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THE SUPREME COURT OF THE STATE OF ALASKA

JOHN E. ADAMSON,)
) Supreme Court Nos. S-15006/15025
Petitioner and)
Cross-Respondent,) Alaska Workers' Compensation
) Appeals Commission No. 11-017
V.)
) <u>OPINION</u>
MUNICIPALITY OF ANCHORAGE)
and NOVAPRO RISK SOLUTIONS,) No. 6947 - August 29, 2014
)
Respondents and	
Cross-Petitioners,)
)
and)
)
STATE OF ALASKA,)
)
Intervenor.)

Petition for Review from the Alaska Workers' Compensation Appeals Commission.

Appearances: Eric Croft and Debra Fitzgerald, The Croft Law Office, Anchorage, for Petitioner/Cross-Respondent. Trena L. Heikes, Anchorage, for Respondents/Cross-Petitioners. Janell M. Hafner, Assistant Attorney General, and Michael C. Geraghty, Attorney General, Juneau, for Intervenor/Cross-Respondent.

Before: Fabe, Chief Justice, Winfree, Stowers, Maassen, and Bolger, Justices.

WINFREE, Justice.

I. INTRODUCTION

A firefighter developed prostate cancer when he was in his mid-fifties, after working for nearly 30 years in this occupation. He filed a workers' compensation claim under a new statute creating a presumption that certain diseases in firefighters, including prostate cancer, are work related when specific conditions are met. The employer contended that the firefighter could not attach the presumption of compensability because he had not strictly complied with statutory and regulatory medical examination requirements. The employer also wanted to present expert testimony that the cause of prostate cancer is unknown. The Alaska Workers' Compensation Board heard the claim and refused to consider parts of the expert's testimony. The Board decided that the firefighter was eligible for benefits because he had attached the presumption of compensability by substantially complying with the statutory requirements and the employer had not rebutted the presumption. On appeal, the Alaska Workers' Compensation Appeals Commission agreed that the firefighter had attached the presumption, but reversed the Board's decision disallowing the expert testimony; the Commission decided that the employer could rebut the presumption through its expert's testimony that the cause of prostate cancer is unknown, and remanded the case to the Board for further proceedings. We granted both parties' petitions for review. Because the employer also contended that the firefighter-presumption statute violated the Alaska Constitution's equal protection guarantee, the State of Alaska intervened. We affirm the Commission's decision that the firefighter attached the presumption by substantially complying with the applicable requirements. We reverse the Commission's decision that the Municipality could rebut the presumption through expert testimony that there is no known cause of prostate cancer.

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II. FACTS AND PROCEEDINGS

John Adamson retired in 2011 after working as a firefighter for the Municipality of Anchorage for over 30 years. He was diagnosed with prostate cancer in August 2008, and he filed a report of occupational injury or illness with the Board in October. The Municipality filed a notice of controversion on the basis that it had received no evidence the cancer arose out of a work-related exposure; it also quoted a letter from Adamson's doctor that the doctor had no evidence the cancer was work related.

Adamson filed a written workers' compensation claim seeking temporary total disability (TTD) and medical expenses. Adamson's claim was based on AS 23.30.121, a new statute effective August 19, 2008.¹ The statute establishes a presumption that listed diseases, including prostate cancer,² are work related for certain firefighters³ when they meet specific requirements.⁴ The Municipality initially controverted the claim on the basis that Adamson's cancer was diagnosed before the statute's effective date and that he had failed to file a timely report of injury.

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¹ Ch. 26, SLA 2008.

² AS 23.30.121(b)(1)(C)(viii).

To qualify for coverage, firefighters must be "covered under AS 23.30.243" and must have at least a Firefighter I certificate as defined by the Department of Public Safety. AS 23.30.121(b), (c). Adamson's qualification is undisputed.

The firefighter must: (1) have been "given a qualifying medical examination" that did not show evidence of the disease when he first became a firefighter; (2) have been "given an annual medical exam during each of the first seven years of employment that did not show evidence of the disease"; and (3) for cancers, show that during the course of employment the firefighter "was exposed to a known carcinogen, as defined by the International Agency for Research on Cancer or the National Toxicology Program, and the carcinogen is associated with a disabling cancer." AS 23.30.121(b)(3)(A)-(C).

The Municipality asked Dr. Thomas Allems, a toxicology and occupational and environmental medicine specialist, to review Adamson's records and "determine if his job as a firefighter contributed to his prostate cancer." Dr. Allems's report summarized medical records he reviewed and then discussed medical literature related to prostate cancer. According to Dr. Allems, it was "indisputable" that firefighters "are exposed to carcinogens in smoke and post-fire gasses." He wrote, however, that "[t]he toxicological literature has failed to identify a known or probable prostate carcinogen." He also stated, "The firefighter data are consistently not compelling as to an increased risk of prostate cancer in this occupational group." Dr. Allems indicated that the International Agency for Research on Cancer (IARC) had not "reported an association between soots and prostate cancer," and he concluded that Adamson's exposure to soots "did not have any relationship to his prostate cancer." He agreed that Adamson had "no alternative basis for causation — lifestyle, heredity, etc." and said the diagnosis was "all too common in the general population."

After Dr. Allems's report, the Municipality filed another notice of controversion. This time the Municipality said that the Department of Labor had not yet defined "qualifying medical examination" for purposes of attaching the presumption and the statute had not yet been "activate[d]" as a result.⁵ The Municipality raised two other defenses related to the examination requirement, and it also relied on Dr. Allems's opinion that Adamson's prostate cancer was not connected to his work as a firefighter.

In early 2011 the Board's regulation defining a qualifying medical examination for purposes of the statute became effective. The regulation requires that

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 $^{^5}$ Cf. note 4, supra. AS 23.30.121(e) provides: "The department shall, by regulation, define (1) for purposes of (b)(1)–(3) of this section, the type and extent of the medical examination that is needed to eliminate evidence of the disease in an active or former firefighter"

the initial examination required by AS 23.30.121(b)(3)(A) "occur no later than 30 days" after employment as a firefighter and mandates specific testing, including "an initial screening for the cancers listed in AS 23.30.121(b)(1)(C)." The screening tests are not specified, but must include "blood chemistries, complete blood counts, . . . and other diagnostic tests as indicated to screen for these cancers, each documented on a form prescribed by the department and completed by the examining physician." The regulation requires that the annual examinations provided for in AS 23.30.121(b)(3)(B) include a medical history, a test for tobacco use, and heart and lung examinations, but there is no requirement that the annual exams include cancer screening.

