

**United States Court of Appeals
for the Federal Circuit**

STEVEN C. CHUDIK,
Plaintiff-Appellant

v.

**ANDREW HIRSHFELD, PERFORMING THE
FUNCTIONS AND DUTIES OF THE UNDER
SECRETARY OF COMMERCE FOR
INTELLECTUAL PROPERTY AND DIRECTOR OF
THE UNITED STATES PATENT AND TRADEMARK
OFFICE,**
Defendant-Appellee

2020-1833

Appeal from the United States District Court for the
Eastern District of Virginia in No. 1:19-cv-01163-AJT-JFA,
Judge Anthony J. Trenga.

Decided: February 8, 2021

ERIC RYAN WALTMIRE, Erickson Law Group, PC,
Wheaton, IL, argued for plaintiff-appellant.

CATHERINE YANG, Office of the United States Attorney
for the Eastern District of Virginia, United States Depart-
ment of Justice, Alexandria, VA, argued for defendant-ap-
pellee. Also represented by G. ZACHARY TERWILLIGER;

KAKOLI CAPRIHAN, DANIEL KAZHDAN, THOMAS W. KRAUSE, BRIAN RACILLA, FARHEENA YASMEEN RASHEED, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA.

Before TARANTO, BRYSON, and HUGHES, *Circuit Judges*.

TARANTO, *Circuit Judge*.

Dr. Steven Chudik applied to the Patent and Trademark Office (PTO) for a patent on his “Guide for Shoulder Surgery” on September 29, 2006. When the assigned PTO examiner issued a second rejection of all then-pending claims as unpatentable in 2010, Dr. Chudik took a step that would turn out to have consequences for the patent term adjustment awarded under 35 U.S.C. § 154(b) when his application ultimately issued as a patent. Rather than immediately taking an appeal to the Patent Trial and Appeal Board under 35 U.S.C. § 134(a), Dr. Chudik requested a continued examination under 35 U.S.C. § 132(b). In 2014, the examiner again rejected his claims, and Dr. Chudik then appealed to the Board. But instead of filing an answer, the examiner reopened prosecution, only to reject the claims as unpatentable on a different ground, in early 2015. That 2014–2015 process—notice of appeal filed, prosecution reopened before answer, new rejection on a new ground—occurred again in 2015. It occurred once more in 2016. Finally, in 2017, while Dr. Chudik’s fourth notice of appeal from an examiner rejection was pending, the examiner issued yet another new rejection, but this one led, in 2018, to a notice of allowance after Dr. Chudik altered some of his claims. Dr. Chudik’s U.S. Patent No. 9,968,459 issued on May 15, 2018, eleven and a half years after the application was filed.

The PTO ultimately awarded Dr. Chudik a patent term adjustment of 2,066 days under 35 U.S.C. § 154(b), but it rejected Dr. Chudik’s argument that he was entitled to an

additional 655 days, under 35 U.S.C. § 154(b)(1)(C)(iii) (C-delay), for the time his four notices of appeal were pending in the PTO. The C-delay provision covers delay due to “appellate review by the Patent Trial and Appeal Board or by a Federal court in a case in which the patent was issued under a decision in the review reversing an adverse determination of patentability.” 35 U.S.C. § 154(b)(1)(C)(iii). The PTO concluded that the provision does not apply here because, in light of the examiner’s reopening of prosecution, (1) the Board’s jurisdiction over the appeals never attached and (2) there was no Board (or reviewing court) reversal. The United States District Court for the Eastern District of Virginia affirmed the PTO’s decision. *Chudik v. Iancu*, No. 1:19-cv-01163 (E.D. Va. March 25, 2020), ECF No. 33.

We now affirm. The statutory language regarding C-delay for “appellate review” requires a “decision in the review reversing an adverse determination of patentability.” 35 U.S.C. § 154(b)(1)(C)(iii). That language, we conclude, is reasonably interpreted—indeed, is best interpreted—to require a reversal decision made by the Board or a reviewing court, thus excluding time spent on a path pursuing such a decision when, because of an examiner reopening of prosecution, no such decision is ever issued.

