

Case No. 15-60462

**In The United States Court Of Appeals
For The Fifth Circuit**

WAL-MART DISTRIBUTION CENTER #6016,

Petitioner,

v.

**OCCUPATIONAL SAFETY AND HEALTH REVIEW
COMMISSION; THOMAS E. PEREZ, SECRETARY,
DEPARTMENT OF LABOR,**

Respondents.

On Petition For Review Of The Order Of The Occupational
Safety And Health Review Commission
No. 08-1292

**BRIEF OF *AMICUS CURIAE* RETAIL LITIGATION
CENTER IN SUPPORT OF PETITIONER**

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SUPPLEMENTAL CERTIFICATE OF INTERESTED PERSONS

The undersigned counsel of record for *amicus curiae* Retail Litigation Center certifies that the following listed persons and entities, as described in the fourth sentence of Fifth Circuit Court of Appeals Rule 28.2.1, have an interest in the outcome of this case. These representations are made in order that the judges of this Court may evaluate possible disqualification or recusal.

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INTEREST OF AMICUS CURIAE

The Retail Litigation Center (the “RLC”) is a public policy organization that identifies and engages in legal proceedings that affect the retail industry.¹ The RLC’s members include many of the country’s largest and most innovative retailers. The member entities whose interests the RLC represents employ millions of people throughout the United States, provide goods and services to tens of millions more, and account for tens of billions of dollars in annual sales. The RLC seeks to provide courts with retail industry perspectives on important legal issues and to highlight the potential industry-wide consequences of significant pending cases.

The RLC’s members include retailers that must comply with Occupational Safety and Health Administration’s (“OSHA’s”) personal protective equipment (“PPE”) standard, 29 C.F.R. § 1910.132 (the “PPE standard”), which is at issue in the case at bar, *Secretary of Labor v. Wal-Mart Distribution Ctr.* # 6016, 25 O.S.H. Cas. (BNA) ¶ 1396, 2015 WL 2066206 (O.S.H.R.C. Apr. 27, 2015) (“*Wal-Mart*”). Specifically, this case involves a question of substantial importance to the RLC and its members: whether OSHA will be permitted to radically depart from the plain

¹ All parties have consented to the filing of this *amicus curiae* brief. This brief was authored by counsel for *amicus curiae*; no party or counsel for a party authored this brief in whole or in part. No person (other than *amicus curiae*, its members and its counsel), party, or counsel for a party contributed money to fund the preparation or submission of this brief.

text of OSHA's PPE standard, its performance-oriented design, the consistent guidance of the agency, and the long-standing practice of the retail industry by prohibiting employers across the board from using the "global" method of assessing workplace safety that is currently used by the majority of RLC's members.

The RLC therefore seeks to assist the Court by providing relevant background information on customary practices used by retail employers and explaining the impact that the Court's decision may have beyond the immediate concerns of the parties to the case.

BACKGROUND

Personal protective equipment, commonly referred to as "PPE," is equipment worn to minimize exposure to a variety of workplace hazards. Examples of PPE include gloves, safety glasses, ear plugs, and hard hats. When circumstances require, employers must provide PPE to their employees and ensure its use. OSHA has promulgated an extensive regulatory framework that governs PPE requirements in the workplace. *See, e.g.*, 29 C.F.R. § 1910.132 (general requirements); *id.* § 1910.133 (eye and face protection); *id.* § 1910.135 (head protection); *id.* § 1910.136 (foot protection); *id.* § 1910.137 (electrical protective equipment); *id.* § 1910.138 (hand protection).

As OSHA has explained, the cooperative efforts of both employers and employees are required to help ensure a safe working environment. *See* OSHA, *Personal Protective Equipment*, OSHA 3151-12R (2003) (attached hereto as Exhibit 1). In general, employers are responsible for:

- Performing a “hazard assessment” of the workplace to identify and control physical and health hazards;
- Identifying and providing appropriate PPE for employees;
- Training employees in the use and care of the PPE;
- Maintaining PPE, including replacing worn or damaged PPE; and
- Periodically reviewing, updating and evaluating the effectiveness of the PPE program.

See id. In general, employees are responsible for:

- Properly wearing PPE;
- Attending training sessions on PPE;
- Caring for, cleaning, and maintaining PPE; and
- Informing a supervisor of the need to repair or replace PPE.

See id.

Section 1910.132(d)(1) requires employers to “assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of [PPE].” 29 C.F.R. § 1910.132(d)(1). The standard contains no definition of the terms “assess” or “workplace.” *See id.* A majority of RLC members utilize so-called “global” hazard assessments to satisfy OSHA’s PPE standard without necessarily conducting an assessment at each physical worksite. *See Wal-Mart*, at *13 (MacDougall, C. dissenting) (“[T]here is nothing in the standard that requires

each facility to conduct a site-specific, walk-through survey to determine if hazards are present.”). This case concerns the Commission’s decision that the petitioner purportedly must conduct a site-specific hazard assessment at one of its distribution centers to comply with the PPE standard.