The Board held a hearing on Adamson's claim in June 2011. Adamson and Dr. Allems were the only witnesses. Adamson testified about his firefighting career, his medical examinations, and his cancer diagnosis; he also described fires he had fought to demonstrate his exposure to carcinogens. Dr. Allems's testimony was limited because the Board chair sustained multiple objections after ruling Dr. Allems was not permitted to testify that there is no causal relationship between firefighting and prostate cancer; as a consequence the Municipality made several offers of proof. According to Dr. Allems, there are no known carcinogens for prostate cancer; he therefore would have given the opinion that Adamson's cancer was not related to his work as a firefighter. Dr. Allems agreed that Adamson was exposed to carcinogens at work. Dr. Allems also testified, consistently with his report, that Adamson had no personal risk factors, in effect concluding that the cause of Adamson's cancer was unknown, which in his opinion was "the normal state of affairs."

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⁶ 8 Alaska Administrative Code (AAC) 45.093 (2012).

⁷ 8 AAC 45.093(c).

⁸ 8 AAC 45.093(b).

The Board panel majority decided that Adamson's cancer was compensable and ordered the Municipality to pay past and future medical benefits, some past TTD, and costs and attorney's fees. One panel member dissented on the basis that the firefighter presumption did not apply, but that if it did, the Municipality had rebutted it and Adamson had not proved his case by a preponderance of the evidence.

On appeal the Commission panel also was divided in deciding the case. The majority agreed with the Board that Adamson had attached the presumption of compensability; one panel member dissented from that part of the decision. All panel members agreed that the Municipality could rebut the presumption of compensability in AS 23.30.121 through Dr. Allems's testimony that there is no known carcinogen for prostate cancer and that the Board erred in refusing to consider this evidence; the Commission remanded the case to the Board for evaluation of the evidence. We granted both parties' petitions for review. Because the Municipality also argued that the statute violated equal protection, the State intervened to defend the statute's constitutionality.

III. STANDARD OF REVIEW

In an appeal from the Alaska Workers' Compensation Appeals Commission, we review the Commission's decision rather than the Board's decision. We apply our independent judgment to questions of law that do not involve agency expertise. Interpretation of a statute is a question of law to which we apply our independent judgment; we interpret the statute according to reason, practicality, and common sense, considering the meaning of the statute's language, its legislative history,

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⁹ Shehata v. Salvation Army, 225 P.3d 1106, 1113 (Alaska 2010) (citing Barrington v. Alaska Commc'ns Sys. Grp., Inc., 198 P.3d 1122, 1125 (Alaska 2008)).

¹⁰ *Id*.

and its purpose.¹¹ We do not mechanically apply the plain meaning rule, using instead a sliding scale approach to statutory interpretation, in which "the plainer the statutory language is, the more convincing the evidence of contrary legislative purpose or intent must be."¹²

Whether a statute requires substantial or strict compliance is a legal question, ¹³ but whether someone has substantially complied with a legal requirement is a mixed question of fact and law. ¹⁴ We independently review the Board's factual findings and the record when we review the Commission's conclusion that substantial evidence supports the Board's decision. ¹⁵ To the extent there is a question about the exclusion of evidence, we generally use an abuse of discretion standard of review, ¹⁶ but when the evidentiary dispute rests on a question of statutory interpretation, we apply our independent judgment in interpreting the statute. ¹⁷

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¹¹ Grimm v. Wagoner, 77 P.3d 423, 427 (Alaska 2003) (quoting Native Vill. of Elim v. State, 990 P.2d 1, 5 (Alaska 1999)).

McDonnell v. State Farm Mut. Auto. Ins. Co., 299 P.3d 715, 721 (Alaska 2013) (internal quotation marks, alterations, and citations omitted).

See S. Anchorage Concerned Coal., Inc. v. Municipality of Anchorage, 172 P.3d 768, 771-72 (Alaska 2007) (applying independent judgment to question whether ordinance was directory or mandatory).

See Grimm, 77 P.3d at 434 (stating that decision whether candidate substantially complied with disclosure law "requires both factual and legal determinations").

¹⁵ Smith v. CSK Auto, Inc., 204 P.3d 1001, 1007 (Alaska 2009).

Municipality of Anchorage v. Devon, 124 P.3d 424, 429 (Alaska 2005) (citing DeYonge v. NANA/Marriott, 1 P.3d 90, 94 (Alaska 2000)).

¹⁷ Cf. Pouzanova v. Morton, 327 P.3d 865, 867 (Alaska 2014) (citing (continued...)

IV. DISCUSSION

A. We Do Not Decide Whether The Statute Violates Equal Protection.

The Municipality raised the question of AS 23.30.121's constitutionality before both the Board and Commission; both declined to consider the question because it was beyond their jurisdiction. The Municipality argued in its briefing to us that the statute violates the equal protection rights of employees, such as garbage collectors, who also are exposed to environmental toxins in their work. Relying on previous decisions from this court, Adamson responded that the Municipality lacked standing to assert an equal protection challenge, and that the statute did not violate equal protection.

The State intervened on the question of the statute's constitutionality; it argued in its brief that the Municipality lacked standing to assert the equal protection rights of third parties. It also agreed with Adamson and argued that the statute does not treat similarly situated groups differently. The State also argued that the statute bears a fair and substantial relationship to a legitimate state interest.

Shortly before oral argument the Municipality sought to withdraw the constitutional issue from consideration; after Adamson objected, we instructed the parties to address the issue at oral argument. We have decided to honor the Municipality's request to withdraw the issue from consideration, but we nonetheless observe that the State and Adamson made strong arguments that the Municipality lacked standing and that the statute is constitutional.

ConocoPhillips Alaska, Inc. v. Williams Alaska Petroleum, Inc., 322 P.3d 114, 122 (2014)) (applying de novo standard of review to question that ordinarily is reviewed for abuse of discretion, when underlying ruling required statutory interpretation).