I

A

In 1994, Congress changed the length of a patent term from 17 years (measured from the patent’s issue date) to 20 years (measured from the patent’s earliest effective non-provisional-filing date). *See Mayo Found. for Med. Educ. & Research v. Iancu*, 938 F.3d 1343, 1345 (Fed. Cir. 2019). Because time spent in the PTO could now eat up part of the patent term, Congress also provided a list of specific situations in which the patent owner could seek an adjustment of the patent’s term to offset delays in the PTO. *Id.*; *see Uruguay Round Agreements Act*, Pub. L. No. 103-465,

§ 532, 108 Stat. 4809, 4983–85_(1994); 35 U.S.C. § 154(b) (1994 ed.). In 1999, Congress supplemented and modified the list and gave the provision its current structure. *See* American Inventors Protection Act of 1999, Pub. L. No. 106-113, § 4402, 113 Stat. 1501, 1501A-557 to -559 (codified at 35 U.S.C. § 154(b)).

The statute sets forth three broad categories of delay for which a patent may receive a patent term adjustment. *See* 35 U.S.C. § 154(b)(1)(A)–(C). First, patent owners may seek an adjustment where the PTO fails to meet certain prescribed deadlines for its actions during prosecution (A-delay). *Id.* § 154(b)(1)(A). Next, adjustment is generally authorized for each day that the patent application’s pendency extends beyond three years (B-delay), subject to certain exclusions, such as—critically for Dr. Chudik—for “time consumed by continued examination of the application requested by the applicant under section 132(b).” *Id.* § 154(b)(1)(B). Finally, patent owners may seek an adjustment for “delays due to derivation proceedings, secrecy orders, and appeals,” including “appellate review by the [Board] . . . in a case in which the patent was issued under a decision in the review reversing an adverse determination of patentability” (C-delay). *Id.* § 154(b)(1)(C). In the case of a C-delay, “the term of the patent shall be extended 1 day for each day of the pendency of the proceeding, order, or review.” *Id.*¹

¹ The 1994 statute contained a provision for adjustment based on appellate review that required “a decision in the review reversing an adverse determination of patentability” but differed in certain other ways from the 1999 provision. 35 U.S.C. § 154(b)(2) (1994 ed.). The 1994 provision and the PTO’s 1995 implementing regulations, *see* Changes To Implement 20-Year Patent Term and Provisional Applications, 60 Fed. Reg. 20,195, 20,196, 20,219,

The statute states that the Director of the PTO “shall prescribe regulations establishing procedures for the application for and determination of patent term adjustments.” 35 U.S.C. § 154(b)(3)(A); *see Wyeth v. Kappos*, 591 F.3d 1364, 1367 (Fed. Cir. 2010) (emphasizing the word “procedures” in the statutory provision). Two of those regulations are at issue in the present case: 37 C.F.R. §§ 1.702, 1.703. Section 1.702(e) pertains to “[d]elays caused by successful appellate review” and provides:

[T]he term of an original patent shall be adjusted if the issuance of the patent was delayed due to review by the Patent Trial and Appeal Board under 35 U.S.C. 134 or by a Federal court under 35 U.S.C. 141 or 145, if the patent was issued under a decision in the review reversing an adverse determination of patentability.

37 C.F.R. § 1.702(e). In promulgating the regulation, the PTO explained that the condition that the patent be “issued under a decision in the review reversing an adverse determination of patentability’ . . . requires a [Board] or Federal court decision in the review that reverses all of the rejections of at least one claim.” Changes To Implement Patent Term Adjustment Under Twenty-Year Patent Term, 65 Fed. Reg. 56,366, 56,370 (Sept. 18, 2000).

Section 1.703(e), the other regulation primarily at issue here, explains how to calculate C-delay. *See* 37 C.F.R. § 1.703(e). In its current form, adopted in 2012 and applicable to this case, § 1.703(e) states:

The period of adjustment under § 1.702(e) is the sum of the number of days, if any, in the period beginning on the date on which jurisdiction passes to the [Board] under § 41.35(a) of this chapter and

20,228 (Apr. 25, 1995), do not materially aid in the analysis of the issue we decide.

ending on the date of a final decision in favor of the applicant by the [Board]

Id. Under 37 C.F.R. § 41.35(a), jurisdiction passes to the Board in an applicant’s appeal, not when the applicant files a notice of appeal or brief, and not when the examiner files an answer, but only when the applicant files a reply brief or the time for filing a reply has expired, whichever is earlier.

