

STATUTORY LANGUAGE ON BERYLLIUM.....

§7384. Findings; sense of Congress

(a) Findings The Congress finds the following:

(5) Over the past 20 years, more than two dozen scientific findings have emerged that indicate that certain of such employees are experiencing increased risks of dying from cancer and non-malignant diseases. Several of these studies have also established a **correlation between excess diseases and exposure to radiation and beryllium.**

(6) While linking exposure to occupational hazards with the development of occupational disease is sometimes difficult, scientific evidence supports the conclusion that **occupational exposure to dust particles or vapor of beryllium can cause beryllium sensitivity and chronic beryllium disease.** Furthermore, studies indicate that 98 percent of radiation-induced cancers within the nuclear weapons complex have occurred at **dose levels below existing maximum safe thresholds**

(8) **To ensure fairness and equity,** the civilian men and women who, over the past 50 years, have performed duties uniquely related to the nuclear weapons production and testing programs of the Department of Energy and its predecessor agencies should have **efficient, uniform, and adequate compensation for beryllium-related health conditions and radiation- related health conditions**

(b) Sense of Congress It is the sense of Congress that—

(1) a program should be established to provide compensation to covered employees;

(3) payments from that fund should be made only after—

(A) the identification of employees of the Department of Energy (including its predecessor agencies), and of contractors of the Department, who may be members of the group of covered employees;

(B) the establishment of a process to receive and administer claims for compensation for disability or death of covered employees;

§7384l. Definitions for program administration

(7) The term “**covered beryllium employee**” means the following, if and only if the employee is determined to have been exposed to beryllium in the performance of duty in accordance with section 7384n(a) of this title:

(A) A current or former employee (as that term is defined in section 8101(1) of title 5) who **may** have been exposed to beryllium at a Department of Energy facility or at a facility owned, operated, or occupied by a beryllium vendor.

(B) A current or former employee of—

(i) any entity that contracted with the Department of Energy to provide management and operation, management and integration, or environmental remediation of a Department of Energy facility; or

(ii) any contractor or subcontractor that provided services, including construction and maintenance, at such a facility.

(C) A current or former employee of a beryllium vendor, or of a contractor or subcontractor of a beryllium vendor, during a period when the vendor was engaged in activities related to the production or processing of beryllium for sale to, or use by, the Department of Energy.

(8) The term “**covered beryllium illness**” means any of the following:

- (A) Beryllium sensitivity as **established** by an **abnormal beryllium lymphocyte proliferation test performed on either blood** or lung lavage cells.
- (B) **Established** chronic beryllium disease.
- (C) **Any injury, illness, impairment, or disability sustained as a consequence of a covered beryllium illness referred to in subparagraph (A) or (B).**

(13) The term “**established chronic beryllium disease**” means chronic beryllium disease as established by the following:

- (A) For **diagnoses on or after January 1, 1993**, beryllium sensitivity (as **established in accordance with paragraph (8)(A)**), together with lung pathology consistent with chronic beryllium disease, including—
 - (i) a lung biopsy showing granulomas **or** a lymphocytic process **consistent** with chronic beryllium disease;
 - (ii) a computerized axial tomography scan showing changes consistent with chronic beryllium disease; **or**
 - (iii) pulmonary function **or** exercise testing showing pulmonary deficits **consistent** with chronic beryllium disease.
- (B) For **diagnoses before January 1, 1993**, the **presence of**—
 - (i) occupational or environmental history, **or** epidemiologic evidence of beryllium exposure; **and**
 - (ii) **any three** of the following criteria:
 - (I) Characteristic chest radiographic (or computed tomography (CT)) abnormalities.
 - (II) Restrictive **or** obstructive lung physiology testing **or** diffusing lung capacity defect.
 - (III) Lung pathology **consistent** with chronic beryllium disease.
 - (IV) Clinical course **consistent** with a chronic respiratory disorder.
 - (V) **Immunologic tests** showing beryllium sensitivity (skin patch test or beryllium blood test preferred)

REGULATIONS regarding beryllium.....