SUMMARY OF THE ARGUMENT

I. Retailers dedicate a significant amount of resources and time to develop global assessments that identify PPE hazards for personnel working within the various categories of company facilities and the appropriate PPE to address the specific hazard, as well as to memorialize those determinations in companies’ global assessments and supporting safety policies. Retailers continually strive to provide safe workplaces for their employees and to update and revise global PPE hazard assessments and PPE requirements on a periodic basis. The Commission’s decision to require on-site assessments of individual facilities ignores the industry’s successful longstanding practice of using global assessments to meet the performance-oriented PPE standard.

II. The Commission’s decision arbitrarily imposes prescriptive requirements under the PPE standard despite its performance-oriented design. At best, the Commission’s decision will exalt form over substance and encourage local managers to “check a box” to indicate compliance. At worst, the decision will diminish workplace safety by elevating the decisions of local employees over

top-level corporate safety experts, thereby causing hazards to be addressed without the involvement of the company's most experienced safety experts and in an inconsistent or inappropriate manner. Retailers' safety teams have in-depth knowledge of safety requirements and company operations and therefore are in the best position to know whether global or individualized assessments will best achieve the end goal of hazard prevention at their facilities and operations. The Commission's command-and-control decision to dictate one method of assessment could have the serious unintended consequence of making workers *less* safe.

III. The Commission's decision unjustifiably departs from plain regulatory language, the standard's performance-oriented design, long-standing agency guidance, widespread industry practice, and basic common sense. For decades, the RLC and its members have understood that employers have discretion to determine whether hazard assessments are more effectively and efficiently conducted on a global basis or site-by-site. Now, the Commission has decided in an enforcement proceeding that employers can *only* make hazard assessments on a site-by-site basis; otherwise, they may be deemed to have conducted *no hazard assessment at all*. This interpretation is not supported by the standard itself, which focuses on achieving the ultimate goal of hazard prevention and not the methods used.

IV. The Commission’s decision places new burdens on RLC members without proper notice, despite the broad language of the PPE standard and decades of industry practice. Such a drastic change cannot be achieved through OSHA’s enforcement authority alone, and instead necessitates rulemaking that would provide the retail industry with notice and an opportunity to comment. By imposing a requirement found nowhere in the regulation, the Commission has not just engaged in an unfair regulatory “gotcha,” it has *sub silentio* altered the regulatory scheme in a way that imposes needless burdens upon the retail industry (and ultimately consumers) without any corresponding gains in worker safety. At the very least, the regulated community is entitled to the opportunity to be heard before the agency effectuates such a radical, sweeping change.

For the foregoing reasons, the Commission’s decision to uphold the sanction against the petitioner should not be permitted to stand.

ARGUMENT

I. RETAIL INDUSTRY NORMS FOR CONDUCTING PPE HAZARD ASSESSMENTS MEET THE PERFORMANCE-ORIENTED GOALS OF THE PPE HAZARD ASSESSMENT STANDARD.

The PPE hazard assessment standard—as understood by RLC members for decades to permit global PPE hazard assessments—has produced strong safety results. RLC members use a variety of means to achieve the sound safety results required by the assessment standard.

RLC members rely on top safety experts to shape their global PPE hazard assessments and to produce consistent PPE work rules as part of their overall due diligence on safety. Although the methodology for PPE hazard assessments varies, certain robust safety features are common among RLC members. For example, RLC member companies typically use an internal team to complete PPE hazard assessments. Team members customarily have a background in safety and hazard risk assessments, including specific safety and hazard assessment training and work-related experience. These safety professionals are familiar with OSHA's PPE standard, and have a nuanced understanding of hazards common to their industry and the PPE used to prevent those hazards. In addition, most companies have a corporate-level safety group or division that reviews PPE hazard assessments and oversees compliance.

The majority of RLC members use a global approach to PPE hazard assessment, preparing separate assessments for different types or categories of operations, such as distribution centers, warehouses, manufacturing facilities, and retail stores. Facilities within each category are typically grouped together because of similarities in size, physical layout, operations, products, technology, equipment, or employee roles and responsibilities. The primary reasons for using a global approach to hazard assessments are to (1) ensure that PPE hazard assessments are exclusively conducted by personnel with safety expertise, (2)

achieve consistency of process and results, (3) produce consistent communications to employees on company safety values, and (4) decrease confusion for employees who work at multiple facilities regarding work rules and, on the flip side, ensure that PPE work rules are universally followed.

