

IN THE COURT OF APPEALS OF THE
STATE OF OREGON

OREGON OCCUPATIONAL
SAFETY & HEALTH DIVISION,
Petitioner,

v.

UNITED PARCEL SERVICE, INC.,
Respondent.

Workers' Compensation Board
1600012SH; A168084

Argued and submitted May 21, 2019.

Robert M. Wilsey, Assistant Attorney General, argued the cause for petitioner. Also on the briefs were Ellen F. Rosenblum, Attorney General, and Benjamin Gutman, Solicitor General.

Raymond Perez, Georgia, April Upchurch Fredrickson, and Jackson Lewis P.C. filed the brief for respondent.

Before DeHoog, Presiding Judge, and Aoyagi, Judge, and Linder, Senior Judge.*

LINDER, S. J.

Reversed and remanded.

* Linder, S. J., *vice* Hadlock, J. pro tempore.

LINDER, S. J.

The Oregon Occupational Safety & Health Division (OR-OSHA) cited United Parcel Service (UPS) for a violation of 29 CFR § 1910.219(c)(4)(i), a federal workplace safety rule that OR-OSHA has adopted by reference. The rule provides that an unguarded “projecting shaft end” of a power-transmission apparatus (*e.g.*, a conveyor) may not project more than one-half the diameter of the shaft. UPS requested a contested case hearing to challenge the citation. An administrative law judge (ALJ) vacated the citation on two grounds: first, that OR-OSHA’s method of measuring projecting shaft ends is inconsistent with the rule’s plain text; and second, that OR-OSHA failed to prove the knowledge element of a violation because UPS neither knew nor with reasonable diligence could have known of OR-OSHA’s measurement method. OR-OSHA seeks review, assigning error to both grounds for the ALJ’s decision.¹ We agree with OR-OSHA on both issues, and we reverse and remand.

I. BACKGROUND

The facts pertinent to our review are not disputed.² UPS is a package delivery company with facilities throughout the United States, including Oregon. On August 20, 2015, an OR-OSHA compliance officer, Walker, conducted a safety inspection of a UPS delivery terminal in Albany.³ During the inspection, Walker noticed, adjacent to a walkway, the end of a shaft that drives a belt on a packing sorting conveyor. The shaft end projected from the conveyor after passing through a fixed bearing bolted to the conveyor’s

¹ By operation of law, the ALJ’s order is deemed an order of the Worker’s Compensation Board. ORS 654.290(2)(b).

² OR-OSHA does not challenge the ALJ’s findings of historical fact. We therefore draw from those findings, together with facts in the record consistent with those findings. *Meltebeke v. Bureau of Labor and Industries*, 322 Or 132, 134, 903 P2d 351 (1995), *abrogated on other grounds by State v. Hickman/Hickman*, 358 Or 1, 24, 358 P3d 987 (2015) (unchallenged agency findings of fact are binding on judicial review); *Wallace v. State ex rel PERS*, 249 Or App 214, 215, 275 P3d 997, *rev den*, 352 Or 342 (2012) (reviewing court draws from unchallenged factual findings set out in contested case order, supplemented by the record).

³ A federal compliance officer happened to accompany Walker on that particular inspection. The federal officer was not independently inspecting the UPS facility, but instead was on a random “ride along” to observe the state inspection program.

side. Immediately beyond that stationary bearing, a collar was attached to the shaft, which prevented side-to-side (*i.e.*, axial) movement of the shaft and rotated with the shaft. The shaft then extended a short distance beyond the attached collar. None of the shaft end, from where it protruded from the conveyor to where it terminated, including the collar, was guarded by a nonrotating cap or safety sleeve.

The shaft end appeared to Walker to project out from the conveyor more than one-half the shaft's diameter. To confirm his visual assessment, Walker measured the shaft. Its diameter was $1 \frac{7}{8}$ inches (1.625 inches), making half of the diameter equal to $\frac{15}{16}$ of an inch (0.9375 inch). From the end of the shaft to where it entered the conveyor through the stationary bearing was $1 \frac{7}{8}$ inches (1.625 inches), which exceeded one-half of the shaft's diameter. So measured, the shaft end did not comply with 29 CFR § 1910.219(c)(4)(i).

Both the UPS site manager and the UPS safety compliance officer for the Albany facility questioned the way that Walker measured the shaft end's projecting length. UPS personnel are trained to determine compliance with 29 CFR § 1910.219(c)(4)(i) by measuring from the end of a shaft back to any collar attached to it, rather than to the nearest stationary surface. Walker disagreed that the shaft end should be measured that way. Walker had been field-trained by a senior compliance officer to measure from the end of the shaft back to the nearest stationary surface. During his 10 years working as a compliance officer, Walker estimated that he had issued 10 violation citations based on that measurement method. Even so, after UPS personnel questioned Walker's measurement, Walker remeasured the shaft end as UPS insisted—that is, from the end of the shaft to where the collar was attached to it, instead of farther back to the stationary bearing. So measured, the projecting length of the shaft end was $\frac{7}{8}$ of an inch (0.875 inch), which was less than one-half the diameter of the shaft, and therefore, would have complied with the rule.

Walker consulted with OR-OSHA technical staff by phone before completing his on-site investigation, as well as in OR-OSHA's offices in the days following the inspection. Those consultations confirmed that, under OR-OSHA's method for measuring projecting shaft ends, the shaft end

on the UPS conveyor was not in compliance with 29 CFR § 1910.219(c)(4)(i).⁴ OR-OSHA cited UPS for a serious violation of the rule. The citation proposed a penalty of \$210 and ordered UPS to abate the hazard. UPS had a tooling company reduce the length of the shaft end so that it complied with OR-OSHA's determination of the maximum distance that it could project if left unguarded.