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^{(...}continued)

B. The Commission Correctly Concluded That Adamson Attached The Presumption Of Compensability.

The Municipality contends that the Commission erred in deciding Adamson attached the presumption of compensability in AS 23.30.121. Its argument has several components. It argues first that Adamson could not attach the presumption of compensability because he did not strictly comply with statutory and regulatory requirements; in the Municipality's view, strict compliance with both statutory and regulatory requirements is a prerequisite to qualifying for the firefighter presumption. The Municipality also argues that Adamson did not attach the presumption because he did not show that he was exposed to a known carcinogen for prostate cancer. Adamson counters that the standard for compliance should be substantial compliance rather than strict compliance — particularly in his case, when there was no way he could strictly comply with a requirement that his initial 1980 medical examination be recorded on a form the Board did not develop until after he filed his written workers' compensation claim in 2010. Adamson also maintains that he provided adequate evidence he had been exposed to known carcinogens associated with prostate cancer.

1. Adamson only needed to show substantial compliance with the medical-examination requirements.

Both the Board and Commission panel majorities decided that substantial compliance was the applicable standard to use in evaluating Adamson's claim; their analyses were based on the distinction we have recognized between mandatory and directory procedural statutes. Both agencies decided that the statute was procedural and directory; consequently they reasoned that substantial compliance was the applicable standard for cases involving AS 23.30.121. The Board found that Adamson had

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See, e.g., Kim v. Alyeska Seafoods, Inc., 197 P.3d 193, 196-98 (Alaska 2008) (holding that AS 23.30.110(c) is directory statute).

substantially complied with the statute because he had a medical examination when he was hired showing no evidence of prostate cancer, he had numerous medical examinations in the ensuing years also showing no evidence of prostate cancer, and he showed he had been exposed to at least three known carcinogens associated with prostate cancer. A majority of the Commission agreed with the Board that Adamson complied with the medical-examination requirements of the statute and also decided that he had established a preliminary link between his cancer and his work.

The Municipality first contends that the statute is substantive rather than procedural, rendering the cases upon which the Commission relied inapplicable. The Municipality then argues that substantive laws require strict compliance and that Adamson did not strictly comply with the regulatory requirements for medical examinations. Adamson asks us to adopt the agencies' analyses and hold that the statute is a directory, procedural statute requiring only substantial compliance. He argues alternatively that the regulatory requirements cannot apply to him because regulations can only have prospective application and the regulation on which the Municipality relies was promulgated after he filed his claim.

Although we agree with the Commission that Adamson could attach the presumption by substantially complying with the medical-examination requirements in AS 23.30.121, our legal analysis differs from the Commission's. We do not consider the substantive-procedural distinction critical in this case. The question of substantial or strict compliance arises in Adamson's case because of the tension between legislative intent and the Board's regulation defining a qualifying medical examination. Here the legislature made plain its intention that firefighters with toxic exposures predating enactment of AS 23.30.121 would enjoy the benefit of the presumption established in the statute. The uncodified portion of the statute states, "The presumption of coverage established by this Act applies to claims made on or after the effective date of this Act,

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even if the exposure leading to the occupational disease occurred before the effective date of this Act."¹⁹ The Board, in defining a "qualifying medical examination," required the use of a specific form that it did not create until 2011.²⁰ The Municipality argues here that Adamson's 1980 pre-hire medical examination was not a "qualifying examination" because, among other reasons, it was not recorded on the 2011 form.

We have "adopted the doctrine of substantial compliance" in order to carry out legislative intent and give meaning to all parts of a statute "without producing harsh and unrealistic results." Requiring Adamson to comply strictly with statutory and regulatory requirements that did not exist when he was hired or when he was exposed to toxins earlier in his career as a firefighter, as the Municipality advocates, would circumvent the legislature's intent that Adamson's prior exposure could trigger the presumption. Thus, in order to give effect to the legislature's intent that prior exposures are covered by the presumption and to avoid an unrealistic result, we hold that

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Ch. 26, § 2, SLA 2008. We have previously construed similar language as indicating legislative intent to apply a statute retroactively. See Catholic Bishop of N. Alaska v. Does 1-6, 141 P.3d 719, 725 (Alaska 2006) (stating that AS 09.55.560 showed legislative intent to apply statute retroactively when statute provided that it applied "to 'all actions commenced on or after February 2, 1990 regardless of when the cause of action may have arisen'" (emphasis in original)). We disagree with the Municipality's position — first explicitly articulated in its reply brief — that the statute was not meant to apply retroactively.

²⁰ 8 AAC 45.093.

Jones v. Short, 696 P.2d 665, 667 (Alaska 1985) (citations omitted).

We do not decide whether strict or substantial compliance is the appropriate standard for firefighters who began work after the statute was enacted or after the related regulations were promulgated. *Cf. Conitz v. Alaska State Comm'n for Human Rights*, 325 P.3d 501, 509 (Alaska 2014) (quoting *Larson v. State*, 254 P.3d 1073, 1078 (Alaska 2011)) (declining to rule on legality of policy when doing so unnecessary).

Adamson could attach the presumption through substantial compliance.²³

We do not find convincing the Municipality's argument that strict compliance is always required when a statute is substantive. Outside of the directory-mandatory context, we have not limited substantial compliance to procedural statutes. For example, in *Grimm v. Wagoner* we held that substantial compliance was the standard for measuring candidates' compliance with substantive disclosures for elected office. And in *Nenana City School District v. Coghill* we looked to the substantial compliance doctrine in deciding whether a teacher was in "substantial noncompliance" with legal requirements such that she was ineligible for tenure when her license lapsed during the school year. The case upon which the Municipality relies, *Pan Alaska Trucking, Inc. v. Crouch*, examined whether a statute was procedural or substantive, but it did not mention substantial or strict compliance, considering instead whether the statute had retroactive application. The content of the first procedural or substantive application.

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Using substantial compliance makes unnecessary our resolution of the question whether the regulation applies to Adamson's claim. We note, however, that AS 44.62.240 provides that "primarily legislative" regulations have prospective application only. We also are not persuaded that the legislature's use of the word "only" in AS 23.30.121(b)(3) means that the statute requires strict compliance with all statutory and regulatory requirements, as the Municipality contends. As used in the statute, "only" limits the presumption to a specific group of firefighters but does not indicate what level of compliance is required.