Over half of RLC members use global assessments without on-site follow-up validation inspections at each particular workplace.² While some RLC members' safety teams visit all of their companies' facilities annually, the majority of RLC members have safety personnel visit a set minimum percentage of their companies' facilities on an annual or periodic basis. During these safety visits, the implementation and effectiveness of a company's global assessment is reviewed. Most RLC members renew their global assessments on an annual or periodic basis and update as appropriate. In the interim, assessments may be revised based on feedback from safety-team field audits conducted at a sample of facilities.

In addition, if local employees, local managers, or local safety committees identify issues with PPE or express concerns regarding a potential hazard, those concerns are usually sent to the safety team for review and may lead to a PPE hazard assessment revision or an individual site visit on an "as needed" basis.

² Not all RLC members use global assessments. A limited number of members utilize individual, site-specific assessments because, for example, they have very diverse operations or they utilize on-site safety teams. But these decisions are based on the employer's evaluation of its facilities in order to achieve the general safety standard established by the rules. There is no single "best" way for a hazard assessment to be performed.

RLC members typically have systems in place so that if a workplace incident or “near-miss” occurs, feedback or “lessons learned” from the incident will be provided to the safety team for potential revision of the assessment. Moreover, a change in machinery, operations, products, facility layout, employee responsibilities, or the availability of new or improved PPE may also lead to a revision in the global PPE hazard assessments or an on-site visit.

Retailers are committed to providing safe work places for their employees as demonstrated by the use of trained safety personnel to conduct global PPE hazard assessments and the ongoing review and updating of those assessments. The retail industry practice regarding PPE hazard assessments reflects the flexibility provided by the performance-based design of the PPE standard. Given the widespread and successful use of global assessments, RLC and its members are concerned about OSHA’s departure from the law, and especially about its decision to limit employers’ flexibility for conducting PPE hazard assessments without any increased safety benefit.

II. THE COMMISSION’S REQUIREMENT FOR INDIVIDUAL ON-SITE PPE HAZARD ASSESSMENTS WILL HAVE UNINTENDED CONSEQUENCES FOR WORKER SAFETY.

At present, the majority of RLC members use global assessments because they believe that global assessments are the best approach, and, until now, members have been led to believe that such assessments would satisfy OSHA’s

PPE standard. For the first time, the Commission in *Wal-Mart* has imposed a new rule, which represents a dramatic departure from this framework. The Commission explained that it affirmed Citation 1 Item 1a because the petitioner did not (1) verify the “equivalency of conditions between the two facilities” through a physical on-site inspection or (2) “otherwise conduct a hazard assessment” at the New Braunfels facility. *See Wal-Mart*, at *3.

A prohibition of global assessments would impose tremendous costs and administrative burdens on retailers with no proven safety benefits (and many drawbacks in terms of worker safety). To meet a new individual facility assessment requirement, retailers would need to divert resources from global PPE assessment programs that are working well to either third-party consultants or new programs to train a large number of local employees to conduct PPE hazard assessments. In so doing, retailers’ safety teams would be forced to pull resources from other vital safety programs.

If the decision is permitted to stand, employers will be caught between a rock and a hard place: either employ a large number of third-party assessors or empower local employees to conduct individual site PPE hazard assessments that could diverge from global PPE hazard assessment recommendations, or risk enforcement by OSHA. RLC members, who have determined that their operations

are so similar that on-site assessments and verifications are not required, fear that the Commission's decision will upend clear and universal PPE work rules.³

Indeed, the Commission's decision fails to consider *who* on the ground would verify equivalency of conditions or otherwise conduct the assessment. Under the PPE standard, *anyone* can conduct a hazard assessment. The PPE standard merely requires that the "employer . . . assess the workplace," and does not contain any minimum standards or qualifications for the assessor. Particularly for larger companies, individual assessments at each worksite would necessitate the use of local employees or third-party assessors who simply will not have a nuanced depth of knowledge of safety requirements or retail operations comparable to corporate safety experts.⁴ With the primary objective of workplace

³ Wal-Mart fashioned its global assessment for its distribution centers based on "objective criteria, including industry custom and practice," and nothing in the record contradicted Wal-Mart's determination that its "120 distribution centers are 'cookie cutter' and 'virtually identical,'" or that "the operations and order fillers' job duties are 'identical.'" *Wal-Mart*, at *13-14 (MacDougall, C. dissenting).

⁴ RLC acknowledges that employers also theoretically could send their top safety experts to each local facility to validate global PPE hazard assessments. Typically, safety teams do aim to visit a certain percentage of each specific type of facility to ensure that they have a representative knowledge of the employer's operations at each type of facility requiring PPE hazard assessments. However, requiring retailers to visit "all facilities" each time a global assessment is issued or updated would represent a dramatic departure from current practice, involving a massive expenditure of expert resources with no demonstrable increase in safety. More likely, in many instances, local employees with limited safety backgrounds would be recruited to undertake the major project of completing site-specific hazard assessments.

safety in mind, many RLC members do not want to go down a path where their baseline mandatory safety rules can be called into question at a local level.