Before 2012, § 1.703(e) provided that the adjustment period for C-delay began “on the date on which a notice of appeal to the [Board] was filed.” *See* 65 Fed. Reg. 56,366, 56,369–70. When the PTO revised the regulation in 2012, it specifically stated that an applicant “is not entitled to patent term adjustment for the reopening of prosecution” by a patent examiner under the regulations for C-delay; but it also explained that “under certain circumstances, the reopening of prosecution by the examiner may lead to additional patent term adjustment” under the provisions for B-delay (generally covering, with exceptions, prosecution time beyond three years). Revision of Patent Term Adjustment Provisions Relating to Appellate Review, 77 Fed. Reg. 49,354, 49,357, Resp. to Cmt. 11 (Aug. 16, 2012). The PTO also explained that it was making the revision to align the regulations on patent term adjustment with recently adopted general rules of practice before the Board providing that jurisdiction passes to the Board only when an applicant’s reply brief is filed or due (whichever date comes first). *See id.* at 49,354–55; *see also* Rules of Practice Before the Board of Patent Appeals and Interferences in *Ex Parte* Appeals, 76 Fed. Reg. 72,270, 72,273 (Nov. 22, 2011).

B

1

On September 29, 2006, Dr. Chudik filed U.S. Patent Application No. 11/529,197, entitled “Guide for Shoulder Surgery.” J.A. 107. On December 23, 2009, the examiner

issued a non-final rejection, and on August 18, 2010, the examiner issued a final office action rejecting all pending claims as unpatentable. J.A. 269–70. It is not disputed before us that Dr. Chudik, whose claims had been “twice rejected,” could have appealed the final rejection to the Board. 35 U.S.C. § 134(a). Instead of pursuing that path, however, on January 21, 2011, he sought further engagement with the examiner by filing a Request for Continued Examination under 35 U.S.C. § 132(b). J.A. 303.

Almost three years later, the examiner issued a non-final rejection, followed by a final rejection on September 9, 2014, which relied on prior art different from the art invoked in the 2010 rejection. J.A. 372–73. At that point, Dr. Chudik filed a notice of appeal to the Board, followed one month later by an opening brief. J.A. 382–83. The patent examiner elected not to file an answer to the appeal. Instead, as permitted by 37 C.F.R. § 41.39(b)(1), the examiner reopened prosecution and issued another rejection, in April 2015, on a ground different from the one stated in the 2014 rejection. J.A. 414–16.

Dr. Chudik filed a second notice of appeal, followed by a second opening brief. J.A. 424–26. The examiner responded by again reopening prosecution and again rejecting the claims on new grounds in November 2015. J.A. 459–61. Dr. Chudik filed a third notice of appeal and opening brief, leading to a reopening and a new rejection, followed by a fourth notice of appeal and opening brief. *See* J.A. 473,² 477, 484, 492, 526–27, 540, 546. In December 2017, while the fourth notice of appeal was pending, the examiner withdrew some rejections; and after some claim alterations, the examiner issued a notice of allowance on

² In May 2016, the PTO notified Dr. Chudik that his third notice of appeal was deficient and gave him a month to refile it correctly, which he did.

March 14, 2018. The application issued as U.S. Patent No. 9,968,459 on May 15, 2018. J.A. 107. In accordance with 35 U.S.C. § 154(b), after calculating the term extension to account for A-delay and B-delay (excluding delays attributable to Dr. Chudik), the PTO added to the title page of the '459 patent a statement that the term of the patent had been extended by 1,967 days. J.A. 632.

2

On July 13, 2018, Dr. Chudik filed a petition with the PTO arguing that 754 days should be added to the patent term (for 2,721 days total) to account for the time his four appeals had been pending before the Board. J.A. 633. He contended that the identified time qualified as C-delay. He did not challenge the PTO's findings about the proper amount of A-delay, B-delay, overlapping delay, and applicant delay. J.A. 634; *see also* J.A. 652.