²⁴ 77 P.3d 423, 429-30 (Alaska 2003).

²⁵ 898 P.2d 929, 932-33 (Alaska 1995).

⁷⁷³ P.2d 947, 948-49 (Alaska 1989). We also are not persuaded by the Municipality's argument that our cases discussing compliance with statutory requirements for continuing and multiple treatments under AS 23.30.095(c) required Adamson to strictly comply with regulatory requirements. *E.g.*, *Burke v. Houston NANA*, *L.L.C.*, 222 P.3d 851 (Alaska 2010). We did not evaluate in those cases whether (continued...)

In applying the substantial compliance doctrine, we consider the purpose served by the statutory requirements because "substantial compliance involves conduct which falls short of strict compliance . . . but which affords the public the same protection that strict compliance would offer." Thus, for example, in *Jones v. Short* we held that substantial rather than strict compliance with a contractor-registration statute was adequate to permit a contractor to bring suit. We determined that the contractor-registration statute's purpose was to "protect[] the public by making contractor's insurance information readily available . . . and by providing a fund against which claims may be made." As long as the public had access to the contractor's insurance information, the legislative purpose was fulfilled, and the contractor's suit was not barred. Similarly, in *Coghill* we decided that, because the requirements meant to protect the public "were not in issue" during the time the teacher's license had lapsed, the substantial compliance doctrine prevented the teacher from losing tenure and receiving reduced pay. And in *Grimm* we decided that substantial compliance provided the public with an accurate representation of a candidate's finances as well as sufficient

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^{(...}continued) strict or substantial compliance was the applicable standard. *Id.* at 859-60; *Bockness v. Brown Jug, Inc.*, 980 P.2d 462, 468-69 (Alaska 1999); *Grove v. Alaska Constr. & Erectors*, 948 P.2d 454, 457-58 (Alaska 1997).

²⁷ Jones v. Short, 696 P.2d 665, 667 n.10 (Alaska 1985).

Id. at 668.

²⁹ *Id*.

Id. We remanded that case to the superior court to determine whether in fact the information was available during the lapse in registration. *Id.*

Nenana City Sch. Dist. v. Coghill, 898 P.2d 929, 934 (Alaska 1995).

information to judge a candidate's credentials.³²

In the context of AS 23.30.121, substantial compliance is conduct that falls short of strict compliance but affords the employer protection from claims based on a firefighter's preexisting condition; the initial and subsequent medical examinations are required by statute to show no "evidence of the disease." We do not interpret the legislative history as indicating that a firefighter must strictly comply with any regulatory requirements the Board later adopted, as the Municipality contends. On the contrary, legislative history indicates that legislators thought the examinations firefighters were already undergoing would satisfy the statute. For example, Senator Hollis French, a sponsor of a similar bill in the Senate, stated that most fire departments require annual physical exams and 90 percent of those exams would satisfy the requirement.³³

As in *Grimm*, Adamson's case involves more than a determination that substantial compliance is the legal standard; we also must consider whether the medical examinations Adamson was given both at the time of hire and in the ensuing years in fact substantially complied with the applicable requirements. The Commission concluded that Adamson substantially complied with the requirements that the firefighter be given "a qualifying medical examination upon becoming a firefighter" and annual medical examinations in the first seven years of employment, none of which showed evidence of prostate cancer, because: (1) he was given a medical examination that showed no evidence of prostate cancer when he was first hired in 1980; (2) he was given annual physicals beginning in the 1990s that showed no evidence of prostate cancer until he was diagnosed with the disease in 2008; and (3) he was given a number of prostate-specific

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³² Grimm v. Wagoner, 77 P.3d 423, 431-32 (Alaska 2003).

Minutes, Sen. Health, Educ. & Soc. Servs. Comm. Hearing on S.B. 117, 25th Leg., 2d Sess. 1:43:04-1:46:03 (Feb. 18, 2008) (comment of Sen. Hollis French, sponsor of S.B. 117).

antigen (PSA) blood screening tests after 1993 and all of the results were within normal limits.

The Municipality argues on appeal that Adamson's medical examinations cannot in fact serve as a means to attach the presumption under AS 23.30.121 because they "included none of the statutory and regulatory elements" and because "[n]one of the examinations were ever undertaken in an attempt to comply with AS 23.30.121." Adamson argues that he substantially complied with the applicable standards because the examinations included prostate cancer screening and showed that he did not have the disease, fulfilling the purpose of the examinations.

In determining whether Adamson's examinations substantially complied with the statutory requirements here, we look at the purpose the examinations serve in the presumption statute as well as the tests Adamson underwent as part of the exams.³⁴ We agree with the Commission that the purpose of the medical examination requirement is to establish with a reasonable degree of certainty that a firefighter does not have a covered condition before his exposure to workplace toxins.³⁵ This purpose is evident from the legislature's delegating to the Board the task of defining "the type and extent of the medical examination that is needed to eliminate evidence of the disease."³⁶ We do not consider relevant to our analysis the Municipality's purpose in giving the medical examinations; they fulfill the requirement as long as they screened Adamson for prostate

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Cf. Grimm, 77 P.3d at 431-32, 434 (looking at purpose of disclosure statute and omissions in disclosures to determine substantial compliance).

See Linnell v. City of St. Louis Park, 305 N.W.2d 599, 601 (Minn. 1981) (holding that purpose of preemployment physical exam in similar statute is to establish that "an employee is free of the diseases specified in the statute" when employment begins).

AS 23.30.121(e)(1).

cancer and showed he did not have the disease at the time of hire or for the requisite time period after he was employed as a firefighter.

The Municipality conceded at oral argument before us that Adamson showed no sign of prostate cancer at any of his medical examinations prior to 2008. Adamson's testimony, which the Board found credible, showed that he had undergone screening for prostate cancer at most, if not all, of his employment-related medical examinations, including his initial examination.³⁷ Medical records from his annual employment physicals beginning in the 1990s show that he had a PSA test at many examinations; the records reflect that the PSA test results at seven of his annual medical exams were normal before he was diagnosed with prostate cancer in 2008. Because of Adamson's extensive record of employment-related medical examinations showing no indication of prostate cancer, we affirm the Commission's decision that Adamson produced sufficient evidence that he had substantially complied with the statutory requirements for medical examinations.³⁸

2. Adamson properly attached the presumption for his occupational disease.

Because Adamson's occupational disease was a listed cancer, in addition

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The Commission's dissenting member expressed concern that Adamson's exam in 1980 "did not involve a blood chemistry test measuring the PSA level in Adamson's blood." Dr. Allems testified that PSA testing only began to be used as a screening tool in the early 1990s. Adamson testified that to the best of his recollection, his pre-hire examination included a digital rectal examination prostate cancer screening test, the same test that detected Adamson's prostate cancer in 2008. The Board found that Adamson was credible.

