**BEFORE THE BOARD OF INDUSTRIAL INSURANCE APPEALS**
**STATE OF WASHINGTON**

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| **IN RE: GLENN O. HANNAMAN, JR. DEC'D** | **)** | **DOCKET NOS. 19 12787, 19 20585, 19 20586 & 19 23288** |
| **CLAIM NO. SL-21073** | **)** | **DECISION AND ORDER** |

Glenn O Hannaman, Jr., passed away from metastatic lung cancer following a 29-year career with the US Department of Energy at Hanford (the "DOE"). His widow, Roberta Hannaman, filed a beneficiary application for benefits under the Industrial Insurance Act. In a series of orders, the Department allowed the claim, denied second injury fund relief to DOE, awarded Mrs. Hannaman a widow's pension, calculated Mr. Hannaman's wages, and assessed an overpayment. DOE appealed. Following a hearing, our industrial appeals judge granted the Department's CR 41 motion, and dismissed the self-insured employer's appeals after determining that it failed to establish a prima facie case. DOE petitioned for review, arguing that in granting the CR 41 motion, our industrial appeals judge misapplied the "clear and convincing" burden set forth in RCW 51.32.187. We agree, and grant review to reverse the CR 41 ruling. Moreover, because the parties completed their presentation of evidence, we review these appeals on their merits. The uncontested record established that Mr. Hannaman was an RCW 51 covered worker on DOE related projects, within the statutorily defined areas at the Hanford Nuclear Site for the requisite number of shifts. As a result, there exists a prima facie presumption that Mr. Hannaman's colorectal and lung cancers were an occupational disease. Because DOE did not rebut the Hanford presumption by clear and convincing evidence, the Department Orders are **AFFIRMED**.

## DISCUSSION

These appeals present some procedural matters to untangle. The procedural issues may have been caused by confusion regarding that legal concept known as the **Burden of Proof**. Black's Law Dictionary defines the term:

> [a] party's duty to prove a disputed assertion or charge; a proposition regarding which of two contending litigants loses when there is no evidence on a question or when the answer is simply too difficult to find. The burden of proof includes both the *burden of persuasion* and the *burden of production.*[1]

Thus, the burden of proof includes two distinct concepts. The burden of production, describes one party's burden of going forward,[2] that is, their burden to produce sufficient evidence to justify a

[1] Black's Law Dictionary (11th ed. 2019), burden of proof.
[2] See, Black's Law Dictionary (11th ed. 2019) burden of going forward with evidence.

finding,[3] or to avoid a ruling against them (for example, summary judgment or directed verdict).[4] A party has met their burden of production once they have introduced sufficient evidence to establish a prima facie case. This standard may be met even though that same evidence may fall short of convincing a trier of fact to ultimately rule in the party's favor.

In contrast, the burden of persuasion is a party's duty to convince the fact-finder to view facts in a way that favors that party.[5] This concept assigns risk to one of the parties in the event that the evidence is so close a fact finder cannot decide. In that instance, the party bearing the burden of persuasion loses the appeal.

In most industrial insurance appeals, the appellant's burden of persuasion is by a preponderance of the evidence. In criminal cases, the burden of persuasion is beyond a reasonable doubt. In Hanford presumption cases, the burden of persuasion is clear and convincing evidence, which is generally considered to be a standard in between preponderance and beyond a reasonable doubt.

**CR 41 Motion**

Fulfilling a similar "winnowing" function as a pretrial CR 56 motion for summary judgment, CR 41(b)(3) authorizes involuntary dismissal following a hearing where the moving party has failed to meet their burden of production.[6] This motion is granted when there is no evidence, or reasonable inferences therefrom, which would support a verdict for the moving party.[7] Because a CR 41 motion assesses whether a party has satisfied its burden of going forward, a CR 41(b)(3) motion to dismiss amounts to an assessment of whether that party has met its burden of production.

**Whose Burden is it? Application of the Morgan Theory of Presumptions**

DOE does not dispute that Mr. Hannaman worked sufficient hours within areas covered by RCW 51.32.187 and was subsequently diagnosed with two predicate conditions (that is, colorectal and lung cancer).[8] As a result, RCW 51.32.187 (the "Hanford presumption statute") establishes a rebuttable presumption that those cancers were an occupational disease.

