

571-272-7822

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARKEMA FRANCE,
Petitioner,

v.

HONEYWELL INTERNATIONAL, INC.,
Patent Owner.

Case IPR2015-00915
Case IPR2015-00916
Case IPR2015-00917
Patent 8,710,282 B2

Held: July 18, 2016

BEFORE: JO-ANNE M. KOKOSKI, JON B. TORNQUIST, and
ROBERT A. POLLOCK, Administrative Patent Judges.

The above-entitled matter came on for hearing on Monday, July 18, 2016, commencing at 1:01 p.m., at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

IPR2015-00915, IPR2015-00916, IPR2015-00917
Patent 8,710,282 B2

APPEARANCES:

ON BEHALF OF THE PETITIONER:

JON H. BEAUPRÉ, ESQ.
Brinks Gilson & Lione
524 South Main Street, Suite 200
Ann Arbor, Michigan 48104-2921

and

ALLEN R. BAUM, ESQ.
Brinks Gilson & Lione
4721 Emperor Boulevard, Suite 220
Durham, North Carolina 27703-8580

ON BEHALF OF PATENT OWNER:

BRUCE J. ROSE, ESQ.
S. BENJAMIN PLEUNE, ESQ.
CHRISTOPHER T.L. DOUGLAS, ESQ.
Alston & Bird LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, North Carolina 28280-4000

1 P R O C E E D I N G S

2 - - - - -

3 JUDGE KOKOSKI: Please be seated.

4 Good afternoon. We will now hear argument in case
5 numbers IPR2015-00915, IPR2015-00916, and IPR2015-00917,
6 Arkema France vs. Honeywell International, Incorporated,
7 concerning U.S. Patent Number 8,710,282.

8 At this time, we would like the counsel to state their
9 appearances for the record. Please speak into the microphone,
10 and also let us know who you have with you, beginning with
11 Petitioner, please.

12 MR. BEAUPRÉ: Good afternoon, Your Honors. Jon
13 Beaupré from Brinks Gilson & Lione on behalf of Arkema
14 France.

15 MR. BAUM: Allen Baum, Your Honor, from Brinks
16 Gilson, on behalf of Petitioners, Arkema France.

17 JUDGE KOKOSKI: Thank you.
18 Patent Owner?

19 MR. ROSE: Good afternoon, Your Honor. Bruce
20 Rose of Alston & Bird here for the Patent Owner, Honeywell
21 International, Inc. With me are my colleagues Christopher
22 Douglas and Ben Pleune, also of Alston & Bird. We also with us
23 have a corporate representative, Bruce Bradford, who is
24 intellectual property counsel at Honeywell.

25 JUDGE KOKOSKI: Okay, thank you.

1 Before we begin, I would like to remind the parties that
2 this hearing is open to the public and the full transcript will be
3 made part of the record. Also, when you refer to an exhibit on
4 the screen, state the slide or page number to which you are
5 referring for the record. This is important for clarity of the
6 transcript.

7 In order to keep this hearing focused on the merits of
8 the case, we ask counsel not to interrupt the other side to make
9 objections. Any objections can be discussed during response and
10 rebuttal time.

11 Petitioner bears the burden of proof that the claims at
12 issue are unpatentable and may proceed first. You have a total of
13 90 minutes and may reserve some of that time for rebuttal. How
14 much time would you like to reserve, if any?

15 MR. BAUM: Thirty minutes, please.

16 JUDGE KOKOSKI: Okay. Would you like a warning
17 when you reach the 30-minute point?

18 MR. BAUM: Yes, please.

19 JUDGE KOKOSKI: Okay. You can proceed when
20 you're ready.

21 MR. BAUM: Before we get started, Your Honors, I
22 have hard copies of the demonstrative exhibits. Would that be
23 helpful?

24 JUDGE TORNQUIST sure.

25 MR. BEAUPRÉ: May I approach, Your Honors?

26 JUDGE KOKOSKI: Sure.

1 MR. BEAUPRÉ: Thank you.

2 MR. BAUM: Good afternoon, Your Honors. May it
3 please the Board. I'm Allen Baum for Petitioner, and with me are
4 my colleagues, John Beaupré, who is lead counsel, and Allyn
5 Elliott, also for Petitioner, from Brinks Gilson. We also have
6 backup counsel, Mark Feldstein, from the Finnegan firm as well.
7 Also with us are Anne-Sophie Schaefer, head of intellectual
8 property for Arkema France, and Lisa Brody, deputy general
9 counsel for Arkema, Inc.

10 Mr. Beaupré and I will both be speaking for Petitioner.
11 I will speak mostly to issues of claim construction and
12 obviousness. I will explain how spent KOH and by-product salts,
13 such as KO, are separately described and claimed in the '282
14 patent and how Patent Owner's claim construction is contrary to
15 the intrinsic record and unreasonably narrows the scope of the
16 claims.

17 I'll also explain that Patent Owner does not dispute that
18 recovering spent DHA/KOH is present in the cited art under
19 Petitioner's claim construction and that even under Patent
20 Owner's construction, the claims are obvious. Also, a POSITA
21 would look beyond Smith to address KOH and KF. Both Sedat
22 and Masayuki/Harrison provide a POSITA a way to recover spent
23 KOH and convert KF back into usable, reactive KOH.

24 Mr. Beaupré will speak to issues of antedating,
25 including alleged actual reduction to practice and lack of
26 diligence. He will explain that the alleged invention was never

1 actually reduced to practice because Patent Owner had failed to
2 determine that the invention would work for its intended purpose
3 and that Patent Owner did not meet the high burden of diligence
4 required to antedate as a result of unaccounted periods of
5 inactivity.

6 So, let's jump right into slide 3, and this is claim 21.
7 Spent KOH and recovering spent KOH are the only elements
8 Patent Owner relies upon for validity, and it is required by all the
9 claims. Now, let's look at what they're doing to the definition of
10 spent KOH in trying to save the claims.

11 What we have done here is insert their definition for
12 spent KOH into claim 21, and what you see is that Patent Owner
13 is attempting to read a limitation, by-product salts, into the claims
14 with their definition of spent KOH. This is similar what they
15 tried to do in Patent Owner's preliminary response when they
16 tried to import the term dissolved organics into the claims.

17 Based on the intrinsic record that we will look at next,
18 it is clearly not the broadest reasonable construction, and spent
19 KOH should be read instead to interpret -- excuse me, should be
20 interpreted instead to mean unreacted DHA or KOH remaining
21 after the dehydrohalogenation reaction, as set forth in the petition.

22 Now, slide 5. The '282 patented claims, spent KOH,
23 the independent claims, and then in the dependent claims, it
24 states, "further comprises by-product salts of the
25 dehydrohalogenating agent," that's claim 16; and claims 33 and
26 34 state, "wherein the reaction stream further comprises KF." So,

1 under the doctrine of claim differentiation, Patent Owner's
2 construction fails.

3 There are also several portions of the specification
4 which specifically describe spent DHA and by-product salts as
5 separate components of a reaction stream.

6 Now, we're not arguing that KOH and KF can be
7 separated in the reactor. We agree that KOH and KF co-exist in
8 solution as separate potassium fluoride and hydroxide ions;
9 however, the specification and claims make it clear that spent
10 KOH and by-product salts are two different elements in the
11 reaction. The product stream in Patent Owner's construction is
12 contrary to the extrinsic record.

13 So, let's cut to the chase and talk about why Patent
14 Owner is doing what it is with this construction and importing the
15 term "KF" or "spent by-product salts" into claim 1. They're doing
16 this so they can avoid the teachings of Sedat, which include
17 various recovering steps, and what Patent Owner is arguing is that
18 for it to be spent KOH, you have to have both KF and KOH
19 present, and they argue, by the time we get to the KF conversion
20 reactor, there's no more KF, and, therefore, you can't be
21 recovering KF because -- you can't be recovering spent KOH
22 because there is no spent KOH and KF required. There is no
23 unreacted KOH and KF present by the time you get to reactor 6.

24 So, that's their construction, and they're doing this so
25 that we can't look at these other separations that are occurring in

1 Sedat to find the patent invalid. So, that's why they're doing what
2 they're doing.

3 Now, I know this is -- it took us a little while to figure
4 out what they were arguing. If you have any questions about this,
5 I'm happy to answer it, but for the purposes of today's discussion,
6 to streamline the discussion, we've decided that we're not going to
7 dispute Patent Owner's constructions, except for the definition of
8 "spent KOH."

9 Now Mr. Beaupré will take over the discussion of the
10 antedating issues raised by Patent Owner.

11 MR. BEAUPRÉ: Good afternoon, Your Honors. My
12 name is Jon Beaupré, and I will be talking about antedating and
13 priority dates. So, as you can see from slide number 13, Patent
14 Owner has failed to antedate Sedat or Smith, and first, Patent
15 Owner has failed to show actual reduction to practice because it
16 failed to show that the invention worked -- that it determined that
17 the invention would work for its intended purpose, both with
18 respect to the claim -- with respect to the intended purpose of
19 recovering spent KOH and with respect to the intended purpose
20 of recovering spent -- recovering and recycling spent KOH, and it
21 also failed to perform the claim process.

22 Second, the second main point is Patent Owner failed
23 to show diligence of the claims, both during the three-month
24 period for Sedat and the 17-month period for Smith.

25 And then, finally, even if Patent Owner did show an
26 earlier invention date, it lost it by abandoning, suppressing, or

1 concealing the invention, the purported invention, for more than
2 two years and having the patent application on hold for a good
3 portion or most of that time.

4 So, turning to slide number 14, this -- this graph of
5 circles is intended to show just graphically where we stand with
6 respect to allegations of alleged actual reduction to practice. The
7 blue circle in the middle, those are the only claims that are
8 allegedly actually reduced to practice, and so with respect to the
9 orange and the green circles, all of those claims, Patent Owner
10 must show diligence regardless of what the Court finds on actual
11 reduction to practice.

12 And then slide 15 just orients us, when we're talking
13 about actual reduction to practice, we'll be talking about claims
14 21 and 36, because those are the only independent claims that
15 were allegedly reduced to practice, actually reduced to practice,
16 and they both include the term "recovering spent KOH," shown in
17 the blue text. So, I will primarily focus on that term.

18 So, on slide 16, we see the three elements that are
19 required to show actual reduction to practice, and I'd like to first
20 talk about this second element, determination that the invention
21 would work for its intended purpose.

22 Now, the specification makes clear that the -- the
23 specification of the '282 patent makes clear that the intended
24 purpose is recovering and recycling spent KOH. This is also
25 supported by the inventor's statements in Patent Owner's
26 documents and in expert testimony. Patent Owner failed to

1 determine that its invention would work for this intended purpose
2 back at the time that it alleged actual reduction to practice.

3 So, slide 17 shows some of the case law for the element
4 of intended purpose, and the case law, especially the Federal
5 Circuit, teaches us that it's important to note that defining
6 intended purpose is different than claim construction. It's not the
7 same process.

8 In fact, in the *DSL* case, which is a Federal Circuit case
9 cited on slide 17, the Court stated that the prototype must have
10 actually worked for its intended purpose even if that intended
11 purpose is not explicitly set forth in the claims.

12 Similarly, in *Scott vs. Finney*, another Federal Circuit
13 case cited on slide 17, the Federal Circuit in that case did a
14 summary of case law on this point of intended purpose, and it
15 stated, "All of these cases share a common theme. In each case
16 the Court examined the record to discern," et cetera, "whether the
17 advance in the art represented by the invention," et cetera, "was
18 embodied by a workable device."

19 Now, what we glean from this is that when we're
20 looking at intended purpose, we're looking at the advance in the
21 art, not necessarily limited to the scope of the claims.

22 So, turning now to the '282 patent -- oh, and I'm sorry,
23 there's one more case that I wanted to talk about before we jump
24 to the '282 patent. The *Tyco* case is a District Court case that's
25 cited in our brief and on slide 17. That is a District Court case

1 that follows the precedent and the law set forth in the Federal
2 Circuit cases of *DSL* and *Scott vs. Finney*.

3 And in the *Tyco* case, the Court looked at the patent
4 abstracts to identify the intended purpose, and there were several
5 patents -- there were four patents in those cases. So, they looked
6 at all four abstracts, and the plaintiff's patents were related to
7 medical tools or a medical tool that simultaneously would cut
8 flesh and also coagulate, and so the parties both agreed that the
9 tool could be used for cutting without coagulating, but when the
10 Court looked at the abstracts, which were cited, an ultrasonic
11 dissection and coagulation system for surgical use -- that's at page
12 360 -- it determined that the intended purpose was not just cutting
13 but cutting and coagulating, even though the claims only recited
14 cutting and not coagulating.

15 Now, the Court in the *Tyco* case also looked to some
16 extrinsic evidence, such as the party building the prototype's
17 statements in marketing materials and also expert witness
18 testimony, and that confirmed the intended purpose.

19 Now I'd like to turn to slide 18, and slides 18 through
20 20 all show quotes or blowups from the '282 patent. I'd like to
21 start with slide 18. And remember, in the *Tyco* case, the Court
22 looked first to the abstract.

23 Now, the first sentence of the abstract of the '282 patent
24 reads: "The instant invention relates, at least in part, to a method
25 increasing the cost efficiency for dehydrohalogenation production
26 of a fluorinated olefin by recovering and recycling spent

1 dehydrohalogenation agent." So, we see the first sentence of the
2 abstract states that both recovery and recycling are at least the
3 intended purpose of this invention.

4 And then we can also look to the last sentence of the
5 background, where -- after it's talked about the -- the problems in
6 existing technology, the advance in the art is, "Accordingly, more
7 efficient process is desirable for removal of spent reagent and
8 recycle of unused or regenerated reagent and/or unused organics
9 during a continuous process." And this is slide 19.

10 So, again, we're looking at the intended purpose and the
11 specification, and we see over and over again -- there's more
12 examples in slides 19 and 20 that I won't go through -- but they
13 reiterate that this intended purpose includes both recovering and
14 recycling.

15 And one note, just looking at slide 19, the statement in
16 column 2, lines 41 through 43, this is just like in the *Monsanto*
17 case, cited on page 14 of Petitioner's reply, where the Court
18 looked to the statement of the invention to determine the intended
19 purpose.

20 So, as I mentioned earlier, the *Tyco* case looked at
21 extrinsic evidence. Now, we can do so in this case as well, and --
22 although it's not necessary, but it's -- I'll go through the -- I'll go
23 through the process so we can see. So, in May of 2009 -- or, I'm
24 sorry, actually, the -- the internal document that I wanted to talk
25 about now is Exhibit 2022, which actually is a document that's
26 sealed, and so what I was -- what I was thinking we could do is

1 either I'll point Your Honors to a particular cite, and I won't read
2 aloud that cite, but we'll just talk about it, and I have copies if that
3 would be helpful.

4 JUDGE KOKOSKI: Sure, we'll take them.

5 MR. BEAUPRÉ: Thank you.

6 We're looking at page 6. So, the -- on page 6, the third
7 line from the top, I will describe the sentence, but I won't read it.
8 It starts with the word "However" and ends with "recycled KOH,"
9 and in this sentence, it is important -- and for some context, this is
10 a report written by the lead inventor for the '282 patent,
11 Dr. Bektesevic, and the reason I point Your Honors to this
12 statement is essentially the Patent Owner is indicating that the
13 process is only worth performing if one recycles.

14 So, this is corroboration that the intended purpose
15 includes recovering and recycling, and also, if the Board chooses
16 to look at extrinsic evidence, as in the *Tyco* case, then this
17 extrinsic evidence, the inventor's own statements and internal
18 documents, support the intended purpose of recovering and
19 recycling spent KOH.

20 And then also Dr. Lousenberg, he supports recycle as
21 the intended purpose as well when he testified, on page 56 of
22 1024, lines 3 through 25, about the importance of having a
23 recycle loop in a continuous process.

24 So, now that we know that the intended purpose is
25 recovering and recycling spent KOH, the next step is to look at
26 what the Patent Owner actually did. So, it -- and determine if

1 they -- if they -- if they determined that the invention would work
2 for that intended purpose of recovering and recycling spent KOH.

3 Now, this slide 21 is from a document that Honeywell
4 produced, and it's a -- it's from a slide show that the lead inventor,
5 Dr. Bektesevic, a presentation that she gave in 2009. So, to orient
6 the Board, this is approximately eight months after the alleged
7 reduction to practice, which was September of 2008, and at this
8 point in time, Dr. Bektesevic wrote that there are issues with the
9 CSTR -- that's the continuously stirred tank reactor -- namely,
10 that a large quantity of unreacted KOH is wasted.

11 And then next she says that they may be able to recycle
12 KOH, but she needs more information. And then in the last bullet
13 point, she says that they may be able -- they may use sodium
14 hydroxide instead of KOH.

15 So, this is significant because it -- as Your Honors
16 likely recall, KOH is the dehydrohalogenating agent that is set
17 forth in the claims and the primary one discussed in the '282
18 patent. Up until this point, that's what Honeywell had used in its
19 experiments, and at this point in time, eight months after they
20 allege that they've reduced to practice, they still haven't
21 determined if that's the DHA agent that they're going to be able to
22 use if they want to recycle. This is -- they're considering going
23 back to the -- to the drawing board, in other words.

