raised, things like the control logic, things like the sensor placement. All
9 those things were known and well within the technical grasp of a skilled
10 artisan.

11 And the last issue is on Slide 34. And this one pertains to sensor
12 positioning. There's an argument that the petition doesn't explain how you
13 would translate Carter's positioning of the surface temperature sensor to the
14 combination. We submit that's not true. In the petition, in fact, we're very
15 clear that the combination is to bring over Carter's sensors and the control
16 logic.

17 So where does Carter put the sensor? He puts it on the frame.
18 Where does Dr. Henze explain to us that it was known and common to put
19 the sensor? On the frame. Here, in fact, he's discussing a commercial
20 product that's shown on the right-hand side of the slide where the sensor is
21 placed on the frame.

22 And even Bunch would tell you that the right place to put the
23 sensor or a correct place to put the sensor -- it doesn't need to be the only
24 one -- would be on the frame. And I'd point you to column 3, lines 15
25 through 18, for that disclosure from Bunch.

26 JUDGE GROSSMAN: As you can see on the clock behind me,

1 we're getting close to your 20-minute rebuttal time. But a couple of things
2 I'd like you to at least mention, though, is some of the key -- one of the key
3 arguments that the Patent Owner range -- raised was the objective indicia of
4 non-obviousness and commercial success.

5 They had a large market share. There was copying. There was
6 apparently some agreement at some point between the two parties that -- in
7 this area. And what's your rebuttal to their argument that the objective
8 indicia of non-obviousness helped to carry them over the line?

9 MR. DARBY: Absolutely. So I don't want to steal the show from
10 my colleague, Ms. Reichel, but I will say very briefly because she's going to
11 handle that in the rebuttal. But they have a couple of problems; one of them
12 is nexus. They have a very big nexus problem.

13 And even as to each one of those things, we've -- I think in pretty
14 excruciating detail, in the reply briefing, shown that they don't really have
15 the evidence to support on each one of those aspects that they really have
16 any commercial success or that there really was any copying. I think we've
17 addressed that.

18 JUDGE GROSSMAN: Yeah. And that my second question -- I
19 don't want to take up too much time of your rebuttal, and we can give you a
20 little extra time because of the questioning -- is on the expert qualifications.
21 One of the key case that the Patent Owner relies on is the Kyocera case
22 decided in 2022 by the Federal Circuit.

23 If I missed it, you can certainly point it out to me, any key
24 authority from the Federal Circuit that limits restricts comments on what
25 Kyocera said? Because Kyocera was a pretty broad statement about a PhD
26 who had experience in fastener driving tools was not qualified to testify in a

1 case involving power nail design.

2 MR. DARBY: What I do want to say about that is that was not in
3 dispute. That issue, that factual issue was not before the Federal Circuit.
4 Instead, there was a level of skill adopted that wasn't challenged. In fact, my
5 understanding of that case is that the parties, it was essentially undisputed,
6 what the level of skill was.

7 Here, what we have is a very real dispute about what the level of
8 skill is. We think we have it correctly. And in fact, I would submit to you
9 that maybe the only way that you could find Dr. Henze, a PhD level,
10 distinguished fellow of ASHRAE, which is the association who's literally
11 written the book on display cases, including -- or on refrigerated cases,
12 including refrigerated display cases.

13 The only way you could find him to not be a skilled artisan would
14 be to adopt the exact language that they say, the exact language that they
15 carefully crafted for this particular purpose. If we adopt the correct
16 definition, which we say, there's no question, Dr. Henze is a skilled artisan.

17 If we even adopt anywhere in between -- we talked about the last
18 time maybe saying condensation control experience, Dr. Henze has that. We
19 talk about refrigeration, Dr. Henze has that. There's really only one way that
20 they can get what they want, and that's to adopt their exact language and to
21 not even leave the wiggle room for advanced academic credentials
22 substituting for specific work experience, which is common in patent cases.

23 And I think it really matches with the facts here. I mean, if you've
24 seen anything in Dr. Henze's testimony, which is extensive, it's detailed, it's
25 incredibly corroborated. He is more than well equipped to opine from the
26 perspective of someone with a bachelor's and two years of on-the-job

1 training. And so if you adopt, we submit any reasonable skill level
2 definition, you'll find him to be a skilled artisan.

3 JUDGE GROSSMAN: Thank you.

4 MR. DARBY: Okay. I'll pause there. I'll save the remainder of
5 our time for rebuttal and pass the podium.

6 JUDGE GROSSMAN: I'll give Patent Owner a few minutes to get
7 set up and whenever you are -- you can begin whenever you're ready.

8 MR. ZIEMIAN: Thank you, Your Honor.

9 JUDGE GROSSMAN: And the first question that I'll ask is about
10 whether and how much you want rebuttal time.

11 MR. ZIEMIAN: I'll take 15 minutes for rebuttal time, Your
12 Honor.

13 JUDGE GROSSMAN: Fifteen?

14 MR. ZIEMIAN: Fifteen. Thank you. Your Honors, Robert
15 Ziemian for ControlTec, LLC. I'm here to discuss the '847 Patent and its
16 patentable claims. It's great to be in front of you again today. And here in
17 D.C., we have some humidity today. And it's actually reflective of this case
18 and the boundary conditions that we're talking about.

19 One of the issues with Carter is in really high humidity levels,
20 Carter is going to activate too late and then maybe even miss their
21 deactivation point. Because they're dealing with a scenario where it's
22 deactivating an ambient temperature.

23 And as you're aware, in D.C. today, when the humidity is almost
24 100 percent, if the surface is the same temperature as the outside,
25 condensation is going to start to occur. So one of the problems with Carter
26 is it's activating too late and it's turning off way too late -- or too early

1 because the ambient temperature is reflective of when condensation is going
2 to occur.

3 JUDGE GROSSMAN: Is there anything in the claims that have a
4 specific set temperature, an activation deactivation? The claims, my
5 understanding, as I see it, it just says you activate and deactivate. It doesn't
6 tell you what the set point is. It doesn't say you do it at plus 2 degrees above
7 ambient. It doesn't say you do it at 5.47 degrees above ambient. It just tells
8 you, you activate and deactivate.

9 MR. ZIEMIAN: Right. And that's correct, Your Honor. I'm
10 going to move to Slide 11. And we can see the crux of this activation and
11 deactivation argument here in Slide 11. Claim 8 recites utilizing monitored
12 case frame temperature, ambient air temperature, and relative humidity to
13 anticipate the formation of condensation.

14 And so your question is, is there a particular temperature that it's
15 calling for? No, it's not calling for a particular temperature in these claims.
16 I think, operably, when you use these variables, one of ordinary skill is
17 going to come to a particular temperature. But I don't think the claims call
18 for a particular temperature.

19 JUDGE GROSSMAN: So Carter gives us a particular
20 temperature, at least one embodiment. I don't know what Carter claims, but
21 because it focus more on Carter's disclosure. But it discloses that one
22 embodiment is plus 2 degrees. I don't recall even that there are any
23 embodiments in the disclosure of the patent before us, the '847 Patent, that
24 has a specific set point for the temperature.

25 It just refers to activating and deactivating. The system somehow
26 has to be programmed to identify those two points based on something.

1 Whatever that is, is not in the claim.

2 MR. ZIEMIAN: It's not in the claim, Your Honor. That's correct.
3 I think it is in some of the figures and some of the flowcharts. And I'll cover
4 exactly what figure it is in my rebuttal time and try to provide --

5 JUDGE BUI: Is your analogy, a fair one, particularly when most
6 of the refrigerated system is built that would operate within a supermarket or
7 in a building where temperature is regulated, it's not necessarily in the
8 ambient -- in the humidity level at D.C. weather, for example.

9 MR. ZIEMIAN: I think there are scenarios where it would be a
10 fair one. There are open-air markets with refrigerated display cases that
11 would experience the ambient conditions of a day like today in D.C. But I
12 see your point that it's not a typical condition that these would experience.
13 But the claims are targeted towards a more fine monitoring system that
14 allows for turn on and turn off in an efficient way that's really responsive to
15 the immediate conditions surrounding the refrigerated display case.

16 So yes, I see your point that it's a little bit odd. But what if you're
17 in a stadium, an NFL stadium, and you're getting a drink. The NFL stadium
18 might not be refrigerated. And the refrigerated display cases, you might be
19 getting a drink out of that need condensation controls.

20 JUDGE BUI: Thank you.

21 MR. ZIEMIAN: You're welcome. Petitioner has already given an
22 overview of the patent. I'm on Slide 3 now. The '847 has numerous
23 innovations including dew-point sensing, case-specific control, dual setpoint
24 hysteresis, and energy savings. When one of ordinary skill is looking at this
25 particular one, I think the energy savings and the --

26 JUDGE GROSSMAN: Let me interrupt you while we're still on

1 that slide. One of the things you point to on the last -- your last item is
2 energy savings. And it talks about target dew point and a -- plus a small
3 margin. And there you've got 4.5 degrees Fahrenheit gain versus legacy.
4 But again, this is what we were just talking about.

5 There's nothing in the claims that talks about this energy savings.
6 There's nothing that says the system has to save energy. What it's looking
7 for is not an energy-saving system, it's a condensation-anticipating system.
8 And you just anticipate condensation, and that should keep the condensation
9 off. Whether you save energy or not, at least -- as I look at the claim, I don't
10 see anything in the claim that requires that we consider energy saving as part
11 of the patent innovation of the '847 Patent.