The PTO rejected the argument for C-delay, but added 132 days on unrelated grounds, resulting in a new patent term adjustment of 2,099 days. J.A. 652–56. Regarding C-delay, the PTO reasoned that the time at issue did not qualify as C-delay because there was no Board decision or court decision “reversing an adverse determination of patentability.” J.A. 653–54. It also determined that the Board never had jurisdiction over Dr. Chudik's four appeals because the appeals ended before Board jurisdiction attached under the reply-brief rule. *Id.*; *see* 37 C.F.R. §§ 1.703(b)(4), 41.35(a). Without jurisdiction, the PTO continued, there could be “no successful appellate review within the meaning of 37 C.F.R. 1.702 & 1.703, and, consequently, no entitlement to a period of adjustment for C delay.” J.A. 654. The PTO added that, in promulgating the 2012 rules, it had explained that applicants were “not entitled to patent term adjustment for the reopening of prosecution” under § 154(b)(1)(C)(iii). J.A. 654–55 (quoting 77 Fed. Reg. at 49,357 (Resp. to Cmt. 11)).

Dr. Chudik twice asked the PTO to reconsider its conclusion, but the PTO twice reaffirmed its position. J.A. 682–90; J.A. 723–32. In the course of reconsidering the matter, the PTO made a final change in the awarded adjustment, reducing it (on grounds unrelated to the C-delay issue) from 2,099 days to 2,066 days. J.A. 690. The PTO included that number in the patent through a certificate of correction. J.A. 143.

3

On September 6, 2019, Dr. Chudik filed a complaint against the PTO’s Director in the United States District Court for the Eastern District of Virginia under 35 U.S.C. § 154(b)(4)(A), alleging that he was entitled to 655 additional days of C-delay for the ’459 patent. J.A. 55. The parties filed cross-motions for summary judgment. Dr. Chudik argued that C-delay applies in situations of “appellate review,” which, he urged, refers to the entire process for review by the Board, beginning when a notice of appeal is filed (and not only at the later time when the Board receives jurisdiction). *Chudik*, No. 1:19-cv-01163, ECF No. 33 at 8. Dr. Chudik also argued that the statutory language, “a decision in the review reversing an adverse determination of patentability,” covers an examiner’s own decision, through a reopening of prosecution, to undo her final action that is the subject of a notice of appeal. *Id.*

The district court rejected Dr. Chudik’s challenge. The court concluded that, although Dr. Chudik’s position was “based on a reasonable construction of the statutory text,” *id.* at 9, that was not enough for him to prevail. The court concluded that the statutory language is ambiguous, *id.* at 11, and that under *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984), the PTO’s position must be affirmed because that position, adopted through regulation, itself is reasonable. *Chudik*, No. 1:19-cv-01163, ECF No. 33 at 9–11. The court

explained that (1) “appellate review by the [Board]” could “reasonably be understood to refer to the actual process of substantive review by the [Board] rather than the period initiated procedurally as part of an administrative sequence” and (2) “a decision in the review” reasonably can refer to an actual Board (or court) decision, not an examiner reopening. *Id.* at 11–12.

The district court entered final judgment against Dr. Chudik on March 25, 2020. Dr. Chudik timely appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(1) and § 1295(a)(4)(C).

II

We review the district court’s decision on summary judgment de novo. *See Supernus Pharms., Inc. v. Iancu*, 913 F.3d 1351, 1356 (Fed. Cir. 2019) (applying Fourth Circuit law). “Patent term adjustment decisions of the [PTO] are reviewed in accordance with the Administrative Procedure Act.” *Id.*; 35 U.S.C. § 154(b)(4)(A) (providing for review under 5 U.S.C. §§ 701–706). The APA requires that courts “set aside agency action, findings, and conclusions” if they are “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law,” or if they are “in excess of statutory jurisdiction, authority, or limitations.” 5 U.S.C. § 706(2)(A), (C).