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[3] See, Black's Law Dictionary (11th ed. 2019) burden of persuasion, second paragraph (distinguishing the two concepts contained within the concept known as burden of proof.)
[4] See, for example, Black's Law Dictionary (11th ed. 2019) burden of production.
[5] Black's Law Dictionary (11th ed. 2019) burden of persuasion.
[6] CR 41(b)(3).
[7] *See*, for example, *In re Donald W. Wright*, Dckt. Nos. 14 16368, 14 16568, & 15 10063 (November 23, 2015) citing *Spring v. Dep't of Labor & Indus.,* 96 Wn.2d 914 (1982), after remand, 39 Wn. App. 751 (1985); *Nelson Construction v. Port of Bremerton*, 20 Wn. App. 32, (1978).
[8] Petition for Review at 17.

How the Hanford presumption operates is a matter of first impression. Fortunately, we are not without some direction on the topic. In 1987, our Legislature adopted a statute quite similar to the one before us now. Amended over the years, RCW 51.32.185 (the "firefighter presumption") affords certain firefighters a similar (albeit more easily disputed) presumption of occupational disease. In *Spivey v. Bellevue,*[9] a consolidated case involving two Bellevue firefighters diagnosed with malignant melanoma, our Supreme Court clarified that in firefighter presumption cases, Washington will follow the *Morgan theory of presumptions.* The Court held that employers of qualifying firefighters must overcome a continuing, rather than disappearing presumption.

Noting that "RCW 51.32.185 reflects a strong social policy in favor of the worker,"[10] the Supreme Court concluded that whether the employer, in that case, Bellevue, rebutted the firefighter presumption was a factual determination properly given to the jury. The court also applied the Morgan theory of presumptions to RCW 51.32.185, and held that the firefighter presumption shifted both the burden of production and the burden of persuasion to the employer.[11]

In its Petition for Review, DOE anticipates that we will follow *Spivey* and the *Morgan Theory of Presumptions* will also be applied to RCW 51.32.187. We agree. Like the firefighter presumption, the Hanford presumption statute reflects a strong social policy and must be accorded the strength intended by our Legislature. As with the firefighter presumption, the plain language of the Hanford presumption statute supports application of the Morgan theory of presumptions in these occupational disease allowance cases. For these reasons, we hold that RCW 51.32.187 shifts both the burden of production and the burden of persuasion (proof) to the employer, in this case, DOE.

**Has DOE Met its Burden of Production?**

The next issue for us to untangle is whether our industrial appeals judge properly dismissed the self-insured employer's appeals. To overcome the Department's CR 41(b)(3) motion, DOE must establish a **prima facie case***,* that is, substantial evidence[12] which, if unrebutted, would convince an unprejudiced, thinking mind of the truth of the issues on appeal.[13] Put another way, a prima facie case is one that "will prevail until contradicted and overcome by other evidence."[14]

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[9] 187 Wn.2d 716 (2017).
[10] Spivey at 721.
[11] *Spivey,* 187 Wn.2d 728.
[12] A mere scintilla of evidence is insufficient. *In re Peter Kim*, BIIA Dec. 00 21147 at 2 (2002) citing *Omeitt v. Dep't of Labor and Indus.*, 21 Wn.2d 684 (1944).
[13] *In re William Morgan*, Dckt. No. 91 3417 (January 14, 1993).
[14] Black's Law Dictionary, 1189 (6th ed. 1990).

Here, DOE produced medical testimony indicating that Mr. Hannaman was not exposed to sufficient radiation or chemical exposures to cause his cancers. Moreover, the medical testimony established that Mr. Hannaman's history as a smoker from 1971 to 1991 was an enormous risk factor, and was most certainly the cause of his lung cancer. When considered in the light most favorable to DOE, this unrebutted evidence is sufficient to convince an unprejudiced, thinking mind that Mr. Hannaman's exposures at Hanford were not a cause of his cancers. Because our industrial appeals judge applied a different standard to the Department's CR 41 motion (that is, DOE's clear and convincing burden of persuasion), she erred in dismissing these appeals. But, our inquiry does not end there.