12 MR. ZIEMIAN: That's correct, Your Honor. It's not in the claims
13 themselves.

14 JUDGE GROSSMAN: And when you refer to dual setpoint
15 hysteresis and it's both activation and deactivation reference to dew point, in
16 the claims, I don't think there's anything that says reference to dew point. It
17 says you anticipate activation and deactivation. It doesn't tell you how you
18 anticipate.

19 And not to be frivolous, I don't have a good analogy on it, but it
20 could be, you've got a person assigned to your display cases aisle where all
21 the frozen foods and refrigerated foods are, and they're there to keep an eye
22 on it. And if it looks like it's getting close to condensation, they turn it
23 -- they activate it. And when it looks like it's pretty safe, they can deactivate
24 it.

25 But there's nothing in the claim, I don't think, that says activation
26 and deactivation are referenced to a dew point. It just says you're -- you

1 anticipate it.

2 MR. ZIEMIAN: Effectively, there is something in the claim that
3 says that, Your Honor. And going back to Slide 11, I think, says utilizing
4 monitor case frame temperature, ambient temperature, and relative humidity.

5 So as we're familiar with now, dew point is calculated based on
6 ambient air temperature and relative humidity. And so that's where the dew
7 point comes into play. You're correct in that the claims don't explicitly state
8 dew point.

9 By the way, I don't know that my timer has started.

10 JUDGE GROSSMAN: Oh, you're right.

11 MR. ZIEMIAN: Sorry. Based on my slideshow, I've been going
12 for approximately eight minutes.

13 JUDGE GROSSMAN: Okay. So I'll tell you -- well, thank you
14 for your honesty. I'm going to give you -- so if you can --

15 MR. ZIEMIAN: Yeah. I just realized that. I wish I'd realized it
16 earlier.

17 JUDGE GROSSMAN: Yeah, you're right. Well, we'll round it up
18 to 54 minutes for you. It can start now. And we'll give the other side some
19 extra time because I questioned them a little bit into their rebuttal. I'll give
20 you some extra time if you think you need it. But I think probably we can
21 cover all of the issues. But thank you for calling our attention to it. I'm
22 going to start the clock now at 53:50, 53 minutes and 50 seconds.

23 MR. ZIEMIAN: Right. I think we'll be fine, Your Honor, I just
24 wanted to -

25 JUDGE GROSSMAN: Thank you.

26 MR. ZIEMIAN: I just noticed that, so I wanted to point it out.

1 JUDGE GROSSMAN: I'll point out the record can now reflect
2 that -- unfortunately, we have the judges running the clocks, which is not our
3 best skill. At the Federal Circuit, they have the clerk running the clock, who
4 pays more attention to it than obviously I did. So thank you.

5 MR. ZIEMIAN: No problem. I think we were talking about
6 whether the claims themselves contain the word dew point. And no, they do
7 not contain the word dew point specifically. I think dew point is implicit in
8 the claims and were also because of the relative humidity and the ambient air
9 temperature, which is the way disclosed in the specification, how you
10 calculate the dew point and is a very typical way of calculating dew point.

11 So I think you're right, it's not in the claims. But I think it is
12 implicitly in the claims. I also think we've spent some time talking about
13 whether there's particular set points or not. Yes, it doesn't say there's a
14 particular set point in, say, Claim 8. Right. But you activate it at a point,
15 and you deactivate it at a point. And so in that way, the set point is implicit
16 in the claims.

17 If you're activating or deactivating responsive to frame
18 temperature, ambient air temperature, and relative humidity, then there is a
19 point where you activate and deactivate. And I think the claims say that. It's
20 a different way of expressing a similar concept.

21 JUDGE GROSSMAN: Now, one other item that you mentioned
22 on your Slide 3 on the '847 Patent innovation is the case-specific control.
23 And that I think applies when you have a number of display cases. And you
24 can independently control any one of those display cases.

25 And your case-specific controls talks -- independently control,
26 based on its own environmental conditions, for a display case. But in Claim

1 8, we only have one display case. So that innovation there doesn't apply to
2 Claim 8 case specific, does it?

3 MR. ZIEMIAN: I understand that, Your Honor. But this
4 particular innovation is designed specifically for specific refrigerated display
5 cases and implemented as such. Some of the prior art doesn't have that case
6 specific control. In the previous IPR for the '181 Patent with
7 (INDISCERNIBLE), which had multiple display cases that wasn't focused
8 on individual case control.

9 Same thing with Bunch. Bunch is more focused on a whole bunch
10 of cases as opposed to case-specific control. And that is important because
11 in a supermarket you can have different ambient conditions at different case
12 positions. I mean, you could have a long set of cases with 50 cases, which is
13 not atypical.

14 One set of case could be near the front door, and one could be in
15 the back of the store. The conditions in the back of the store might be much
16 more consistent than those at the front of the store because of the doors
17 opening and closing, air coming in and out.

18 JUDGE GROSSMAN: Is there anything in Bunch that discloses
19 that while it has a number of cases that can be grouped together, are they
20 independently controlled?

21 MR. ZIEMIAN: I believe there is one independent control in
22 Bunch. And actually, Petitioner alluded to it. They were talking about how
23 Bunch has deployed a sensor at the case frame. That sensor is a sensor that
24 actually detects water, I believe, and actually detects the condensation
25 occurring.

26 So Bunch has a two-part system. One part is the frame itself;

1 there's a sensor there. If it starts to feel wet, it says, uh-oh, we missed the
2 turn off -- or turn on, so we better turn on. The other one is on a schedule
3 where they're turning it on and turning it off on a schedule based on some
4 approximation of what they think is going to occur.

5 JUDGE GROSSMAN: Thank you.

6 MR. ZIEMIAN: No problem. So now, we're to the summary slide
7 of what we're going to talk about. Really, we're going to mainly focus on
8 the POSITA definition, expert qualifications, and Carter's control logic and
9 deficiency. And we're going to go through these other items and end up at
10 other objective indicia of non-obviousness.

11 A lot has been paid -- we're on Slide 5 now. A lot has been paid in
12 this case to what the definition of a POSITA is, and whether Dr. Henze,
13 who's never worked on a refrigerated display case, never done anything
14 related to refrigerated display cases, is a POSITA. The patent itself is pretty
15 clear on what they think the field is. It's in the preambles of the claims,
16 right?

17 We already talked about how in the preambles of the claims, it
18 recites refrigerated display cases and condensation controls, therefore. So
19 from Patent Owner's perspective, that is the field of invention. If you look at
20 the disclosure, it talks about that extensively. If you look at the summary of
21 the invention, it talks about that extensively. The entire patent is basically
22 about refrigerated display cases.

23 So Patent Owner thinks that the expert should be someone who has
24 experience with refrigerated display cases specifically. And by way of
25 analogy -- you said you don't love analogies. But if I have a Toyota, and I
26 want the engine fixed; I want someone who's skilled in the art of fixing

1 Toyotas. And they have worked on Toyota engines, or at least they have
2 some knowledge of Toyota engines, they've seen one. I don't want a guy
3 who's an engine expert to work on my Toyota. I don't think he's one of
4 ordinary skill in the art. And that's our position.

5 JUDGE GROSSMAN: Your analogy, he's not one of ordinary
6 skill in the art on Toyota engines. It might be an expert in engines for, let's
7 say, high performance race cars --

8 MR. ZIEMIAN: Yes.

9 JUDGE GROSSMAN: -- Formula One racers. And this guy
10 maybe is the chief mechanic on the car that won the last 10 races. It doesn't
11 mean he's, or she, is an expert on Toyota. Is that your point?

12 MR. ZIEMIAN: Absolutely. There are intricacies related to this.
13 And you can actually see it in some of the prior art and the actual patent
14 disclosure itself. The way housings are developed to nicely fit in certain
15 areas, the way -- the concerns about the particular humidity -- and it is a
16 really specific subarea. And Bunch, for instance, is in that subarea; but
17 Carter is not, I think.

18 JUDGE BUI: I think your analogy is a fair one. However, in this
19 context of AC refrigerated system, we're not talking about Honda and
20 Formula One here, right? It's all under the same umbrella of HVAC control.

21 MR. ZIEMIAN: Yes.

22 JUDGE BUI: So if you have expertise in HVAC, particularly
23 somebody with PhD degree who runs simulation through years of research
24 and development, that person should be able to know the level of
25 condensation, particularly in refrigerator display cases, stuff like that. So it's
26 not necessarily the same kind now that you just draw in terms of specific

1 engine for ordinary car and specialized car that most people don't have any
2 knowledge on, right?

3 MR. ZIEMIAN: I don't know that I completely agree that all of
4 his experience translates, or even most of it. This is a very particular
5 subarea. The characteristics of refrigerated display cases have specific heat.
6 And in Mr. Pollock's declaration, he does discuss the specific characteristics
7 that refrigerated display cases have compared to other types of HVAC
8 problems.

9 I just think if we're just allowing anyone in a hugely broad area,
10 because HVAC and R is a hugely broad area. And in fact, if you ask
11 yourself, what do you usually hear? You don't usually hear, I'm an HVAC
12 and R expert. I think we all usually hear, oh, he's an HVAC guy, or he's a
13 refrigeration guy. I know it's grouped together, and they form this
14 professional conglomerate grouping the two together.

15 But why is it HVAC and R? Heating, ventilation, air conditioning,
16 and then we tack on the and R. I think it's a separate field. And I think it
17 should be considered as such.

18 JUDGE BUI: Could you talk to us a little bit more about the
19 Federal Circuit positioning, Kyocera, controlling in this case?

20 MR. ZIEMIAN: Sure. Yeah. I think it is controlling. And I think
21 it's the opportunity for the Board to decide what they think a person of
22 ordinary skill in the art is. And then either weigh the testimony accordingly
23 or exclude the testimony based on that decision.