Eligibility Criteria for Claims Relating to Covered Beryllium Illness

20 CFR § 30.205 What are the criteria for eligibility for benefits relating to covered beryllium illness? To establish eligibility for benefits under this section, the claimant must establish the criteria set forth in paragraphs (a) and (b) of this section:

- (a) The employee is a covered beryllium employee by establishing:
- (1) The employee is a “current or former employee as defined in 5 U.S.C. 8101(1)” (see § 30.5(r) of this subpart) who may have been exposed to beryllium at a DOE facility or at a facility owned, operated, or occupied by a beryllium vendor; **or**
 - (2) The employee is a current or former employee of:
 - (i) Any entity that contracted with the DOE to provide management and operation, management and integration, or environmental remediation of a DOE facility; **or**
 - (ii) Any contractor or subcontractor that **provided services**, including construction and maintenance, at such a facility; **or**
 - (iii) A beryllium vendor, **or** of a contractor or subcontractor of a beryllium vendor, during a period when the vendor was engaged in activities related to the production or processing of beryllium for sale to, or use by, the DOE; **and**
 - (3) The **employee was exposed to beryllium in the performance of duty** by establishing that he or she was:
 - (i) **Employed** at a DOE facility (as defined in § 30.5(o) of this subpart); **or**
 - (ii) **Present** at a DOE facility, or a facility owned and operated by a beryllium vendor, because of his or her employment by the United States, a beryllium vendor, or a contractor or subcontractor of the DOE; during a period when beryllium dust, particles, or vapor may have been present at such a facility.
- (b) The employee has one of the following:
- (1) Beryllium sensitivity as **established by an abnormal beryllium LPT performed on either blood or lung lavage cells.**
 - (2) Established chronic beryllium disease.
 - (3) Any injury, illness, impairment, or disability sustained as a consequence of the conditions specified in paragraphs (b), (1) and (2) of this section.

20 CFR§ 30.206 How does a claimant prove that the claimant was a “covered beryllium employee” **exposed to beryllium dust, particles or vapor in the performance of duty?**

- (a) Proof of employment at or physical presence at a DOE facility, or a facility owned and operated by a beryllium vendor, because of employment by the United States, a beryllium vendor, or a contractor or subcontractor of the DOE during a period when **beryllium dust, particles, or vapor may have been present at such a facility**, may be made by the submission of any trustworthy contemporaneous records that, on their face or in conjunction with other such records, establish that the employee was

employed or present at a covered facility and the time period of such employment or presence.

(b) **Contemporaneous records** from the following sources may be considered as evidence for purposes of establishing employment or presence at a covered facility:

- (1) Records or documents created by any federal government agency (including verified information submitted for security clearance), any tribal government, or any state, county, city or local government office, agency, department, board or other entity, or other public agency or office.
- (2) Records or documents created by any vendor, processor, or producer of beryllium or related products designated as a beryllium vendor by the DOE in accordance with section 3622 of the Act.
- (3) Records or documents created by any regularly conducted business activity or entity that acted as a contractor or subcontractor to the DOE.

20 CFR§ 30.207 How does a claimant prove diagnosis of a covered beryllium disease?

(a) **Written medical documentation** is required in all cases to prove that the employee developed a covered beryllium illness. Proof that the employee developed a covered beryllium illness **must** be made by using the procedures outlined in paragraphs (b), (c), (d), or (e) of this section.

(b) **Beryllium sensitivity or sensitization is established with an abnormal LPT performed on either blood or lung lavage cells.**

(c) **Chronic beryllium disease is established in the following manner:**

- (1) For **diagnoses on or after January 1, 1993**, beryllium sensitivity (as established in accordance with paragraph (b) of this section), together with lung pathology consistent with chronic beryllium disease, including the following:
 - (i) A lung biopsy showing granulomas or a lymphocytic process consistent with chronic beryllium disease;
 - (ii) A computerized axial tomography scan showing changes consistent with chronic beryllium disease; **or**
 - (iii) Pulmonary function or exercise testing showing pulmonary deficits consistent with chronic beryllium disease.
- (2) For diagnoses before January 1, 1993, the presence of the following:
 - (i) Occupational or environmental history, **or** epidemiologic evidence of beryllium exposure; **and**
 - (ii) **Any three** of the following criteria:
 - (A) Characteristic chest radiographic (or computed tomography (CT)) abnormalities.
 - (B) Restrictive or obstructive lung physiology testing or diffusing lung capacity defect.
 - (C) Lung pathology consistent with chronic beryllium disease.
 - (D) Clinical course consistent with chronic respiratory disorder.
 - (E) Immunologic tests showing beryllium sensitivity (skin patch test or beryllium blood test preferred).