UPS also requested a contested case hearing before an ALJ to challenge OR-OSHA's citation. At the hearing, Snapp, a policy analyst for OR-OSHA, explained how OR-OSHA interprets and applies 29 CFR § 1910.219(c)(4)(i) when measuring a shaft end that has a collar attached to it.⁵ Snapp testified that OR-OSHA's policy for that circumstance has been in place since at least 2014, when, at an OR-OSHA "Safety and Health Policy Group" meeting, top-level OR-OSHA officials discussed and resolved several policy questions. One of them was whether, for "mechanical power-transmission" machinery, "the length of a protruding shaft end include[s] the portion under the collar[.]" Snapp could not say why the question came to the policy group in 2014; it could have been, among other possibilities, because an employer or internal staff requested guidance. Whatever the impetus for the question, the minutes of the meeting documented the group's answer:

⁴ While at the UPS facility, Walker took pictures of the shaft that permitted his measurements to be verified later by other OR-OSHA staff. Snapp, who also testified in this case, performed that verification and came up with a projecting length of 1 5/8 inches—1/4 inch less than Walker determined the length to be. Both measurements exceeded one-half the diameter of the shaft. The ALJ therefore did not have to pick between them and found factually only that OR-OSHA measured the shaft to be either 1 5/8 inches or 1 7/8 inches in length.

⁵ Agencies are not always parties to contested cases that involve the interpretation of rules promulgated and administered by them. That can pose problems for the adjudication of those cases, because what matters is the promulgating agency's interpretation of its rules, not the interpretation of other agencies, officials, private parties, or adjudicators. *See, e.g., Johnson v. Employment Dept.*, 187 Or App 441, 448, 67 P3d 984, *rev den*, 336 Or 60 (2003) (deference owed by reviewing court is to interpretation of promulgating agency, not that of ALJ or intermediate reviewing board that have no rulemaking or policy-making authority). The Office of Administrative Hearings has established special procedures by which an ALJ may refer questions about the agency's interpretation or application of its own rules, which the agency may then answer in writing. *See generally* OAR 137-003-0645 (setting out referral procedures). Here, resort to those special procedures was not necessary because OR-OSHA was a party and presented evidence of its interpretation through Walker's and Snapp's testimony at the contested case hearing.

“When measuring the projecting distance of an unguarded shaft, include the portion of shaft that passes through a collar that rotates with the shaft. Measure from the end of the shaft back to the closest stationary enclosure that the shaft passes through.”

In 2016, Snapp was asked to prepare a “technical guidance” document based on the measurement method memorialized in the 2014 minutes. Technical guidance documents provide internal guidance for staff, but OR-OSHA considers them “important enough” that it publishes them on its website so that the information is available to the general public. Snapp explained that, in preparing technical guidance on safety requirements, OR-OSHA takes into consideration any relevant interpretation letters or other guidance issued by OR-OSHA’s federal counterpart agency, the federal Occupational Safety and Health Administration (federal OSHA). OR-OSHA does not consider federal interpretations binding, however, because OR-OSHA is a state agency that determines for itself what workplace safety rules to adopt. In all events, federal OSHA has not issued any relevant guidance on 29 CFR § 1910.219(c)(4)(i), which Snapp confirmed before the contested case hearing. Snapp explained further that federal OSHA was not the source of 29 CFR § 1910.219(c)(4)(i). Instead, the text of that and other federal OSHA rules originated in voluntary consensus standards established by the American National Standards Institute (ANSI), which dated back to the mid-1950s.⁶ Snapp could not say why ANSI had selected one-half the diameter of the shaft as the mathematical formula for how far a shaft end could project; the ANSI standard is now more strict.⁷

⁶ Snapp accurately described the origins of the federal regulatory standards. 312 Or App at 433 n 14.

⁷ ANSI standards are not available in the public domain. Secondary sources sometimes refer to them and quote them, however. A comparison of the 1950s ANSI standard that federal OSHA adopted with the revised stricter ANSI standard referred to by Snapp is in an accident investigative report issued by the federal Department of Energy. See US Dep’t of Energy, Type B Accident Investigation Board Report on the March 27, 1998 Rotating Shaft Accident at Ames Laboratory, Ames, Iowa viii, (April 1998) <https://www.energy.gov/sites/default/files/2014/04/f15/9803ames.pdf> (last visited June 8, 2021). As explained in that report, since 1972, the ANSI standard has required guarding for any shaft end that projects from a power-transmission apparatus if it is in an area where it poses a hazard to workers; no *de minimis* projection is permissible. *Id.* (advising that reliance should not be placed solely on OSHA standards; current

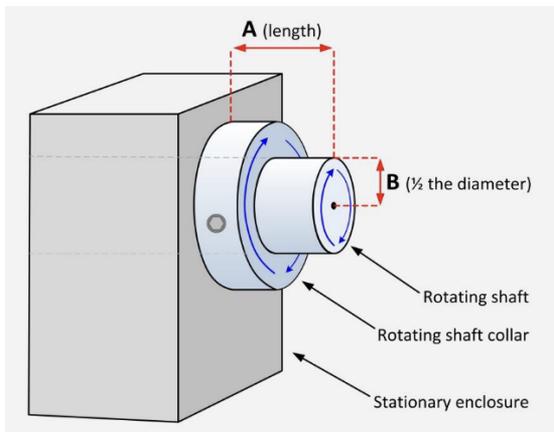
But Snapp speculated that the 1950s formula arose out of a “negotiated consensus” to keep the shaft end as short as possible while still allowing a collar to be attached to it.

In the 2016 technical guidance document that Snapp prepared, he adhered to the measurement memorialized in the 2014 minutes, using the following question and answer format:

“Question: When measuring a protruding mechanical power-transmission shaft, is the portion located under the collar included?”

“Answer: Yes. When measuring the projecting length of an unguarded shaft, include the portion of the shaft that passes through a collar that rotates with the shaft. Measure from the end of the shaft back to the closest stationary enclosure the shaft passes through.”