Because we decide that substantial compliance is the applicable legal standard and that Adamson in fact substantially complied with AS 23.30.121's medical examination requirements, we do not consider the Municipality's argument that the statute does not generally require it to give firefighters the medical examinations outlined in the statute and related regulation.

to showing that he was given medical examinations substantially complying with the statute he also needed to show that "while in the course of employment as a firefighter, [he] was exposed to a known carcinogen, as defined by the [IARC] or the National Toxicology Program, and the carcinogen is associated with a disabling cancer."³⁹

The Board found that Adamson established through his testimony that "he was exposed to soots, containing cadmium and arsenic, to benzene, and to diesel exhaust containing benzene" and that soots, cadmium, arsenic, and benzene are all known carcinogens according to the National Toxicology Program (NTP). The Commission affirmed the finding that Adamson "produced evidence that in connection with his work as a firefighter, he was exposed to known carcinogens" as identified by the NTP. The Municipality does not contest on appeal that Adamson was exposed to known carcinogens in his work as a firefighter, and we agree with the Commission that substantial evidence supports the Board's finding that Adamson was exposed to known carcinogens as defined in the NTP. In addition to the information Adamson provided, Dr. Allems said in his report that it is "indisputable" that firefighters "are exposed to carcinogens in smoke and post-fire gasses." At the hearing Adamson testified that he had been exposed to soots in the course of fighting fires and that he had been involved in fighting several large fires, including a paint supply store in which paint was burning. Dr. Allems agreed that Adamson had been exposed to soots; Dr. Allems also testified that arsenic is used in paint pigments and cadmium is used in paints and batteries. Cadmium, arsenic, and soots are all listed as known carcinogens by the NTP.

Adamson additionally had to show that a carcinogen to which he was

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AS 23.30.121(b)(3)(C).

exposed is "associated with a disabling cancer." The Municipality vigorously contested this element at the hearing, contending that there is no known carcinogen for prostate cancer — that is, that no causal relationship has ever been established between a carcinogen and prostate cancer — and that as a result Adamson could not establish this element. On appeal, the Municipality insists that the statute requires the firefighter to show exposure to a known carcinogen for the specific cancer diagnosed and, because Dr. Allems testified there is no known carcinogen for prostate cancer, that Adamson is unable to make a connection between his work and his cancer. Adamson counters that he fulfilled the statutory requirements because causation (as the Municipality used the term) imposed a higher standard than "association," the standard set out in the statute. He disagrees with the Municipality's interpretation of the statute, arguing in essence that the statute has two steps and that he completed both because he presented evidence from the NTP and the IARC that (1) substances to which he was exposed are known carcinogens and (2) those carcinogens are associated with prostate cancer.

Resolution of this question requires us to interpret the statute. We interpret statutes according to reason, practicality, and common sense, considering the meaning of the statute's language, legislative history, and purpose. When we interpret a statute, we presume that no words or provisions are superfluous and that the legislature intended "every word, sentence, or provision of a statute to have some purpose, force, and

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Cf. AS 23.30.121(b)(3)(C) (requiring an association "with a disabling cancer"). In their briefing before us, the parties do not dispute that Adamson had to show an association between known carcinogens and prostate cancer, rather than to any cancer on the list.

Municipality of Anchorage v. Adamson, 301 P.3d 569, 573 (Alaska 2013) (quoting Parson v. State, Dep't of Revenue, Alaska Hous. Fin. Corp., 189 P.3d 1032, 1036 (Alaska 2008)).

effect."⁴² Alaska Statute 23.30.121(b)(3)(C) provides that when diagnosed with a cancer listed in the statute, a firefighter must show that "while in the course of employment as a firefighter, the firefighter was exposed to a known carcinogen, as defined by the [IARC] or the [NTP], and the carcinogen is associated with a disabling cancer."

We begin our interpretation of the statute by looking at its language. Words in statutes are construed according to their common meaning, with technical words construed according to their "appropriate meaning." Because there is no dispute that Adamson was exposed to a "known carcinogen," we must construe the phrase "is associated with," focusing on "associated." There is no statutory definition of "associated" in the workers' compensation act, so we consider its common meaning. Because the statute refers to the work of the NTP and the IARC, we also consider the manner in which "associated" and related terms are used by these agencies.

Both the NTP and the IARC classify chemicals as carcinogenic, but the agencies use different categories in their classifications. The NTP lists some substances as "known to be human carcinogens" and others as "reasonably anticipated to be human carcinogens." To be included on the "known to be human carcinogens" list there must be evidence "indicat[ing] a causal relationship between exposure to the agent, substance,

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Monzulla v. Voorhees Concrete Cutting, 254 P.3d 341, 345 (Alaska 2011) (quoting Mech. Contractors of Alaska, Inc. v. State, Dep't of Pub. Safety, 91 P.3d 240, 248 (Alaska 2004)) (internal quotation marks omitted).

AS 01.10.040.

U.S. DEP'T OF HEALTH & HUMAN SERVS., Pub. HEALTH SERV., NAT'L TOXICOLOGY PROGRAM, REPORT ON CARCINOGENS 15-19 (12th ed. 2011), available at http://ntp.niehs.nih.gov/ntp/roc/twelfth/roc12.pdf.

or mixture, and human cancer."⁴⁵ Each substance on the list of known carcinogens has a substance profile, which "contain[s] the listing status, summarize[s] the scientific information that supports the recommendation, and provide[s] information on use, exposure, and production."⁴⁶ As Dr. Allems testified at the hearing, the NTP does not list target organs in conjunction with substances on its list of known carcinogens.