24 JUDGE BUI: Okay.

25 JUDGE GROSSMAN: While we're talking about the definition of
26 a person of ordinary skill, your proposal is a bachelor's degree in mechanical

1 engineering, electrical engineering, or related field, which is I think identical
2 to what the Petitioner said, mechanical engineering, electrical engineering,
3 or a related field. And you've got two years of professional experience. The
4 Petitioner said three to five years of professional experience.

5 MR. ZIEMIAN: Mm-hm.

6 JUDGE GROSSMAN: You can speak a little bit to the difference
7 between two years or three to five. They say more experience than you say.
8 But one of the things that's missing in your definition, included with theirs,
9 is sort of the common phrase that says more education can offset less
10 experience and more experience can offset less education. Would you agree
11 that that kind of qualifying phrase would be appropriate to add to your
12 definition?

13 MR. ZIEMIAN: Well, I'm not afraid of the phrase more
14 education, but I think the education would have to be applicable to this
15 particular field. So yes, more education could substitute for particular
16 things. But it would have to actually be applicable to the field of invention,
17 which is refrigerated display cases.

18 It would have to be applicable to the preambles of all the claims,
19 which is refrigerated display cases. Yet it's not any experience. And the
20 point we have here is we have a PhD with no actual experience in this area.
21 So I may have cut you off.

22 JUDGE BUI: Yeah. Wouldn't that be offsetting the level of
23 practical skill that, let's say, if you run a supermarket and your HVAC and
24 refrigerating system fail, you call technicians. Most of the technicians don't
25 really have a BS or even education, college level education, right? But they
26 are very good at what they do.

1 MR. ZIEMIAN: Correct.

2 JUDGE BUI: Most technicians out there are -- they work hands-
3 on on the job right out of high school usually. And many of them never
4 went to college. And you have to have (INDISCERNIBLE) skill set when it
5 comes to that particular technology.

6 MR. ZIEMIAN: Yes.

7 JUDGE BUI: They'd be qualified -- would they be disqualified
8 under your proposed definition of one with ordinary skill in the art would
9 be?

10 MR. ZIEMIAN: Yes. So yeah, if the Board decides that the
11 definition should be expanded to substitute experience, I'm not going to
12 disagree with that. But in your scenario, that person's experience is specific
13 to refrigerated display cases. And that's how they became ordinary skill in
14 the art.

15 JUDGE BUI: Yeah. The whole point I'm trying to say is that
16 okay, in many cases, education is not even necessary to gain the skill set.
17 Converse of that would be somebody who have, research, PhD, research
18 background in technology, they should be able to anticipate the general and
19 specific problem in -- that is ongoing to play in this particular technology.
20 Wouldn't that be the case?

21 MR. ZIEMIAN: I'm not so sure that that's the case because they
22 don't have experience with the particular subfield of the invention. I mean,
23 there are very smart people out there who have a ton -- and Dr. Henze is an
24 example of that. He was probably the smartest guy in the room when I sat in
25 the room and listened to him speak.

26 You can't just automatically translate one set of education and

1 experience to something as specific as this, I think. And actually, it's kind of
2 interesting, a couple of years of work experience and a related degree to
3 mechanical engineering or electrical engineering, someone like me might
4 have the experience. Because I've never worked on refrigerated display
5 cases, I wouldn't be very good at designing this. I wouldn't be a person of
6 ordinary skill in the art.

7 JUDGE BUI: Just turn back to Slide number 6. I'm really curious,
8 the legal standard you outlined there. Is that an accurate ruling by the Court
9 in that particular case?

10 MR. ZIEMIAN: I think so, Your Honor. Is there a particular
11 disagreement with a particular --

12 JUDGE BUI: Because the Petitioner counsel was saying that it
13 was because there was never disputed. That's how the case came out to be
14 that way. But I wonder if we dispute it and if the Court had to decide on that
15 particular issue, whether what -- whether that statement would be accurate,
16 would be truthful, going forward.

17 MR. ZIEMIAN: Yeah. So I do think -- and I wish I had the case
18 in front of me, but I do not. I do think there maybe is a slight wrinkle. They
19 weren't arguing over the standard. They were just arguing over whether the
20 expert met the standard. We're arguing over the standard and whether the
21 expert met the standard. Sometimes it's referred to as PHOSITA with an H,
22 person having ordinary skill in the art. So I think in Kyocera, they may have
23 only been arguing over whether the person had ordinary skill in the art, not
24 what the standard itself was.

25 There's actually another case that was in front of the PTAB,
26 Axonics, which we decided in the briefing. I don't know if you looked at

1 Axonics. And it's not controlling because it's not precedential for you guys
2 because it's another PTAB Board. It's not a court over you.

3 But the way they analyzed it, what the definition of the POSITA is
4 is exactly the way that we presented it here. What did the claims say? Did
5 the claims define a field? What was the patent targeted towards? What
6 were all aspects of the patent oriented towards?

7 And in that case, they were all oriented towards -- the whole patent
8 and the claims in that case, Axonics, was oriented towards a particular
9 subfield. And in that case, once they define that, the expert did not have
10 specific experience in that subfield, but they did have broad experience in
11 the broader subfield.

12 And in that case in front of the PTAB, the PTAB found the expert
13 was not qualified. Because they had defined the -- what a person of ordinary
14 skill in the art would be according to the preamble and the field of invention
15 and what's recited in the specification, which is what we're asking for here.

16 JUDGE BUI: What was the case number?

17 MR. ZIEMIAN: It was Axonics. I think it's in the presentation
18 somewhere. Pardon me. Let's see --

19 JUDGE BUI: It's IPR?

20 MR. ZIEMIAN: Oh, I'm missing it. I will give it to you in the
21 rebuttal. Pardon me, sorry, I have it available.

22 JUDGE BUI: Please proceed.

23 MR. ZIEMIAN: Thank you.

24 JUDGE GROSSMAN: All right. I got one further question for
25 you on this issue before we get off the person of ordinary skill in the art.
26 Your definition says bachelor's degree, mechanical engineering, electrical

1 engineering, or a related field.

2 MR. ZIEMIAN: Mm-hm.

3 JUDGE GROSSMAN: We don't know what a related field would
4 be, but that's open ended and that's pretty common in that kind of a context.
5 But the two years of professional experience is working with specifically
6 refrigerated display cases.

7 MR. ZIEMIAN: Mm-hm.

8 JUDGE GROSSMAN: Does the phrase or a related field also
9 -- should it also apply to refrigerated display cases? And I ask it in the
10 context -- this a very simplistic analogy, but maybe the best I can think of at
11 the moment is if the claim had said red refrigerated display cases. And the
12 expert had experience in green refrigerated display cases, wouldn't that be
13 related enough to qualify that expert? Or would it be your position that it's
14 got to be that specific red related -- red refrigerated display cases only? And
15 unless you got experience not only in the -- maybe to go back to your
16 analogy in Toyotas, but in the high-performance Toyota Supra sports car,
17 which has a different kind of engine than the -- maybe the Toyota Corolla.
18 And is there leeway in the phrase refrigerated display cases to incorporate or
19 related area as well?

20 MR. ZIEMIAN: Sure.

21 JUDGE GROSSMAN: If we came up with a construction that said
22 we accept yours, but we add the phrase related field to refrigerated display
23 cases, would that be objectionable to the Patent Owner?

24 MR. ZIEMIAN: That would have to be pretty carefully navigated,
25 I think. So this is not a red-blue issue. Refrigerated display cases are
26 something that billion-dollar companies have based their entire business on,

1 including the Petitioner.

2 The Petitioner, what do they offer? They offer refrigerated display
3 cases and condensation control systems. Therefore, that's their entirety of
4 their business. So to say that it's another field that is similar enough to that,
5 that it would have the same type of experience -- the one of ordinary skill
6 would get the same type of experience, I think it's possible.

7 But I think it would have to be narrowly navigated. When you
8 have this entire business area that is just refrigerated display cases, I think it
9 is a particular art.

10 JUDGE GROSSMAN: Okay. Thank you.

11 MR. ZIEMIAN: To go back to the motor analogy -- I mean, car
12 motors and motors for construction vehicles, like backhoes, they're both
13 motors. There's similarities between the two. But if I have a car, and I have
14 a mechanic who's worked on backhoes for their entire life, do some of the
15 skills translate? Maybe. But are they really a person of ordinary skill in the
16 art of automotive engines? I don't think so. So I leave that to the Board's
17 grand discretion and abilities.

18 JUDGE GROSSMAN: Thank you.

19 MR. ZIEMIAN: Thank you. So just to finish this off, look, Dr.
20 Henze, very smart guy, great experience, great to meet in person, very polite,
21 but he doesn't have experience with refrigerated display cases.

22 And now, we're going to move on to Carter's claim control logic.
23 And we've already talked about this to some extent. And I think the real
24 important difference here is how we're reading the claims. And the way we
25 read the claims is that deactivation is not responsive to anticipation
26 condensation.

1 In Carter, you have an activation point where the system turns on.
2 And yes, that activation point does take into account relative humidity,
3 frame temperature, and ambient temperature. But Carter, for whatever
4 reason, did not have another area for deactivation or another set point in
5 some language.

6 But we're dealing with the term deactivation here. It does not have
7 a deactivation point that it's all -- at all based on relative humidity. It's just
8 deactivating at a constant temperature. And that causes some real
9 differences between the way the two systems function.