24 So, also, these are the inventor's thoughts about what
25 they had done at that point in time. Looking at what the -- at
26 what the inventor and the other technicians had actually done

1 during that time, there are no allegations that Honeywell ever
2 actually recycled, ran any testing or experiments to recycle spent
3 KOH. There's one cite in Dr. Tung's declaration, Exhibit 2006, in
4 paragraph 46, and in there he cites -- he states:

5 "In January of 2009, Dr. Bektesevic and her lab
6 technicians conducted experiments, including the recycle of
7 KOH," yet there's no proof of that, there's no corroboration of that
8 in the notes. In fact, the document that Dr. Tung pointed to for
9 that -- to support that point is Exhibit 2022, pages 1 and 6, and
10 as -- this is the document that we handed up to Your Honors.

11 As you can see, there are no experiments that recycled
12 in that document; in fact, all that was done -- there were
13 calculations on how the recycling might work should Honeywell
14 choose to run experiments, theoretical calculations, and general
15 ones at that.

16 So, therefore, we know that eight months after the
17 alleged reduction to practice, in May of 2009, Patent Owner still
18 "needed more information" to determine if the patent would work
19 for its intended purpose of the invention.

20 Now, that's the -- that's the analysis, if intended
21 purpose is recovering and recycling spent KOH. Now, I'd like to
22 also walk us through -- even if the Board finds that the intended
23 purpose of the invention is just recycling or recovering spent
24 KOH rather than recovering and recycling, Patent Owner has still
25 failed to determine that the invention would work for its intended
26 purpose.

1 Now, to orient us on the legal standard, here we talked
2 about how to determine what the intended purpose is, and now
3 let's talk about what the Patent Owner needs to show to prove that
4 they've determined that it would work for the intended purpose.

5 Turning, again, to the *Tyco* case, in that case, as you
6 may recall, it was a medical device for cutting and coagulating,
7 and the party alleging actual reduction to practice had built a
8 prototype, and that prototype, it worked sometimes, but it had a
9 high incidence of hemorrhaging, and it also caused other issues,
10 such as burning, excess smoke, things that were undesirable.

11 Now, the Court looked at these issues and also looked
12 at the fact that the party alleging actual reduction to practice had
13 indicated in its notes that it was considering a redesign. It was
14 considering going back to the drawing board, just as in this case.
15 So, the Court looked at all that information and said that it did not
16 determine that the invention would work for its intended purpose.
17 In fact, the Court said that "Although the Defendant fully
18 expected that the product would eventually work properly, this is
19 not enough. The party must forth come with a 'actual
20 demonstration.'"

21 So, we see on slide 21, this is the document we looked
22 at just a moment ago, this is the presentation slide, the statement
23 by Dr. Bektsevic that she needed more information about
24 whether they could use KOH and also considering a redesign,
25 considering using a completely different DHA, those are both, as
26 in *Tyco*, supportive of the fact that Patent Owner had not

1 determined that the invention would work for its intended
2 purpose, even if that intended purpose is limited to recovering
3 spent KOH.

4 JUDGE TORNQUIST: In this case or on this
5 particular patent, is manufacturing scale part of the intended
6 purpose or do they have to show that they could manufacture
7 efficiently at scale or could it be a benchtop reaction?

8 MR. BEAUPRÉ: Well, Your Honor, I think that when
9 we look at the abstract, it states that it at least includes recovering
10 and recycling. So, the abstract does not cite -- the abstract does
11 not cite to manufacturing on a commercial level; however, that
12 is -- that is indicated throughout the patent, and it may be an
13 additional reason that the Patent Owner had not, at that point in
14 time, determined that it would work for its intended purpose.

15 However, it's not one that we need to rely on in order to
16 show that they -- that they failed. Does that answer your
17 question, Your Honor?

18 JUDGE TORNQUIST: At least for now, yes.

19 MR. BEAUPRÉ: Thank you very much.

20 Okay. So, if there are any other questions on intended
21 purpose, I'm happy to talk about them or take them at any time.
22 Please, don't feel like there's any -- you need an invitation for
23 questions, but if there aren't any at this time, I wanted to talk
24 about the next bullet point to actual reduction to practice, which
25 is bullet point (1) on slide 22, and this is construction of an
26 embodiment or a process that meets all of the limitations.

1 And we talk about this in our brief on pages 12 and 13
2 of the reply brief, in the '915 case, and then 14 and 15 of the '917
3 case; namely, where we talk about separation, and the spent KOH
4 is separated in a closed container rather than separation in a
5 stream.

6 If there are questions, I'm happy to take them, but I also
7 wanted to talk about diligence, for time purposes, if Your Honors
8 don't have any questions.

9 (No response.)

10 MR. BEAUPRÉ: Thank you.

11 So, turning now to slide 29, and this is talking about
12 diligence, Patent Owner failed to show diligence for both Sedat
13 and -- the Sedat critical period and the Smith critical period. And
14 I will focus primarily on the Sedat critical period because it
15 overlaps the -- the Sedat period is three months, and those three
16 months overlap with the Smith period. There are many gaps,
17 unexplained gaps in activity, but -- and we can talk about those
18 for a while, but I'd like to focus on the Sedat time period, and
19 many of the others are discussed in our briefs.

20 So, orienting us for relevant case law, in the *Griffith*
21 case, cited on page 16 of our reply brief, excuse me, the Federal
22 Circuit stated:

23 "Public policy favors the early disclosure of inventions
24 to prevent unreasonable delay in filing an application. For this
25 reason, a party seeking to antedate a reference through diligence

1 must show a high bar, coming forth with specific activity on
2 specific dates throughout the entirety of the critical period."

3 We see this in case law, particularly at the PTAB, and
4 so I will direct Your Honors' attention to the *Olympus vs. Perfect*
5 *Surgical* case, which is cited on page -- on slide 29, and in that
6 case the Board considered an inventor's diligence during a period
7 where -- this was a small inventor, a doctor, a surgeon, who was
8 working 80 hours a week -- 80 hours a week and performing
9 surgeries every day, teaching medical students every day, and
10 the -- the Board took his statements and said that it's not enough
11 to talk about how busy you were over a period like that. You
12 have to be more specific. You have to provide specific dates,
13 specific facts, and specific actions, so the Board can assess
14 whether or not the party was reasonably diligent.

15 And so this doesn't require that -- the Board wasn't
16 saying that -- that this doctor needed to be working 82 hours a
17 week. They were saying you need -- you need to explain, close to
18 a day-by-day basis, okay, you worked 12 hours on this day, there
19 was no time, fine. The next day, how much did you work? And
20 break it down instead of just giving us these broad statements.

21 Similarly, we see in -- in *Oracle vs. Click-To-Call*,
22 which is IPR2013-312, paper 52, in there the startup company
23 president similarly said he was working 12 hours a day, seven
24 days a week, and the Board said that that statement lacks
25 specificity in dates and in actions for the Board to assess the
26 reasonableness of the delay.

1 So, turning to the -- to slide 30, we can see a timeline
2 for the Sedat critical period. This is three months. That first
3 span, shown in red text on the left side, this -- it's listed as a
4 34-day span, but Patent Owner -- Patent Owner's slides have
5 indicated that there's a two-week span in there where the notes
6 were being finalized, and then there's some time in there where
7 in-house counsel was on vacation and so was the paralegal --
8 different vacations but at the same time -- and so we'll ignore that
9 part of the period.

10 So, this 34-day period, let's say it's 18 days for sake of
11 argument, which is -- which is what Honeywell's slide 46 says,
12 that this is 18 days, August 2nd through 19th. So, during August
13 2nd to August 19th, there was one action that happened related to
14 the '282 patent. That was sending a form letter to outside counsel
15 saying, "Please begin drafting this application."

16 This is two weeks after the patent committee met and
17 decided, okay, we want to file. We understand Honeywell --
18 Honeywell's policies are to wait two weeks to have those notes
19 finalized. Fine. Starting on August 2nd, there was nothing
20 stopping them from sending it out on that very day, but it took 18
21 days to send a one-page form letter, along with two attachments
22 that had been written months earlier, and all we know about this
23 time period is that in-house counsel indicated, "I was involved in
24 negotiations related to two technology transactions," et cetera,
25 "which occupied a significant amount of my time on a daily
26 basis."

1 We do not have a day-by-day account. We do not have
2 information on how much time these two technology transfer
3 agreements took. We do not have any information about what
4 was done on a daily basis, but looking at the form letter, it's a --
5 it's a form letter saying, "Please begin drafting." This is a
6 five-minute job that took 18 days to do, and we have no
7 explanation.

8 And when you look at -- when you see Honeywell's
9 slide on this, slide 46, it states August 2 through 19, 2010,
10 "Bradford paralegal proceeds with PC instructions." The only
11 thing that -- what this is is it's one event that took 18 days, and
12 proceeding with PC instructions, that was sending out the letter.
13 So, I want to make clear, it's not that there was any debate by
14 either side about whether there was a green light to file. Outside
15 counsel just didn't know yet. So, in and of itself, that 18-day,
16 unexplained delay, is enough to -- it's fatal for diligence during
17 the Sedat time period.

18 There is two more time periods during Sedat, a 41-day
19 span in red text, more towards the middle, and in there, it was 41
20 days for outside counsel to draft the application. All we know is
21 that the last seven days he was working on it. We don't have any
22 information on the first 34 days, other than the amount of time he
23 averaged per day, 8.7 hours, which is billable time, which is
24 similar to the *Oracle* and the *Olympus* cases, where we know,
25 okay, they were busy, we get it, but what's the day-by-day
26 activity?

1 And then, finally, this 13-day span, that was while the
2 inventor -- and that's on the far right of slide 30. That's while the
3 inventors had the draft application in their possession. Now, we
4 know that it took them 13 days, they had it in their possession for
5 13 days, and we only have a declaration from one inventor,
6 Dr. Tung, who stated that he reviewed the draft application as he
7 was available given my other day-to-day responsibilities.

8 So, we don't know anything about his schedule. We
9 don't know when or how long he spent reviewing the application.
10 We do know that he had zero comments, zero edits. We also
11 know the other two inventors had zero comments and zero edits,
12 but we have no declaration for them. We don't know if and when
13 or how long they spent reviewing the application.

14 This is as in the *Oracle vs. Click-To-Call* case, where
15 the Board looked at a seven-day period where the inventor
16 reviewed an application and found a lack of diligence for failure
17 to provide facts and specific dates.

18 As I said earlier, on slide 31, this is the Smith critical
19 period. Now, it overlaps -- the 38, 41, and 13 days are shown on
20 the far right. Everything below that unique is Smith. So, if there
21 was a lack of diligence during Sedat's period, which we think
22 there was, then there certainly -- there is, by -- as a matter of fact,
23 during Smith, and then regardless, we think Smith, there was a
24 lack of diligence for these long gaps.

25 Any technical work that was done on this alleged
26 invention, which amounts to the bulk of the exhibits from Patent

1 Owner's response, those stopped in March of 2009, so two
2 months before Smith. The only things that were going on after --
3 between Smith and the PC meeting, which is -- were the Sedat
4 period, and so let's define it by that.

5 We already talked about Sedat. Everything that
6 happened between Smith and Sedat, so between March 15th of
7 '09 through July 16th of 2010, there were patent committee
8 meetings, and the inventor drafted some additional detailed notes
9 for the patent committee. No additional experiments were being
10 done.

11 And then there is the Morris declaration, which Patent
12 Owner has submitted to cover the time period of April 2009
13 through the fourth quarter of 2011. So, this is a two-year -- more
14 than a two-year span, a 2 1/2-year span, and the declaration
15 covers less than two pages. That's how high-level it is.

16 And it's deficient for two reasons, as we talk about on
17 slide 32. It does not have the specificity as far as timing and
18 actual activity. It points to months at a time and says this -- this
19 two-page document was being worked on during these two
20 months, that sort of thing.

21 And then it also -- none of it is tied to the '282 patent.
22 In fact, it talks about the process of producing 1234yf, generally,
23 which can include the '282 patent, but as we submitted in Exhibit
24 1020, that's another application, for example, where Honeywell
25 was working on another patent at this same time that did not
26 relate to anything having to do with the '282 patent, but it does

1 deal with 1234yf. So, this is -- this net that Mr. Morris is casting
2 is way too wide to be specific enough, and as we see in the
3 *Mycogen vs. Monsanto* case on slide 32, that's not specific
4 enough.

5 And then finally, with respect to slide 33, even if the
6 inventor did have -- did establish an earlier invention date and it
7 lost it by failing to -- by abandoning, suppressing, or concealing
8 the invention, by waiting more than two years to take any steps to
9 file an application, and, as I said earlier, the patent application
10 was on hold for a good portion of this time.

11 And so now Mr. Baum is going to talk about invalidity,
12 unless Your Honors had any questions for me.

13 (No response.)

14 MR. BEAUPRÉ: Thank you very much.

15 MR. BAUM: So, let's talk about invalidity, and why
16 don't we turn to slide 35. Starting with the first bullet point, with
17 regard to claims 21, et cetera, Patent Owner does not even
18 attempt to distinguish these claims over Sedat under Petitioner's
19 construction of the term "spent KOH"; however, we'll also
20 explain, using Patent Owner's expert testimony concerning an
21 obvious optimization of Sedat, why even under Patent Owner's
22 construction, the claims are invalid over Sedat.

23 Patent Owner argues that Sedat is not enabled. We will
24 show that Sedat, in fact, is enabled because, as Patent Owner's
25 expert testified, shear mixing is occurring in reactor 1 to facilitate

1 the reaction of 236ea, one of the reactants, would react with
2 KOH.

3 With regard to the combination of Smith and Sedat or
4 Smith and Masayuki plus Harrison, the second and third bullet
5 points on this slide, again, Patent Owner does not attempt to
6 distinguish these claims under Petitioner's construction of the
7 term "spent KOH." Instead, Patent Owner challenges motivation.

8 As we'll explain, in a continuous dehydrohalogenation
9 process, such as disclosed in Smith, a POSITA needs to figure out
10 what to do with the unreacted KOH and KF coming out of the
11 reactor, and it turns out there are very few things you can do with
12 a mixture like this. Sedat and Masayuki provide flow diagrams to
13 address the issue of what to do with this KOH and KF coming out
14 of the reactor.

15 So, we'll talk about the first group of claims being
16 invalid over Sedat now. Turning to slide 37, as I mentioned,
17 Patent Owner does not attempt to distinguish over Sedat under
18 Petitioner's construction of "spent KOH." Now, remember what I
19 had mentioned before, that Patent Owner's interpreting "spent
20 KOH" in such a way as to require KF. They argue this to keep us
21 from looking at anything going on in the conversion reactor or
22 past the conversion reactor.

23 So, for example, filter 8, with -- with calcium fluoride,
24 and that's the same fluoride that was present in the reactor, is
25 removed by separation, thereby recovering unused KOH from the
26 reactor. And the construction also prevents us from looking at

1 any of the other recovery acts occurring in Sedat. For example,
2 what's happening in the evaporator, returning the spent KOH
3 that's been recovered from filter 8 back to the reactor.

4 Patent Owner's expert testified to an obvious
5 optimization to address entrained, dissolved organics. He said a
6 POSITA would know dissolved organics are present in Sedat. He
7 said a POSITA would understand it's desirable to remove them
8 and would know how to remove them with a reasonable
9 expectation of success.

10 Slides 39 through 44 include objective evidence in the
11 form of Patent Owner's testimony supporting these points, and I
12 think one that I just want to -- so, before we move on, I've just
13 described the optimization that Patent Owner's expert testified to,
14 and if you look at the annotated, modified Sedat figure on slide
15 38, this was submitted in our reply at page 4, this actually depicts
16 what Patent Owner's expert testified would be obvious to one of
17 ordinary skill, that one would recognize the presence of dissolved
18 organics and be motivated to take them out and would know how
19 to do so.

20 Now, just looking briefly at his testimony regarding,
21 well, how -- why would you want to take it out? Slide 41:

22 "QUESTION: Why would it be undesirable to have
23 dissolved or entrained organics present in Reactor 6?"

24 And he testifies: "...why would you want to have your
25 reagents go through Reactor 6 and not do anything when their

1 next step is to go to [filter] 8 when you could potentially have
2 them escape with your calcium fluoride."

3 He points to other big issues, including environmental
4 permitting agents, and also says there could be a very big issue
5 with safety, personnel could be exposed to this material and
6 generally escape into the environment. It's an environmental
7 hazard. So, it's clear there are reasons a POSITA would want to
8 take these out.

9 So, to conclude with obviousness over Sedat, it's clear
10 from Patent Owner's testimony that a POSITA would know
11 dissolved organics are present and would want to remove them
12 and would know how to remove them with a reasonable
13 expectation of success.

14 JUDGE TORNQUIST: Counsel, I just have one
15 question, and this is going back to actually the first time before
16 you sat down.

17 MR. BAUM: Yes.

18 JUDGE TORNQUIST: Did I understand you correctly
19 that you are conceding to Patent Owner's construction of
20 recovering spent DHA or spent KOH?

21 MR. BAUM: Well, for the purposes of today's
22 discussion, we're applying their construction, but we still think
23 our construction is correct and the claims are invalid under either
24 construction.