**Decision on the Merits: Clear and Convincing Evidence**

Having already determined that DOE met its burden of production (that is, it established a prima facie case), we next address whether it met its burden of persuasion (that is, that it rebutted the presumption of occupational disease by clear and convincing evidence). For the reasons set forth below, we find that it has not.

Black's Law Dictionary defines clear and convincing evidence as follows:

> [e]vidence indicating that the thing to be proved is highly probable or reasonably certain. This is a greater burden than preponderance of the evidence . . . but less than evidence beyond a reasonable doubt, the norm for criminal trials.[15]

We are well acquainted with this standard of proof. Although most appeals before us are decided by a preponderance of the evidence, we have long applied the higher clear and convincing standard in willful misrepresentation cases. The *Washington Pattern Jury Instructions* provide:

> A party who alleges *[willful misrepresentation]* [_____] has the burden of proving each of the elements of *[willful misrepresentation]* [_____] by clear, cogent, and convincing evidence.
>
> Proof by clear, cogent, and convincing evidence means that the element must be proved by evidence that carries greater weight and is more convincing than a preponderance of evidence. Clear, cogent, and convincing evidence exists when occurrence of the element has been shown by the evidence to be highly probable. However, it does not mean that the element must be proved by evidence that is convincing beyond a reasonable doubt.
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> A "preponderance of the evidence" means that you must be persuaded, considering all the evidence in the case, that a proposition is more probably true than not true. "Preponderance of the evidence" is defined here solely to aid you in understanding the

[15] Evidence, Black's Law Dictionary (11th ed. 2019). Emphasis supplied.

meaning of “clear, cogent, and convincing.”[16]

Notes following this section indicate that use of WPI 160.02 is not just limited to fraud causes. Subsequent comments indicate that although the instruction did not always include the "highly probable" standard, in 2010, the WPI Committee added a sentence clarifying for jurors that "clear, cogent, and convincing" proof means proof that an occurrence is "highly probable." Because this standard is well established as a means for defining clear, cogent, and convincing evidence,[17] we apply it here.

DOE's Petition for Review next explores what quantum of evidence could possibly satisfy this burden of persuasion within the unique context of RCW 51.32.187. By unique context, we refer to the fact that under the Act, the distinctive conditions of employment need only be "a cause" of an occupational disease for that condition to be covered.[18]

DOE encourages us to apply dicta from *Spivey*, specifically, where our Supreme Court indicates as follows:

> The use of the *Morgan* standard does not impose on the employer a burden of proving the specific cause of the firefighter's melanoma. Rather, it requires that the employer provide evidence from which a reasonable trier of fact could conclude that the firefighter's disease was, more probably than not, caused by non-occupational factors.[19]

This argument misses the mark, however. Unlike the Hanford presumption statute, *Spivey* involved a presumption statute which only obligated rebuttal proof by a preponderance of the evidence.[20] Because DOE's burden of persuasion is the higher, clear and convincing standard, this dicta from *Spivey* is inapposite.

DOE argues that the Hanford presumption statute sets an impossibly high burden for employers. We disagree. The statute specifically provides that employers like DOE may successfully rebut their presumption with evidence which "may include, but is not limited to, use of tobacco products, physical fitness and weight, lifestyle, hereditary factors, and exposure from other employment or nonemployment activities."[21] As the party most able to monitor employee exposure to the chemicals it asked employees to work with, and the party most able to retain those records for

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[16] WPI 160.02 (*emphasis supplied*).
[17] See, for example, *Dalton v. State*, 130 Wn.App. 653 (2005); *State Farm Fire & Cas. Co. v. Huynh*, 92 Wn.App. 454, 465–66 (1998); *see* generally DeWolf & Allen, 16A Washington Practice, *Tort Law & Practice* § 19.2 (4th ed.); Tegland, 5 Washington Practice, *Evidence Law and Practice* § 301.3 (6th ed.).
[18] *In re Shauna Guyman*, BIIA Dec., 05 13662 (2006).
[19] *Spivey* 187 Wn.2d 716, 735 (2017), *citing* RCW 51.32.185(1).
[20] See, RCW 51.32.185(1)(d).
[21] RCW 51.32.187(2)(b).

later use, DOE can also meet its higher burden of persuasion by creating, maintaining, and producing records which demonstrate that its employees are not exposed to hazardous substances in sufficient quantities to result in conditions covered by the Hanford presumption statute.