10 JUDGE GROSSMAN: Is there anything in the claim that says
11 you've got a specific deactivation point? I think the claim says, I can -- I'm
12 going to say it from memory, but I can open the patent and take a look at it.
13 But I think the claim just says anticipation of condensation. Once you've
14 anticipated the condensation, you later get on to the phrase, it's for activating
15 and deactivating. But it never says -- what's the basis for deactivating?
16 When do you deactivate?

17 MR. ZIEMIAN: Right. In the claim?

18 JUDGE GROSSMAN: Yes.

19 MR. ZIEMIAN: Yeah. So I agree. I put up the claim for
20 convenience. We're on Slide 11 because I knew this would be --

21 JUDGE GROSSMAN: Okay. Thank you.

22 MR. ZIEMIAN: -- probably an issue for us. Right. So utilizing
23 monitored case frame temperature, ambient air temperature, and relative
24 humidity to anticipate the formation of condensation at the display case and
25 activating and deactivating the frame door heater, responsive, thereto, in
26 Claim 8 is the specific clause we're interested in. So we have anticipation

1 -- to anticipate the formation of condensation.

2 And we know that's dependent on three variables, right? Three
3 variables. So we have something that has three variables. The deactivating
4 and the activating of the door heater must be responsive thereto. That's how
5 I read the claim. Because we're just turning off the heater at ambient air
6 temperature, it is no longer responsive to the relative humidity. And that's
7 the issue with Carter. Carter does not teach that.

8 JUDGE GROSSMAN: I think I understand it in the context of
9 Claim 8. The heading of your Slide 11 says Carter doesn't teach
10 deactivation in anticipation of condensation, which makes perfect -- why
11 would anybody want to deactivate it? When you're anticipating
12 condensation, that's when you want to activation. So of course, Carter
13 doesn't teach it in anticipation of condensation.

14 Carter teaches activation in anticipation of condensation. It
15 appears that that's what Carter is directed to, turn the system on at dew point
16 plus two is the, I think, embodiment that was disclosed in the spec. So in
17 anticipation of getting there, before it gets there -- at 2 degrees before it gets
18 there, I want to turn the system on.

19 But Carter doesn't specifically tell us exactly what, when, and why
20 and how it turns it off. But it's based on condensation. But I don't know that
21 claim -- Claim 8 doesn't really tell us when you turn it off. You're doing it,
22 deactivating -- I think what I understand, your construction of Claim 8 is the
23 response of thereto is you activate in response to the three variables that you
24 mentioned in the claim, frame temperature, ambient air temperature, and
25 relative humidity.

26 You use those to activate. And the response of thereto says you

1 also use those same three variables to deactivate. Is that what your position
2 is?

3 MR. ZIEMIAN: That's correct. Because if the claim didn't want
4 you to deactivate responsive to anticipation of formation of condensation,
5 the claim would say activating the frame door heater responsive thereto, and
6 then deactivating at a later time. And the claim does not say that. It says
7 both activating and deactivating are responsive thereto. And that's the issue.

8 Carter is not deactivating responsive thereto. And I get your point
9 about once the temperature goes up a little bit, am I really anticipating
10 condensation? But in this patent context, in the context of condensation
11 controls, a person or someone utilizing these systems would want to run the
12 system until they're reasonably not anticipating condensation.

13 And that's why we had this energy savings discussion before. I
14 agree with you, it's not in the claims. But it helps you think about the way
15 the claims operate. Because someone utilizing these systems isn't going to
16 want to run the heater forever. These things are always anticipating
17 condensation, right? Because a cold glass in -- if there's any humidity, on
18 some scenarios, is going to get condensation.

19 And in fact, in this presentation, there's some examples as we go
20 into more of a deep dive of the Petitioner's logic. So imagine a device -- and
21 we're on page 13 now -- Slide 13. Imagine a device that turns a heater on
22 when the refrigerator is turned on, right? Because if I turn on a refrigerated
23 display case, I'm anticipating condensation at some point in a supermarket.

24 And then it turns off when I turn off the condensation control and
25 when I turn off the refrigerator. Because I'm no longer anticipating
26 condensation when I turn off the refrigerator. So that's why the set system

1 doesn't make a lot of sense in this context. Because it's not responsive to
2 anticipating the formation of condensation. I think in the context of this
3 patent, anticipating the formation of condensation doesn't just have to do
4 with when the condensation starts to occur. It has to do with getting this
5 sweet spot where the system is turning off and on at the right times.

6 JUDGE GROSSMAN: Okay. Is there a proposed claim
7 construction on that point, or is this basically the argument that we should
8 -- that you have -- how you want us to construe that term?

9 MR. ZIEMIAN: I don't think there's a particular proposed claim
10 construction on this particular -- on these terms. I think a person of ordinary
11 skill in the art looking at them, that's what they'd come to.

12 JUDGE GROSSMAN: Okay. Thank you.

13 JUDGE DANIELS: Mr. Ziemian, I have a -- could you go to -- I
14 just wondered how familiar you are with the Centricut case that you talk
15 about on Slide 35.

16 MR. ZIEMIAN: Oh, boy.

17 JUDGE DANIELS: We don't have to get into it too deep. My
18 recollection is that that case has to do with a Patent Owner who did not have
19 an expert admit -- essentially admitted, I'm going to have to use the word
20 essentially. But essentially, admittedly did not have an expert. And I
21 believe the Federal Circuit said you need one. So I just wondered -- to me,
22 that's a little bit of a differentiation of that case from whether -- in this case,
23 admittedly, we have two people who are experts of some sort in HVAC; is
24 that fair?

25 MR. ZIEMIAN: Judge Daniels, yes, that is fair, but only if you
26 add the and R. Because as we all do, we omit the and R because it's a

1 different field. No, that's correct, Judge Daniels. We have two people with
2 experience in HVAC.

3 JUDGE DANIELS: No. And I think your point -- I take your
4 point that similar to the Centricut case, here, your assertion is that there is
5 nobody -- that Dr. Henze does not have the specific qualifications. It's just
6 reversed from who's the plaintiff and defendant in the Centricut case. But
7 you're saying that Dr. Henze does not have those specific qualifications to
8 opine on this aspect of display cases.

9 MR. ZIEMIAN: Yes, Judge Daniels. I think that's correct. And
10 you see it in some of his deposition testimony as he starts to suggest things
11 for detecting dew point, which would never be used in the context of
12 refrigerated display cases, which is this high-tech lab mirror system that has
13 condensation on the lab mirror which costs much more than the devices in
14 question themselves. So yeah, I think -- do you need more response to what
15 you just said or did I -- was I responsive --

16 JUDGE DANIELS: I just wanted to explore this a little bit
17 because I know this case, this is a New Hampshire District Court's case
18 originally. And I think I want to -- I'll talk about it with my colleagues.
19 Because I think it's -- I think what you've done here is a fair case to submit
20 as far as the person of ordinary skill in the art.

21 Because in Centricut, the people that they put on to testify did not
22 have the requisite expert testimony and background to opine on -- and the
23 Federal Circuit confirmed this, that they did not have the requisite ability to
24 define -- I think the term was a work function which was in the claim. So
25 we'll take a look at this. And I'll talk about it with my colleagues. But I
26 appreciate the discussion.

1 MR. ZIEMIAN: No. Yeah. And I do remember the term work
2 function, now that you say it, from reading the case. So I think your
3 recollection is correct. I'm sorry, I don't know that I have much more to say
4 on it, but it is a similar scenario. And I do believe you're right, it is reversed
5 in this case.

6 JUDGE DANIELS: Yeah. No, thank you.

7 MR. ZIEMIAN: Let's see. Sorry, I'm a little lost here, so you'll
8 have to bear with me for a second. I really appreciate the questions, Your
9 Honors, but have to bear with me as I gather myself for a second.

10 JUDGE GROSSMAN: I think we were last on about your Slide 6
11 or so.

12 MR. ZIEMIAN: Yes. And I did want to talk about floating offset,
13 too. We're on Slide 9 right now, which is this concept of a floating offset.
14 And it's not a direct admission by the Petitioner, but it is kind of instructive
15 as to how the Petitioner is thinking about this. On some level, even the
16 Petitioner acknowledges that Carter is not responsive to the relative
17 humidity.

18 And that's why Dr. Henze came up with this concept of a floating
19 offset. The man is a genius. I don't dispute that. But this whole concept of
20 a floating offset is a little sleight of hand created by this genius in order to
21 distract us from what's really happening in Carter. And essentially, what
22 you have in Carter, as we already know, it's shutting off at ambient
23 temperature, right?

24 And so it's not considering the relative humidity. And so therefore,
25 it's not responsive to all three variables as defined in the claims. If it didn't
26 need to be responsive to all three variables as defined in the claims,

1 deactivation would fall outside of the responsive to language of the claim.

2 You could put it after. You could put it in another clause of the
3 claim. But no, it's right after the responsive to -- or right before the
4 responsive to. So what happened with the floating offset is that Petitioner
5 acknowledges that the shutoff point, if it was based on relative humidity and
6 ambient temperature and case temperature, then it would vary somehow,
7 right?

8 It would vary up and down as the relative humidity changes. So in
9 order to account for that, Dr. Henze comes up with this floating offset,
10 which is a variable which takes out the influence of relative humidity. And
11 once you do that, it doesn't meet the claim language. So they present two
12 scenarios.

13 I say neither meets the claim language. Because one, the
14 deactivation is not responsive to the three variables. And the other, if they
15 create this floating offset, the floating offset destroys the influence of
16 relative humidity by having this variable number that compensates for
17 relative humidity not being considered. So I just wanted to highlight that
18 because it's a pretty important point.