25 JUDGE TORNQUIST: Okay.

1 MR. BAUM: So, let's talk about enablement. Patent
2 Owner's only beef with the Sedat disclosure concerning
3 enablement is that the reaction wouldn't work because the
4 reactants are too volatile at that temperature and pressure to react
5 with KOH before escaping from the reactor; however, Patent
6 Owner's expert, Dr. Lousenberg, himself recognized in his report,
7 when talking about entrained organics, that shear mixing is used
8 in order to facilitate the reaction.

9 Patent Owner's expert also explained that high shear
10 rate mixing can create small enough droplets of each phase to
11 create a high surface area to facilitate the reaction, and you will
12 find that at Exhibit 1024, page 70, lines 4 through 10.

13 The portion of his opinion, patent expert -- Patent
14 Owner's expert, dealing with enablement, doesn't address the fact
15 that Sedat teaches shear mixing. He admitted that the
16 calculations he used didn't take into account that there was shear
17 mixing occurring in reactor 1 of Sedat, and you will find that
18 testimony in Exhibit 1024, page 154, lines 4 through 20.

19 And most telling, in -- later in his deposition,
20 Dr. Lousenberg, Patent Owner's expert, when he was describing
21 the reaction that was going on in Smith, compared it to what's
22 happening in Sedat, and with regard to Sedat, he said, "That
23 reaction is very quick. There's not a lot of reactant in the reactor
24 to escape." And you'll find that testimony at Exhibit 1025, page
25 240, lines 15 through 18. So, it's clear, even from Patent Owner's
26 expert, that Sedat is enabled.

1 Now, let's shift gears and move to slide 46. We're
2 addressing here claims 1 through 20 and why they're obvious in
3 view of -- in view of Smith plus Sedat. Now, the only thing that
4 these claims do is they add a hydrogenation step, which is found
5 in Smith. That's why we are relying on Smith plus Sedat. And
6 patent -- again, Patent Owner does not distinguish the claims over
7 Smith plus Sedat under Petitioner's construction of "spent DHA
8 and KOH," and instead, again, Petitioner relies on lack of
9 motivation.

10 So, let's talk about motivation. Let's turn to slide 47.
11 First, it's a general rule of thumb in chemical process design to
12 completely recover and recycle all valuable reactants. That's
13 Exhibit 1006, pages 116 and 117. This applies to KOH. It
14 applies to KF. Both of them are present. Now, a POSITA
15 practicing a continuous reaction in Smith needs to figure out what
16 to do with the KOH and KF coming out of the reactor.

17 In a continuous stirred tank reactor, that's a reactor
18 that's continuously stirred, you have reagents going in, and on the
19 other side, you have products, by-products, and reactants,
20 unreacted reactants, coming out. And there is really no dispute
21 that a POSITA would understand that KF is coming out of the
22 continuous reactor in Smith. You can look at Patent Owner's
23 expert declaration, paragraph 118.

24 There's also no dispute that at least some KOH is
25 coming out of the reactor in Smith. See Exhibit 1025, page 246,
26 line 5, through page 247, line 5. Patent Owner's expert testified

1 that it would mostly be KF coming out of the Smith reactor, but
2 there would be some KOH, because if it goes to zero, the reaction
3 stops.

4 So, he testified that up to about 90 percent of what's
5 coming out of Smith would be KF, but that the remainder -- well,
6 he said at least about 90 percent would be KF; the remainder
7 would be KOH. So, there is really no dispute that there is at least
8 some KOH coming out of that reactor.

9 In any event, there is definitely KF coming out of that
10 reactor and you have got to figure out what to do with it. So,
11 based on the testimony of record, what's coming out of Smith is a
12 reaction -- excuse me, is a mixture of unreacted KOH and KF
13 which Patent Owner and Petitioner disagree as to potentially how
14 much, but there's really no question that unreacted KOH is
15 coming out of the Smith reactor, along with KF.

16 Now, another point worth making is that a POSITA
17 would use a high concentration of KOH in a reactor to provide a
18 higher reaction rate. This leads to more product, and this is
19 where you make your money. And it turns out there's not a lot
20 that you can do with KF coming out of a continuous
21 dehydrohalogenation reactor as described in Smith. You can
22 convert it, you can sell it, or you can dispose of it.

23 Disposing of it's not really an option because it adds
24 cost to the process, as Patent Owner's expert testified, and see
25 there Exhibit 1024, page 135, line 24, through page 136, line 6.
26 You might be able to sell it if it doesn't have too much KOH in it.

1 That's what Patent Owner's expert said, Exhibit 1024, page 134,
2 line 6 through 17.

3 So, at best, there's really only two options as to what to
4 do with the KF coming out of a dehydrohalogenation reactor.
5 You either sell it if it doesn't have too much KOH in it, and there
6 seems to be agreement, at least from Patent Owner's expert, that
7 there is at least some KOH coming out of the reactor in Smith.
8 So, really, your options are very limited. Sell it or convert it back
9 to KOH. KOH is a starting reagent in the process. So, there's
10 good reason for doing that. Slides 48 through 51 include Patent
11 Owner's testimony supporting the foregoing points. That's your
12 objective evidence.

13 Now, this reminds me a lot of a case that's cited at page
14 11 of our reply brief, the *Bayer vs. Barr* case, and there the
15 Federal Circuit considered whether a micronized active in a
16 normal tablet as claimed was obvious over a tablet with the same
17 active and an enteric coated tablet in the prior art. So, here again,
18 two choices.

19 The Court said -- the Federal Circuit said the prior art
20 would have funneled the formulator towards these two options.
21 He would not have been required to try all possibilities in a field
22 unreduced by the prior art. And that's at 575 F.3d 1341 at 1350, a
23 2009 decision.

24 So, it's obvious to try both when you only have a
25 couple options, and there's no disagreement here. Patent Owner's
26 expert testified there's really only two viable options: sell it or

1 convert it into KOH so you can use it again in the process. So, a
2 POSITA practicing the continuous dehydrohalogenation of Smith
3 would look to the flow programs of Sedat or Masayuki and
4 Harrison to figure out how to handle by-product KF.

5 So, let's turn to slide 53. So, let's talk about the
6 motivation to combine Smith, Masayuki, and Harrison. As I
7 mentioned before, a POSITA would be looking for options for
8 handling a stream including KOF -- excuse me, KOH and KF
9 from Smith, and Masayuki teaches a way to recover unreacted
10 dehydrohalogenated
11 agent, and Smith and Masayuki also have a lot of similarities.

12 Now, Masayuki is recovering sodium hydroxide, Smith
13 is recovering KOH, but both use a continuously stirred tank
14 reactor, both use an alkali metal dehydrohalogenating agent, both
15 use water as a vehicle, both use similar amounts of
16 dehydrohalogenating agent, and both use phase transfer catalysts.

17 So, there are good reasons why a POSITA would look
18 to Masayuki, and a POSITA would know that if you keep
19 recycling KF and KOH back to the reactor, it will fill up with KF
20 as less KOH is present after each cycle. So, a POSITA would
21 have to figure out a way to turn that KF back into KOH, and there
22 is a reaction that's known by a POSITA. Patent Owner's expert
23 testified to that. The POSITA knew that KF could be converted
24 back into KOH with lime. The Harrison reference teaches that.

25 Let's move to slide 55, and here we have the flow
26 diagram from Masayuki that was in our original petition, and let's

1 talk about how Patent Owner's expert testified as to what would
2 happen if a POSITA were to conduct the reaction of Smith in the
3 reactor 19 of Masayuki.

4 He testified that water, KF, phase transfer catalyst,
5 dissolved organics, and a very small amount of KOH would come
6 out of the reactor 19, and that would go into line 4, into a
7 decanter. Patent Owner's expert testified that a POSITA would
8 understand that dissolved organics would be present in the
9 aqueous stream coming out of reactor 19. He further testified that
10 an organic phase transfer catalyst would be separated in the
11 decanter, here, and returned to the reactor. So, that's the first
12 instance of an organic being returned to a reactor.

13 Patent Owner's expert testified that -- so, if we then
14 follow after what happens in the decanter, then the KF, KOH, and
15 dissolved organics enter the enricher. Patent Owner's expert
16 confirmed this. Patent Owner's expert further testified that 236
17 and 245, which are the dissolved organics, would evaporate in
18 this enricher, along with water.

19 Now, Patent Owner makes a big argument that, hey,
20 you know, if you're going to take water out of this, you're going
21 to have all kinds of problems. Well, what they overlooked is that
22 the reaction, the dehydrohalogenation reaction, creates one mole
23 of water for every mole of KF that's produced, so you have more
24 water present, and you would using the enricher to remove the
25 water.

1 Patent Owner's expert confirmed that a mole of water is
2 produced for every mole of KF in the dehydrohalogenation
3 reaction, and the enricher could be used to remove just the water
4 formed in the reaction. Now, he also testified that a POSITA
5 knows that you can't separate KF and KOH in an aqueous
6 solution in the slurry tank because the solubilities are so similar.

7 Now, that's a little bit different than what Masayuki's
8 doing. Masayuki has sodium hydroxide and the by-product,
9 sodium chloride, and those two have different solubilities. So, if
10 you want to separate them, all you have to do is take off some
11 water and the sodium chloride comes out of solution, and that's
12 happening in slurry tank 24 in Masayuki.

13 Now, what we're arguing is that a POSITA would
14 know that because of the fact that KF and KOH have very similar
15 solubilities, that you have to use this lime reaction in Harrison to
16 get KF to precipitate out. So, Patent Owner's expert testified that
17 you can't separate KF -- a POSITA would know you can't
18 separate KF and KOH in the aqueous solution in the slurry tank
19 because the solubilities are so similar.

20 He further testified that a POSITA would know to
21 convert KOH to KF using the lime from Harrison. Slides 56
22 through 61 include objective evidence of the foregoing points in
23 the form of Patent Owner's expert testimony. Patent Owner's
24 expert further testified that a POSITA could operate the enricher
25 in such a way as to remove only the additional water generated in

1 the dehydrohalogenation reactor. For that testimony, see Exhibit
2 1025, page 302, lines 16 through 22.

3 So, I'm going to shift now to slide 63, and Patent
4 Owner, in an effort to make this a lot more complicated than it is,
5 argues that the concentrations are such that this whole process
6 would bog down and it just wouldn't work. They make this
7 inoperability argument. So, it's worth spending a few minutes to
8 understand what's happening from a concentration standpoint,
9 using Patent Owner's expert's testimony.

10 So, in Patent Owner's expert report, he stated that a
11 POSITA would use -- excuse me, he stated that Masayuki teaches
12 from 50 to 55 percent KOH and that -- excuse me,
13 dehydrohalogenating agent, and that one would choose 50 percent
14 KOH in view of that, and the teaching in Smith to use a high
15 amount of KOH.

16 There's 50 percent conversion taking place in the
17 dehydrohalogenation reactor, and so there's also water that's
18 created, and that mixture ends up in enricher 21. There's a
19 heating -- a heat exchanger 22. It ends up in this loop, and Patent
20 Owner -- as I mentioned before, Patent Owner's expert testified
21 one of ordinary skill in the art would understand you can operate
22 that enricher in such a way to remove only the additional water
23 generated during the dehydrohalogenation. That's Exhibit 1025,
24 page 302, 16 through 22.

25 Now, Patent Owner's expert -- excuse me, let me back
26 up a little bit. So, the other thing Patent Owner argues is that

1 you're going to have precipitation of potassium chloride or KOH
2 in enricher 24, but we know from Patent Owner's expert
3 testimony that a 25 percent KF and 25 percent KOH in slurry
4 tank 24, it would not precipitate at temperatures as low as 50
5 degrees C. Patent Owner's expert testified that borderline
6 solubility for KF/KOH in a slurry tank would be maybe 60 or 65
7 percent. See Exhibit 1025, page 296, line 23, through 297, line 2.

8 Accordingly, the process, they argue -- accordingly, the
9 process would be operable. Patent Owner's expert testified that a
10 POSITA could adjust the amount of water being removed just to
11 remove enough so that you would not have a cement or wet slurry
12 in the tank. For this testimony, see Exhibit 1025, page 299, lines
13 10 through 17.

14 Now, I want to make a note here so that this doesn't get
15 overlooked by the Board. Patent Owner stated that Arkema's
16 expert, Dr. Manzer, argued that all the aforementioned issues
17 with regard to the combination would be solved by removing the
18 enricher, citing Exhibit 2005, page 233, line 21, through 234, line
19 7. For this argument, see Patent Owner's response in the '916 and
20 '917 cases, at pages 32 through 33.

21 The responses go on to say that removing the enricher,
22 as Dr. Manzer now requires for the combination to be operative,
23 is contrary to the teachings of Masayuki. See Patent Owner's
24 response in '916 and '917 at page 33. There is no such testimony,
25 and this is not objective evidence.

26 What did Dr. Manzer really say at the cited portion?

1 "QUESTION: What I'm talking about is the increase
2 of concentration of KOH by the use of the enricher in
3 combination with conversion of KF into KOH in the slurry tank
4 that would occur, and as the process repeats itself, would occur
5 again and again and again.

6 "ANSWER: Well, once again, I have not modeled it,
7 but I have said previously, one could adjust the concentration in
8 the enricher to maintain the desired level of KOH fed to the
9 reactor."

10 It certainly does not say that Dr. Manzer admitted you
11 have to remove the enricher for this to work.

12 I'd also like to note that Patent Owner's slide 88
13 includes a quote to this problematic portion of Patent Owner's
14 brief stating that Petitioner's expert admitted that the addition of
15 Harrison would result in a disruption to the combination. See
16 page 3 of the '916 and '917 responses.

17 This should also not be mistaken for objective
18 evidence. What Dr. Manzer actually said was the same thing he
19 said in his declaration, that the process of Harrison could be
20 applied with little to no disruption. See his declaration at
21 paragraph 77, as well as the cited testimony.

22 So, in conclusion, spent KOH and by-product salt, KF,
23 are separately described and claimed in the '282 patent. Patent
24 Owner's claim construction is contrary to the intrinsic record and
25 unreasonably narrows the scope of the claim. Patent Owner did
26 not dispute that recovering spent DHA/KOH is present in the

1 cited art in the Petitioner's claim construction. Even under Patent
2 Owner's construction, the claims are obvious under Sedat.

3 Also, a POSITA would look beyond Smith to address
4 KOH and KF. Both Sedat and Masayuki provide a POSITA a
5 way to recover spent KOH and convert KF back to at least
6 reactive KOH. Lastly, the alleged invention was never actually
7 reduced to practice because Patent Owner failed to determine that
8 the invention would work for its intended purpose and Patent
9 Owner did not meet the high burden of diligence required to
10 antedate as a result of unaccounted periods of inactivity.

11 If Your Honors don't have any questions, I will reserve
12 our remaining time for rebuttal.

13 JUDGE KOKOSKI: Okay, thank you.

14 MR. BAUM: Thank you.

15 JUDGE KOKOSKI: Counsel for Patent Owner, when
16 you're ready, you have got 90 minutes for your response.

17 MR. ROSE: Thank you, Your Honor.

18 Your Honors, we have hard copies of our slides as
19 well, if you would like us to hand those up.

20 JUDGE KOKOSKI: Sure, thank you.

21 MR. ROSE: May I approach?

22 JUDGE KOKOSKI: Yes.

23 MR. ROSE: Good afternoon. May it please the Board.
24 My name is Bruce Rose. As indicated earlier. I'm with Alston &
25 Bird, here on behalf of the Patent Owner, Honeywell
26 International, Incorporated. With me are my colleagues

1 Christopher Douglas and Ben Pleune. Also with me is Mr. Bruce
2 Bradford, who is intellectual property counsel, in-house at
3 Honeywell.

4 Now, I'll just walk through these slides one at a time,
5 and I'd like to start out, before diving into the substance of the
6 discussion, by pointing out a few high-level issues that I think
7 bear noticing at the outset.

8 First of all, I want to talk about the Petitioner's
9 characterization of Dr. Lousenberg's testimony. Petitioner started
10 out each one of its reply briefs with a statement along the lines
11 that Dr. Losenberg, upon seeing this patent, determined it was not
12 patentable in his view. That's a mischaracterization.

13 What Dr. Lousenberg testified to -- and I want to point
14 out that Dr. Lousenberg is not a patent person. He's a person who
15 has spent his time in industry, as a chemical engineer and a Ph.D.
16 He has not studied patents. So, when he -- what he was testifying
17 about -- and this is shown on pages 17 to 18 of his testimony -- is
18 that he was referring to generally the idea of patenting integrated
19 processes as opposed to this particular patent.

20 When asked further, Dr. Lousenberg said that when he
21 did see the '282 patent and he did learn that, oh, to not be
22 patentable, the claim elements need to be found in the prior art,
23 then he determined, no, I believe this is patentable. So, my point
24 is that to take everything that is said about Dr. Lousenberg's
25 testimony with a grain of salt, and I urge Your Honors, as I
26 expect you already have, when Dr. Lousenberg's testimony is

1 cited, to go back and read that testimony in context, because
2 you'll see that he ultimately -- he makes a very clear statement,
3 and it's not along those lines, for example, as was characterized in
4 the reply briefs.