Snapp also set out an illustration of how to measure a shaft end with a collar attached to it, which was essentially identical to one that the 2014 policy group minutes had included:



After Snapp prepared that technical guidance document, it was posted to OR-OSHA’s website.

industry practices have changed in light of revision to ANSI rule in 1972 “eliminating the allowance of any rotating shaft projections”) and 12 (quoting Am. Nat’l Standards Inst., *Mechanical Power Transmission Apparatus*, B15.1-1996: “All motion hazards associated with the operation of mechanical power transmission apparatus shall be eliminated by design of the equipment or protection by a guard, device, safe distance or safe location.”).

Snapp, who has a degree in occupational safety and health, testified why OR-OSHA uses that measurement method under 29 CFR § 1910.219(c)(4)(i) for shaft ends with an attached collar. He explained that a projecting shaft end on a piece of machinery is a hazard only when the shaft is rotating. The particular safety risk that a rotating shaft creates is an “entanglement hazard,” one that can result in serious and fatal physical injuries:

“If you get your hair, your clothing, or something similar entrapped in a rotating shaft, once it starts, it’s not going to be a minor abrasion as a result, it’s not going to be a skinning or a slight bruise[.] [G]enerally the most serious hazard is your body attempts to conform with the shaft as it rotates around, which results in broken bones, torn ligaments, [and] ripped flesh[.] [T]hese machines are extremely powerful, they have very high-end torque, and they will not even sense a human being *** entrapped[.] [The shaft] will continue to wrap around and around and around with a person going around and around and around with it until either the part of the body that is attached has been torn off, such as a scalping, or the clothing or the equipment that has been wrapped in [it] has torn away[.] [The] compressional factors of clothing being ripped away from your body can create injuries to the flesh and bones on your back even though the shaft is wrapped in front of you[.]”

Snapp observed that the rule, in referring to a “projecting” shaft end, textually contemplated a shaft that sticks out or extends “from something.” That “something,” in OR-OSHA’s view, is “the piece of machinery that is being served by the shaft.” OR-OSHA’s measurement therefore uses the point where “the stationary piece of equipment ends and the shaft continues” beyond it. OR-OSHA includes in that measurement any attached collar because, as Snapp explained, the “collar is bound to the shaft and rotates at the same speed as the shaft.” The rotational hazard of the shaft end is not reduced by attaching a collar to it; rather, the hazard is the same or greater than if no collar were attached.⁸

⁸ Snapp explained that, when one or more collars are attached to a projecting shaft, they create additional “interfaces” between the component materials. Those interfaces add to the hazard because they result in seams or grooves that are additional “entry point[s]” to entrap, for example, hair, lanyards, and clothing.

At the conclusion of the contested case hearing, the ALJ vacated the citation, based on two of UPS's arguments. First, the ALJ concluded that OR-OSHA's way of measuring projecting shafts was inconsistent with the rule's plain text and therefore not entitled to "deference." Second, the ALJ concluded that OR-OSHA did not show that UPS had the requisite knowledge of the violation because OR-OSHA did not publish its interpretation of 29 CFR § 1910.219(c)(4)(i) on its website until 2016, which was about a year after the inspection and citation in this case. OR-OSHA, as we earlier described, assigns error to both grounds for the ALJ's decision.

II. ANALYSIS

A. *Legal Framework*

We begin with an overview of the applicable statutory and regulatory framework as context for the issues that this case presents. In 1970, Congress enacted the federal Occupational Safety and Health Act (federal Act) "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions[.]"⁹ 29 USC § 651(b). Among other provisions, the federal Act provides for the promulgation of comprehensive federal occupational safety and health standards, as well as inspections and sanctions to enforce those standards. *Id.* at (b)(9)-(10). Significantly, however, Congress also opted to let the states "assume the fullest responsibility" for the administration and enforcement of occupational safety and health laws, *id.* at (b)(11), including "any occupational safety or health issue for which a Federal standard" promulgated under the Act applies, 29 USC § 667(b).

To assume that responsibility, a state must obtain federal approval of a plan for developing and enforcing state workplace safety standards that are "at least as effective in providing safe and healthful employment and places of employment as the standards promulgated" under the federal Act. 29 USC § 667(c)(2). The federal regulations thus

⁹ While we discuss the 1970 enactment, adopted under Public Law 91-596 §§ 2-34, 84 Stat 1590-1620, for convenience we cite the current codification of the law, located generally in Title 29 of the United States Code.

set “the minimum acceptable safety standards” and “serve as starting points for state programs”; states are free to develop and enforce “more stringent” standards under their own plans. Mark A. Rothstein, *Occupational Safety and Health Law*, § 3:1 (2021 ed). Once a state’s plan has received initial approval and has been operational for at least 3 years, jurisdiction to set and enforce workplace health and safety standards transfers from federal OSHA to that state. See 29 USC § 667(e)(2) (providing for transfer of jurisdiction); see generally Rothstein, *Occupational Safety and Health Law*, §§ 3:4-3:6 (describing how and when transfer of jurisdiction is accomplished).

In 1973, after Oregon received federal approval of its state plan for occupational health and safety, the Oregon Legislature enacted the Oregon Safe Employment Act (the OSEA).¹⁰ Or Laws 1973 ch 833, §§ 1-49. Among the declared purposes of the OSEA is to ensure “as far as possible safe and healthful working conditions for every working person in Oregon.” ORS 654.003. Another purpose is to assume “fullest responsibility,” in accord with the federal Act, for developing, administering, and enforcing workplace safety and health laws and standards in Oregon. ORS 654.003(6).¹¹ The OSEA gives the director of the Department of Consumer and Business Services (DCBS) the responsibility to develop and enforce workplace health and safety laws, regulations, rules, and standards. ORS 654.025(1). To that end, the director is vested with broad general rulemaking authority,¹² as well as specific authority “by general or special orders, or by regulations, rules, codes or otherwise” to, among other

¹⁰ Oregon received initial approval of its plan in 1972 and final approval in 2005. 29 CFR § 1952.2. In the interim, the Oregon Legislature enacted the OSEA, the Oregon state plan became operational, and Oregon assumed responsibility for workplace safety standards and enforcement. Cf. *Skirvin v. Accident Prevention Division*, 32 Or App 109, 573 P2d 747, rev den, 282 Or 385 (1978) (first reported appellate decision arising out of a OSEA violation).