19 And I just don't want us to be distracted by this concept of floating
20 offset, which admittedly does not occur in the references. And really, Dr.
21 Henze admitted it was his choice of words, not language from any prior
22 document.

23 I'm going to save some time for rebuttal too and then maybe cover
24 the other topics. But I did want to talk about the history between the parties
25 and objective indicia of non-obviousness. And we're on Slide 29 now and
26 -- Slide 30. So there is a long-felt need for this particular technology. And

1 you can actually see it in Bunch that was cited by Petitioner as a reference.

2 And Bunch is indirectly actually cited in the patent itself. The
3 Door Miser system is referenced in the patent. And that is what the genesis
4 of -- the genesis that is Bunch. And so --

5 JUDGE BUI: Do we have evidence in the record to reflect these to
6 support your argument of objective indicia to non-obviousness?

7 MR. ZIEMIAN: We do have various records --

8 JUDGE BUI: Declarations to support perhaps?

9 MR. ZIEMIAN: We have various documents in the record. And
10 these documents will be found -- I'll give you an exact cite when I come
11 back for my rebuttal time so that I can give that to you.

12 JUDGE GROSSMAN: Is there any data on your objective
13 evidence? Slide 29, you talk about the two parties to this case hold 90
14 percent of the U.S. anti-sweat heater control market. Is there data that says
15 this one have 89 percent and the other one has 1 percent, or is there -- does
16 that make a difference?

17 MR. ZIEMIAN: I don't have exact data on that on the record.
18 What I do have is a declaration from Bunch himself that indicated that these
19 are the two major players in the marketplace. So yeah, I don't have that kind
20 of data specifically.

21 JUDGE GROSSMAN: Okay. And my related question which
22 maybe links with another issue on claim construction. You talked about
23 commercial success in the anti-sweat heater control market. How does that
24 phrase relate to refrigerated display cases which is the claim in -- the claim
25 term talks about refrigerated display cases and the issue about qualifications
26 of the expert is laser focused on the distinction of refrigerated display cases

1 to anything that might be similar.

2 And yet here, we're talking about the commercial reality of the
3 business is anti-sweat heater control market. Would that phrase be more
4 indicative of what the technology is in this case and relate to the
5 qualifications of the expert?

6 MR. ZIEMIAN: I would not object to the Board deciding that that
7 was the field of invention. And there's good reason to decide that, and that it
8 is in the claims, it is in the preamble, it is in the specification a lot. This
9 goes back to your analogy between someone who works on race cars and
10 someone who works on Toyotas, right?

11 Yeah. So condensation control specifically for refrigerated display
12 cases or the anti-sweat is what you referred to it just now. That's kind of a
13 subset of what's happening in the refrigerated display market. Right. In
14 order to meet the DOE regulations, in order to have a supermarket where
15 there's not water on the ground all the time and you can see the goods in the
16 actual display case, in order to do that, you need these anti-condensation
17 controls.

18 And so yeah, that's a subset. It's like if you were saying one of
19 ordinary skill in the art of automotive engines and you define that as it, that
20 is kind of a proper subfield -- or a subfield of that might be Toyota
21 maintenance. Right. And maybe that's a little too narrow. Maybe a lot of
22 the skills could apply. It's a judgment call for the Board to some extent.

23 JUDGE GROSSMAN: In looking at objective indicia and
24 commercial success, when you refer to anti-sweat heater control market, are
25 you talking about the sensors that detect the frame temperature, ambient
26 temperature, and dew point? Is that what you sell? Or are you actually

1 selling the entire display case with the door and the glass and all of the stuff
2 that goes to the refrigeration aspect of it? And I see there's a difference
3 between the control market, the anti-sweat heater controls versus a
4 refrigerated display -- the entire refrigerated display case.

5 MR. ZIEMIAN: Right.

6 JUDGE GROSSMAN: What's the business that we're talking
7 about? So what really is -- where is the commercial success and which
8 market?

9 MR. ZIEMIAN: So you can see the relationship between that
10 based on the history of the parties. ControlTec themselves, they only
11 specialize in the anti-sweat system. That's what they sell. They sell a unit
12 that hooks into your refrigerated display case, measures the frame
13 temperature, measures the ambient temperature and humidity, and then
14 activates and deactivates responsive to that relative humidity and ambient
15 temperature.

16 Anthony, on the other hand, sells actual refrigerated display cases.
17 But in order to sell the refrigerated display cases, they have to meet the 2017
18 DOE regulations. And actually, in 2018, Anthony had a huge issue with
19 100,000 of their units. If we're looking at page 30, they had a Department of
20 Energy noncompliance with their systems. And they found that 141,000
21 plus of Anthony's doors were noncompliant with energy regulations.

22 So on one hand, I see your point that they're somewhat different
23 markets, and the commercial success of one might not relate to the other.
24 But what happened in reality is that Anthony got a slap on the hand because
25 their systems weren't using proper anti-sweat controls. They were taking up
26 too much energy, which is --

1 JUDGE BUI: But isn't that true that they simply were found
2 noncompliant with the DOE regulation as opposed to copying your client
3 product?

4 MR. ZIEMIAN: Well, they did that right after, Your Honor. After
5 they were found noncompliant, that's when they copied our client's system.

6 JUDGE BUI: Do you have evidence of that?

7 MR. ZIEMIAN: Well, the complaint itself outlines -- which is an
8 exhibit to this whole thing. The complaint itself has a claim chart that
9 outlines how they infringe.

10 JUDGE BUI: Going back to the commercial success issue, just
11 because both your company and Anthony hold 90 percent of the market in
12 that particular technology doesn't mean that that is evidence of commercial
13 success. There's a lot of other factors going to play, right?

14 MR. ZIEMIAN: I think I understand your point. But under that,
15 does anyone's commercial success matter?

16 JUDGE BUI: If we're going to talk about commercial success,
17 then you have to be able to establish which feature in your claim provided
18 nexus to these commercial success, which is very difficult to establish as you
19 know.

20 MR. ZIEMIAN: The feature in the claims that provided for the --

21 JUDGE BUI: The anti-sweat, yes.

22 MR. ZIEMIAN: Yes.

23 JUDGE BUI: Controlling of the activation and deactivation, right?
24 Those are your features. But to be able to tie that directly to commercial
25 success would be a challenge, I think (INDISCERNIBLE).

26 MR. ZIEMIAN: Okay. I appreciate your point. And I think the

1 thing that ties it to it is the fact that they had the DOE noncompliance and
2 then had to redo everything they were doing in the last seven years of the
3 term of this patent. They had to come around and really copy what our
4 client invented in order to meet this DOE standard.

5 All right. I'm going to reserve the rest of my time. Thank you,
6 Your Honors. Unless there's any questions before I step down because I
7 only have about eight minutes left.

8 JUDGE DANIELS: Yeah. Well, I just had one quick question,
9 Mr. Ziemian. So we do look hard at this evidence of secondary
10 considerations of indicia of non-obviousness. It does take some evidence.
11 What is the best piece of evidence of the copying? Is it simply that they had
12 to comply with the DOE or were there any emails or did you know that they
13 reconstructed or took apart your devices?

14 MR. ZIEMIAN: So they have a history with us because we co-
15 developed this device with them. In relation to them, way back when this all
16 started, we had a co-development agreement. So they certainly knew of the
17 device. The evidence of copying would be the claim chart.

18 It would also be the fact that years later, they filed the '393 Patent,
19 which is cited in the record. And there's a comparison of the claims of the
20 '393 Patent, which the claims of that allowed patent are incredibly similar to
21 our allowed patent, even though the patent was filed years and years later.
22 So they will continue to be able to control anti-sweat now because our patent
23 has since expired.

24 And they have a patent that covers almost exactly the same thing.
25 So those things really show that they copied it. The claim chart, the DOE
26 noncompliance, and the fact that years later they filed the '393 Patent, which

1 there's a comparison of the claims in our briefing that shows how it was
2 copied. Thank you, Judge Daniels.

3 JUDGE DANIELS: Thank you.

4 JUDGE GROSSMAN: I didn't start the clock for Judge Daniels'
5 last question just to give you extra time. That'll compensate for whatever
6 timing errors we may have. But you'll have your full 8 minutes and 36
7 seconds, if not more, if you think you need some more.

8 MR. ZIEMIAN: Hopefully, I don't need it, Your Honor. But
9 thank you very much.

10 JUDGE GROSSMAN: Okay. For Patent Owner, our clock shows
11 16 minutes and 45 seconds remaining for your rebuttal.

12 MS. REICHEL: Thank you, Your Honor.

13 JUDGE GROSSMAN: For Petitioner, I meant. For Petitioner,
14 you've got 16:45 and --

15 MS. REICHEL: Thank you, Your Honor. My name is Whitney
16 Reichel. And I will be addressing the objective indicia arguments that have
17 come out in this case. And then my colleague, Mr. Darby, will come back
18 up to provide a brief rebuttal on the level of skill issues that we also heard
19 some argument on.

20 So I want to come back first to the most important part of the
21 objective indicia analysis, and that is the nexus. We need to find evidence
22 that shows commercial success, praise, et cetera, that ties to the novel
23 features of the claims.

24 Your Honors are well familiar with this requirement and that
25 means we have to take away from our consideration features that were
26 already known in the prior art. And here, the patent itself acknowledges that

1 the concept of using condensation control based on dew point calculation
2 was known.