5 I next want to talk very briefly about Arkema's
6 arguments in its reply briefs, because several of them are
7 somewhat telling. In particular, as an example -- and we'll see a
8 couple of these examples -- I would ask my colleague if we can
9 move to slide 72. What we see several times from the Petitioner
10 in the reply briefs -- and you saw these diagrams in the last
11 presentation by Petitioner's counsel -- what Petitioner has found
12 the need to do is to take the prior art references in several respects
13 and change them.

14 Indeed, I believe counsel just referred to this drawing
15 as showing -- if you will give me just a second -- a modified
16 Sedat reference. So, what Petitioner has done in its replies and in
17 its arguments here has modified the references, and these are
18 modifications that were not made in the opening petition. These
19 are new arguments being presented for the first time by Petitioner
20 in its reply. This points out a couple of things.

21 First, as I said, they are new arguments, and our view is
22 that they should not be considered by the Board at this stage
23 because they weren't part of the *prima facie* case made by
24 Petitioner in its opening papers. But we also believe that this also
25 points out some -- that there are flaws in the Petitioner's
26 arguments that they now need -- find the need to modify by

1 changing the references, and it points out shortcomings of the
2 references themselves.

3 Next we'll talk -- if we can go back to slide 2. Next, I
4 want to just mention very briefly that certain of the prior art
5 references here are not prior art. In particular, I'm talking about
6 Smith and Sedat. When those prior art references, as we will
7 explain, are removed by virtue of actual reduction to practice and
8 constructive reduction to practice, they are taken out of the
9 petitions, and that is fatal to the Petitioners.

10 And then lastly, I want to point out something that was
11 raised again in the reply brief for the first time, and, Your Honor,
12 Judge Tornquist, I believe caught on to this based on your
13 questions, is that there is no requirement for reduction to practice
14 to take place outside the laboratory in a full-blown manufacturing
15 facility. It is sufficient to reduce to practice this invention, and
16 we will show what the evidence -- how the evidence established
17 that, that it can be done and was done in the laboratory.

18 Turning to slide 3 is a brief road map of the topics I
19 would like to discuss today, and certainly if Your Honors want
20 me to jump from one to another or get to something in advance,
21 certainly let me know, and I'll do my best to go there.

22 But essentially what I want to talk about, in order, is,
23 first, just a little bit of background on Honeywell's invention in
24 2008; touch on some proper claim construction issues; then we'll
25 get into Honeywell's diligence and its actual reduction to practice;
26 then Honeywell's diligence toward constructive reduction to

1 practice, accomplished by the filing of the provisional patent
2 application; and then I'll talk about why Smith, Masayuki, and
3 Sedat and Harrison are distinguished, as well as why the
4 combinations cannot be made or are distinguished.

5 First, a brief history of the '282. Now, in the field of
6 refrigerants and propellants, it was known for some time to use
7 chlorofluorocarbons as refrigerants and propellants; however, it
8 became learned that those compounds were ozone depleters and
9 had a high global warming potential. So, the industry moved into
10 hydrofluorocarbons, which cured the ozone depletion problem
11 but still remained having a high global warming potential. That
12 led to the development hydrofluoroolefins, such as 1234yf, which
13 is what -- the product that's made by the process of the '282
14 patent.

15 Now, let's be clear. I'm not saying it was -- that it was
16 new to make 1234yf or that it was new to make 1234yf by
17 dehydrohalogenation. As the '282 patent points out, the processes
18 in existence at the time had several problems. The processes
19 would proceed until the organic reactants or the DHA was
20 consumed, which required shut-down of the plants and cleanup,
21 and there was a need for a process that supplied the removal of
22 spent and unused reactants. This discussion is found at column 2,
23 lines 34 to 41, of the patent.

24 Now, I want to talk briefly about construction of the
25 some of the claim terms. The first we have already heard about,
26 is "spent KOH," and there is a dispute here about what "spent

1 KOH" is and, in particular, whether it includes the by-product
2 salts. But the fact is, as a matter of simple chemistry, once the
3 reaction takes place and potassium fluoride is made by that
4 reaction, they are not separated. Whatever comes out of that
5 reactor has to be both potassium hydroxide and potassium
6 fluoride, because they exist in aqueous solution, which means
7 you've got potassium cations, hydroxide anions, and fluoride
8 anions, and they aren't assigned to one another. They all exist
9 together in the aqueous solution as they come out.

10 Therefore, what's coming out -- and we will see also in
11 addition the dissolved organics -- but what's coming out as a
12 result of that reaction are those cations and anions that co-exist
13 and, therefore, comprise unreacted KOH and the by-product salt
14 KF.

15 Indeed, when asked, Dr. Manzer, about this question in
16 connection with the examples in the '282 patent, Dr. Manzer
17 agreed that, as used in those examples, when they talk about what
18 was coming out in the reaction stream, they say spent KOH.
19 They didn't say spent KOH and KF. They said spent KOH. And
20 Dr. Manzer agreed that that's a reasonable interpretation, that
21 spent KOH includes both the KOH and the KF.

22 Now, I want to talk briefly -- now I'm on slide 9
23 regarding recovering spent DHA or spent KOH --

24 JUDGE TORNQUIST: Before we go there, Petitioner
25 made the argument that claim -- for example, claim 16 depends

1 from claim 10 and has an additional limitation of further
2 comprising by-product salts. How do you respond to that?

3 MR. ROSE: I agree with the issue that there is a
4 question regarding claim differentiation. I would point out that
5 claim differentiation is a guide in interpreting the claims, but it's
6 not a hard and fast rule that always applies. It's to be used as a
7 guide, and in this case, we believe it merely would serve as a
8 guide but not a rule, and, therefore, we still think that spent KOH
9 needs to include the KOH and the KF, particularly as that term is
10 used in the specification and, in particular, in the examples.

11 JUDGE TORNQUIST: Can you point me to the
12 example, what you're showing in the specification that would
13 support your claim construction?

14 MR. ROSE: Yes. If you will give me just a moment,
15 Your Honor.

16 "Scrubber PCC was used to collect" --

17 JUDGE TORNQUIST: What column and line? Sorry.

18 MR. ROSE: I'm sorry. I apologize, Your Honor.
19 Column 15, beginning at line 44. "Scrubber PCC was used to
20 collect spent KOH and the proportion of organic that was carried
21 out with spent KOH." So, there's reference of the spent KOH and
22 the organic that came out. There's no reference to "and
23 by-product salts KF." So, as used there and as confirmed by
24 Dr. Manzer, that's a reasonable interpretation that the spent KOH
25 includes KF.

1 And, further, that term is used in Example 3 at column
2 16, beginning at line 11, "Afterwards, 290 to 300 grams of spent
3 KOH was taken out, then stirrer was started, as was the clock."
4 So, the only thing from a KOH and KF perspective that's being
5 identified as being taken out of the reactor is spent KOH -- is
6 spent KOH. There's no mention of separately taking out the
7 dissolved by-product salt.

8 Now -- I'm sorry, I -- now, the discussion of recovering
9 spent DHA or spent KOH, Patent Owner originally suggested in
10 its preliminary response that recovering spent KOH meant
11 removing the dissolved organics. That was the original proposed
12 construction. The Board did not accept that proposed
13 construction and in doing so pointed to some instances in the
14 patent that indicate that dissolved organics may be coming out
15 with the spent KOH, and, therefore, indicated that it doesn't
16 necessarily always include spent KOH -- I'm sorry, dissolved
17 organics.

18 And, indeed -- but the Board did agree and identified
19 instances -- I'm sorry, agreed that separation occurs. That is
20 found in the decision in the '916 case at page 8. So, we are trying
21 to capture with this construction what the Board was getting at,
22 saying that some separation occurs in the construction of
23 recovering spent KOH but that it isn't necessarily always just
24 dissolved organics. Therefore, we proposed this construction,
25 substantially separating the spent DHA or KOH from any other
26 materials in the product reaction stream.

1 And, again, we can find in Example 3 that the inventors
2 identify here in the specification that in addition to dissolved
3 organics, in at least that example, there was a -- there were
4 unidentified heavies, in addition to the dissolved organics, and,
5 therefore, we believe that this construction captures not only
6 removal of the dissolved organics but also anything else,
7 including, for example, as is shown in the specification, the
8 unidentified heavies. And, again, that's at Column 16, line 20.

9 JUDGE TORNQUIST: So, by your construction, once
10 you've recovered spent DHA, is the material pure then?

11 MR. ROSE: It's not pure. It's substantially pure.

12 JUDGE TORNQUIST: Okay.

13 MR. ROSE: And there are dependent claims that call
14 for further purification. So, what's coming out is substantially
15 pure, and, indeed, we'll again cite to the specification, column 16,
16 at line -- starting at line 20, going through line 24.

17 What happened is in that example, they removed the
18 dissolved organics and then checked again to see, in the KOH,
19 whether there were still organics, and the analysis showed that the
20 amount of organic was negligible. So, there was organic, but it
21 was negligible. So, it's not pure yet, but it substantially separated
22 the organics.

23 Next I want to talk briefly about the claim term
24 "stream," and the construction that we've proposed is a
25 continuous flow of a fluid of at least spent DHA or KOH
26 resulting from the dehydrochlorination or dehydrohalogenation

1 reaction. Now, there's been argument made by the Petitioner that
2 "continuous" means, effectively, that it's perpetual; however,
3 Dr. Manzer agreed in his testimony that the stream does not
4 necessarily need to be perpetual. Indeed, he said that the stream
5 could include everything that flowed out of the reactor, including
6 in a batch process, and the specification does contemplate an
7 intermittent process.

8 So, the stream is continuous, and you can see in the
9 examples what they did was opened a valve, a stream flowed.
10 That's a continuous flow. When they were done, they closed the
11 valve. So, it's not perpetual, but while flowing, that's a
12 continuous stream. So, that's support for the construction for
13 "stream" that we proposed.

14 Next I want to talk about the issue of actual reduction
15 to practice, and here I want to take a step back and point out that
16 we're in a somewhat unique situation here because both of the
17 parties here agree that there is invention here. The point is that
18 Honeywell reduced its to practice first. Arkema, Petitioner here,
19 also claims to have a patent directed to this process. Indeed, the
20 Arkema -- the Sedat reference is Arkema's patent, and so they
21 agree, and they've even indicated previously in this proceeding
22 that they intend to file an interference proceeding, and so they
23 acknowledge that there's invention, Honeywell acknowledges
24 there's invention, and that there likely will be an interference
25 between the two, but that's not the proceeding here.

1 The proceeding here is solely directed to whether
2 there's a preponderance of evidence, whether it's more likely than
3 not that the evidence before the Board shows an actual reduction
4 to practice, conception and an actual reduction to practice, and as
5 you'll see when I walk through the slides, all of the evidence here,
6 not just a preponderance, but all of the evidence here shows an
7 actual reduction to practice by Honeywell.

8 Now, I also want to take a step back because counsel
9 referenced the issue of abandoning, suppressing, and concealing
10 the invention. It's important to note that that analysis falls under
11 Section 102(g). 102(g) was not raised by the Petitioner in its
12 petition here. 102(g) applies to interferences, again, this other
13 proceeding, and 102(g) applies in instances where -- for equitable
14 instances, not for purposes of forfeiture, for equitable instances
15 where there are two competing inventors.

16 And to cite the case law to support this -- give me just a
17 second -- yes, I would cite *Paulik vs. Rizkalla*, 760 F.2d 1270,
18 Federal Circuit, 1985, and *Fleming vs. Escort*, 774 F.3d 1391,
19 Federal Circuit, 2014.

20 And as we'll further see with the evidence, the Patent
21 Owner has not abandoned, suppressed, and concealed. We will
22 show continual activity throughout the period, from conception
23 'til the filing of the provisional application, but nevertheless, the
24 point I need to make is that 102(g) is not applicable here, and,
25 therefore, abandonment, suppression, and concealment is not an
26 issue here.

1 Now, as counsel pointed out, there are only some
2 claims that are at issue for the purposes of actual reduction to
3 practice, and those are 21 to 31, 33, 36 to 42, and 44. And the
4 reason for that is because the evidence in this proceeding does not
5 show performance of the hydrogenation step. It's not in the
6 evidence. It doesn't mean it wasn't done, but it's not in the
7 evidence, so we're not asserting actual reduction to practice of
8 those claims, claims 1 through 20, which require the
9 hydrogenation step.

10 And similarly, the evidence here does not show
11 evidence of recycling, converting, and concentrating, and,
12 therefore, we're not asserting an actual reduction to practice as to
13 those claims.

14 Now, I want to describe now the -- sort of the players
15 who were involved and what their various roles were in the actual
16 reduction to practice. We have Haluk Kopkalli. He is one of the
17 named inventors. He's an engineer at Honeywell in the fluorine
18 products business unit. He has worked at Honeywell for over 20
19 years. He is the one who conceived the invention and
20 documented it in March of 2008, as we'll see.

21 We also have at issue Dr. Tung. He's the director of
22 technology in Honeywell's fluorine product business unit. He's
23 worked at Honeywell for over 35 years.

24 We also have Dr. Bektsevic, Selma Bektsevic, who is
25 a senior research and development scientist at Honeywell's
26 Buffalo Research Laboratory, and in this instance Dr. Bektsevic

1 is supervisor of -- I'm sorry, Dr. Tung is Dr. Bektesevic's
2 supervisor.

3 We're also going to learn of a couple other players in
4 this, and by way of background, at Honeywell's research lab,
5 there are certain procedures that need to be followed. For
6 example, project permits describing experiments to be performed
7 need to first be obtained, and the policy at Honeywell's research
8 lab is for the scientist, such as Dr. Bektesevic, not to perform the
9 experiments but to have a lab technician perform those
10 experiments for them.

11 In this case, Dr. Bektesevic prepared instructions and
12 they were carried out by two lab technicians, an Angela Goodie,
13 and she was working with her colleague Steven Phillips. That
14 work done by those two lab technicians was witnessed by a man
15 named Dan Merkel. Dan Merkel is a principal engineer at the
16 Honeywell Buffalo Research Lab, and he's been with Honeywell
17 for over 25 years. Mr. Merkel not only witnessed the
18 experiments, but he also signed project permit change forms
19 related to this specific project.

20 So, now, on slide 13, what we see here is a basic
21 timeline showing the conception and the actual reduction to
22 practice taking place from the period of conception in March and
23 then reduction to practice taking place over the period April
24 through September of 2008.

25 And the reduction to practice is supported in
26 evidentiary form by the sworn testimony of Dr. Tung. Dr. Tung

1 testified that he received an email on March 26th from Haluk
2 Kopkalli, and in that email is a description of Kopkalli's
3 conception of the indention.

4 Now, I want to note that the testimony that I'm
5 describing here is uncontroverted. Dr. Tung gave sworn
6 testimony, under oath. Petitioner chose not to challenge that
7 testimony, not to cross examine Dr. Tung, and so all of his
8 testimony stands unchallenged.

9 Next we have testimony from Dr. Lousenberg, who
10 confirmed that the email of March 26th, 2008, and the
11 attachments to it, showed a definite and permanent idea of the
12 complete and operative invention as reflected in his drawings.

13 So, for the purpose of conception, we have the email of
14 Dr. Kopkalli, which corroborates the testimony of Dr. Tung,
15 which has not been refuted; and then we have the testimony of
16 Dr. Lousenberg that confirms that the conception was of the
17 complete and operative invention, as early as March of 2008.

18 Now, one of the other things -- and you'll see this in the
19 exhibits -- that takes place at the Buffalo Research Lab, is that
20 Dr. Bektesevic prepares monthly technology reports, and those
21 are in evidence, and she reports those to Dr. Tung. Dr. Tung then
22 takes those and the other technology reports and prepares
23 monthly highlight reports, which he supplies up to his superiors,
24 and those are also in the evidence.

25 So, following the March 26th email, as per protocol,
26 Dr. Bektesevic prepared instructions to perform the experiments

1 and gave those to Angela Goodie, and this -- as you see, there is a
2 citation to Exhibit 2037. Turning now to slide 18, that is the
3 testimony of Angela Goodie. Again, sworn testimony, under
4 oath, not challenged by cross examination or otherwise.

5 Dr. -- I'm sorry, Ms. Goodie, who was
6 Ms. Mazurkiewicz, I think it's pronounced, at the time, now
7 Ms. Goodie, she testified that Dr. Bektesevic gave her the
8 instructions and she performed those experiments in July of 2008.

9 Next, on slide 19, we see a declaration of Daniel
10 Merkel, the engineer who I discussed briefly a moment ago.
11 Again, sworn, under oath testimony, not challenged,
12 uncontroverted by Dr. Merkel. He gave testimony that he
13 witnessed the experiments performed by Ms. Goodie and
14 Mr. Phillips. That's on slide 19.

15 Turning now to slide 20, as I mentioned, we also have
16 in evidence Dr. Bektesevic's monthly technology report of 2008.
17 That's Exhibit 2013. And she confirms that continued
18 experiments producing 1234yf continued, as well as experiments
19 for producing 1225ye.

20 Turning now to slide 21, we have continued
21 corroboration and evidence showing that Dr. Bektesevic's
22 September 2008 monthly report shows she instructed experiments
23 to be taken on September 15, and they continued through
24 September 19. All of this testimony is uncontroverted.

25 And now we have the testimony, on slide 22, of Angela
26 Goodie, saying and confirming that she received those

1 instructions in September of 2008 and confirms performing those
2 experiments. That's all undisputed.