(d) An injury, illness, impairment or disability sustained as a consequence of beryllium sensitivity or established chronic beryllium disease **must be established with a fully rationalized medical report by a physician that shows the relationship between the injury, illness, impairment or disability and the beryllium sensitivity or established chronic beryllium disease.** Neither the fact that the injury, illness, impairment or disability manifests itself after a diagnosis of beryllium sensitivity or established chronic beryllium disease, nor the belief of the claimant that the injury, illness, impairment or disability was caused by the beryllium sensitivity or established chronic beryllium disease is sufficient in itself to prove a causal relationship.

(e) The Secretary of Health and Human Services may, from time to time, and in consultation with the DOE, **specify additional means of establishing the existence of a covered beryllium illness.**

Public statement by National Jewish.....

The beryllium lymphocyte proliferation test (BeLPT) is a blood test that measures beryllium sensitization, which is an “allergic” reaction to beryllium. The test is very specific, meaning that **if your blood reacts to beryllium, nothing other than beryllium could have caused this reaction.** It means that your immune system has seen beryllium as a “foreign invader,” and has built an “army” of cells in the bloodstream that are prepared to react to beryllium wherever they see it in the body.

To perform the test, a specimen of blood is drawn from a vein in your arm. In the laboratory, the white blood cells are separated from the rest of the blood cells and mixed with a beryllium solution. **If your immune system is sensitized to beryllium, these cells will multiply.** If your immune system is not sensitized to beryllium, the cells will not multiply. **In normal (non-sensitized) individuals, cells do not multiply.**

The test is performed in two parts: one part ensures your blood cells are alive and normal when they arrive at the laboratory, and the other part tests the blood cells for their reaction to beryllium.

Part 1: To ensure that your white blood cells are acting normally, we test them for their ability to respond to two different substances that are known to make nearly everyone’s cells multiply. One is an antigen and the other is a mitogen. If your cells react normally to these “positive controls,” the cells are then tested to see if they will react to a beryllium solution.

Part 2: The test for the reaction to beryllium is like having six tests in one. We use three different concentrations of beryllium sulfate and check the cells at two different points in time. If your cells multiply in two or more of these six beryllium conditions, the test is interpreted as abnormal (“positive”).

Result: Your cells’ responses to the mitogen, antigen, and beryllium are reported. Each laboratory that performs the BeLPT sets its own values to determine whether cell responses are normal or abnormal.

In the National Jewish Health laboratory, tests with all values 2.5 and less are considered normal. A value of 2.5 does not increase the likelihood that an individual will have an abnormal

test in the future. In our laboratory, two of the six measurements must be greater than 2.5 for the test to be abnormal. (NOTE EEOICPA ONLY REQUIRES ONE of the six to be abnormal)

It should be noted that DOE has changed the criteria for all three US labs that test for beryllium. DOE-SPEC-1142-2019 December 2019.....Beryllium sensitivity testing is used as a screening tool for beryllium sensitization and possible chronic beryllium disease, as a surveillance tool for identifying potentially hazardous working conditions, and as part of the diagnostic criteria for CBD. The blood lymphocyte proliferation test for beryllium sensitization (BeLPT) is a screening test with a sensitivity and specificity that is not clearly defined at this time. This is attributable to the fact that the populations of normal people have not had lung biopsy and bronchoalveolar lavage to include or exclude chronic beryllium disease. The positive predictive value (PPV) of two positive or abnormal BeLPTs for beryllium sensitization is estimated to be 97-98%. However, the PPV for predicting CBD is less well established and has ranged from 35 to 65 percent in different cohorts (NRC 2008). The bronchoalveolar lavage lymphocyte proliferation test (BAL-LPT) is the preferred test for beryllium sensitization as part of the diagnostic criteria for identifying pulmonary CBD. The blood BeLPT may be more reliable in detection of extra-pulmonary CBD.

OSHA has also changed their regulations regarding beryllium.

Based on the above information, nothing in the law establishes what defines an abnormal BeLPT. Under the EEOICP Act the claimant is only required to provide one (1) abnormal BeLPT which is just one of the six (6) cells being abnormal or the borderline. So based on the plain language of the law, the consistent legal and medical precedent decisions, may the Board issue a Recommended Policy Change to include borderline BeLPT as an abnormal BeLPT test under the EEOICP as per defined in 42 USC 7384l (8)?

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