The IARC has four classifications of carcinogenicity, with one classification having two subgroups; these classifications range from "carcinogenic to humans," when a causal relationship has been established between the agent and cancer, to "probably not carcinogenic to humans." Substances are classified as "probably carcinogenic to humans" — the level below "carcinogenic to humans" — if there is "limited evidence" of carcinogenicity; ⁴⁸ in humans, "limited evidence of carcinogenicity" means that "[a] positive association has been observed between exposure to the agent and cancer for which a causal interpretation is considered . . . credible, but chance, bias, or confounding could not be ruled out with reasonable confidence." Unlike the NTP, the IARC does not compile a list of "known carcinogens." Instead, the IARC publishes

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⁴⁵ *Id.* at 4.

⁴⁶ *Id.* at 9 n.1.

WORLD HEALTH ORG., INT'L AGENCY FOR RESEARCH ON CANCER, IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISKS TO HUMANS, PREAMBLE 22-23 (2006), available at http://monographs.iarc.fr/ENG/Preamble/CurrentPreamble.pdf.

Id. at 22 (emphasis omitted).

Id. at 19-20. A positive association between exposure to an agent and a disease exists when the relative risk of developing the disease is greater in exposed individuals than in unexposed individuals; a positive association "could be causal." Michael D. Green, et al., Reference Guide on Epidemiology, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 549, 566-67 (Fed. Judicial Ctr., 3d ed. 2011).

monographs about both substances and occupations reporting the data the agency has reviewed in evaluating the subject of the monograph;⁵⁰ it also has lists summarizing data in its monographs, including a list of classifications by cancer sites with sufficient or limited evidence of carcinogenicity in humans.⁵¹

In his hearing testimony, Dr. Allems referred to a 2006 epidemiology textbook with tables summarizing information from the IARC.⁵² The textbook listed carcinogens from two IARC classifications: "Group 1," which the textbook considered definite human carcinogens and "Group 2A," which the textbook called probable human carcinogens.⁵³ The Municipality and Dr. Allems referred to the substances listed under

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The IARC has monographs about firefighting as well as arsenic, for example. The IARC monograph about firefighting concludes that there is "limited evidence in humans for the carcinogenicity of occupational exposure as a firefighter." (Emphasis in original). World Health Org., Int'l Agency for Research on Cancer, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: Vol. 98 Painting, Firefighting, and Shiftwork 559 (2010), available at http://monographs.iarc.fr/ENG/Monographs/vol98/mono98-1.pdf.

World Health Org., Int'l Agency for Research on Cancer, List of Classifications by cancer sites with *sufficient* or *limited evidence* in humans, Volumes 1 to 110 (last updated July 25, 2014), *available at* http://monographs.iarc.fr/ENG/Classification/Table4.pdf. The IARC uses the term "sufficient evidence" when a causal relationship has been established. IARC PREAMBLE, *supra* note 47, at 22.

The textbook on which Dr. Allems relied stated that its tables "only include agents and circumstances that were reviewed and published by the IARC Monograph Programme as of 2003."

In the IARC Preamble from 2006, Group 1 contains agents for which there is "sufficient evidence of carcinogenicity in humans," i.e. that "a causal relationship has been established between exposure to the agent and human cancer." IARC PREAMBLE, *supra* note 47, at 19. Group 2A consists of agents that are "probably carcinogenic to humans." *Id.* at 22.

Group 1 in the textbook as "known carcinogens" and those listed under Group 2A as "probable carcinogens." Under the Municipality's interpretation of the statute, then, a firefighter could attach the presumption only if a causal relationship had been established between a substance and the firefighter's cancer.

From this information, we conclude that the agencies consider substances to be known carcinogens when the agencies have decided there is strong enough evidence to show a causal relationship, but that, at least in the IARC materials, an "association" supports a lower level of classification. Dr. Allems agreed that "cause" is a higher standard than "associated." The general dictionary definition of "associated" accords with this contrast: The general definition of "associated" is "link[ed]." A link does not require causation; two ideas or properties can be linked without one causing the other. We therefore hold that the statute does not require a firefighter to show exposure to a carcinogen that has been shown to cause a specific cancer. Instead, the statute sets up a two-step process, in which the firefighter must first show exposure to a known carcinogen as defined by the NTP or IARC. The firefighter must then provide some evidence linking the carcinogen to the cancer, but does not have to show that the IARC

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WEBSTER'S II NEW COLLEGE DICTIONARY 70 (3d ed. 2005).

Our review of the treatise on which Dr. Allems relied, which was based on the IARC, and of the NTP list of known carcinogens shows that the NTP list overlaps to a large extent with definite (Group 1) carcinogens in the treatise, at least with respect to likely occupational exposures. (The treatise lists only occupational carcinogens.) The lists are not coextensive, however. For example, 1,3-butadiene is listed as a known carcinogen by the NTP, see REPORT ON CARCINOGENS, supra note 44, at 15, but is only on the probable human carcinogen list in the treatise.

See City of Las Vegas v. Lawson, 245 P.3d 1175, 1179-80 (Nev. 2010) (construing similarly worded statute as having two steps). We have previously determined that "[o]pinions from other jurisdictions interpreting similar statutes can be (continued...)

or the NTP has determined that the carcinogen is a "known carcinogen" for the cancer.

The Municipality's interpretation would limit the statute's application to carcinogens shown to cause the enumerated cancers rather than applying it to chemicals linked to a cancer after those chemicals have been found to cause cancer at other sites. As an example, the IARC monograph about arsenic and arsenic compounds, included as an appendix to Adamson's brief, states that certain arsenic compounds "cause cancer of the lung, urinary bladder, and skin" and "a positive association has been observed between exposure to arsenic and inorganic arsenic compounds and cancer of the kidney, liver, and prostate." The 2006 treatise upon which Dr. Allems relied in his testimony observed the evolving nature of knowledge about carcinogenicity, noting that "over 95% of today's probable and possible occupational carcinogens had not even been mentioned as of 1964, and about one-third were not mentioned as of 1987."