Where an agency interpretation of a statute is subject to the framework of *Chevron*, we follow an unambiguous meaning on the point at issue if we identify such a meaning in the statute using “traditional tools of statutory construction,” and we defer to a “reasonable” agency interpretation if the statute is ambiguous on the point at issue. *Chevron*, 467 U.S. at 842–44, 843 n.9; *see also Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2124–25 (2016). We have applied that framework to PTO positions based on certain regulations adopted under 35 U.S.C. § 154(b)(3)(A). *See, e.g., Intra-Cellular Therapies v. Iancu*, 938 F.3d 1371,

1379–84 (Fed. Cir. 2019); *Supernus*, 913 F.3d at 1356–61; *Gilead Sciences, Inc. v. Lee*, 778 F.3d 1341, 1346–51 (Fed. Cir. 2015); *cf. Wyeth*, 591 F.3d at 1367, 1372 (emphasizing the word “procedures” in the statutory provision and finding no deference warranted under *Chevron* because the statute unambiguously resolved the issue). Where the *Chevron* framework is inapplicable, we determine the “best interpretation” of the statute for ourselves, *Rimini Street, Inc. v. Oracle USA, Inc.*, 139 S. Ct. 873, 880 (2019); *Exxon Mobil Corp. v. Allapattah Servs., Inc.*, 545 U.S. 546, 567 (2005), while giving the agency’s position such weight as warranted under *Skidmore v. Swift & Co.*, 323 U.S. 134, 139–40 (1944). *See Encino*, 138 S. Ct. at 1142; *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 982–83 (2005); *United States v. Mead Corp.*, 533 U.S. 218, 227, 234–35 (2001); *Mead Corp. v. United States*, 283 F.3d 1342, 1345–46 (Fed. Cir. 2002). In this case, the choice of framework makes no difference to the result, because we conclude that the best interpretation of the “decision . . . reversing” language, even without *Skidmore* deference, is the one the PTO adopted, which means that the position must be given effect to deny Dr. Chudik the requested C-delay.

Section 154(b)(1)(C)(iii) provides, in relevant part, that applicants are entitled to C-delay where the delay is due to appellate review by the Patent Trial and Appeal Board or by a Federal court in a case in which the patent was issued under a decision in the review reversing an adverse determination of patentability.

35 U.S.C. § 154(b)(1)(C)(iii). The statute’s words, in their most natural meaning when applied to an examiner’s unpatentability ruling, require that the patent issue under a Board decision that reversed the examiner’s unpatentability ruling or under a court decision that reversed a Board unpatentability ruling in the matter. Dr. Chudik’s

interpretation—that the provision also covers an examiner’s reopening that withdraws a rejection—is, if not linguistically impossible, strained.

It is not unheard of to say that a tribunal “reversed itself” when speaking about the tribunal having changed a position it formerly took. *See, e.g., City of Cuyahoga Falls, Ohio v. Buckeye Community Hope Found.*, 538 U.S. 188, 193 (2003). But in the context of “appellate review” of a particular reviewable ruling, the term “reverse” is typically reserved for action taken by the appellate reviewer to undo the ruling being reviewed. “Appellate review” itself commonly means what a distinct reviewing authority does, not a reconsideration of one’s own decision. *Review (Appellate Review)*, Black’s Law Dictionary (8th ed. 2004) (“Examination of a lower court’s decision by a higher court, which can affirm, reverse, or modify the decision.”); *see also Review (Appellate Review)*, Black’s Law Dictionary (7th ed. 1999) (same). And in an appellate review, the normal meaning of “reverse” is an action by the reviewer with respect to the decision being reviewed. *See Reverse*, Black’s Law Dictionary (8th ed. 2004) (“[t]o overturn (a judgment) on appeal”); *see also Reverse*, Black’s Law Dictionary (6th ed. 1990) (“[t]o overthrow, vacate, set aside, make void, annul, repeal, or revoke; as, to reverse a judgment, sentence or decree of a lower court by an appellate court”). This ordinary meaning does not include the examiner’s repeated reopening in this case to withdraw her own decision.

The Patent Act supports this ordinary-usage distinction. It provides that “[t]he Patent Trial and Appeal Board shall . . . on written appeal of an applicant, *review* adverse determinations of examiners.” 35 U.S.C. § 6(b)(1) (emphasis added). We too have recognized the distinction. *See Hyatt v. U.S. Patent & Trademark Office*, 904 F.3d 1361, 1375 (Fed. Cir. 2018) (“The [Board]’s rules allow applicants to seek *review* of examiners’ final rejections before a higher authority, the [Board]. . . . Allowing examiners to reopen prosecution does not deprive applicants of their right to

appeal final examiner rejections because reopening prosecution cannot circumvent [Board] *review*.” (emphases added)). And our ordinary use of “reverse” in this context refers to decisions by the Board. *See, e.g., Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.3d 1357, 1361 (Fed. Cir. 2018) (“[T]he Board reversed the examiner’s rejections of the ’359 patent’s claims.”).