3 Monitoring air temperature, relative humidity, and surface
4 temperature to initiate condensation control events have been utilized in a
5 variety of applications, including refrigeration. And this is from the '847
6 Patent column one, starting at line 48. So we have to exclude --

7 JUDGE GROSSMAN: I just wanted, just for the record, to point
8 out what slide number you're on --

9 MS. REICHEL: Yes. I apologize, Your Honor. That excerpt is
10 available on Slide 4 of the Petitioner's presentation. So we have to exclude
11 from our analysis of the objective indicia these features that were already
12 known in the art. And we also have to consider what products already
13 existed in the art. And we focused in our briefing evidence and expert
14 analysis on an Altech sensor that was available in the 2004 time period
15 predating this.

16 There were other sensors available in the market as well. So we
17 have to consider what is this patent, if we credit the arguments that there is
18 anything new, what is it adding over those prior art products, and is the
19 nexus there to tie the objective indicia evidence to those features?

20 And I believe the clock is not running here either.

21 JUDGE GROSSMAN: Yeah. We're going to --

22 MS. REICHEL: I also did not notice. Mr. Darby thankfully gave
23 me a note.

24 JUDGE BUI: I want you to take over that timer.

25 JUDGE GROSSMAN: Yeah. Okay. We're going to get it then --

26 JUDGE BUI: Might have used a few minutes, so probably 12

1 minutes left.

2 JUDGE GROSSMAN: I think it was -- yes, we started at 16:45.

3 MS. REICHEL: Yes.

4 JUDGE GROSSMAN: Well --

5 MS. REICHEL: And I'm sorry, I don't think I have a count from
6 my presentation of how long I've been speaking.

7 JUDGE DANIELS: But you can see the time from back there,
8 right?

9 MR. DARBY: Yeah.

10 JUDGE GROSSMAN: All right. Well, we'll start it at 16 minutes.
11 We'll do that.

12 MS. REICHEL: Okay.

13 MR. DARBY: That's great. No problem, Your Honors.

14 MS. REICHEL: Thank you, Your Honors. So moving to the back
15 of our demonstrative slide deck on Slide 50. We have one aspect of the
16 standard from the Fox Factory case relating to when the Patent Owner is
17 permitted to rely on a presumption that their product has a nexus to the
18 claims that we're looking at.

19 And what's required to get that presumption of nexus is that you
20 have evidence that ties your product to the claims that shows your product is
21 practicing the claims. So here, the Patent Owner has relied on their product,
22 the AS-20 controller, as evidence.

23 JUDGE GROSSMAN: Could you point out what slide you're on?

24 MS. REICHEL: Yes, this is Slide 50, Your Honor.

25 JUDGE GROSSMAN: Okay. Thank you. All right. Good. I was
26 focused on the timer, I lost track of the slide.

1 MS. REICHEL: So has the Patent Owner done enough to show
2 that their product actually embodies the claimed feature such that they'd be
3 entitled to a presumption of nexus? Turning to Slide 51, we have here the
4 evidence that Patent Owner cited for this proposition.

5 So at the Patent Owner response on page 68, we can see the two
6 citations that Patent Owner provided. One is the '847 Patent, Exhibit 1001.
7 This patent does not reference the AS-20 controller. So citing their patents
8 alone is not sufficient to create a presumption that their product embodies
9 that patent. They also cite Exhibit 2037, that's the Pollock Declaration, their
10 expert, at paragraphs 65 to 66.

11 If you go look at those paragraphs, you will also not find any
12 analysis from Mr. Pollock to support a conclusion that the AS-20 practices
13 any claim of the '847 Patent. In fact, we asked Mr. Pollock at his deposition
14 whether he had conducted any analysis to determine whether the AS-20
15 controller practiced any claim of the '847 Patent or whether Anthony's
16 products practiced any claim of the '847 Patent.

17 On Slide 52, we have his testimony where I asked him, so you
18 haven't reached any opinions about whether any specific products meet any
19 of the limitations of the claims in the '181 or '847 Patents? His response, no,
20 I wasn't asked to do that. That's page 67 of his deposition, Exhibit 1062,
21 lines 17 to 25.

22 So we submit, Your Honors, that there is zero evidence in the
23 record from which we could conclude that the AS-20 practices any of the
24 claims. And thus, there's no entitlement to a presumption of nexus for
25 ControlTec's own product. Now --

26 JUDGE DANIELS: Ms. Reichel.

1 MS. REICHEL: Yes?

2 JUDGE DANIELS: So there's no evidence that these devices are
3 -- that these display cases are sold under the auspices of the patents that are
4 at issue here.

5 MS. REICHEL: Patent Owner has not cited that evidence, and it's
6 their burden to do that. Our expert did provide a discussion of one of the
7 documents which relates to that installation in the Dan's Grocery Store,
8 which is Exhibit 2030. And in fact, that document undercuts any conclusion
9 that the AS-20 is practicing the invention.

10 And I'll turn to that now. It's Slide 57. So if we take a look at
11 Slide 57, this is a document that Patent Owner pointed to as evidence of
12 industry praise and adoption, not as evidence that their product is practicing
13 the patent. But here, what we have is a situation where a food store -- a
14 grocery store had no anti-sweat controllers.

15 That was the baseline against -- we were measuring. So we're not
16 looking at one type of control mechanism that already existed. We're
17 looking at a situation where you have no anti-sweat controllers.

18 And we're adding the AS-20. And if you take a look at the
19 description that we have here on the slide of how that AS-20 setup was
20 configured, what we see is that the anti-sweat heater is going to be
21 monitoring or controlling the duty cycle of the heaters by monitoring stored
22 dew point temperature and glass temperature, whereas the claims require us
23 to monitor the frame temperature and not the glass.

24 And another point I'll make here is that the discussion goes on to
25 say, the heaters will turn on when the glass temperature falls below the dew
26 point temperature. And I apologize, my highlight didn't quite extend far

1 enough there to capture the language falls below the dew point temperature.
2 So this is not describing anticipation of condensation by turning on the
3 heaters when we are still above the dew point.

4 This document is talking about the ControlTec AS-20 turning on
5 after we have already fallen below the dew point temperature. So Your
6 Honor, we would submit that even this document undercuts that presumption
7 of nexus tied to the AS-20 controller. If I --

8 JUDGE GROSSMAN: When you're talking about the AS
9 controller --

10 MS. REICHEL: Yes.

11 JUDGE GROSSMAN: -- is that a part that the Petitioner makes,
12 or is it a part that the Petitioner formerly bought from the Patent Owner? Or
13 is there a different supplier or is it just a market for that controller onto
14 itself?

15 MS. REICHEL: Yes. So I can tell that the kind of discussion of
16 the history of the parties is of interest. So I'll turn to that next. So as Your
17 Honors are well aware, having sat through many of these, there's two sides
18 to every story. There is a history between the parties.

19 I now have Slide 60 up on the screen. We submit that if you
20 review what we've submitted as Exhibit 1071, this is our opposition to a
21 motion for a preliminary injunction that was filed as part of these previous
22 cases. It lays out Anthony's version of events here. And if you read through
23 this exhibit, you'll see what happened was the parties -- Anthony already had
24 a product on the market.

25 A predecessor company to ControlTec came to Anthony and asked
26 them to sign an NDA so they could provide features about their product,

1 which was called the Door Miser. Anthony declined to purchase that
2 product and continued to sell the product that they were already selling prior
3 to this back and forth. And the ControlTec predecessor filed a lawsuit
4 claiming breach of the NDA, breach of trade secret misappropriation.

5 It was not actually a patent infringement case as I saw referenced
6 on one of the Patent Owner slides. But there were various causes of action
7 there.

8 As part of the settlement of that case, Anthony agreed to have this
9 co-development project with Patent Owner to develop a product which is
10 -- became known as the AS-20. And as long as ControlTec's predecessor
11 could provide that product on commercially reasonable terms in a timely
12 fashion and it worked in an efficient way and the pricing was appropriate,
13 consistent with the market, we would buy products from ControlTec's
14 predecessor, we would buy the AS-20.

15 What happened -- again, if you read Exhibit 1071 -- the product
16 was late. It didn't work. And even once it was delivered, the most
17 significant issue was that the pricing was outrageous relative to the other
18 products that were already available on the market, similar products, similar
19 offerings, similar capability, similar efficacy, similar level of control.

20 Essentially, Anthony had other options already on the market. And
21 so Anthony terminated that co-development agreement based on this term
22 that they were not providing competitive pricing, which was a requirement
23 of the contract. And so we had the Altech control product already as part of
24 our engineering system available to us as well as an Emerson part.

25 Both of those are referenced on page 6 of Exhibit 1071. And so
26 there was no real need for this product. What happened was that the parties

1 reached the settlement. And just like you may be familiar, settlement
2 agreements in the patent litigation context are not given the same level of
3 persuasiveness as arm's length licensing agreement because there are so
4 many factors in play when you're settling a dispute.

5 And so this co-development agreement, we can't forget, was part
6 of a settlement to resolve a dispute. Then it led to another dispute, of course,
7 where after we terminated, based on the lack of a competitive pricing for
8 these products, we again faced a litigation where we were being alleged to
9 have improperly terminated the contract.

10 We, of course, disagreed. That litigation also settled with the
11 mutual release. And so the parties moved on from there and followed their
12 separate paths until we arrived back here at this litigation.

13 JUDGE BUI: Do you have a comparable product in the market
14 right now?

15 MS. REICHEL: So we have various products in the market, and I
16 have some of these on Slide 56. So in terms of Anthony's products, if you
17 look at Exhibit 1067 at page 83, we had numerous other options that we
18 were selling before this alleged copying took place in 2018.

19 And one thing I do want to point out, because I find it curious, the
20 Bunch declaration that we heard about that ties to this market share
21 information that they've given us, Exhibit 2024, they submitted this
22 declaration from Bunch saying that ControlTec and Anthony together were
23 90 percent of the market for the last 20 years. But for most of that time,
24 there's no allegation at all that Anthony was using the '847 Patent.