3 And beyond the undisputed nature of this testimony, all
4 of this corroborates what was said by Dr. Tung in his declaration,
5 of all these things taking place. So, we have not only Dr. Tung's
6 testimony, but we have documentation and sworn testimony of
7 noninventors that corroborates Dr. Tung's testimony.

8 And then we end up here, in September, with Dr. Tung,
9 who confirms that after those September experiments took place,
10 that the process described in the claim in the '282 patent was "a
11 feasible option for a commercial operation."

12 JUDGE POLLOCK: Mr. Rose?

13 MR. ROSE: Yes?

14 JUDGE POLLOCK: I see in, for example, the
15 Bektesevic monthly technology report a reference to a five-inch
16 dip tube.

17 MR. ROSE: Yes.

18 JUDGE POLLOCK: How does that relate to a stream?

19 MR. ROSE: Sure, Your Honor. The way the dip tube
20 works is it's placed into the reactor, below the surface, and a
21 valve is turned, and the -- and the spent KOH flows through that
22 dip tube and out of the reactor.

23 JUDGE POLLOCK: Is there a description of that in
24 the record?

1 MR. ROSE: I believe it would be in the reports, but I'll
2 ask my colleagues to see if they can find that, where there's a
3 description of the dip tube, but that's how a dip tube works.

4 So, while my colleagues are looking, I'll move on to
5 slide 24 and just briefly read the work of these inventors from
6 2008 on claim 21. We have in our papers that work reading onto
7 the other claims that are at issue for actual reduction to practice,
8 but for the sake of brevity, we'll just talk about claim 21, the first
9 step being dehydrohalogenating a haloalkane in the presence of
10 sodium hydroxide to produce a haloalkene.

11 And here we have the July report of Dr. Bektesevic
12 stating the concept, "Reaction between G-245eb, which is a
13 haloalkane, and KOH has been started, forming -- started
14 formation of G-1234yf, which is a haloalkene. We then have the
15 August report, again, of Dr. Bektesevic, indicating a reaction
16 between G-245 and KOH to yield 1234yf. And then we also have
17 a reaction identified in the September report of Dr. Bektesevic
18 showing a reaction between 236ea and KOH.

19 My colleagues have handed up to me the declaration of
20 Angela Goodie in response to your question, Judge Pollock,
21 where she says, on page 4, paragraph 6:

22 "We then stopped the stirrer after approximately 50
23 minutes, with organic and KOH still flowing in, waited for
24 approximately ten minutes, and then discharged spent KOH using
25 a five-inch dip tube. We then closed the KOH outlet and

1 restarted the stirrer." So, they put the dip tube in, they open it,
2 and then they closed it.

3 And that language appears also in the patent in column
4 15, beginning at line 13:

5 "The mixture is stirred during this period of time. That
6 stirrer is stopped for ten minutes. While feeds still go in, the
7 stirrer is off after ten minutes. Applicable valves for the spent
8 KOH to go out were opened. Between 500 and 550 grams was
9 taken out every 40 minutes." So, there is a valve and it's opened
10 to facilitate the flow.

11 My colleagues are pointing me to another -- okay,
12 further, in column 15, beginning at line 27, stating:

13 "The reactor was designed and operated in such a way
14 that the end of the dip tube was in the middle of KOH phase."
15 So, the end of the dip tube is in the KOH phase and the valve is
16 open.

17 Moving on to slide 25, the second step of claim 21 is
18 withdrawing a reaction stream comprising spent KOH, and,
19 again, we look for support there on the right, and we have the
20 testimony of Dr. Tung and Ms. Goodie, as well as the August
21 report of Dr. Bektsevic, in which she refers to both organic and
22 spent KOH were taken constantly, referring to a stream. And
23 then further, in the August report of Dr. Bektsevic, stating that
24 while stirrer is off, after ten minutes, applicable valves for the
25 spent KOH to go out were opened. So, that's a description in

1 those contemporaneous reports in 2008 of withdrawing a reaction
2 stream.

3 And then we have, on slide 26, the third step of claim
4 21, recovering spent KOH, and in response -- in support, we
5 identify on the right Dr. Bektesevic's July report, which states, at
6 Appendix 3, illustrates the recovery of spent KOH in scrubber
7 PCC.

8 And we also cite to testimony of Angela Goodie, and
9 then we have the September report of Dr. Bektesevic, which also
10 identifies in there that while the rest -- sorry. There was a small
11 amount of 1225ye, while the rest were some unknown heavies.

12 So, I mentioned that earlier, that there are other
13 materials that can come out of that reactor, in addition to the
14 dissolved organics, and here she is indicating that when they
15 checked to see what was separated out, when they did the
16 recovery, they also found unknown heavies.

17 And it's important to note that this last entry here,
18 which is from Dr. Bektesevic's September report, is also Example
19 3 of the patent. And so that gets into the intended purpose of the
20 patent, which counsel talked about for quite some time, and the
21 issue here is what is the so-called intended purpose.

22 And I identified at the outset, when we were talking
23 about the background of the '282 patent, and the problems that
24 were identified and the need for a more efficient process, and the
25 more efficient process isn't limited to recycling. Indeed, in the
26 '282 patent, at column 2, we find identification at -- starting at

1 line 61, that removal of spent dehydrohalogenating agent from
2 the reactor allows for facile separation of the organic and the
3 dehydrohalogenating agent. That's an example of one
4 improvement.

5 Now, can recycling be a second improvement? Sure,
6 but it's not the -- it's not required to be recycling. Indeed, in the
7 '282 patent, at column 5, beginning at line 26, the patent reads:
8 "The resulting dehydrohalogenating agent can then be optionally
9 concentrated and recycled back."

10 So, the patent's clear that recycling is optional, but the
11 goal is, as I identified at the outset in column 2, as kind of coming
12 up with a more efficient process.

13 I would also cite the Board to actually a case that was
14 cited by the Petitioner, and that's *Monsanto*. In the *Monsanto*
15 case, as identified by the Petitioner, *Monsanto* cites to the Federal
16 Circuit in *Scott vs. Finney*. In that case, the Federal Circuit
17 adopted a "common sense approach" to determine the sufficiency
18 of testing. This goes to the issue of whether our testing was
19 sufficient for the intended purpose.

20 In that case, the Court said: "Testing does not need to
21 show utility beyond a possibility of failure, but only utility
22 beyond a probability of failure." So, in this case, we have
23 Dr. Tung preparing a document contemporaneously -- this is not a
24 document that was prepared in 2016 -- but we have a document
25 prepared by Dr. Tung in 2008 where he says that he has
26 concluded that what they have done here in the lab is feasible for

1 a commercial process. So, it's certainly beyond a probability of
2 failure.

3 Moving on to slide 27, we go back to -- and this just
4 illustrates the timeline of the evidence that we've put forth so far
5 on actual reduction to practice, as to the specific claims that I
6 identified at the outset, and when we overlay that timeline with
7 the dates of the 102 (e) dates of both Smith and Sedat, we see that
8 this conception and this reduction to practice, actual reduction to
9 practice, took place -- excuse me -- well before those 102(e) dates
10 of those references.

11 Now I'll move into a brief discussion of constructive
12 reduction to practice, and starting at slide 30, here's where we
13 move on with the timeline, going beyond the actual reduction to
14 practice. And now I also want to, as I did before, take a step back
15 and introduce some of the players involved in the constructive
16 reduction to practice.

17 Here we have Mr. Tom Morris, who is a director of
18 commercial development for the fluorine products unit at
19 Honeywell. He manages the processes by which commercial
20 processes are approved for actual manufacture. So, if something
21 is considered to go into manufacturing, Mr. Morris internally
22 handles that process to try to get that approved or not.

23 We have testimony from Mr. Morris, which will show
24 through 2009 and into 2010, showing that Honeywell continued
25 uninterrupted, spending engineering resources toward approvals

1 for a plant to manufacture 1234yf using the process of '282
2 patent.

3 We also will have testimony from Mr. Bradford, who I
4 introduced to you earlier. As I said, he's the intellectual property
5 counsel at Honeywell. He oversees the invention disclosure
6 process for the fluorocarbon process technology group, and that's
7 the group under which the '282 patent falls. This is a large
8 engineering group, and there are over 100 engineers and scientists
9 in that group. Mr. Bradford testified that Honeywell's procedures
10 for the invention disclosures of Honeywell were followed and did
11 not deviate from the standard.

12 And then we will also have testimony from Joe
13 Posillico. Joe Posillico is an outside patent attorney who works
14 for Honeywell. He drafted or was responsible for drafting the
15 provisional application for the '282 patent, and he'll provide
16 testimony that that application was drafted without delay and was
17 done in accordance with the ordinary and customary procedures
18 of his law firm and, in fact, was expedited.

19 Now, turning to slide 31, again, we have the conception
20 in March of 2008, and the evidence that I will rely on for the
21 period -- I'm sorry, the constructive reduction to practice through
22 the end of September 2008 is the same as I've just gone through
23 for actual, and so unless the Board has questions regarding that
24 evidence on actual reduction to practice, I will skip to slide 42 --

25 JUDGE POLLOCK: Question, Mr. Rose: The claims
26 of individual steps of withdrawing spent KOH and another step of

1 recovering spent KOH, would you walk me through how that
2 maps to your actual reduction to practice evidence, those two
3 steps?

4 MR. ROSE: Yes. The withdrawing was the removal
5 using the dip tube. The dip tube takes out the -- I'm sorry.

6 Okay, withdrawing, as we discussed, in withdrawing,
7 the evidence there shows that it was taken out of the reactor, the
8 CSTR. What slide are we on, 25? Slide 25 discusses the
9 withdrawing of the spent KOH from the reactor, and there we
10 talked about these reports showing that the use of the dip tube
11 with valves were opened to take out the spent KOH. That's
12 withdrawing.

13 JUDGE POLLOCK: Okay.

14 MR. ROSE: Next, the -- on slide 26, we talk about
15 recovering spent KOH. Recovering is what happens in the SPCC
16 when the entrained or dissolved organics are removed or
17 separated from the spent KOH, as well as, as we indicated, the
18 unknown heavies are separated from the spent KOH, and as --

19 JUDGE POLLOCK: So, in your mind, recovering
20 means more than just taking it out of the reactor.

21 MR. ROSE: Correct. That's our position, and I believe
22 the Board indicated that at page 8 of the initiation decision, that
23 there is some form of separation involved.

24 Now, moving to slide 42. Now, we'll pick up with,
25 after all the activity that led to actual reduction to practice,
26 picking up in October of 2008, the activity continued in the

1 laboratory. Again, there are monthly reports, and we see that
2 those reports continue to be made, and there were experiments
3 conducted essentially to improve the quality of the data and to, as
4 you see on slide 43, to complete a mass balance, and mass
5 balance is something that is used to scale up, if you will, from
6 laboratory to manufacturing facility. It's used for the engineering
7 folks in order to model the size of reactors, longevity, to scale up
8 to a manufacturing facility. So, that work continued.

9 Then we see along the timeline that that continued
10 through March, with the lab work then in April. We see
11 testimony from Mr. Morris, again, as with the other testimony
12 from the Honeywell witnesses, sworn, under oath testimony, not
13 challenged, not cross examined by the Petitioner, and Mr. Morris
14 testifies and confirms that they were pursuing global
15 commercialization of 1234yf. And this was a significant effort to
16 develop the commercial plant for global production.

17 I know counsel challenged whether that is sufficient,
18 whether working on developing a plant -- I would direct the
19 Board's attention to the Federal Circuit case *Scott vs. Koyama*,
20 281 F.3d 1243, at 1248 to 49, and that's a Federal Circuit case
21 from 2002.

22 That work, again, is supported by the uncontroverted
23 testimony of Mr. Morris, that the work was continuous
24 throughout that period, from April to August of '09, and --

25 JUDGE KOKOSKI: Excuse me, Counsel.

26 MR. ROSE: Yes?

1 JUDGE KOKOSKI: Petitioner is arguing that the
2 Morris declaration doesn't point out that -- what he -- what they're
3 developing commercially, how it relates to the '282 patent. How
4 do you respond to that?

5 MR. ROSE: Yes, Your Honor, and you may recall that
6 there was a motion to compel evidence in this case, and there's
7 reference in Mr. Morris' declaration to a white paper, a highly
8 confidential white paper, and the Board ordered that we produce
9 that, albeit in a redacted form, and we did. We had understood
10 that Petitioner was going to file the documents that we were
11 ordered to produce as exhibits, but they didn't, and we would be
12 happy to submit those as exhibits.

13 But that white paper specifically indicates, in the
14 unredacted portion that we've produced, that the particular
15 process that was being considered was manufacture of 1234yf
16 using mediated base conversion, dehydrohalogenation, using
17 KOH. So, it specifically refers to in a chart, where they
18 contemplate different volumes to make, but it specifically
19 indicates, and I believe that white paper is dated December of
20 2009.

21 JUDGE KOKOSKI: Does Mr. Morris rely on that
22 white paper in his declaration?

23 MR. ROSE: He did. Yes, he did. He cited to that.
24 Because of the highly confidential nature of it, we were reluctant
25 to file it, but when asked, we filed it or we submitted it, and we

1 expected the Petitioner would file it. But it definitely is cited in
2 Mr. Morris' declaration.

3 JUDGE KOKOSKI: Thank you.

4 JUDGE POLLOCK: So, the white paper refers to the
5 use of KOH, but it doesn't refer to the particular methods that
6 we're discussing in the claims?

7 MR. ROSE: It does not break down the claims. It
8 talks about the process, and the only process that has been
9 considered that uses KOH is this process. If my colleagues can
10 find the white paper, I will read to you exactly what it says, but
11 it's in there, and we will happily file that as an exhibit in this case.

12 Now, moving on to slide 47, we see that these activities
13 continued from April until August of 2009, that's the Honeywell
14 pursuing commercialization, and that carries us through the
15 102(e) date of the Smith reference.

16 Moving on to slide 48, this moves us into the next area
17 of the timeline, and through this time what we have is continuing
18 activity, and there are three bodies essentially of work that are
19 overlapping.

20 We have Mr. Morris and his business people
21 developing a commercialized manufacturing plant for global
22 supply of the product. We have Mr. Bradford and his patent
23 committee inside Honeywell working with the inventors to
24 coordinate the invention disclosure and move it through the
25 internal Honeywell process. And then there's the work of outside

1 counsel, outside patent counsel, to then take that ball and run with
2 it.

3 So, in August of 2009, we have Dr. Bektesevic
4 preparing and submitting an invention disclosure form, and this
5 was an internal process known as WIDS, where she formalizes
6 the disclosure of the invention, and the WIDS system described
7 here in the Patent Owner's response is known for Worldwide
8 Invention Disclosure System, and that's used in the fluorocarbon
9 system technology group in Honeywell, and it's a system by
10 which electronically the inventors submit their inventions to then
11 be considered by the patent committee.

12 So, this WIDS submission took place in August of '09,
13 and, again, we see from the timeline that at the same time,
14 Mr. Morris and his business group were continuing to investigate
15 the commercial manufacture, and there we see in September of
16 '09, as I mentioned, the white paper. And there again is -- we're
17 on slide 52 -- again, specific mention of the white paper.

18 Now, moving on to slide 53, what happens next, once
19 the WIDS submission is put in, it goes to the patent committee,
20 and the patent committee is made up -- it's chaired by
21 Mr. Bradford. It's made up of other people in the patent law
22 group, as well as business people and other scientists within the
23 fluorine products group.

24 So, when Mr. Bradford took over the patent committee,
25 he held a quarterly meeting, and these meetings are held
26 quarterly, and just by way of background, the fluorine products

1 group, as I said, has about 100 scientists and engineers, and the
2 patent committee receives roughly 25 invention disclosures every
3 quarter and at any given meeting has upwards of 50 invention
4 disclosures on its plate, while also considering such things as
5 foreign filings, annuities and maintenance fees. So, they have got
6 a very full plate, and oftentimes those meetings last several hours
7 to consider all that's before them.

8 So, moving on to slide 54, we see that the patent
9 committee meeting took place in January of 2010. This was the
10 first patent committee when the -- after Dr. Bektesevic's
11 submission of her WIDS form. Among all the other things the
12 patent committee reviewed, they reviewed Dr. Bektesevic's
13 WIDS submission, and the patent committee asked
14 Dr. Bektesevic to draft a more detailed disclosure.

15 This takes us into February --

16 JUDGE KOKOSKI: Excuse me, before you go on to
17 February on the timeline --

18 MR. ROSE: Yes?

19 JUDGE KOKOSKI: -- what, if anything, was
20 happening between August 21st, 2009, when the disclosure went
21 into WIDS, and January 2010 when the patent committee had
22 their meeting? Was there anything going on then?

23 MR. ROSE: Well, what happened was it had gone into
24 the WIDS and whatever else was going into the WIDS went into
25 the WIDS. Mr. Bradford took over the patent committee in late
26 2009 and immediately set a new -- the first quarterly patent

1 committee meeting since his taking over that position was set for
2 January.

3 JUDGE KOKOSKI: So, there was no quarterly patent
4 meeting in the last quarter of 2009?

5 MR. ROSE: There was not because Mr. Bradford had
6 just taken over the committee in that fourth quarter of 2009. So,
7 he set his first patent committee meeting for the end of the fourth
8 quarter.