¹¹ See also Keith Skelton, *Workman’s Compensation in Oregon: Ten Years After*, 12 Willamette L J 1, 6-7 (1975) (legislature enacted OR-OSHA in 1973 session because, after having long regulated workplace safety, it did not want “federal machinery” to take over occupational health and safety regulation in Oregon).

¹² ORS 654.025(2) (director may “make, establish, promulgate and enforce all necessary and reasonable regulations, rules, standards, orders and other provisions” to carry out director’s functions under OSEA).

things, “prescribe what devices, safeguards or other means of protection” are “well adapted” to ensure safe workplaces. ORS 654.035(1)(a).

OR-OSHA, exercising the authority delegated to it by the director, has promulgated rules setting safety and health standards for a vast range of workplaces and occupational activities.¹³ In many instances, OR-OSHA has adopted by reference rules promulgated under the federal Act. Among those adopted-by-reference federal rules is 29 CFR § 1910.291(c)(4)(i). *See* OAR 437-002-0240(9) (adopting 29 CFR § 1910.291 in full). As the Supreme Court has explained, when a state agency adopts a federal rule by reference, the effect “is equivalent to republishing the referenced federal rule in the agency’s own rule.” *Oil Re-Refining Co. v. Environmental Quality Comm.*, 361 Or 1, 11, 388 P3d 1071 (2017). Consequently, when, as here, OR-OSHA issues a citation for violation of an incorporated federal rule, OR-OSHA applies state law, not federal. *Id.* And when, as here, the issue is whether OR-OSHA has correctly interpreted the incorporated federal rule that is the basis for the citation, that too raises an issue of state, not federal, law.¹⁴ *Id.*

¹³ *See* OAR 437-001-0020 (delegating to the administrator of OR-OSHA the authority to do whatever is reasonably necessary or incidental to accomplish the purposes of the OSEA and the rules promulgated pursuant to it); *see generally* OAR ch 437 (setting out occupational safety and health rules for both general activities and particular ones, such as construction, agriculture, maritime, and forestry). For some purposes, none of which are relevant here, the Worker’s Compensation Board also has rulemaking authority under the OSEA. *E.g.*, ORS 654.025(2) (board has authority to promulgate rules to carry out its statutory responsibilities under the OSEA).

¹⁴ The rules promulgated by federal OSHA, and later incorporated by Oregon and other states, have “hardly [been] models of clarity and precision” and often have required interpretation to clarify ambiguous language or to provide guidance where the standards are insufficiently explicit. Rothstein, *Occupational Safety and Health Law*, § 5:35. That lack of clarity and precision stems from the expedited procedure that led to the federal rules’ promulgation. Under the federal Occupational Safety and Health Act, federal OSHA was given two years after the act’s 1970 enactment to adopt “national consensus standards” for occupational health and safety without having to first follow the “lengthy rulemaking procedures of [the federal] Administrative Procedures Act.” Mark A. Rothstein, *OSHA After Ten Years: A Review and Some Proposed Reforms*, 34 Vand L Rev 71, 73 (1981). The Secretary of Labor took advantage of that two-year window, adopting the majority of safety standards from existing applicable private standards, such as those developed by ANSI. *Id.* at 74 n 16. The adopted standards were promulgated in “haste,” without careful review. *Id.* at 74; *see also* Philip J. Harter,

B. *OR-OSHA's Interpretation of 29 CFR § 1910.219(c)(4)(i)*

1. *Standard of Review*

That legal backdrop brings us to the first issue on review. At the contested case hearing, both the parties and the ALJ assumed that, if OR-OSHA's interpretation of 29 CFR § 1910.219(c)(4)(i) is plausible, the ALJ would be required to “defer” to that interpretation. That assumption was consistent with our familiar standard of review. Under that standard, we defer to—that is, give legal effect to—an agency's interpretation of its own rule if that interpretation is plausible given the wording of the rule, its context, and any other source of law. *Don't Waste Oregon Com. v. Energy Facility Siting*, 320 Or 132, 142, 881 P2d 119 (1994). In this instance, the ALJ agreed with UPS that OR-OSHA's measurement method is not plausible given the rule's plain text. The ALJ therefore did not defer to OR-OSHA's interpretation.

On review, the parties proceed from the same premise as at the hearing—that the ALJ was required to defer to OR-OSHA's interpretation as long as that interpretation is plausible. The parties accurately note, however, that in each of two cases, the Supreme Court and this court have observed that it is an open question whether we should similarly defer to an agency's interpretation of its own rule incorporating a federal rule by reference. *Oil Re-Refining Co.*, 361 Or at 11; *Brand Energy Services, LLC v. OR-OSHA*, 261 Or App 210, 214 n 5, 323 P3d 356 (2014). Both courts, however, left the question open in those cases. In *Oil Re-Refining Co.*, the Supreme Court concluded that the agency's interpretation of the rule in dispute was the “only” plausible one, and therefore the interpretation that the court would apply regardless of deference. 361 Or at 13. That rendered the deference question in that case “moot.” *Id.* In *Brand*, we determined that OR-OSHA's interpretation of its rule was not plausible; as a result, the deference question in that case was “academic.” 261 Or App at 214 n 5.

In Search of OSHA, 1 Reg. 33, 33-34 (1977) (federal standards adopted private standards based on “quick and dirty” assessments, with only hasty editing to convert them into mandatory instead of voluntary requirements).