We reject the Municipality's interpretation because that interpretation would render parts of the statute meaningless. Dr. Allems would have testified that there is no known carcinogen for prostate cancer because the prostate was not listed as a cancer site in the Group 1 table in the treatise. Of the eight enumerated cancers in AS 23.30.121(b)(1)(C), only three — leukemia, non-Hodgkin's lymphoma, and bladder cancer — are clearly listed in the Group 1 table in the treatise. Yet the most current IARC classification list, which includes agents with both "sufficient" (causal) and "limited" (associational) evidence of carcinogenicity in humans and is based on

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^{(...}continued)
persuasive." City of Kenai v. Friends of Recreation Ctr., Inc., 129 P.3d 452, 458 (Alaska 2006) (citing Nicholson v. Sorenson, 517 P.2d 766, 770 n.9 (Alaska 1973)).

The treatise did not differentiate among types of skin cancers, so its classification of malignant melanoma is unclear.

List of Classifications by cancer sites, *supra* note 51.

information through 2011, includes all of the eight enumerated cancer sites. Because we assume that the legislature intended that firefighters would be able to avail themselves of the presumption established in AS 23.30.121, the Municipality's interpretation cannot be what the legislature intended.

Relying on cases about attaching the presumption under AS 23.30.120 in complex medical cases,⁵⁹ the Municipality argues that Adamson was required to present expert testimony in order to attach the presumption because of the complex questions of causation presented by toxins and cancers. We decline to adopt a general rule requiring a firefighter to present expert testimony in cases involving AS 23.30.121. The purpose of the statute, as clearly demonstrated by the legislative history, was to make this type of claim easier for firefighters to prove.⁶⁰ By specifically referring to the IARC and the NTP and their work, the legislature provided a means by which a firefighter can attach the presumption without a retained expert. A firefighter is free to retain and use an expert if there is concern that the data available from the IARC or the NTP does not adequately support a claim, but is not required to do so.

Considering the evidence available at the hearing, we conclude that the Commission correctly concluded that substantial evidence supported the Board's decision that Adamson attached the presumption in AS 23.30.121. Adamson provided the Board with substance profiles from the NTP for arsenic, benzene, and cadmium, all stating that these substances are "[k]nown to be human carcinogens" and cited studies

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⁵⁹ E.g., Burgess Constr. Co. v. Smallwood, 623 P.2d 312 (Alaska 1981).

Minutes, House Labor & Commerce Comm. Hearing on H.B. 200, 25th Leg., 2d Sess. 4:43:53-5:02:03 (Apr. 27, 2007) (testimony of Paul Lisankie, Director, Div. of Workers' Comp.).

showing an association between the substances and prostate cancer.⁶¹ The IARC monograph about arsenic and arsenic compounds states that there is either sufficient or limited evidence of carcinogenicity in humans (depending on the compound); it indicates that "a positive association has been observed between exposure to arsenic and inorganic arsenic compounds and cancer of the . . . prostate."⁶² The IARC materials on cadmium state that "positive associations have been observed between exposure to cadmium and cadmium compounds and cancer of the prostate."⁶³ The NTP substance profile on cadmium from the Twelfth Edition of the Report on Carcinogens references the IARC materials.⁶⁴ The NTP substance profile for arsenic reports that studies show an association between arsenic exposure and prostate cancer.⁶⁵ The NTP also reports studies showing a connection between exposure to soots and prostate cancer.⁶⁶ On the IARC's list of classifications by cancer site, arsenic and cadmium (and compounds containing these elements) are included as agents with limited evidence of

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REPORT ON CARCINOGENS, *supra* note 44, at 50-52, 60-62, 80-82.

World Health Org., Int'l Agency for Research on Cancer, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: Vol. 100C A Review of Human Carcinogens: Arsenic, Metals, Fibres, and Dusts 85 (2012), available at http://monographs.iarc.fr/ENG/Monographs/vol100C/mono100C-6.pdf.

World Health Org., Int'l Agency for Research on Cancer, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: Vol. 100C A Review of Human Carcinogens: Cadmium and Cadmium Compounds 141 (2012), available at http://monographs.iarc.fr/ENG/Monographs/vol100C/mono100C-6.pdf.

REPORT ON CARCINOGENS, *supra* note 44, at 80-82.

⁶⁵ *Id.* at 50-52.

REPORT ON CARCINOGENS, *supra* note 44, at 379.

carcinogenicity for prostate cancer in humans.⁶⁷ As we noted earlier, limited evidence of carcinogenicity in the IARC means a positive association exists between the substance and the cancer. From all of this information, we conclude that the Board and the Commission correctly determined that Adamson attached the presumption that he had been exposed to a known carcinogen associated with prostate cancer.

In sum, we hold that Adamson was required to (and in fact did) substantially comply with the requirements for medical examinations in AS 23.30.121. Adamson fulfilled the other requirement for attaching the presumption by presenting evidence that in his work as a firefighter, he was exposed to known carcinogens as identified by the NTP and that the carcinogens are associated with prostate cancer.

C. It Was Error for The Commission To Decide That The Municipality Could Rebut The Presumption In AS 23.30.121 Through Testimony That There Is No Known Carcinogen For Prostate Cancer.

Construing AS 23.30.121, the Commission decided that the Board erred in failing to admit or evaluate Dr. Allems's testimony. In the Commission's view, the Board read the statute too narrowly in considering the scope of possible bases which an employer could assert to rebut the presumption in AS 23.30.121. The Commission thought Dr. Allems's testimony that there was no known carcinogen for prostate cancer could be sufficient to rebut the presumption because, in its view, the legislature did not intend to prevent an employer from presenting evidence that could undercut any of the criteria for attaching the presumption, including evidence that occupational exposure to carcinogens can cause prostate cancer. The Commission reversed the Board's exclusion of Dr. Allems's testimony and remanded the case for the Board to consider and weigh his testimony against Adamson's evidence.

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List of Classifications by cancer sites, *supra* note 51, at 7.

Adamson argues that the legislature intended to limit the type of evidence an employer can use to rebut the presumption. Relying in part on cases from other jurisdictions, Adamson contends that the legislature did not intend a firefighter's employer to rebut the presumption with "[m]edical evidence that simply attacks the link established by the legislature between firefighter exposures and the particular listed disease." The Municipality responds that the legislature did not determine that firefighting causes cancer and that the statutory language and legislative history support its position that it could rebut the presumption through Dr. Allems's testimony.