DOE's Petition for Review explores a number of methods by which it could rebut the Hanford presumption. For example, it argues it could utilize employee monitoring records to demonstrate Mr. Hannaman's exposures at Hanford were insufficient to constitute a cause of his cancers. DOE argues it could use surrogate measures of exposure and causative effect, such as comparing the period between Mr. Hannaman's exposures and his cancer onset to that cancer's common latency period. Finally, DOE suggests it could argue that the chemicals found at Hanford do not cause the decedent's specific type of cancer.

Except for the last suggestion, which Division Two recently rejected in *Bradley v. City of Olympia,*[22] the remaining arguments might be an acceptable means of rebutting the Hanford presumption *a*ssuming the right foundation. On the record before us, DOE has not carried its burden. In this respect, we endorse our industrial appeals judge's factual analysis.

**Factual Analysis**

Addressing DOE's second argument next, to rely on an average latency period is to inherently admit that within the range of acceptable latencies are latencies lower and higher than that average. Moreover, averages are less helpful in situations where (as here) a claimant's exposures spanned almost three decades.

Stronger was radiology and nuclear medicine specialist Fred M. Mettler, Jr., M.D.'s testimony that the claimant's low dosimeter readings did not correlate with his rectal or lung cancers. But, Dr. Mettler ignores the gaps in radiation exposure documentation, (established by certified industrial hygienist Bruce Miller and toxicologist Joyce Tsuji, PhD) during periods when Mr. Hannaman was potentially exposed to radioactive materials while working for DOE.

Dr. Mettler's opinion that Mr. Hannaman's metastatic squamous cell lung cancer was more likely due to smoking and radon is likewise unpersuasive. First, Dr. Mettler conceded Mr. Hannaman's risk of squamous cell carcinoma was really only 5.5 percent higher than a nonsmoker's risk because he stopped smoking more than 25 years before his cancer diagnosis.

[22] Division II, 54981-6-II (November 9, 2021) (holding that because the Legislature has already determined firefighting contributes to bladder cancer, the employer must present sufficient evidence that the **individual** claimant's bladder cancer was caused by non-occupational factors if the employer is to avoid summary judgment.)

Dr. Mettler also testified that welders have a 43 percent increase in lung cancer. Dr. Tsjui explained that Mr. Hannaman's welding work at Hanford would have exposed him to carcinogenic metals, particular fume and combustion products. She noted that welders commonly suffer from squamous cell carcinoma—the lung cancer which spread to Mr. Hannaman's brain and ultimately killed him. Mr. Wachtel established that Mr. Hannaman's duties at Hanford included welding.

Dr. Mettler's opinions also failed to consider Mr. Hannaman's occupational exposure to carcinogenic chemicals, heavy metals, vapors and fumes (established by Mr. Miller, Dr. Tsuji, Mr. Hannaman's friend and former colleague, Mark Wachtel, and family medicine specialist Dr. Matthew Lawrence). According to Mr. Miller, chemicals[23] were also openly vented from repository tanks and were subject to prevailing winds around the nuclear reservation. Dr. Lawrence explained how Mr. Hannaman's ingestion of carcinogenic chemicals (for example, inhaled plutonium particles [not easily detectable by dosimeters but found in **seven** of Mr. Hannaman's urine samples between 1985 and 1987) increased his risk of lung cancer.

Although industrial hygienist Lawrence D. Yearsley felt it unlikely that Mr. Hannaman's job as a stationary operating engineer exposed him to hazards, Mr. Miller established that the job analyses upon which Mr. Yearsley relied did not likely include all the chemicals to which Mr. Hannaman was exposed while working at Hanford. For example, some of the ventilation systems that Mr. Hannaman maintained were situated in laboratory facilities where Hanford employees conducted experiments involving many different types of fuels and waste. Without records of those experiments, no claimant in Mr. Hannaman's position could quantify those exposures.