9 JUDGE KOKOSKI: Okay.

10 MR. ROSE: So, as I said, at that committee meeting,
11 the first one since the WIDS submission, it was brought up, it was
12 discussed. Dr. Bektsevic was asked to submit a more detailed
13 disclosure. That takes us into February on the timeline, and we
14 see that in February, on February 10th, is when Dr. Bektsevic
15 submitted her more detailed description.

16 Now, as with everything with the patent committee,
17 remember, as I said, the patent committee is considering upwards
18 of 50 disclosures at any given time. So, when something goes
19 into the system, it gets taken up at the next patent committee
20 meeting. So, rather than somebody picking up one of 50 different
21 disclosure documents, the way they -- the only way you can do it
22 when you have that many disclosures and that many people on a
23 committee is to meet periodically and, at the end of each period,
24 take up the documents for all the disclosures and see what's been
25 done and what should be done next.

1 JUDGE TORNQUIST: Why is waiting a full quarter
2 reasonable in this situation?

3 MR. ROSE: Because of the sheer volume. Because of
4 the sheer volume and the number of people who have to partake
5 in that committee. Doing it more frequently than that would be a
6 disruption, to have to convene every month and consider all 50 of
7 these disclosures, some of which might not have anything
8 happening, some of them might have had a to do list that didn't
9 happen or did happen.

10 But it's such a lengthy meeting, and as I mentioned
11 earlier, these meetings can somehow take upwards of three hours,
12 and as you'll see in the next slide, the April meeting indeed took
13 so long it had to be carried over to another day. So, our view is
14 that it is reasonable, when you're talking about that much volume
15 that has to be covered in any meeting, to do it once quarterly.

16 JUDGE KOKOSKI: Is there any evidence in the
17 record about how Honeywell does these procedures? Do you
18 have any testimony or records that back up what you're saying
19 about --

20 MR. ROSE: Dr. -- I'm sorry, Mr. Bradford submitted a
21 declaration explaining these procedures.

22 JUDGE KOKOSKI: Okay.

23 MR. ROSE: So, as I said, Dr. Bektsevic submitted
24 her more detailed description in February, and the time for the
25 next patent committee meeting was in April. As you'll see there,
26 there were two dates, because the patent committee meeting had

1 to be carried over. And in that patent committee meeting, the
2 patent committee confirmed receipt of the submission, and they
3 asked Mr. Bradford to review it with an eye towards filing a
4 patent application, which Mr. Bradford proceeded to do leading
5 to the next patent committee.

6 We see here on the timeline, the next patent committee
7 meeting, highlighted in green, was July 12 of 2010, and at that
8 committee meeting, Mr. Bradford recommended to the committee
9 the filing of a patent application. The patent committee asked
10 Mr. Bradford to send the application to outside counsel. So, as of
11 July 12, 2010, which is four days before the 102(e) date of Sedat,
12 we have corroborated and unchallenged testimony that the
13 invention was approved for filing an application directed to this
14 invention. Again, this testimony covers all of the time and has
15 been unchallenged, and, again, as seen here, that is four days
16 before the 102(e) date of Sedat.

17 Now, following that meeting, as counsel indicated, the
18 next step, as is with the normal ordinary course with all the patent
19 committee meetings, Mr. Bradford's paralegal prepares detailed
20 minutes covering all of the 50-odd invention disclosures, as well
21 as foreign filings, annuity decisions, and summarizes those and
22 then circulates them to the entire committee for review and
23 comment. And as discussed, that's approximately a two-week
24 period.

25 JUDGE TORNQUIST: Counsel, before you move on,
26 I just --

1 MR. ROSE: Sure.

2 JUDGE TORNQUIST: -- the time period between
3 August of 2009 to the September meeting of 2010 is almost a
4 year, right, and there's five events within that year. Do you have
5 case law that would suggest that that broad period of time with
6 only five events is still reasonable?

7 MR. ROSE: Well, as I said, the timeline is complete
8 with testimony. The documents that we've submitted, those are
9 evidence that support what's taking place, but what is taking place
10 is the ordinary course of business. It is processing through, and
11 that is the ordinary course of business at Honeywell, to go
12 through each of these steps through that process.

13 And so I'll look for case law, but the point is that there
14 weren't just five events. There was the ordinary course of
15 business taking place the entire time, but each of these milestones
16 has to be reached to get to the filing of the patent application, and
17 because of the way the system works in its ordinary course,
18 certain events take place at various -- at certain time intervals.

19 JUDGE TORNQUIST: I guess my concern is, it might
20 be the ordinary course, but is it a reasonable ordinary course to
21 take a year to get to this point?

22 MR. ROSE: Yes, and for an organization of this size,
23 when you have got some 25 new invention disclosures coming in
24 every quarter, I would submit that that's probably -- that's very
25 reasonable because you've got to consider all of these rather than
26 selecting one out. You can't know a year in advance or six years

1 in advance or, in this case, eight years in advance what's going to
2 be the most important of those 25 that are coming in each quarter.

3 So, you have to process them this way; otherwise, the
4 system would break down. With that many coming in, I don't -- I
5 can't think of any other way to do it, other than periodic meetings
6 and go through them, spend several hours going through each one
7 and decide here's what we're going to do on this one; here's what
8 we're going to do on this one.

9 And I'm sure there's discussion about them, then, okay,
10 let's move to the next one. That's why the meetings go several
11 hours. So, yes, if you're a small company and you have your one
12 invention, sure, and if three or four people have to talk about it
13 and decide to file a patent application, that's a different story.

14 So, moving on, and as counsel indicated -- I'm on slide
15 63 now -- yes, Mr. Bradford took a vacation, as did his paralegal,
16 we're all human, and he took one over his birthday at the time,
17 and I expect he will be taking one again later this month over his
18 birthday as well. But when he returned -- and I'm sure -- we all
19 take vacations. We all know what it's like when you get back
20 from vacation. Things have piled up.

21 Mr. Bradford, as indicated, had a lot of stuff piled up,
22 including negotiating licenses, technology transfer agreements,
23 supply agreements, but he also instructed his paralegal to
24 immediately pick up this application and start moving it towards
25 getting it to outside counsel. Now --

1 JUDGE KOKOSKI: I'm sorry, Counsel, I have got one
2 other question.

3 MR. ROSE: Yes, sure.

4 JUDGE KOKOSKI: Looking at the PC meeting
5 minutes from July 12th, that's Exhibit 2042, on page 6, it's the
6 only thing that's not redacted on that page.

7 MR. ROSE: Yes.

8 JUDGE KOKOSKI: What does it mean that it was on
9 hold, that the invention was on hold?

10 MR. ROSE: Yes, and I am happy to explain that.
11 "Hold" is a category that the inventions are put in, and I can have
12 my colleague look for the other -- the meeting minute notes or the
13 meeting minutes. As you'll see, "hold" is a category that they are
14 put in. It does not mean they are not being acted on.

15 The way it works at Honeywell is if it comes out of
16 "hold," then it essentially goes into almost emergency mode, that
17 a clock starts ticking, and you have got to get it filed
18 immediately. This was being processed in the ordinary course, so
19 it was maintained on hold. And then you see in the column next
20 to hold, "Bradford to send to outside counsel."

21 If you look at the prior meeting notes, each one has a
22 different action item in that column. So, I'm referring now to
23 Exhibit 1033. This was the -- these were from May of 2010, and
24 after "hold," it says, "Bradford to review with eye to filing." So,
25 there's an action item in the column next to "hold."

1 The next one I would identify is Exhibit 1032. After
2 the indication of "hold," it states, "Bektesevic to write detailed
3 disclosure by February 10. Received." So, what's happening is
4 it's staying in that category, which means it's processing through
5 the ordinary course. It hasn't been picked out to go immediately
6 to application, but it is proceeding through with action items at
7 each stage.

8 JUDGE KOKOSKI: Okay. So, "hold" is just a
9 Honeywell term of art, for lack of a better word.

10 MR. ROSE: Exactly, exactly.

11 JUDGE KOKOSKI: But things are still going on.

12 MR. ROSE: Exactly.

13 JUDGE KOKOSKI: Okay, thank you.

14 MR. ROSE: So, following the instruction to package
15 the disclosure up for outside counsel, as instructed by
16 Mr. Bradford, the paralegal coordinated the package for outside
17 counsel, and it wasn't merely a matter of slapping a cover letter
18 on. That included preparing a budget, a retention letter, counsel
19 instructions, and all the supporting materials, which the paralegal
20 did in the ordinary course, as testified by Mr. Bradford, while
21 assisting with all the other matters.

22 So, having the package together, the paralegal then sent
23 that to outside counsel on August 19, and then we see the
24 testimony from Mr. Posillico that it was received by his firm, and
25 it was put in the ordinary course in the queue for his associate to
26 take it up, and Mr. Posillico gave testimony -- again,

1 uncontroverted and under oath -- that his associate, he checked
2 his associate's hours, and saw that he was very busy during that
3 time frame, billing over 40 hours per week, and he put that
4 application in the normal queue, and when it came up at its turn,
5 the associate picked it up and he turned it around in five business
6 days and sent the draft back for approval by the inventors.

7 Typical turnaround time for that is seven days. The
8 inventors looked at it and asked for more time. They said, okay,
9 that's fine, send -- you know, take an extra week. I don't have the
10 exact dates, but they turned it around from when he -- they said,
11 can we get more time? They had a few more days. They sent it
12 back. And when it came back to Mr. Posillico, it was
13 immediately filed on October 12th.

14 So, this timeline is filled out by all these witnesses,
15 including sworn, under oath testimony by two attorneys, who are
16 licensed to practice before this tribunal. So, this is sworn
17 testimony and, again, it's uncontroverted.

18 So, I'd like to move on now to a discussion of the
19 references. Oh, to go back and answer Your Honor's question
20 regarding the white paper, the white paper has a chart that
21 includes identification of the raw material, which is HFP, as is
22 identified in the '282 patent as the starting material, and then --
23 and two rows above that -- and, again, we will happily submit this
24 to the Board -- the processes identified are catalytic and then
25 KOH, KOH, KOH, and catalytic. So, the KOH process and the
26 only process that we're aware of that is used with KOH to

1 produce 1234yf and beginning with HFP is the process of the '282
2 patent.

3 So, turning now to the references, first, with regard to
4 Sedat, and Sedat is pertinent only as to the '915 case, we would
5 point out that Sedat, as an initial matter, is not enabled. Sedat
6 identifies as its lowest reaction temperature 80 degrees C and
7 pressures ranging from 1.1 to 2.5 bar. Now, at one bar, the
8 boiling point of 236 is six degrees Celsius. At one bar, the
9 boiling point of 225 is 20 degrees Celsius. So, if introduced
10 within this pressure range identified by Sedat at 80 degrees C,
11 Dr. Lousenberg testified that there would not be an appreciable
12 amount of time before those reactants essentially evaporated or
13 boiled off before they could have any appreciable amount of
14 reaction.

15 Indeed, in order to get the reaction temperature to 80
16 degrees C, Dr. Lousenberg testified you would have to keep your
17 reaction container at ten bar for 236 or at six bar for 245, well
18 outside the range identified by Sedat.

19 Now, counsel seemed to indicate or argue earlier that
20 Dr. Lousenberg somehow went back on that testimony on
21 enablement. He did not. Counsel presented him with a document
22 identified as the Sianesi reference, which was submitted as an
23 exhibit by the Petitioner, and the Sianesi reference talks about
24 operating at higher temperatures through a lengthy reaction tube,
25 so that the reaction gases are required to stay in that tube for a
26 lengthy period of time before they can get out, but when asked on

1 redirect, Dr. Lousenberg confirmed that, having seen that
2 reference, it did nothing to dissuade him from his conclusions that
3 Sedat is not enabled.

4 JUDGE TORNQUIST: I believe they have argued that
5 Sedat actually issued as a U.S. patent as well.

6 MR. ROSE: It later did, yes.

7 JUDGE TORNQUIST: What's your response to that,
8 that that patent would be presumed enabled?

9 MR. ROSE: It may be presumed enabled, but we have
10 testimony by Dr. Lousenberg who looked at it. We believe Sedat
11 is a paper patent, and at those temperatures, Dr. Lousenberg has
12 said very clearly those reactants won't be in the reactor long
13 enough to react. So, while there may be a presumption that the
14 U.S. case is enabled, I don't believe that presumption applies to a
15 foreign reference --

16 JUDGE TORNQUIST: I guess that's my first question,
17 is does that apply?

18 MR. ROSE: Right. I don't think it does. I'm not aware
19 of case law that supports that it does, but to be honest, I have not
20 looked into whether the presumption of a U.S. patent being
21 enabled means that a counterpart, which may or may not be
22 identical to the U.S. patent, is also enabled.

23 Now, moving on to slide 70, we see also that Sedat is
24 silent, as we discussed, regarding dissolved organics or possibly
25 heavies coming out in the reaction stream or anything else. As a
26 result, Sedat doesn't teach anything about separation of those

1 components coming out of the reaction stream. It is silent on
2 those, and, therefore, there is no teaching of separating the spent
3 KOH from those materials -- any other materials coming out in
4 the reaction stream because Sedat is silent on those.

5 Now, there is separation that the Petitioner argues takes
6 place in Sedat, but that is taking place at the filter, number 8, and
7 as even Petitioner's expert, Dr. Manzer, testified, that at that filter,
8 that -- there is no longer spent KOH, because there is purely KOH
9 there. In Sedat, that takes place after the KF has been converted
10 to KOH. And Petitioner's expert has confirmed that there is no --
11 it's no longer spent KOH. I'm looking for the citation here. I
12 would refer to Exhibit 2004, page 103, lines 2 to 15, of the
13 Manzer testimony.

14 But that's the only separation, and that's the removal or
15 the filtering out of the calcium fluoride that takes place after the
16 potassium fluoride has been converted to KOH, and, therefore,
17 there is not spent KOH in that stream. It is just KOH.

18 Now we move to slide 72, and this is what we saw
19 earlier, which is where Petitioner found the need to change, as
20 referred to by counsel, to modify the Sedat reference. Again, not
21 an argument made at the -- in the *prima facie* -- or in the case in
22 chief and a new argument being raised for the first time in the
23 reply. And in response to that, I would cite to *Ericsson vs.*
24 *Intellectual Ventures I*, IPR2014-00963, paper 31, at pages 8 to
25 10, finding that it's improper to make a new theory or assert a

1 new theory at the reply stage, and, therefore, not counting or
2 considering that theory.

3 But what this does do is it points out that things were
4 missing from Sedat, and so the need was to change, and Sedat did
5 not see that need. If Sedat had felt that there was some reason to
6 separate there, Sedat could have put in that phase separator, and
7 there's no indication that that phase separator would work or how
8 it would work or how it would be set up. It's just an imaginary
9 component in the reaction.

10 Next I'll talk briefly about the Smith reference, and,
11 again, Smith we believe is distinguished because, first of all, it,
12 too, does not disclose any dissolved organics or anything else
13 coming out of the reaction stream that would need to be
14 separated. As a result, Smith doesn't teach performing any
15 separation. Moreover, Smith doesn't disclose any appreciable
16 amount of unreacted potassium hydroxide coming out in the
17 reaction stream, and Dr. Manzer confirmed that.

18 So, moving on to the Smith and Sedat combination
19 asserted by Petitioner, because both of those references are silent
20 as to any separation taking place, the recovery of spent KOH,
21 which the Board indicated in the initiation decision includes some
22 form of separation, because that's not taught by Smith and not
23 taught by Sedat, then the combination of Smith and Sedat also
24 would not teach that. Moreover, there's nothing in Smith that
25 suggests that there is any problem with Smith, and, therefore, it
26 would be fixed by a combination with Sedat.

1 Also, we have testimony from Dr. Manzer who
2 confirms that Smith does not disclose the existence, let alone any
3 significant amount of unreacted DHA or KOH, but he also
4 confirms in his testimony, cited here at page 145, line 10, through
5 147, line 5, that nothing in Smith indicates that there would be
6 unreacted KOH or any reason to separate, purify, concentrate,
7 regenerate, or recycle potassium hydroxide.

8 And I'll touch briefly on the comment by counsel about
9 there being a rule of thumb to recycle. Both Dr. Manzer and
10 Dr. Lousenberg agreed that to the extent there is any rule of
11 thumb, it's to come up with the most efficient process, not
12 necessarily to recycle.

13 Turning briefly to the Masayuki reference, I will
14 explain briefly why Masayuki is distinguished. Turning -- I'm on
15 now slide 80, and I will note that Masayuki, here is the first
16 reference we see that identifies or confirms the problem of having
17 dissolved organic reactants in the product stream; however, what
18 Masayuki teaches us is to accommodate the existence of those, to
19 run the reaction at a hot enough temperature that the dissolved
20 reactants are not a problem. And we all agree that Masayuki does
21 not teach the separation of dissolved organics.

22 What Masayuki teaches, the only form of separation, is
23 the separation of the lipid phase, the catalyst, which is a
24 long-chain, phase fatty acid, which is not a dissolved organic. So,
25 what takes place in Masayuki at the decanter is not the separation

1 of dissolved organics. Indeed, Masayuki teaches the opposite.