25 So what Bunch is actually attesting to, if we credit his assertion, is
26 that Anthony was successful without using any element of the '847 Patent.

1 Most of those 20 years, there is zero allegation that we were using their
2 patent. And again, you can see some of those products that were available in
3 that time period in Exhibit 1067, page 83.

4 I also have on this slide numerous other exhibits. Exhibit 1021 is
5 the documentation for the Altech controller that has been available since
6 2004 and utilized by Anthony and others in the market. There's an Emerson
7 sensor, one variant of it can be found at Exhibit 1064. There is another
8 Emerson product that was referenced in the briefing, we were just
9 discussing, Hussmann products, Tyler products.

10 So this really is a saturated market where there are a lot of different
11 people providing different ways of doing this. Because as we heard from
12 Patent Owner's counsel, the patent is about one very specific way of doing
13 this anti-sweat control. And we might have a disagreement about exactly
14 what the claims require. But there's three variables.

15 There's a requirement that you anticipate condensation. And there
16 are numerous other ways of doing this type of condensation control in the
17 marketplace. So I do want to talk through the other evidence that they've
18 presented.

19 JUDGE BUI: May I inject for a minute? If I recall correctly in the
20 first case, in IPR 00559, I don't recall seeing evidence of secondary
21 consideration. Was that made in that case? And why is the case -- why is
22 that issue being brought up here in this case?

23 MS. REICHEL: That's correct, Your Honor. And as far as why
24 it's being brought up here, I think you'd have to ask Patent Owner's counsel
25 that question because they are the ones who raised it. And we have rebutted
26 what they've raised as is the proper course of events. Again, typical of these

1 IPR proceedings. So they presented their evidence; we've rebutted it.

2 So I do just want to flag some additional pieces of evidence in the
3 record on Slide 59. We have here Exhibit 2034. This is an email that ties
4 into this co-development agreement that we were talking about before. So
5 this was an email in the 2004 time period between ControlTec -- someone
6 from ControlTec and someone from Anthony, where Anthony was providing
7 the information about the dew point sensing that already existed in the
8 marketplace in the 2004 time period.

9 So Anthony was the one telling ControlTec's predecessor how to
10 do this. It's already known to do dew point sensing you need three sensors.
11 Here's what you need to do. We're concerned though that if you change
12 your approach, you're going to not meet the timeline.

13 This product is not going to come out on time. So again, there's no
14 evidence of copying here. What we see is the opposite. Anthony was
15 already very familiar with this concept.

16 I do want to talk about the DOE notice because I think there's some
17 questions there. Turning to Slide 61. The issue that led to this notice, there
18 were two things, first, Anthony was selling doors without any kind of anti-
19 sweat control because its customers were requesting them to do so. So this
20 is not a case where we had an anti-sweat controller that didn't work well.

21 This is a case where we were selling doors without any anti-sweat
22 controller. Or there were some instances where there were issues with the
23 door construction itself, where no matter whether there was an anti-sweat
24 controller, the door was not compliant.

25 So there was nothing in the DOE notice that said that our method
26 of anti-sweat control was the problem. And any suggestion to the contrary is

1 simply not supported by what we find in Exhibit 2027.

2 To that point, if we turn to Slide 62, I have here on the left some of
3 the discussion from the Patent Owner response where Patent Owner said the
4 DOE mandated that Anthony modify a basic -- another quoting from the
5 DOE notice. But in their quote they add this language, basic -- they put in
6 brackets -- anti-sweat controller model to suggest that we had to change our
7 anti-sweat controller to comply with the DOE notice.

8 In fact, that is not what the DOE notice says. The DOE notice
9 says, first of all, that the basic model in that document means door. It does
10 not mean anti-sweat controller. That's explicitly defined in the document to
11 refer to a door. And then there was no mandate to change those doors.
12 There was an option to modify the doors to bring them into compliance.
13 Again, this is not evidence that we had any issue with the mechanism we
14 were using for anti-sweat control.

15 JUDGE DANIELS: Ms. Reichel, just out of curiosity --

16 MS. REICHEL: Yes.

17 JUDGE DANIELS: What was the problem -- do you know what
18 the problem with the doors was? Apart from the anti-sweat control, were
19 they not insulated enough or --

20 MS. REICHEL: Yes, Your Honor. There's some discussion of
21 that in the notice. But essentially, there was a misunderstanding of how to
22 calculate the efficiency of the doors, for example, the insulation. And so
23 Anthony was doing the calculation differently. And they were arriving at a
24 number that they thought was compliant, but it was in fact not compliant due
25 to that calculation error.

26 JUDGE DANIELS: Okay. Thank you.

1 MS. REICHEL: I think I've largely addressed the evidence. I'm
2 happy to answer any questions. But I did want to just give a little bit of time
3 for Mr. Darby to respond on the other issues.

4 MR. DARBY: Thank you.

5 MS. REICHEL: All right. Thank you, Your Honors.

6 JUDGE GROSSMAN: The clock has us down to 33 seconds. But
7 we'll give you a couple more minutes to -- because of all the extensive
8 questions and some of the clock keeper's problems in keeping it accurate.
9 So we'll give you a few more minutes.

10 MR. DARBY: I believe they call it stoppage time in soccer terms,
11 Your Honor.

12 JUDGE GROSSMAN: The sweat.

13 JUDGE DANIELS: I needed a water break.

14 JUDGE GROSSMAN: You can begin whenever you're ready.

15 MR. DARBY: Oh, okay. Excellent. And I'll be brief. The first
16 thing I wanted to say, Your Honor, was to -- Judge Grossman, specifically,
17 you had asked about some specific pin citations in the record relating HVAC
18 and the principles at issue in the case. I wanted to give you more specific
19 citations on that.

20 So again, this is Dr. Henze's supplemental declaration, Exhibit
21 1061. And I think our best paragraphs are 19 and 26 through 27. I also
22 wanted to just quickly point out on our Slide 46, this is testimony from Mr.
23 Pollock, who is saying effectively the same thing, that he has HVAC
24 experience regarding building systems and that experience is absolutely one
25 of the reasons why he thinks he can opine in this case.

26 And so I think the experts have actually agreed on that particular

1 issue, which is important to point out. I think another thing to point out is
2 the Kyocera case, just to clarify there. There was no question -- there was
3 no dispute before the Court about what the ordinary level of skill should be
4 or whether the expert qualified under it.

5 Those things weren't contested before the Federal Circuit. The
6 Federal Circuit was actually addressing a narrow question. If you find that
7 an expert is not a skilled artisan, can you rely on their testimony as being
8 from the perspective of a skilled artisan? That's all the case was addressing,
9 not the factual issues.

10 And so when it comes to the facts, what we're supposed to be
11 looking at, the case law tells us you can look at the environmental designs
12 case on our page 17 that summarizes some of the factors, page 17 of our
13 reply that is. We're supposed to look at the problem solving the art and the
14 prior art solutions to those problems.

15 Condensation control, that's what -- if you look at the Carter, for
16 example, condensation control, the King reference, in the automotive
17 context, condensation control, the various applications, the '847 Patent is
18 talking about in its background discussion, condensation control, right? And
19 those are the things that we're supposed to look at in a particular case when
20 we're looking at the facts at issue to determine what the appropriate scope of
21 the skill level is.

22 A couple of other notes, the Jet Air case, Judge Grossman, you had
23 asked if there was a case discussing Kyocera kind of grappling with that.
24 The Jet Air case, we cited this on page 16 in the reply. It's a District Court
25 case, but it is addressing Kyocera.

26 And even in the context of Kyocera is saying that the improper

1 cramping or constraining of the level of skill there was something that that
2 particular District Court rejected. And we submit as appropriate here. The
3 last thing I'll say, the Centricut case -- Judge Daniels, you asked about this
4 one.

5 And I think you were accurately characterizing it to the extent that
6 it was a Patent Owner trying to make out their infringement case, but they
7 didn't have expert testimony. And so the question there is, did they need
8 expert testimony to make out their infringement case under the doctrine of
9 equivalence?

10 And they're in that -- on the particular facts of that case where the
11 Patent Owner had no expert at all and the defendant did was in that
12 particular scenario where a technology was complex, did you need expert
13 testimony? The Court said yes. Different set of facts here. In fact, one of
14 the things that the Court said in that Centricut case is that in many patent
15 cases, no expert testimony is needed.

16 And so the last thing I'll say is that even if you were to define a
17 very narrow, cramped, tight, constrained level of skill, which we say is
18 wrong, and even if you were to find that Dr. Henze is not a skilled artisan, so
19 you don't rely on his testimony, we'd submit this is one of the simple cases,
20 the straightforward technology. I think it's pretty plain what the documents
21 say.

22 And so here, I would say even without expert testimony, that these
23 claims have been shown to be obvious. Because there's extensive record
24 evidence, even outside the expert testimony about why the very basic high
25 level anticipate condensation, turn on a heater, turn it off. That's all so very
26 basic that you could find those claims obvious even without expert

1 testimony. With that --

2 JUDGE DANIELS: So in the context of that Centricut case, which
3 is kind of weirdly interesting here because it sort of supports both your
4 positions, I think. From your perspective, it would make sense that in this
5 claim, for instance, Claims 1 -- all the independent claims are talking about
6 the sort of critical -- one of the critical limitations is the condensation. And
7 from a condensation and activating the systems, both of these experts would
8 be fine, right?