To resolve this dispute, we must again interpret the statute. Alaska Statute 23.30.121(a) provides in pertinent part, "The evidence [to rebut the presumption] may include the use of tobacco products, physical fitness and weight, lifestyle, hereditary factors, and exposure from other employment or nonemployment activities." The Commission thought the use of "may include" showed that the legislature did not intend to limit in any way the type of evidence an employer could use to rebut the presumption.

We disagree with the Commission's interpretation of the statute. The words "may include" certainly indicate that the list in the statute was not meant to be exhaustive. But in interpreting statutes, we can look at the type of object on a list to see whether the legislature intended to describe a class that includes those things on the list. The items on the statutory list are all personal to the claimant, including habits and other possible sources of toxic exposures; we therefore conclude that the statutory language indicates that rebuttal evidence must be personal to the claimant, not evidence attempting to undermine the legislature's determination that the enumerated diseases are

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AS 01.10.040(b).

This is similar to the doctrine of *ejusdem generis*. See Cable v. Shefchik, 985 P.2d 474, 480 (Alaska 1999) (explaining application of doctrine).

occupational diseases of firefighters.

The Municipality contends that the legislative history supports its reading of the statute. The little legislative history about rebutting the presumption is ambiguous at best. The Municipality cites as "[m]ost telling" a Senate Finance Committee discussion in which senators questioned inclusion of prostate cancer in the bill because of concerns that it is common among older men. We do not interpret the ensuing discussion as showing a legislative intent to permit an employer to rebut the presumption by attempting to negate a causal connection between occupational exposures to carcinogens in firefighters and the listed cancers. The discussion focused on age — another factor personal to a claimant — and the time limit on the presumption, which could limit the age of claimants.⁷⁰

Dr. Allems would have testified that there is no known carcinogen for prostate cancer; he also gave the opinion in his report that "[t]he firefighter data are consistently not compelling as to an increased risk of prostate cancer in this occupational group." Essentially, the Municipality sought to rebut the presumption that Adamson's cancer was due to exposure to toxins by demonstrating that the legislative determination — that firefighters' occupational exposures to carcinogens are significant enough that they should be afforded a presumption that certain cancers are occupational diseases — was wrong. We previously have refused to permit litigants to attack legislative findings, 71 and we similarly reject the Municipality's attempt to do so here.

We also find persuasive the construction of similar statutes by other state

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AS 23.30.121(b)(2) limits the presumption's availablity after terminating service as a firefighter; the absolute limit is five years, but the time limit may be shorter. *Id*.

See Evans ex rel. Kutch v. State, 56 P.3d 1046, 1053 (Alaska 2002) (refusing to second guess legislative fact-finding about tort reform).

courts. As Adamson points out, courts in other states have uniformly held that an employer may not rebut similar presumptions by attempting to show that there is no relationship between the occupation and the disease. For example, in *City of Frederick v. Shankle*, the Maryland Court of Appeals stated that to rebut the presumption that heart disease or hypertension was a compensable occupational disease for certain police officers and firefighters, the employer had to present evidence "particular to the claimant . . . and not a total and absolute denial of the presumption." The Maryland court upheld the exclusion of expert testimony when the employer's expert held the opinion "that there was utterly no correlation between job stress and heart disease." Under a slightly different statutory scheme, the California Court of Appeal rejected an employer's attempt to rebut a statutory presumption that a police officer's kidney cancer was work related by introducing evidence "that no studies exist showing a positive link between the exposure and the particular form of cancer."

Cases from other courts cited by the Municipality are not to the contrary. In *Worden v. County of Houston*⁷⁵ the court agreed an employer had rebutted the presumption that a police officer's heart attack was work related, but the rebuttal evidence included medical reports attributing his heart attack "to his heavy cigarette

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⁷² 785 A.2d 749, 755 (Md. App. 2001).

Id. at 752-53. Other states have reached similar conclusions. Linnell v. City of St. Louis Park, 305 N.W.2d 599, 601 (Minn. 1981); Byous v. Mo. Local Gov't Emps. Ret. Sys. Bd. of Trs., 157 S.W.3d 740 (Mo. App. 2005); Robertson v. N.D. Workers Comp. Bureau, 616 N.W.2d 844, 855 (N. D. 2000); Sperbeck v. Dep't of Indus., Labor & Human Relations, 174 N.W.2d 546, 549 (Wis. 1970).

City of Long Beach v. Workers' Comp. Appeals Bd., 23 Cal. Rptr. 3d 782, 794 (Cal. App. 2005).

⁷⁵ 356 N.W.2d 693 (Minn. 1984).

smoking, his positive family history of coronary artery disease, and his hypertension which was documented before [he] ever began law enforcement work."⁷⁶ And the other case cited by the Municipality, *Wanstrom v. North Dakota Workers Compensation Bureau*, also supports Adamson's position. There the North Dakota Supreme Court stated that it had "further clarified the strength of the presumption when [it] held the presumption was not successfully rebutted by expert opinion that merely denied the premise that served as the basis for the legislative enactment of the presumption."⁷⁸

We agree with these cases and hold that the evidence used to rebut the legislatively created presumption in AS 23.30.121 must be personal to the claimant. The Municipality's argument that rejecting this type of rebuttal evidence will create an irrebuttable presumption is meritless. The legislature provided a means by which employers could rebut the presumption: presentation of evidence personal to the claimant showing that the specific disease in a particular firefighter could have been caused by another mechanism personal to that firefighter, such as smoking. In Adamson's case, that evidence was absent, as the Municipality's expert recognized. Because the only evidence the Municipality attempted to introduce to rebut the presumption was not relevant under our interpretation of the statute, we reverse the part of the Commission's decision about rebuttal evidence. The Board correctly determined that Dr. Allems's causation opinion was inadmissible and properly excluded it. Because the Municipality failed to offer any relevant, admissible evidence to rebut the statutory presumption here, it failed to rebut the presumption of compensability.

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⁷⁶ *Id.* at 696.

⁷⁷ 621 N.W.2d 864 (N.D. 2001).

⁷⁸ *Id.* at 869 (citing *Robertson* 616 N.W.2d at 844).

V. CONCLUSION

For the foregoing reasons, we AFFIRM the Commission's decision that Adamson attached the presumption of compensability in AS 23.30.121. We REVERSE the Commission's decision that the Municipality could rebut the presumption through the opinion evidence it offered, and we REMAND this case to the Commission with instructions to reinstate the Board's decision.

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