As we later explain, in this case, we conclude that OR-OSHA's interpretation is a plausible one, although not necessarily the only plausible one. The question whether our usual deferential standard applies is therefore neither academic nor moot. And although the parties have not briefed the issue, except to note that it is an open question, our role in interpreting rules, as in interpreting statutes, is to get the answer as correct as we can. *See Stull v. Hoke*, 326 Or 72, 77, 948 P2d 722 (1997) (in construing statutes, court is responsible for identifying the correct interpretation, whether or not asserted by parties). There likely is not a one-size-fits-all answer for whether or when we should defer to an agency's interpretation of its own rule adopting by reference a federal rule. *See Oil Re-Refining Co.*, 361 Or at 12 ("potentially relevant" is whether agency is required by law to incorporate particular federal regulation as part of state regulatory program or has done so based on delegated policy-making authority). Neither is it likely that, in all cases, we can confidently resolve the question if the parties have not addressed the often-intricate interplay between the federal and state regulatory authority involved. *See id.* at 11-12 & n 5 (parties had not briefed deference question or examined whether agency was statutorily required to adopt federal rule or had exercised independent delegated policy authority; legal scheme was complex and source of agency's statutory authority was unclear).

For purposes of OR-OSHA rules, however, the answer to the open deference question is not difficult. As we earlier described, under the federal Act, states are encouraged to "assume the fullest responsibility" for both setting and enforcing occupational safety and health standards. State standards cannot be less protective of worker safety than federal standards, but they can be more protective. Once federal OSHA is satisfied that a state has implemented an appropriate plan for assuming "the fullest responsibility" for worker and workplace health and safety, the authority to regulate workplace safety and health transfers to that state. That transfer is complete in Oregon. Nothing in the OSEA binds OR-OSHA to adopt any federal rule or precludes OR-OSHA, when it does, from independently interpreting

any federal rule that it adopts.¹⁵ The only express constraint on OR-OSHA's interpretative authority is one that OR-OSHA itself mandates: Its "rules shall be liberally construed to accomplish the preventative purposes expressed in the [OSEA]." OAR 437-001-0025.

Given the nature of the federal-state occupational safety and health regulatory scheme, the rationales for our deferential standard of review apply fully here. *See, e.g., Don't Waste Oregon Com.*, 320 Or at 142 (by statute, judicial review of agency's interpretation of rule is limited to errors of law; agency does not legally err if interpretation is plausible and not inconsistent with any source of law); *1000 Friends of Oregon v. LCDC (Lane Co.)*, 305 Or 384, 391, 752 P2d 271 (1988) (deference principle reflects judicial respect for agency expertise in shaping institutional policy decisions as well as expertise interpreting words with special or technical meaning). We will therefore defer to OR-OSHA's interpretation in this case if it is plausible given the text and context of 29 CFR § 1910.219(c)(4)(i) and not inconsistent with any source of law. In this case, UPS has not claimed that OR-OSHA's interpretation conflicts with any source of law; the only issue is whether it conflicts with the plain text of the rule itself. We turn to that question.

2. *Plausibility of OR-OSHA's interpretation*

In interpreting administrative rules, we begin with text and context, just as we do for interpreting statutes. *OR-OSHA v. A & B Sheet Metal Works, LLC*, 302 Or App 455, 463, 461 P3d 1094, *rev den*, 366 Or 760 (2020) (rule interpretation follows steps of statutory interpretation and begins with text and context). 29 CFR § 1910.219(c)(4)(i) is a subpart of a rule that comprehensively addresses guarding and other safety requirements for "mechanical power-transmission apparatus," which covers a wide range of "power-transmission belts," such as conveyors. 29 CFR § 1910.219(a)(1). Among the rule's extensive provisions is

¹⁵ We are aware of one exception. *See* ORS 654.035(2) ("The director may not require the use of fall protection by workers engaged in steel erection at heights lower than the heights at which fall protection relating to steel erection is required by federal regulation."). The fact that the legislature expressly provided for that exception proves the point.

subparagraph (c)(4)(i), which provides: “Projecting shaft ends *** shall not project more than one-half the diameter of the shaft unless guarded by nonrotating caps or safety sleeves.”

The key words in the rule have straightforward meanings. The word “project” is a term of ordinary usage, and means in this context “to jut out : extend beyond a given line : protrude.”¹⁶ The term “shaft” has a recognized meaning in the field of mechanical engineering; it is “[a] rotating machine component, usually cylindrical or conical and supported by bearings, which carries gear wheels, pulleys, etc. and is used to transmit power.”¹⁷ “Transmission,” as used in “power-transmission” apparatus, also has a recognized mechanical engineering meaning in this context: “The system that transmits power and torque from a power source; for example *a shaft*, belts and pulleys, or a gear train.”¹⁸

Those meanings, in combination, are helpful. In limiting the length of projecting shaft ends, the rule does not expressly answer the question: “Project from what?” But the answer plausibly is: “The conveyor.” A shaft is a key component used in a conveyor to transmit power and torque through rotational force. To perform its mechanical function, a shaft typically has other components attached to it, such as a “collar,” which secures a shaft from moving side-to-side.¹⁹ The rule is not addressed to the components attached to a shaft, however; it is addressed to a shaft as a component of a power-transmission apparatus, such as a conveyor.

¹⁶ *Webster’s Third New Int’l Dictionary* 1813 (unabridged ed 2002) (intransitive verb form); see also *id.* at 1826 (intransitive verb form of “protrude” means “to jut out beyond the surrounding surface or context”). See *Comcast Corp. v. Dept. of Rev.*, 356 Or 282, 295-96, 337 P3d 768 (2014) (court looks to dictionary definitions for meaning of terms of ordinary usage).

¹⁷ Tony Atkins and Marcel Escudier, *A Dictionary of Mechanical Engineering* 512 (2d ed 2019). See *Comcast Corp.*, 356 Or at 296 (for specialized trade or field terms, court looks to their meaning in the discipline from which they are drawn).

¹⁸ Atkins and Escudier, *A Dictionary of Mechanical Engineering* 622 (emphasis added).

¹⁹ *Id.* at 90 (technical meaning of collar is “[a] ring secured to, or integral with, a shaft to give axial location”).

That much alone favors OR-OSHA's interpretation. Given the overall context, a reasonable way to understand the rule is that a "projecting shaft end" refers to the shaft as it projects from the machine of which it is a component part (*i.e.*, a conveyor), not from attachments that are component parts of the shaft (*i.e.*, a collar or pulley). That is exactly how OR-OSHA understands the rule—that is, the rule textually contemplates a shaft that projects from "the piece of machinery being served by that shaft," as Snapp explained. Measuring the projecting distance as OR-OSHA does—from the stationary surface of the machine, not from something attached to the shaft—fits with the text of the rule.