9 MR. DARBY: Absolutely.

10 JUDGE DANIELS: Okay. Thank you.

11 MR. DARBY: With that, hearing no further questions. And in the
12 interest of time, I'll step down. Thank you.

13 JUDGE DANIELS: Thank you.

14 JUDGE GROSSMAN: So we've got I think --

15 MR. DARBY: Thank you.

16 JUDGE GROSSMAN: No problem. Where the Patent Owner's
17 rebuttal was 8:36, but we gave the Petitioner about an extra five minutes. So
18 we'll add an extra five to your time as well.

19 MR. ZIEMIAN: All right.

20 JUDGE BUI: Before you go forward, can you give us a citation on
21 IPR on the Axonics?

22 MR. ZIEMIAN: Yes. I do have that. It's IPR2020-715. And this
23 is found on page 21 -- page 17 of Paper 21 as well. You can find the cite
24 there. But it's IPR2020-001 -- 715. It's A-X-O-N-I-C-S.

25 JUDGE BUI: Yup.

26 JUDGE GROSSMAN: Now, begin when you're ready.

1 MR. ZIEMIAN: Yeah. And just to follow up on what Judge
2 Daniels was saying. Yes, both experts have experience with condensation
3 controls. We're not disputing that. But like they did in Axonics, they look
4 to the preamble of the claim, they look to the summary of invention, they
5 look to the field of invention. And in this case, that specifically recites
6 refrigerated display cases.

7 And refrigerated display cases do have certain aspects that are
8 unique to them. Mr. Pollock, in his declaration, discusses them. But just
9 logically, if you think about it, the characteristics of a freezer, like in Carter,
10 that has no glass front, that does not have the frame that is common to
11 refrigerated display cases, the thermal characteristics are different.

12 And they're going to heat and cool differently. And there's
13 different concerns. One of those being, you really do have to have tighter
14 controls to control these types of systems.

15 Now, Petitioner talked about how, oh, there are plenty of other
16 systems on the market and so they didn't have to use our system. Well, that's
17 correct and that's why there wasn't a suit earlier. In 2017 though, there was a
18 DOE regulation passed which put tighter controls on the way condensation
19 was prevented in terms of the energy efficiency of it. And that's why they
20 turned to our system. And in fact, you can see in the latter pages of Paper 21
21 --

22 JUDGE DANIELS: If I can interrupt you there. They said they
23 turned to your system because of this new energy conservation regulation.

24 MR. ZIEMIAN: Yes.

25 JUDGE DANIELS: Yet the claim doesn't have anything to do
26 with energy conservation. It has to do with turning on and off to reduce

1 condensation. If I understand the -- was it the Department of Energy
2 regulation?

3 MR. ZIEMIAN: Yes.

4 JUDGE DANIELS: They were trying to regulate the use or
5 conservation of energy. And yet that's not what the claim was after. The
6 claim was merely trying to control condensation. So is there a real nexus
7 between the compliance with the regulation and what's claimed as the
8 patentable invention?

9 MR. ZIEMIAN: Yes. Because you can have a dumb system that
10 turns on when the freezer turns on and heats the frame. Or you can have a
11 more smart system, like Bunch, that turns on periodically that heats the
12 frame. But none of those systems are going to be energy efficient enough to
13 meet the DOE regulations.

14 And so the way you have to do it is you have to pay attention to the
15 dew point. You have to monitor the frame temperature, the ambient
16 temperature, and the relative humidity, which the ambient temperature and
17 the relative humidity are used together to calculate dew point.

18 So the reason why the anticipation of condensation is important for
19 deactivation is because you have to shut off. Otherwise, you're going to use
20 too much energy. And that's why the invention became valuable. And that's
21 why it wasn't an issue earlier.

22 They contracted with us for some period of time. They used it and
23 they're, oh, it's too expensive. And so they could use something else because
24 they didn't have to meet these DOE regulations. And they were so interested
25 in this -- and you can see this in the latter pages of Paper 21 -- they filed
26 their own patent 11,160,393.

1 And the claims are lined up between the two patents. You can see
2 there's striking similarity between the two. And that was filed in 2019, by
3 the way. So I think that's an important consideration. I just want to pose
4 this to the Board. If I give you ambient temperature, and I give you frame
5 temperature, and then you shut off the frame when it reaches ambient
6 temperature, are you shutting off in anticipation of condensation? Are you
7 even thinking about anticipation of condensation? I posit no.

8 JUDGE BUI: Is that a fair question though? Because usually, the
9 frame temperature is the major temperature at the frame but inside part of a
10 refrigerated system. Whereas, ambient temperature is outside of the
11 refrigerator system, right? Technically, it would never get to that point.

12 MR. ZIEMIAN: I think it is a fair question because Carter shuts
13 off at ambient temperature.

14 JUDGE BUI: Well, the whole point, the whole contention here is
15 it would never get to the point where it would meet -- reaches the ambient
16 temperature, even if those ambient temperature is inside the supermarket or
17 like you say, we're not going to have a situation where the refrigerator
18 system is stationed outside in the humidity of Washington D.C., right?

19 So even the ambient temperature inside the supermarket is
20 different from the ambient temperature in -- outside, in typical weather. But
21 even that, they're not interested in measuring the temperature of the ambient
22 temperature. They're measuring temperature of the frame door inside of the
23 refrigerator system, which is very different.

24 MR. ZIEMIAN: I may have been misunderstood. When I said
25 ambient temperature, I meant ambient temperature --

26 JUDGE BUI: Inside the --

1 MR. ZIEMIAN: -- directly outside of the refrigerator.

2 JUDGE BUI: Right.

3 MR. ZIEMIAN: Right. So the way Carter works is it deactivates
4 when the frame temperature is the ambient temperature outside of -- that's
5 true. I don't think Petitioner would disagree with that.

6 JUDGE BUI: I'll take a look at it. Sorry about it if I
7 misunderstood the context. What's an ambient temperature? Because there's
8 a distinction between ambient temperature inside a refrigerator system and
9 ambient temperature outside of that, which is inside the supermarket, right?

10 MR. ZIEMIAN: Yes. Ambient temperature in the supermarket.
11 Right. Carter and ControlTec system, the AS-20, which by the way, Exhibit
12 2005 is images of the AS-20. And you can see it's been marked with the
13 '181 Patent.

14 So as far as establishing a nexus that the system actually practices
15 the patents in question, at the very least, the AS-20 system in Exhibit 2005 is
16 marked with the '181 Patent number and has been marked for quite some
17 time. But going back to this, Carter deactivates when the frame temperature
18 equals the temperature of the air in the supermarket.

19 And that's what I mean by ambient temperature, okay? So if I give
20 you the frame temperature and I give you the ambient temperature in the
21 supermarket market, are you deactivating responsive to the three variables?
22 Are you deactivating in anticipation of condensation?

23 I say you're not. Because there's no consideration of dew point.
24 There's no consideration of relative humidity. And without those, you're
25 really not thinking about condensation. You're just thinking about a
26 temperature. And you're going to these prior art systems that were dumb.

1 And yeah, if you're going to say, if I turn on a refrigerator and I
2 turn on the heater when I turn it on, that's anticipation of condensation, fine.
3 But it's still not responsive to the relative humidity. And I think that --

4 JUDGE DANIELS: And Mr. Ziemian, you're saying that
5 basically, the Carter reference is still just a dumb cycling system that shuts
6 off at a specific variable and is not balancing these three different variables
7 as your patent is.

8 MR. ZIEMIAN: The deactivation, yes, Your Honor. Specifically,
9 the deactivation. I'm not contesting the activation, just the deactivation.

10 JUDGE BUI: I have one last question before you go. And that is
11 in the first IPR, all the claim being challenged are the claims -- system
12 claims. So hypothetically, if those system claim were to be found
13 unpatenable, wouldn't these method claims fail the same way?

14 MR. ZIEMIAN: I think all the claims need --

15 JUDGE BUI: It's a hypothetical. We're not saying we've reached
16 conclusion on the first IPR yet.

17 MR. ZIEMIAN: No. I think all the claims need to be considered
18 separately and individually. And in fact, even Petitioner has pointed to the
19 fact that there are some differences between the independent claims in the
20 method patent itself. And that Claim 1 and 8 really affirmatively recite the
21 deactivation, which is an important point. But the later Claim 14 does not
22 recite that.

23 And so I really do think each claim needs to be individually
24 considered. And if you take into account also that in the apparatus claims
25 from the '181 Patent, they take into account that they're incorporating means
26 plus function language. And so that might be interpreted differently by the

1 Board than that --

2 JUDGE BUI: Limited perhaps, limited by the -- whatever the
3 corresponding mechanism or means described in the specification.

4 MR. ZIEMIAN: Yes.

5 JUDGE BUI: But nevertheless, in general, the method of the
6 corresponding method claim are usually broader than the system claims. So
7 if the system claim used to be struck down, they use a presumption that the
8 method claim will also fail because the same functionalities are being
9 achieved in the corresponding method claims.

10 MR. ZIEMIAN: I see your point, but I think each claim has to be
11 considered individually. So thank you.

12 JUDGE BUI: Thank you.

13 MR. ZIEMIAN: Any other questions, Judge Grossman or Judge
14 Daniels?

15 JUDGE GROSSMAN: No. Thank you.

16 JUDGE DANIELS: I have no further questions. Thank you.

17 MR. ZIEMIAN: Okay. Great. Thank you very much.

18 JUDGE GROSSMAN: Okay. Thank you. All right. With that,
19 thank you very much for your comments. They are helpful to us. And we'll
20 terminate the hearing and go off the record.

21 (Whereupon, the above-entitled matter went off the record at 12:34
22 p.m.)

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