2 Keep the organics in solution.

3 Turning now to slide 82, and Dr. Lousenberg pointed
4 out in his report that there are issues caused by the teaching of
5 Masayuki with what happens at the evaporator and that the
6 evaporator -- you see that the goal of Masayuki is to precipitate
7 out sodium chloride, as counsel referenced, and thereby to
8 increase the volume of sodium hydroxide or the concentration of
9 sodium hydroxide back up to its initial concentration.

10 And we'll get to in a minute some of the further
11 problems caused by doing that when you combine Harrison, but
12 what's interesting is that Dr. Manzer, Petitioner's counsel, never
13 considered that problem, that you're changing the concentration
14 by way of evaporation.

15 Moreover, as we see in Petitioner's own slides, as they
16 did with Sedat, they changed and asserted a new interpretation or
17 a new application of Masayuki which now says, oh, you want to
18 separate the dissolved organics, what you can do in the case of
19 the 1234yf reaction is they can boil off at the evaporator, and
20 they'll come out. They don't show where the stream is, but we
21 see, as shown in the red box, that they will evaporate out, and the
22 argument by counsel is that they would evaporate out because
23 you're boiling off water, and those components have such a lower
24 temperature, a lower boiling point than water, that certainly they
25 will come out.

1 And I would agree that they would boil off if you're
2 boiling water; however, the problem is, A, it's a new argument
3 which highlights the flaws in Masayuki and the flaws in the
4 original arguments, and I would also point out that, as we saw
5 from counsel's presentation, that supposedly paramount is -- and
6 they identified the testimony of Dr. Lousenberg -- paramount is
7 environmental concerns and safety concerns, and yet there's
8 nothing in Masayuki, first of all, that would suggest it, but
9 counsel's own arguments confirm that you wouldn't want to boil
10 off 236 and 245 in the evaporator, because now you get nothing
11 that's shown in Masayuki to contain those.

12 Now, as I said, it's important -- and I touched on it a
13 moment ago, the big difference between Masayuki is that he uses
14 sodium chloride or sodium hydroxide and the by-product salt is
15 sodium fluoride. They have very different solubilities in water,
16 and, therefore, by heating, increasing their concentrations, the
17 sodium chloride will precipitate out without the sodium
18 hydroxide. That can't be used and, therefore, Masayuki is
19 inapplicable in a system involving potassium hydroxide and
20 potassium fluoride because they have nearly identical solubilities.
21 So, heating the solution won't precipitate out the potassium
22 chloride.

23 JUDGE KOKOSKI: Well, would a person having
24 ordinary skill in the art understand how to adjust those
25 temperatures and whatnot to accommodate using KOH in instead
26 of sodium hydroxide?

1 MR. ROSE: No, they wouldn't, Your Honor, and as
2 Dr. Lousenberg testified, they really couldn't, because no matter
3 how high you heat it up, as soon as one starts precipitating out,
4 they both precipitate out, because they're very close. In sodium
5 chloride, you have a very low -- a low solubility compared to
6 sodium hydroxide. So, if the concentrations get so high that -- if
7 they get high enough, sodium chloride will precipitate out if it
8 gets too concentrated, but sodium hydroxide is much more
9 soluble, so it stays in solution.

10 When you have two components dissolved in water
11 that have very nearly identical solubilities, you can't separate
12 them that way. There has got to be another way. So Masayuki
13 wouldn't be able to separate them, which leads us to the
14 combination involving Harrison.

15 The concern or the problems that exist with Harrison
16 are twofold. First, Harrison talks about using a system that calls
17 for at least 80 percent water. Well, in Masayuki, you're busy
18 trying to lower the amount of water. You wouldn't be -- you
19 wouldn't have a motivation to combine Harrison because
20 Harrison is going to add back a lot more water than what you
21 would want, and you would have to add that much at 80 percent
22 to get enough calcium hydroxide in to drop out the -- to react to
23 all the potassium fluoride to drop out the calcium fluoride.

24 And as Dr. Lousenberg testified, what would happen
25 ultimately, because you continue to -- in the enricher of
26 Masayuki, you continue to boil off water to raise your KOH

1 concentration back to the original concentration going into the
2 reactor, as you keep doing that and boiling off more water, if you
3 are just adding lime, as opposed to the 80 percent water solution
4 identified in Harrison, if you are just adding lime, what happens
5 is you keep boiling off more water, and the concentration of the
6 potassium fluoride after each recycle loop is higher each time
7 around, and pretty soon you've added enough calcium hydroxide
8 and precipitated enough calcium fluoride that it becomes
9 sludgelike, or I think Dr. Lousenberg used the term cement-like,
10 and it eventually will bog down the system, which shows that that
11 combination won't work, and the POSITA would not be
12 motivated to combine them.

13 Now, what we see here, advancing to slide 88, is,
14 again, what the Petitioner has found to do in response to that
15 argument, which is to add a stirrer. Again, we are changing
16 Masayuki after the response from the Patent Owner, making an
17 argument that was not made in the initial presentation, in the
18 initial petition, by changing another reference. This is similar to
19 what they did with Sedat.

20 Now, one might say, well, of course you could add a
21 stirrer, but what's important here is that Dr. Manzer never said
22 anything about adding a stirrer. This is attorney argument, and
23 Dr. Manzer, indeed, admitted he never did any kind of modeling
24 like Dr. Lousenberg did to confirm that, yes, your concentration
25 loop is going to go around and around until the system bogs

1 down. Dr. Manzer confirmed that he didn't think about that, and
2 he didn't do any modeling to challenge that.

3 So, just in summarizing, I believe we have touched on
4 all of the points as far as, you know, what we believe claim
5 construction should be, why there was an actual reduction to
6 practice, as supported by an abundance of evidence which is not
7 controverted, and I want to go back to that preponderance -- I'm
8 sorry, the evidentiary standard, which is a preponderance of the
9 evidence, meaning is the evidence on Honeywell's side, does it
10 weigh more than the evidence on the Petitioner's side? I would
11 submit to Your Honors that the only evidence on actual reduction
12 to practice is evidence that shows an actual reduction to practice.

13 Similarly, we've tied off the entire timeline for a
14 constructive reduction to practice. Testimony -- factual
15 testimony, uncontroverted factual testimony -- shows continual
16 diligence from conception until the constructive reduction to
17 practice. Now, Petitioner will argue that, well, here's a time and
18 here's a date and here's a date. Those are the documents that
19 support the timeline. The testimony covers the entire time. So,
20 we submit that we have satisfied constructive reduction to
21 practice, and as I've discussed just most recently, that we believe
22 that the references don't cover off all of the claim elements, nor is
23 there motivation to combine them.

24 So, with that, unless there are any further questions
25 from the Board, I will sit.

26 JUDGE KOKOSKI: Thank you.

1 MR. ROSE: Thank you, Your Honors.

2 **(Pause in the proceedings.)**

3 JUDGE KOKOSKI: Whenever you're ready.

4 MR. BEAUPRÉ: Thank you. Thank you, Your
5 Honors.

6 So, Judge Tornquist, earlier you asked me a question,
7 and I don't think I understood it at the time, and I think I do now.
8 So, let me start off by trying to answer it better than I did earlier.

9 JUDGE TORNQUIST: Okay.

10 MR. BEAUPRÉ: You asked about commercialization,
11 and so full-blown commercialization is not required; in fact, the
12 standard is set forth in one of the cases I talked about earlier,
13 *Tyco*, which cites *Scott vs. Finney*, and I'll just read a portion right
14 from *Tyco*, which, like I said, cites to *Finney*.

15 "While recognizing the defendant's prototypes may not
16 have been ready for commercialization, nor have met the specific
17 goals of the parties" -- it refers to the party that made the
18 prototype, that project -- "in order to have been reduced to
19 practice, the intended purpose encompassed by the claims at issue
20 here, the Court is not convinced that the testing reflected in the
21 record shows 'utility beyond a probability of failure.'"

22 So, that's why they're citing to *Scott vs. Finney*, and this
23 is the standard, utility beyond the probability of failure, rather
24 than capable of fulfilling the function for which they were
25 designed. And so that's what the Court looks to. And so Your
26 Honor is correct. We're not looking for a commercialization

1 standard here. We're looking for proof that it will probably work.

2 Now, beyond a probability, not beyond a possibility, is the

3 language.

4 Now, this is relevant because, at that point in time, we

5 have what the inventors thought about the probability. They said

6 they need more details, and also they said they were considering

7 going back to the drawing board and using a completely different

8 DHA. That's nowhere near rising to the level of showing that

9 there's beyond probability that it will work for its intended

10 purpose. At that point in time, in fact, the inventors say just the

11 opposite.

12 And also, for recycling, for the intended purpose of

13 recycling, even if the inventors had said, oh, we can do this, this

14 is easy, we have faith in this -- which is not what they said, they

15 said they had doubts -- but even if they hadn't expressed those

16 doubts, the second element that we see on slide number 16,

17 determination that the invention would work for its intended

18 purpose, that requires experimentation unless the invention is so

19 simple that you don't need to run any tests for it.

20 There's nothing on the record that indicates that this is

21 simple. In fact, there were months of testing to get from

22 conception to alleged reduction to practice, and even at that point

23 they made it clear, the inventors, that they had concerns about

24 whether it would work.

25 So, we can't look at just whether or not they could have

26 recycled. We need to look at did they recycle and determine that

1 the invention would work for its intended purpose, for recovering
2 and recycling. And then, like I said about recovering, that was
3 also not met because the inventors expressed strong doubts about
4 whether it would work.

5 So --

6 JUDGE TORNQUIST: Let me just ask you, to make
7 sure I understand your argument, if we disagree that the intended
8 purpose of recycling is part of the actual reduction to practice, do
9 you still believe that they have not shown that they've actually
10 reduced to practice?

11 MR. BEAUPRÉ: Correct.

12 JUDGE TORNQUIST: Okay.

13 MR. BEAUPRÉ: Because of -- so, if that's the scenario
14 where the intended purpose is recovering spent KOH, then we
15 look to the *Tyco* case, the section where it talks about the
16 prototype not being far enough along to show that it would work
17 for its intended purpose.

18 Similarly here, on slide 21, where the -- where the
19 inventors are saying that the solubility -- that there's a large
20 quantity of unreacted KOH wasted. So, this isn't working; we
21 need to figure out a solution. And they said they need more
22 information about the first possibility. The second possibility
23 was starting over with a redesign. So, that's how we show lack of
24 actual reduction to practice under the intended purpose of
25 recovering spent KOH only.

26 Any other questions on intended purpose?

1 JUDGE TORNQUIST: I have another one. I'd like to
2 go to the specific question of recycling. If you could pull up the
3 patent at issue?

4 MR. BEAUPRÉ: Yes. A particular page?

5 JUDGE TORNQUIST: Yes, column 6, and it's line 18
6 to 21. I'd like you to explain -- at least I -- the way I read this, it
7 suggests that removal -- let me just read it out loud.

8 MR. BEAUPRÉ: Yes, thank you.

9 JUDGE TORNQUIST: It says, "Removal of spent
10 dehydrohalogenating agent from the reactor reduces design and
11 operational costs and recycling the spent and/or regenerated
12 dehydrohalogenating agent leads to improved efficiency."

13 So, it appears that they're distinguishing between
14 removal and recycling.

15 MR. BEAUPRÉ: Correct.

16 JUDGE TORNQUIST: And it looks like removal does
17 reduce design and operation costs. Why does that not meet, at
18 least partially, the goal -- the intended purpose that you recited in
19 the abstract?

20 MR. BEAUPRÉ: Sure. And so just like in the *Tyco*
21 case, where one of the benefits of the invention, one of the
22 potential uses was cutting, the coagulating aspect of it, the Court
23 said that's part of the intended purpose as well because cutting
24 isn't enough. You -- it's not -- you wouldn't want to use this
25 invention without cutting it or without coagulating.

1 Now, I bring that up because we have Dr. Bektesevic,
2 in Exhibit 2022, page -- I believe it was page number 6, the third
3 line from the top, and that's the confidential statement where she
4 essentially indicates why you wouldn't want to run this process
5 without recycling. So, there we see what the inventors thought
6 about recovering without recycling, but we don't have to just look
7 there.

8 We can also look to the patent itself, the very first line
9 of the abstract, where it says, "The invention relates to at least
10 recovering and recycling." So, what I mean by that is the
11 intended purpose is at least recovering and recycling. There may
12 be some other benefits. They're -- and recovering may have some
13 aspects that are beneficial, recycling has some aspects that are
14 beneficial, but when looking at the intended purpose, you look at
15 the advance in the art, and you say, okay, what -- what is it that
16 the inventors were trying to accomplish? Well, we know what
17 they were trying to accomplish. Dr. Bektesevic tells us. There is
18 no point in doing this unless we recycle.

19 JUDGE TORNQUIST: But at least as I -- I just want
20 to make sure I flesh out the argument.

21 MR. BEAUPRÉ: Sure.

22 JUDGE TORNQUIST: The abstract says -- well, one
23 could argue the intended purpose is actually increasing the cost
24 efficiency of the system, and then the question is, how do you do
25 so? And one way to increase the cost efficiency is removal. Why
26 isn't that enough, then, to at least achieve the intended purpose?

1 MR. BEAUPRÉ: Sure, okay, that's actually similar to
2 another case that -- the *Manning* case, where the Court looked
3 at -- this was a -- the Court looked at -- oh, and also, like I said,
4 the abstract says "at least," but also -- so, we think that it means in
5 order to increase cost efficiency, you at least do recovering and
6 recycling.

7 But also, in the *Manning* case, that dealt with treating
8 cardiac arrest, and in that case the Court looked and said, okay,
9 even though the claims talk about -- the claim is limited to
10 perfusing the subject with a solution in an amount effective to
11 deliver oxygen to the heart -- so, delivering oxygen to the heart is
12 beneficial, it serves a purpose -- but the Court said, okay, we need
13 to look at the whole specification and see, how much oxygen do
14 we really need to deliver? And they said that's part of the
15 intended purpose, is to deliver an amount of oxygen that's
16 sufficient to have a therapeutic effect.

17 And actually claim 8 in that case -- so, we were talking
18 about claim 1 just now. Claim 8 had a range of oxygen that
19 would be delivered or a rate of the solution that the spec said this
20 is the amount necessary. And so that's U.S. Patent Number
21 5,216,032, at column 1, line 67, through column 2, line 1, that's
22 where it talks about the purpose. And then also the same patent,
23 column 4, lines 32 to 38, and this is the *Manning vs. Paradis*
24 case, 296 F.3d 298, Federal Circuit, 2002.

25 So, then, if that answers Your Honor's question --

1 JUDGE TORNQUIST: I believe I understand your
2 argument.

3 MR. BEAUPRÉ: Okay, thank you.

4 So, the next point I wanted to make -- it's an
5 overarching comment. There were many, I guess, comments or
6 testimony by counsel that are not part of the record. So, for
7 example, Honeywell's permits, the details of these meetings, none
8 of that is objective evidence of record. It's not on the record at
9 all. In fact, I'd like to delve into this a little bit.

10 Counsel for Patent Owner indicated that the white
11 paper relates to KOH. I'd like to read the only thing that's on the
12 record regarding the white paper. This is paragraph 9 of the
13 Morris declaration. It's one paragraph, four lines long.

14 "By September of 2009, Honeywell had a working
15 draft of a white paper to brief Honeywell top executives
16 regarding 1234yf and to obtain approval for business decisions
17 related to the manufacture of 1234yf. The white paper was yet
18 another piece of our ongoing efforts."

19 There is nothing tying the white paper to KOH or, even
20 more specifically, the '282 patent with recovery and recycling.
21 Everything that counsel said about the Morris declaration, beyond
22 what I just read, is beyond -- it's outside of the objective record of
23 evidence.

24 And also, even when you look at the white paper itself,
25 which like I said and counsel said, is not of record, it talks about
26 catalytic processes in addition to KOH. It -- on page 41, catalytic

1 processes -- and by the way, the document is almost entirely
2 redacted. There's very little that we can see or glean from it. It's
3 hard to know. KOH, yes, it's listed a few times, but so are
4 catalytic processes, which preclude the possibility that KOH was
5 being discussed there.

6 So, we do know what's in paragraph 9 of Mr. Morris'
7 declaration. Looking at the document, yes, it mentions KOH, but
8 the document isn't of record, and there's nothing explaining the
9 document on its face and how the white paper related to KOH.

10 Also, counsel referred to *Scott vs. Koyama*. In that
11 case -- I'm sorry my papers are shuffling so much, hopefully that's
12 not messing up the microphone -- but in *Scott vs. Koyama*, the
13 Court said that the -- this relates to commercializing activities can
14 be relevant for reduction to practice. In that case, the Court
15 said -- and this is looking at page 1248 of the *Scott vs. Koyama*
16 case, the Court said that all -- that the commercial activities
17 attributed to diligence were "all for the purpose of building a
18 manufacturing plant to practice the process of the count."

19 So, there's a case where the party actually tied the
20 commercial activities to the claims, not just the general subject
21 matter, but to the claims. So, that's why *Scott vs. Koyama* came
22 out the way it is, and that's not the case here, as we talked about.