That way of measuring a shaft end's projecting length also fits with the safety purpose underlying the rule. *See Brand Energy Services, LLC*, 261 Or App at 218 (factor in determining plausibility of OR-OSHA interpretation is whether it undermines worker-safety goals). Snapp, as an OR-OSHA policy analyst with expertise in occupational safety and health, explained that projecting shaft ends present a "rotational hazard." Unguarded shaft ends are not dangerous because they project; they are dangerous because they rotate with high torque. Their rotational movement, not their static length, creates the entanglement hazard that breaks bones, tears ligaments, and rips flesh. The plain text of 29 CFR § 1910.219(c)(4)(i) evinces that concern. The rule limits how far a shaft end may "protrude" only if it is not guarded by a *nonrotating* cap or safety sleeve. That limitation does not apply if the shaft end is guarded by something that prevents exposure to its rotational force.²⁰

²⁰ Other provisions of the "power-transmission apparatus" rule contextually confirm the rule's concern with the rotational forces of a shaft, not with its length. 29 CFR § 1910.219(c)(1)(i) provides:

"All exposed parts of horizontal shafting seven (7) feet or less from floor or working platform, excepting runways used exclusively for oiling, or running adjustments, shall be protected by a stationary casing enclosing shafting completely or by a trough enclosing sides and top or sides and bottom of shafting as location requires."

Similar stationary casing is required to guard shafting located under bench machines, as well as vertical and inclined shafting. 29 CFR § 1910.219(c)(2)(ii) (shafting under bench machines); 29 CFR § 1910.219(c)(3) (vertical and inclined shafting).

Given the nature of the hazard involved, it makes sense to measure the “projecting” length of an *unguarded* shaft end from the point at which the rotational hazard begins (where which the shaft emerges from a stationary surface of the conveyor) to the point where it ends (the end of the projecting shaft). It makes equal sense to include an attached collar in that measurement, because the collar rotates with the shaft end and does nothing to mitigate the hazard.²¹

The collar does, however, have a function: It secures the shaft so that the shaft does not move excessively end-to-end (that is, axially).²² Some power-transmission machines are designed for a collar to attach to the shaft *inside* the machine, before passing through a supportive bearing or the enclosure of the machine. Others are designed, as the UPS conveyor in this case was, for the collar to attach to the shaft end outside a stationary bearing and the machine’s enclosure.²³ For an outside-the-machine design, the shaft end must protrude a sufficient length to attach the collar. But there is no functional reason—and UPS does not argue there is—for the shaft end to be any longer. The formula required by 29 CFR § 1910.219(c)(4)(i)—which requires the unguarded shaft end to project no more than one-half the shaft’s diameter—makes sense in that context. Bigger and wider shafts can be expected to require, at least in general, bigger and wider collars to secure them.

²¹ We also observe that a “collar” fixed to a shaft to provide axial location is not a “safety sleeve.” A “safety sleeve” “means a smooth-type cover of durable material used to prevent an accident from exposure to the hazard created by the rotating motion of the shafts, keys, set screws, and other projections.” US Dep’t of Labor, Occupational Safety and Health Admin., Interpretation Letter for Standard 1910.219 (June 24, 1977) <https://www.osha.gov/laws-regs/standard-interpretations/1977-06-24> (explaining that safety sleeve may rotate with shaft as long as it becomes stationary when contacted from outside, “thus isolating the individual from the rotating shaft”).

²² Securing a shaft axially is important for safety as well as mechanical functionality. See 29 CFR § 1910.219(c)(1)(i) (“Each continuous line of shafting shall be secured in position against excessive endwise movement.”).

²³ Snapp so testified, explaining that, depending on the design of an employer’s machine, collars can secure a shaft from either inside or outside the machine. The outside variation was more prevalent in the 1970s when federal OSHA adopted the ANSI standard. Now, the “recognized practice” in industry is to place a shaft collar on the inside a machine’s enclosure whenever possible, where workers are not exposed to it.

OR-OSHA's interpretation of the rule accommodates that design need in a proportionate way. A four-inch-wide shaft may project two inches from a conveyor; a two-inch-wide shaft may project one inch from a conveyor; a one-inch-wide shaft may project one-half inch from a conveyor; and so on. In each instance, the distance an unguarded shaft may project is the *same* for all shafts relative to their size. The measurement that OR-OSHA uses—from the nearest stationary surface to the shaft end—retains the proportionality of the rule's mathematical formula in a way that measuring from anything attached to the shaft end would not.²⁴

The ALJ, relying on the meaning of the word “project,” nevertheless concluded that OR-OSHA's interpretation was not even plausible. The ALJ reasoned that the rule's focus was limited to the portion of the shaft end “that extends beyond the collar, not that part which is enclosed under a collar. If it is enclosed, it is not projecting.”²⁵ The ALJ also pointed to the “fact that [f]ederal OSHA measures the unenclosed portion of the shaft,” a “fact” established only by UPS's witnesses, who had participated in inspections in other states and had attended trainings on the federal standard, and had not seen a projecting shaft measured to

²⁴ UPS's measurement method would mean that the length of an unguarded protruding shaft end would be determined in different ways for different machines. For example, for a machine designed with no outside collar or other component attached to a shaft end, a two-inch wide shaft end could project from the machine's enclosure only one inch. In contrast, for a machine designed to secure the shaft with a collar outside the machine's enclosure, a two-inch wide shaft end could project however-wide the collar may be, plus another inch. From the standpoint of providing uniformity and predictability, as well as minimizing the hazard to workers, UPS's measurement method has nothing to commend it.

²⁵ The ALJ also reasoned that

“the length of the shaft, not its rotation, [is] critical to the potential safety hazard. The safety factor depends on the relationship between the length of the shaft projection and how wide the shaft is. *** There has been no showing that the length of the portion of the shaft enclosed within the collar impacts any danger related to rotation.”