Similarly, internal medicine and medical oncologist Robert M. Levenson, M.D., concluded that Mr. Hannaman's lung cancer was not caused by vapor exposure because there were no records of chemical exposures. But, until 1987 the DOE's primary focus was weapon material production. Moreover, Mr. Miller testified that no industrial hygienist program even existed in the 1980s and 1990s (either with DOE or with its contractors).[24] Given those factors, we cannot conclude that a lack of documentation amounts to a lack of exposure.

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[23] Mr. Miller testified that even today the waste within these tanks has not been completely characterized.

[24] From 2004 to 2013, Mr. Miller served as Health and Safety Director for North Wind, an environmental contractor for Department of Energy. Mr. Miller testified that once industrial hygiene programs were set up, they weren't necessarily using feedback from worker exposures to determine what types of exams and tests should be performed like modern occupational medicine programs do. Instead, they were geared toward making sure workers could perform their essential job functions.

Rather, we credit attending physician Matthew Lawrence's testimony that his patient's exposures at Hanford cannot be ruled out as a cause of Mr. Hannaman's cancers. Attending Hematologist and Oncologist Rangaswamy A. Chintapatla, M.D., agreed. Despite the stellar credentials of the employer's witnesses, there is no evidence that any of them ever personally examined Mr. Hannaman. On the other hand, physicians who attend to a claimant for a considerable period are entitled to special consideration.[25] This is especially the case where causation opinions (like Dr. Lawrence's observations regarding the uncommon confluence of three rare diseases) are not based solely on their patient's history of the injury.[26]

Given the gaps in documentation of exposure to radiation, chemicals, and vapors, the length of time since Mr. Hannaman had quit smoking, and again, his uncommon confluence of rare diseases, DOE has failed to establish, by clear and convincing evidence, that the distinctive conditions of Mr. Hannaman's employment at Hanford were not a cause of his rectal and squamous cell lung cancers.

The employer also appealed an order denying second injury fund relief, an order awarding a beneficiary pension to Mrs. Hannaman, a bond order, and a wage order. Beyond the causation arguments outlined above, which we have now addressed, DOE produced no evidence that these orders were incorrect. The orders are likewise affirmed.

## DECISION

1. In Docket No. 19 12787, the employer, US Department of Energy, filed an appeal with the Board of Industrial Insurance Appeals on March 11, 2019, from an order of the Department of Labor and Industries dated January 28, 2019. In this order, the Department affirmed a December 28, 2018 order in which the Department allowed Glenn O Hannaman's occupational disease claim with a September 16, 2005 date of manifestation, pursuant to RCW 51.32.187. This order is correct and is AFFIRMED.

2. In Docket No. 19 20585, the employer, US Department of Energy, filed an appeal with the Board of Industrial Insurance Appeals on August 23, 2019, from an order of the Department of Labor and Industries dated July 10, 2019. In this order, the Department affirmed a May 28, 2019 order which awarded a beneficiary pension to Mr. Hannaman's surviving spouse, Roberta L.

[25] *Spalding v. Dep't of Labor & Indus*., 29 Wn.2d 115, 128 (1947); *Hamilton v. Dep't of Labor & Indus.*, 111 Wn.2d 569, 571 (1988).
[26] *See, for example, In re Natishia M. Powell*, Dckt. No. 00 16728 (October 1, 2001).

Hannaman, and issued an overpayment order for and requested repayment of benefits conferred to Mr. Hannaman's estate for the period November 13, 2018, through November 13, 2018, in the amount of $1,659.92. The July 10, 2019 order also affirmed a Department order dated May 29, 2019. That order denied second injury fund relief to the employer. The July 10, 2019 order is correct and is AFFIRMED.

3. In Docket No. 19 20586, the employer, US Department of Energy, filed an appeal with the Board of Industrial Insurance Appeals on August 23, 2019, from an order of the Department of Labor and Industries dated August 13, 2019. In this order, the Department affirmed its June 20, 2019 Bond Order, which required the employer to submit the reserve required to pay Roberta L. Hannaman's spouse's pension or to pay Ms. Hannaman the accrued benefits from August 14, 2018, to June 15, 2019, plus a cash deposit and to file the required bond in an amount to be determined by the Department and to make further quarterly obligations thereafter. This order is correct and is AFFIRMED.