This meaning is the best understanding of the C-delay provision in particular. The statutory language speaks of “appellate review by” the Board or a court. In light of that language, the subsequent reference to a “decision in the review” is most naturally understood to refer to a decision *by* the appellate tribunal, *i.e.*, the Board or a court, not, *e.g.*, an examiner’s “decision” to reopen prosecution made during the review (whether the review is deemed to start when the notice of appeal is filed or later). This understanding is bolstered by the language specifying that what the decision must be is a “revers[al].” Considering the language as an integrated whole, we conclude that the provision is most fairly read to require a Board or court decision reversing an adverse ruling (*e.g.*, by the Board of the examiner or by a court of the Board).³

That this is the most natural reading of the provision is reinforced by its adoption by the PTO shortly after enactment of the 1999 amendments to the statute. In 2000, when promulgating 37 C.F.R. § 1.702(e), the PTO explained that “decision in the review reversing an adverse determination of patentability,” 35 U.S.C. § 154(b)(1)(C), requires “a [Board] or Federal court decision . . . that reverses all of the rejections of at least one claim.” 65 Fed. Reg. at 56,370. Although the PTO later considered departing from that view, and might even have departed from it

³ We do not consider what Board or court decisions might fairly come under the “reversing” language, as there was no Board (or court) decision at all in this case.

in practice, *see* 77 Fed. Reg. at 49,354–55; Revision of Patent Term Extension and Adjustment Provisions Relating to Appellate Review and Information Disclosure Statements, 76 Fed. Reg. 18,990, 18,991–92 (proposed Apr. 6, 2011), the PTO in 2012 decided not to change its 2000 interpretation of the “decision” language of the C-delay provision, 77 Fed. Reg. at 49,358 (Resp. to Cmt. 15); *see also id.* at 49,357 (Resp. to Cmt. 11) (“The applicant is not entitled to [C-delay] patent term adjustment for the reopening of prosecution of the application *per se*.”). We reiterate that we do not decide here whether the C-delay statutory provision unambiguously forbids the PTO to adopt a position different from its current one, only what the best interpretation of the statutory provision is as applied to Dr. Chudik’s situation.

Our conclusion requires affirmance of the district court’s upholding of the PTO’s denial to Dr. Chudik of the requested C-delay. We do not address the PTO’s other ground for its denial—concerning when jurisdiction over an appeal to the Board attaches. But we add one point relevant to some scenarios involving examiners reopening prosecution after a notice of appeal has been filed.

When adopting its 2012 regulations, the PTO explained that the limitations on C-delay adjustments—the interpretation of “appellate review” not to start until Board jurisdiction attaches, and the requirement of a Board decision—may be offset by an increased availability of B-delay adjustments for time that exceeds three years of prosecution if an examiner’s reopening occurs before Board jurisdiction attaches: “[T]he patent term adjustment awarded pursuant to the ‘B’ delay may increase when the examiner reopens prosecution after a notice of appeal is filed.” 77 Fed. Reg. at 49,355. In this case, however, as the parties agreed (Oral Arg. 3:00–3:35, 13:00–13:28), no such B-delay increase occurred because Dr. Chudik, rather than appealing to the Board after his 2010 final rejection, sought

continued examination, triggering a statutory exclusion from the time counted for a B-delay adjustment. *See* 35 U.S.C. § 154(b)(1)(B)(i) (excluding “any time consumed by continued examination of the application requested by the applicant under [35 U.S.C. § 132(b)]”). The unavailability of B-delay for nearly two years (655 days) of delay in the PTO illustrates what applicants should understand when deciding whether to request a continued examination rather than take an immediate appeal. The potential benefit of immediate re-engagement with the examiner through such continued examination comes with a potential cost.

III

For the foregoing reasons, the judgment of the District Court for the Eastern District of Virginia is affirmed.

AFFIRMED