The ALJ's reasoning on that score was simply wrong, as we have already discussed. Again: The rotation of the shaft is the hazard; a collar rotates with the shaft; *a fortiori*, the portion of the shaft covered by the collar is part of the hazardous length of the shaft.

include an attached collar.²⁶ UPS makes essentially those same points in its arguments on review.²⁷

That reasoning, however, at most provides an alternative plausible interpretation of the rule's text and context. Arguably, there are at least two plausible ways of measuring shaft ends under 29 CFR § 1910.219(c)(4)(i). One is OR-OSHA's method, which measures from the end of the shaft to the nearest stationary surface. The other is the method that UPS urges, which measures from the end of the shaft to any collar attached to it. As between the two, OR-OSHA's measurement method accommodates mechanical design needs while maximizing workplace safety. See OAR 437-001-0025 ("rules shall be liberally construed to accomplish the preventative purposes expressed in the [OSEA]"). UPS's measurement method likewise accommodates mechanical design needs, but is less protective of worker safety.

For other regulatory authorities, perhaps the measurement method that UPS prefers is "safety enough" and, as a policy matter, they have opted for that measurement method. Under our standard of review, however, the different choice that others may make is unavailing. One plausible interpretation does not *ipso facto* render other interpretations implausible. *Purdue Pharma, L.P. v. Dept. of Human Services*, 199 Or App 199, 209, 110 P3d 657, *rev den*, 339

²⁶ The ALJ's order included a finding of fact that "OR-OSHA's interpretation varies from that of federal OSHA, which measures only that portion of the shaft extending beyond the collar." To the extent that the ALJ's "finding" suggests that federal OSHA authoritatively interprets the rule in that way, that is a legal conclusion, not a factual one, and that finding is not binding on review. See *Oregon AFSCME Council 75 v. OJD - Yamhill County*, 304 Or App 794, 796, 469 P3d 812, *rev den*, 367 Or 75 (2020) (applicable law is for reviewing court to determine independent of administrative adjudicator's "factual findings" describing law). Here, OR-OSHA asserts, UPS concedes, and our own research confirms that there are no authoritative federal administrative interpretations or judicial decisions relevant to the issue before us.

²⁷ UPS also advances one other argument. It urges that we should not defer to OR-OSHA's interpretation in this instance because, according to UPS, federal OSHA adopted the rule with "careful consideration" while OR-OSHA lacked expertise to interpret the federal rule and adopted it without "thorough and careful consideration." That additional argument is neither legally grounded in our standard of review nor factually meritorious. We reject it without further discussion.

Or 156 (2005). Likewise, the fact that other jurisdictions or individuals in the field have a “common understanding of the rule’s meaning does not mean that the particular meaning is the only one that is definitionally possible or legally plausible.” *Oregon Restaurant Services v. Oregon State Lottery*, 199 Or App 545, 562, 112 P3d 398, *rev den*, 339 Or 406 (2005). Those observations are particularly apt in this context, where Oregon has assumed fullest responsibility for both development and enforcement of workplace safety regulations, is empowered to have more protective regulations than those adopted by federal OSHA, and enforcement responsibility resides exclusively with OR-OSHA.

Because we conclude that OR-OSHA’s interpretation is plausible, the ALJ erred in declining to defer to that interpretation and to give it legal effect. Pursuant to OR-OSHA’s measurement method, the projecting length of shaft end on the UPS conveyor exceeded one-half the shaft’s diameter and therefore did not comply with 29 CFR § 1910.219(c)(4)(i).

C. *Proof of Knowledge*

We turn to the second issue that this case presents: whether OR-OSHA failed to prove the element of knowledge. As we will explain, our answer to the first issue effectively answers the second issue as well.

As we earlier described, OR-OSHA cited UPS for a serious violation of 29 CFR § 1910.219(c)(4)(i). A “serious violation” under the OSEA occurs

“if there is a substantial probability that death or serious physical harm could result from a condition which exists, or from one or more practices, means, methods, operations or processes which have been adopted or are in use, in such place of employment unless the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation.”

ORS 654.086(2). Under that statutory description, knowledge is an element of a violation, one that OR-OSHA must prove to establish a *prima facie* case. *OR-OSHA v. CBI Services, Inc.*, 254 Or App 466, 474, 295 P3d 660 (2013), *aff’d*

on other grounds, 356 Or 577, 341 P3d 701 (2014).²⁸ That knowledge can be actual or constructive—*i.e.*, evidence that the “employer *knew* of a violation or with the exercise of reasonable diligence, *could know—in the sense of being capable of knowing*—of the violation.” *OR-OSHA v. CBI Services, Inc.*, 356 Or 577, 589, 341 P3d 701 (2014) (emphasis added). Either way, the knowledge required is the traditional “knowing” mental state familiar to the law—knowledge of the state of facts, conduct, or circumstance that violates the applicable law, not knowledge of the law itself. Knowledge of the law, coupled with an intentional or knowing disregard or indifference to it, elevates an OR-OSHA violation to a “willful” one.²⁹ OR-OSHA cited UPS for a serious violation, not a willful one.

In this case, there was no dispute that UPS was aware of the existence of the protruding shaft end on its conveyor. That was enough to satisfy OR-OSHA’s burden of proof as a matter of law. Nevertheless, the ALJ concluded that OR-OSHA failed to prove knowledge because OR-OSHA did not show that “UPS would have been aware of the shaft measurement method under 29 CFR § 1910.219(c)(4)(i), as interpreted by OR-OSHA.” The ALJ reasoned that UPS and other employers had no public notice of OR-OSHA’s measurement method until 2016, one year after the inspection and citation in this case, when OR-OSHA posted on its website the technical guidance document for measuring a shaft end with an attached collar. Given that “non-disclosure,” the ALJ declared, “it defies common sense to think that merely

²⁸ *But see OR-OSHA v. CBI Services, Inc.*, 356 Or 577, 587 n 3, 341 P3d 701 (2014) (observing that, under the statute, lack of knowledge arguably is an affirmative defense rather than an element that OR-OSHA must prove; reserving burden of proof question).