4. In Docket No. 19 23288, the employer, US Department of Energy, filed an appeal with the Board of Industrial Insurance Appeals on October 14, 2019, from an order of the Department of Labor and Industries dated August 30, 2019. In this order, the Department affirmed its June 19, 2019 order which established Mr. Hannaman's gross monthly wages at the time of his injury or date of manifestation. This order is correct and is AFFIRMED.

## FINDINGS OF FACT

1. On October 22, 2020, an industrial appeals judge certified that the parties agreed to include the Jurisdictional History in the Board record solely for jurisdictional purposes.

2. Glenn O. Hannaman, Jr., was a United States Department of Energy Hanford site worker from 1985 through 2014. In the 1980s, Mr. Hannaman worked full time in the 100 Area, the 300 Area, and the reactor areas doing radioactive waste handling and decontamination, and as a stationary operator and powerhouse operator in the 200 Areas. In the 1990s, Mr. Hannaman performed engineer support work in the 222 South laboratory and in the plutonium finishing plant maintaining ventilation, heating, and air conditioning systems. His job duties included making uranium billets, welding, and decommissioning the reactor.

3. When entering the reactor area, Mr. Hannaman would occasionally receive the full allowable radiation dosage for a week in 25 minutes. While working at Hanford, Mr. Hannaman was also exposed to

carcinogenic chemicals (that is, inhaled plutonium particles), heavy metals, vapors, fumes and combustion products.

4. Working full time in Hanford's 100 Area, 300 Area, and the reactor areas performing radioactive waste handling and decontamination, working as a stationary operator and powerhouse operator in the 200 Areas, performing engineer support work in the 222 South laboratory and in the plutonium finishing plant maintaining ventilation, heating, and air conditioning systems, making uranium billets, welding, decommissioning a nuclear reactor, receiving the full allowable radiation dosage for a week in 25 minutes, being exposed to carcinogenic chemicals (that is, inhaled plutonium particles), heavy metals, vapors, fumes and combustion products constitute distinctive conditions of employment.

5. Mr. Hannaman smoked a pack of cigarettes per day for 20-plus years but quit by 1993.

6. Glenn O. Hannaman's conditions diagnosed as rectal cancer and squamous cell lung cancer arose naturally and proximately out of the distinctive conditions of his employment with the US Department of Energy. On August 14, 2018 Mr. Hannaman died. The cause of his death was metastatic squamous cell carcinoma of the lung.

## CONCLUSIONS OF LAW

1. The Board of Industrial Insurance Appeals has jurisdiction over the parties and subject matter in these appeals.

2. The rebuttable presumption of occupational disease provided by RCW 51.32.187 applies to Glenn O. Hannaman's occupational disease claim.

3. The self-insured employer, US Department of Energy, failed to rebut the statutory presumption of occupational disease by clear and convincing evidence. The distinctive conditions of Mr. Hannaman's Hanford employment with the US Department of Energy were a cause of his rectal cancer and squamous cell lung cancer conditions, as well as of his death.

4. The Department orders dated January 28, 2019, July 10, 2019, August 13, 2019, and August 30, 2019, are correct and are affirmed.

Dated: November 29, 2021.

BOARD OF INDUSTRIAL INSURANCE APPEALS

MARK JAFFE, Chairperson Pro Tem

ISABEL A. M. COLE, Member

**Addendum to Decision and Order**
**In re Glenn O. Hannaman, Jr., Dec'd**
**Docket Nos. 19 12787, 19 20585, 19 20586 & 19 23288**
**Claim No. SL-21073**

## Appearances

Beneficiary, Roberta Hannaman, Self-Represented

Self-Insured Employer, US Department of Energy, by Wallace Klor Mann Capener & Bishop, P.C., per Lawrence E. Mann

Department of Labor and Industries, by Office of the Attorney General, per Patti Jo Foster

## Petition for Review

As provided by RCW 51.52.104 and RCW 51.52.106, this matter is before the Board for review and decision. The employer filed a timely Petition for Review of a Proposed Decision and Order issued on May 4, 2021, in which the industrial appeals judge dismissed the appeals.

## Evidentiary Rulings

The Board has reviewed the evidentiary rulings in the record of proceedings and finds that no prejudicial error was committed. The rulings are affirmed.