23 Next, we heard a lot from Honeywell's attorney about
24 how these declarations are uncontroverted. That's not true. First
25 of all, we filed a motion to exclude because many of the
26 documents were not authenticated. So, we -- at the very least, we

1 felt they were very -- that they were very objectionable, and we
2 controverted a lot of what was said. But even setting that aside,
3 the reason -- to suggest that the reason we didn't depose these
4 individuals is that we couldn't controvert them or the fact that we
5 didn't depose them suggests that we're not disputing what they
6 say, the reason we didn't dispute them is because their
7 declarations were insufficient, both on diligence and reduction to
8 practice.

9 On diligence, like we heard from counsel, there were
10 these long gaps. He's saying that their evidence, their objective
11 evidence on the record is the testimony in those -- in those
12 declarations. Well, we point to a lot of cases that say you can't
13 just say "I was working on X during these two months." You
14 have to show more than that. You have to show details so the
15 Board can assess whether it was actually reasonable diligence
16 because none of that is assumed.

17 And secondly, with actual reduction to practice,
18 intended purpose is nowhere in any of the declarations, other than
19 the legal standard in Dr. Lousenberg's declaration. He
20 acknowledges that there is such a thing in the legal standards
21 section, and that's it. He doesn't define it. He doesn't say it was
22 met. So, intended purpose, that's another reason why these
23 declarations are insufficient.

24 We also -- and then, Judge Pollock, I believe you asked
25 about the dip tube, and I think your question was answered, but
26 just to make sure, the dip tube is being pointed to for the

1 withdrawing step. For the recovery step, the dip tube is not being
2 asserted. So, even if the dip tube was a stream, that's not
3 recovery.

4 Recovery is allegedly the SPCC. And so here's -- slide
5 27 shows all of the things that are alleged to be recovery, an
6 actual reduction to practice, and that's slide 27 of our slides. And
7 then slide 28 shows the figure that shows what was done. The
8 dip tube is coming up out of the top in one mode, and then in
9 another mode, we -- so, a complete -- a different process,
10 essentially, or a different mode, the -- we have -- coming out of
11 the yellow cylinder, the line that comes down to the lower
12 left-hand corner, spent KOH/H₂O, that's the SPCC, so that's
13 where the alleged recovery is taking place. But as we say in our
14 briefs, that's not separation in a stream.

15 Then turning next to -- we had some more testimony
16 from counsel, so to speak -- I don't know what else to call it --
17 where he was describing these patent meetings. The majority of
18 what we heard during this section was new to us. It's nowhere on
19 the record. So, for example, the sheer volume of applications is a
20 reason to have -- is a reason to have these meetings once a
21 quarter, that's nowhere in the record, although contrary, I would
22 think the more applications you would have, I would think the
23 more often you would want to meet to knock them out.

24 But anyway, setting that aside, we also heard that there
25 were 50 disclosures discussed at a meeting, that it lasted three
26 hours, that that's the reason why they hold these so infrequently,

1 and then 25 -- oh, thank you, 25 per quarter -- I was trying to
2 write down all the things that weren't in the record. None of
3 those were supported by Mr. Bradford's declaration.

4 It's all -- I don't know if it's true or not, but it's certainly
5 the first time I've heard it, and it's not of record, and I think it
6 would be inappropriate to consider any of that. This is why the
7 Board in its case law requires detail so that it can assess this
8 information, and I understand -- I believe Mr. Rose was
9 responding to questions when he said a lot of this stuff, but none
10 of that is in the record, and without it being in the record, without
11 this evidence, the Board can't assess the reasonableness of the fact
12 that Honeywell has these meetings once a quarter, for example.

13 So, also, pointing to the Bradford declaration itself,
14 Mr. Rose pointed to the declaration -- to Mr. Bradford's
15 declaration for these points. None of those points are in his
16 declaration. I don't think I caught them all. I think there's several
17 other things that he said that are not on the record anywhere, but I
18 would urge the Board or ask the Board to look at the Bradford
19 declaration when reading this portion of the transcript, because
20 much of it is not in there.

21 Also, with respect to -- along the same vein, I don't
22 mean to beat a dead horse, but with respect to the cover letter, the
23 one-page cover letter that took 18 days to write, Mr. Rose said
24 that that was written after Mr. Bradford came back from vacation.
25 That part is on the record. The fact that Mr. Bradford -- that
26 Mr. Bradford had a backlog, that's nowhere on the record. The

1 fact that he was working on -- I believe there were three or four
2 things listed, only one of those is on the record, which is the two
3 technology agreements, and all Mr. Bradford says about
4 writing -- so, that's the -- that's the time frame right after he got
5 back.

6 And then turning to the letter itself, counsel for
7 Honeywell indicated that that -- part of the reason that took so
8 long is because they had to come up with a budget for that. That's
9 nowhere in the record. In fact, the record contradicts that.
10 Paragraph 15 of Mr. Bradford's declaration says, "I generated my
11 paralegal to generate a cover letter" -- or "I instructed my
12 paralegal to generate a cover letter and guidelines for preparing
13 the application in view of the budget that was authorized." This
14 suggests that the budget had already been determined, and all that
15 was necessary is the "cover letter."

16 Now, that cover letter is not part of the record. It has
17 been produced in this case. It's four paragraphs long, each of
18 which is just a standard form letter document. This is a
19 five-minute job that took 18 days. There's no other way to see it.

20 Next -- oh, another thing that we know about this time
21 period is that the '282 application was on hold for a long time, but
22 we don't know why it was on hold, and we don't know anything
23 about the details of why it was on hold or that "hold" is a term of
24 art. That's the first time we've heard this.

25 In fact, the word "hold" is nowhere in any of the
26 declarations. It appears in the document, one of the PC meeting

1 summaries, but there's nothing explaining what it means, other
2 than Mr. Rose's testimony today where he says it's a term of art.
3 So, that's another thing that is not objective record of evidence.

4 And then finally -- and to clarify, the legend has been
5 produced for that document. At first it wasn't. So, that legend --
6 and I don't think the document has been submitted as an exhibit,
7 but there is a legend that shows that there's three different
8 classifications, but nothing explains what "hold" means. That's
9 what I was saying. I didn't mean to imply that "hold" is nowhere
10 in the record. The term "hold" is in the record, but there's nothing
11 explaining what it means.

12 So, we're left with -- it's hard to -- it's hard for us to
13 determine, was it reasonable diligence to have the application on
14 hold? Well, we don't know because we don't know what the term
15 means. We do know it was on hold for six months and that the
16 application was not filed during that six months, but more than
17 that would be speculating.

18 And then finally, the term "normal queue" for outside
19 counsel, that is not in Mr. Posillico's declaration. In fact, all he
20 says about the timing of his associate's drafting is he asked his
21 associate to "prioritize the drafting of this patent application
22 consistent with his other tasks, with a target filing date of
23 September 30th."

24 So, there's nothing talking about putting this in a queue.
25 We don't know if it was in a queue or not. We do know that he
26 asked that -- his associate to prioritize it consistent with his other

1 tasks, but we don't know what those other tasks were, other than
2 the fact that he -- what he averaged per day, which is 8.7 hours,
3 and as the case law tells us, that's not enough. You need to
4 provide more detail.

5 In conclusion -- and we're not done, I just want to wrap
6 up my section, and then Mr. Baum will speak -- but I want to
7 make sure that we're looking at the objective record of evidence
8 because I think a lot of what was just said is far outside of that
9 record. And unless Your Honors have questions, I'll sit down.

10 JUDGE KOKOSKI: Thank you.

11 MR. BEAUPRÉ: Thank you very much.

12 MR. BAUM: So, we heard Patent Owner's counsel
13 complaining about new arguments. None of the arguments that
14 he complained about were first made today. They were all in our
15 reply brief. There was a decision about a month ago from the
16 Federal Circuit, *Genzyme Therapeutic Products vs. Biomarin*
17 *Pharmaceutical*, which states:

18 "The introduction of new evidence in the course of trial
19 is to be expected in *inter partes* review trial proceedings, and as
20 long as the opposing party is given notice of the evidence and an
21 opportunity to respond to it, the introduction of such evidence is
22 perfectly permissible under the APA."

23 Patent Owner's counsel had notice in the reply. Patent
24 Owner's counsel is here today to respond to those arguments.
25 Patent Owner could have requested the filing of additional paper
26 if Patent Owner believed that that would be helpful or necessary.

1 So, to argue that these are new arguments that shouldn't be
2 considered falls short.

3 JUDGE TORNQUIST: But you can't change your
4 argument for the combination on reply, right?

5 MR. BAUM: Well --

6 JUDGE TORNQUIST: I mean, I think that's one of the
7 arguments, you've added these extra pieces.

8 MR. BAUM: Yeah, we are just responding to the
9 arguments that they've raised and -- so, there's another Board
10 decision which is instructive. This is in -- IPR2014-01555, and
11 it's an order authorizing motions. We will get the paper number
12 for the reporter after [*Volkswagen*, IPR2014-01555, Paper 36].
13 So, there's a statement on page 5 that says:

14 "New issues raised in reply have been and continue to
15 be a problem in IPR cases. Related presentation of reply
16 evidence can be prejudicial to the Patent Owner. On the other
17 hand, Patent Owners have too often cried foul when evidence is
18 properly replied upon. In reply, Petitioner legitimately may
19 respond to arguments made in opposition. To do so often is
20 necessary to rely on evidence already in a petition or, two, new
21 evidence. A motion to supplement is not necessary if evidence
22 relied upon is -- in a reply is limited to responding to arguments
23 made in the opposition."

24 Now, here, Patent Owner raised this crazy claim
25 construction that spent KOH must include KF, and we were just
26 responding to them. We asked their expert what a POSITA

1 would have recognized, reading Sedat, reading Smith, and that's
2 how we got where we did with dissolved organics.

3 Another issue that came up was, with regard to claim
4 construction, how do we construe spent KOH? It's -- our first
5 resource for claim construction is the intrinsic record, and we
6 looked at the claims, the dependent claims, that specifically call
7 out by-product salts, including KF.

8 Let me go back to the slide that deals with this. This
9 would be slide 5. It's claims 16, 33, and 34. There's also portions
10 of the spec that separately refer to spent DHA and salt
11 by-products being separate components of the reaction stream.
12 So, what Patent Owner is doing is trying to rely on an example
13 that doesn't mention KF. It just mentions dissolved organics.

14 The reason it doesn't mention KF is because everybody
15 knows it's going to be there. It's a reaction by-product, and the
16 examples, just like the work done at Honeywell in its alleged
17 actual reduction to practice, they never converted KF back to
18 KOH. That's why they don't reference it in the example. So,
19 that's not the place to look in the intrinsic record for construction
20 of this term.

21 Patent Owner also pointed to Dr. Manzer's testimony
22 about those examples, but what he passed over was the previous
23 four pages of testimony where Dr. Manzer's asked about the term
24 "spent KOH," and he testifies at page 82, lines 15 to 16:

25 "No, spent KOH is spent KOH. Spent KOH is not a
26 by-product salt."

1 Page 83, lines 10 to 12:

2 "Well, the terms of the '282 patent indicate that spent
3 DHA and by-product salts are referred to as two separate
4 components."

5 Page 84:

6 "QUESTION: So, could it be reasonable or would it be
7 reasonable to include KOH and KF as spent KOH? Isn't that
8 right?

9 "ANSWER: I don't consider KF to be spent KOH. I
10 say that there in paragraph 34. That's the general context."

11 So, let's read the record as a whole, as Patent Owner's
12 counsel suggests.

13 I think I also heard that obviousness doesn't consider
14 optimization or modification of prior art references. Well,
15 obviousness can result from combining references, obviousness
16 can result from modifying aspects of references, so long as there's
17 a basis that one of ordinary skill in the art would recognize and
18 understand, have a reasonable probability of success. And so let's
19 just look at what Patent Owner's expert testified to.

20 JUDGE KOKOSKI: Counsel, you have about five
21 minutes left.

22 MR. BAUM: Thank you very much.

23 "QUESTION: So, would a person of ordinary skill in
24 the art recognize that dissolved organics are entrained in the
25 aqueous phase coming out of reactor 1 in Sedat?

26 "ANSWER: Yes."

1 Patent Owner's expert was really emphatic that
2 dissolved organics would be present.

3 "I cannot understand a situation in which there would
4 not be dissolved organics in a product of the reaction stream. It's
5 my opinion that there would be dissolved organics in the aqueous
6 phase."

7 We have looked at that slide before as to why he would
8 want to take them out, and he was asked whether one of ordinary
9 skill would be able to remove dissolved organics that took place
10 in the decanter between reactor 1 and reactor 6. "There might be
11 substantially removed dissolved organics but possibly not
12 completely. So, they are substantially pure."

13 We see the same thing with -- the same sort of
14 testimony with regard to Masayuki. Slide 56 (as read):

15 "QUESTION: What would be coming out of the
16 reactor 19?

17 "ANSWER: Aqueous KOH and the phase transfer
18 catalyst and a small amount of KOH.

19 "QUESTION: Would there be dissolved organics
20 coming out?

21 "ANSWER: Yes.

22 "QUESTION: Would one of ordinary skill understand
23 dissolved organics would be present in the stream?

24 "ANSWER: Yes."

25 So, it's pretty clear that a POSITA would understand,
26 according to Patent Owner's expert, that dissolved organics would

1 be present in these processes, and a POSITA would not take them
2 out.

3 Now, Patent Owner also mentioned that there's an
4 Arkema patent, a patent for Sedat, and the patent he's referring to
5 I believe is 9,018,429, and I -- if you take a look at that patent,
6 you'll realize that the claims in that patent are much narrower than
7 what Honeywell has in this case in terms of claim 21, and all that
8 Patent -- all that Petitioner did was copy the claims that have
9 issued in the '282 patent merely for the purposes of provoking an
10 interference if the patent is found -- if the patent is not found
11 invalid for some reason. So, there was no admission there that
12 Patent Owner's claims are valid whatsoever, and if you look at the
13 prosecution history in that case, you will see that we disclaim --
14 make that same disclaimer in that record.

15 Now, with regard to enablement, Patent Owner brought
16 up the Sianesi reference. Well, we did discuss that reference at
17 the deposition of Patent Owner's expert, but we don't rely on it.
18 We're really just relying on, from an enablement standpoint, what
19 Patent Owner's expert said. And the enablement slide is -- so,
20 that is enabled. Thank you.

21 So, we're relying on what Patent Owner's expert has
22 said. Patent Owner's expert made it pretty clear that the reference
23 is enabled. As I mentioned, he said that -- he admitted that shear
24 mixing is used in order to facilitate the reaction. He admitted that
25 high shear rate mixing can create small enough droplets of each

1 phase to create a high surface area to facilitate the reaction.

2 Exhibit 1024, page 70, lines 4 through 10.

3 And then, as I mentioned before, he specifically
4 discussed the fact that -- in talking about Smith, that the reaction
5 in Sedat -- he was comparing it with Sedat -- is very quick, there's
6 not a lot of reactant, and the reactant escapes. Exhibit 1025, page
7 240, lines 15 through 18.

8 Now, with regard to the combination of Smith and
9 Sedat, there's -- Patent Owner made the argument that -- that
10 somehow those references would not describe the claimed
11 invention, and, you know, let's be clear. We're relying on Smith
12 for the chemistry. We're relying on Smith for that
13 dehydrohalogenation and hydrogenation step that's present in
14 claims 1 and 10, and those are present in Smith, and Sedat
15 teaches a way to handle the by-product KF as well as dissolved
16 organics, as we've discussed before.

17 He also touched on the rule of thumb. Look at that rule
18 of thumb. It's -- we're talking about economics. It doesn't mean
19 there aren't more options as a result depending on which rule of
20 thumb you pick. There are still only two options as to how to
21 deal with KF and KOH.

22 With regard to Masayuki, they were talking about,
23 well, 236 and 245 would boil off at enricher 21, and that's true
24 because the boiling points for 236 and 245 are 6 degrees and 21
25 degrees C, so you wouldn't have to run that enricher very hot.
26 That's supported by Exhibit 1025, 284, lines 22 to 24. And they

1 also failed to point out that there's a condenser 23 that would
2 condense not only the water but the organics that then could be
3 readily separated as they are in two phases.

4 They also discussed Harrison and said that Harrison
5 requires at least 80 percent water. I can't find that. I looked at
6 their slides and the cite to their brief, and then I'd look at the
7 portion that the brief cites in Harrison. It doesn't say 80 percent.
8 And, in fact, there are a lot of instances where the slides that
9 Patent Owner put forward, they cite their own brief, and you have
10 got to look at the -- that's not real -- that's not objective evidence.
11 You have got to look for the objective evidence.

12 And, again, today we heard many statements as to what
13 Dr. Lousenberg said without citation whatsoever. I don't know
14 where to find a lot of this stuff in the record. So, please do pay
15 attention to the objective evidence in this case. Thank you.

16 JUDGE KOKOSKI: Thank you.

17 We thank the parties for your attendance and
18 presentations today. The information presented has been very
19 helpful. This matter is now submitted to the panel for
20 determination and preparation of the final written decisions. This
21 concludes oral argument in IPR2015-00915, IPR2015-00916, and
22 IPR2015-00917. We are adjourned.

23 **(Whereupon, at 3:57 p.m., the hearing was**
24 **adjourned.)**

25

26