²⁹ *See OAR 437-001-0015(63)(b)(A)* (defining “willful” violation as one committed “knowingly by an employer or supervisory employee who, having free will or choice, intentionally or knowingly disobeys or recklessly disregards the requirements of a statute, regulation, rule, standard, or order”); *see also OR-OSHA v. Roseburg Lumber Co.*, 151 Or App 236, 247, 949 P2d 307 (1997) (affirming standard for willfulness under OR-OSHA’s rule). Textually, ORS 654.086(2) confirms that distinction between the knowing mental state of a serious offense and the heightened mental state required to classify a violation as willful. A serious violation arises from “a condition” or workplace activity that could result in death or serious physical injury if the employer had actual or constructive knowledge “of the presence of the violation.” ORS 654.082(2) (emphasis added).

viewing the shaft was sufficient to create employer knowledge of the violation.”

Correctly framed, the problem that concerned the ALJ was not one of sufficiency of evidence; it was a problem of what legal standard governs. Having concluded that OR-OSHA’s interpretation was not even plausible under 29 CFR § 1910.219(c)(4)(i), the ALJ reasoned that the rule itself was not adequate notice of that interpretation. The ALJ therefore focused on whether OR-OSHA had given notice of its measurement methodology through some other means by the time of the inspection and citation in this case. The ALJ determined that OR-OSHA had not. The ALJ’s conclusion that OR-OSHA did not carry its burden to prove knowledge was really a conclusion that, in this case, UPS could not be charged with knowledge of the law.

We have determined, however, that OSHA’s interpretation of 29 CFR § 1910.219(c)(4)(i) *is* plausible. OR-OSHA’s way of measuring the projecting length of a shaft end on a conveyor is fully consistent with the ordinary and technical meaning of the words of the rule, understood as a whole and in context. Just as the problem that concerned the ALJ arose with her resolution of the plausibility issue, it falls with ours. UPS does not claim ignorance of the rule and its express terms, nor could it.³⁰ See *In re Devers*, 328 Or 230, 241, 974 P2d 191 (1999) (“[E]veryone *** is presumed to know the law.”) The rule itself is the source of the legal standard that governed UPS’s conduct, and UPS is bound by it. The fact that UPS or anyone else plausibly interprets an OR-OSHA rule differently than OR-OSHA does is no objection to OR-OSHA’s enforcement of its rule consistently with the rule’s terms.

To the extent an OR-OSHA rule poses a practical problem for an employer because the employer is uncertain how to comply with it, that problem is inherent in the challenges of drafting statutes, rules, and other regulations. It is

³⁰ UPS’s argument, like the ALJ’s reasoning, is predicated on its position that OR-OSHA’s interpretation is not plausible under the rule’s plain text. UPS urges that it “is not claiming ignorance” of 29 CFR § 1910.219(c)(4)(i), only that it was “completely unaware” of OR-OSHA’s “new interpretation” of that rule until OR-OSHA made its measurement method public by posting its technical guidance on its website in 2016.

not unique to this regulatory scheme. Administrative rules, like statutes, are not unenforceable just because they are open to reasonable different or competing interpretations.³¹ Moreover, for OR-OSHA workplace safety rules, which involve highly and necessarily technical requirements, there are practical aids for that practical problem. Among other things, an employer (or an insurer or occupational safety expert advising an employer) can, for example, ask OR-OSHA how to measure a projecting shaft end without fear of citation for a violation.³² But the fact is, UPS never asked. Unless UPS were to have asked and were to have been misadvised by OR-OSHA as to its interpretative policy, the measurement method that OR-OSHA applied in this case controls. *See generally Bowen v. PERB*, 227 Or App 444, 451, 206 P3d 232, *rev den*, 346 Or 589 (2009) (agency representation binds agency if reliance on representation is reasonable and not contrary to statute; citing representative cases).

For those reasons, the ALJ erred in concluding that OR-OSHA failed to carry its burden to show UPS's knowledge of the violation. OR-OSHA was required to show only what UPS did not dispute—that UPS knew of the presence of the shaft end that projected from its conveyor. OR-OSHA did not have to prove that UPS had knowledge of the measurement method that OR-OSHA uses for a shaft end with an attached collar, pursuant to its interpretation of 29 CFR § 1910.291(c)(4)(i).

D. *Disposition*

In its brief on review, UPS argues that OR-OSHA failed to carry its burden to prove that workers were exposed

³¹ UPS does not raise a federal due process-based vagueness challenge to 29 CFR § 1910.219(c)(4)(i), which at least in theory might render the rule unenforceable. Such a challenge is rarely waged with success, however. *See generally* Rothstein, *Occupational Safety and Health Law*, § 5:23 (2021) (“Although vagueness challenges [to generally worded federal OSHA standards] have been common, they have not met with much success[.]”).

³² *See* ORS 654.090(3) (director required to provide “consultative services” for employers, which include “special inspection or investigation, focused on specific problems or hazards” in the workplace; “citation and civil penalty” may not directly result from such consultative services); *see also* ORS 654.097 (workers’ compensation insurers required to furnish to employer no-cost occupational safety and health loss control consultative services that meet minimum standards prescribed by OR-OSHA).

to the projecting shaft end, which is also an element of a “serious violation.” See *OR-OSHA v. Moore Excavation, Inc.*, 257 Or App 567, 573-76, 307 P3d 510 (2013) (citing cases discussing OR-OSHA’s burden to prove that element). UPS made that argument at the contested case hearing, and the factual record on it is fully developed, but the ALJ did not reach it. UPS apparently raises that argument on review as an alternative ground for affirmance. In response, OR-OSHA maintains that, if OR-OSHA prevails on its arguments on review, we should reverse the ALJ’s order and remand the case to the ALJ to resolve that question in the first instance. We agree with that disposition.

Reversed and remanded.