To eliminate the risk of divergent and potentially conflicting PPE hazard assessments, RLC members believe that many employers will simply take their global hazard assessments and have local employees “check a box” affirming that they have walked around the facility to confirm that the same hazards exist. This requirement would result in a paperwork exercise and record keeping requirement with no corresponding benefit or enhancement to worker safety. Even so, for the countless employers who have determined that global PPE hazard assessments will best achieve the end goal of safety, this paperwork validation exercise is not without risk.

RLC members strive to ensure that safety rules are universally followed. The same economies of scale that make it advantageous for retailers to configure multiple facilities within each category of facility (e.g., regional distribution centers, warehouses, store fulfillment centers, manufacturing facilities, and stores) similarly make it advantageous for retailers to take a global approach to assessing workplace hazards to maximize safety. If the Commission’s decision is upheld, RLC members anticipate that work rules set by safety professionals in global assessments may be ignored or diverged from to the detriment of worker safety. Correspondingly, a diverse localized approach to PPE based on the same

underlying hazard may lead to confusion, particularly for employees who work at multiple facilities. Rules that were once globally acknowledged would be difficult to enforce in a piecemeal manner.

This concern can best be demonstrated by an illustrative hypothetical. A retailer's nationally recognized safety team conducting a global hazard assessment for the company's "cookie cutter" distribution centers selects a specific type of short hand gloves that must be used by workers sorting materials on a conveyor belt to protect hands from cuts by the corners of boxes moving down the belt. A local site manager, now elevated to the role of "assessor," decides that longer gloves that extend past the elbow would better protect workers and notes a change in gloves on the facility's PPE hazard assessment. The site manager believes that he has made a choice that would increase worker safety. What he does not know, however, is that the company's global safety team previously had ruled out the use of longer gloves because they are known to have ergonomic impacts on wrists and arms (potentially leading to musculoskeletal disorders) for the type of repetitive motion involved in working on this conveyor with no proven safety benefits. PPE is selected with diverse considerations in mind—fit, need to withstand impact, functionality in various temperatures, reactions to hazardous chemicals, and many more. As this example illustrates, however, decisions that might seem to a lay person to be "more protective" can have negative impacts on worker safety.

Perhaps more importantly, even if the local site manager had selected perfectly appropriate PPE, RLC members fear a second unintended consequence of the Commission's decision—various facilities will have inconsistent approaches to the same hazard. Imagine, for example, that a retailer's global safety team selected guarding as an acceptable means of preventing falls under OSHA's general industry fall-protection standard for workspaces elevated more than four feet. A local assessor in Building 1 decides that an equally protective harness and line is more appropriate for that facility while a local assessor in Building 2 follows the company's global assessment and utilizes the guarding in Building 2. An employee from Building 2 who visits Building 1 will not be aware that a harness is required without additional site-specific training. Similarly, an employee from Building 1 could go to Building 2, see that harnesses were not used, and perceive that harness usage is optional or that the company does not regularly enforce its work rules.

RLC members are large national and regional retailers with fluid labor forces. In order for work safety rules to succeed, it is critical that they are universally implemented and followed. Lack of consistency will undermine safety goals and lead to confusion in predictable and untold ways.

This case proves the point. Even though the Commission (impermissibly) rejected the petitioner's global method of conducting hazard assessments, it

implicitly vindicated that method by vacating each and every citation relating to the alleged failure to provide proper PPE. *See Wal-Mart*, at *4-9. The Commission held that Wal-Mart identified proper eye/face,⁵ foot,⁶ and hand⁷ PPE to address the hazards at the particular worksite at issue through its global assessment. The proof of a pudding is in the eating, and the best measure of a process is its outcome. Here, the petitioner's complete vindication by the Commission as to the *outcome* of its assessment process must be seen as a vindication of the *method* by which the petitioner achieved that outcome.

III. THE COMMISSION'S NEW REQUIREMENT FOR INDIVIDUAL ON-SITE ASSESSMENTS CONFLICTS WITH THE TEXT, STRUCTURE, AND ENFORCEMENT HISTORY OF THE PPE STANDARD.

For decades, RLC's members have developed their PPE hazard assessment programs based on clear guidance from OSHA. Since the rule's promulgation, RLC members have always understood that global assessments fully comply with the PPE standard. This section sets forth the reasoning behind this understanding,

⁵ *See Wal-Mart*, at *6 (“Therefore, we find that neither industry custom nor injury rate provides a basis here for finding that a reasonable person familiar with the circumstances in the industry would have recognized a hazard requiring the use of eye/face protection at the New Braunfels Center.”).

⁶ *Wal-Mart*, at *8 (“As with the eye/face PPE item, we conclude that, in the circumstances of this case, there was an insufficient number of injuries to establish either actual knowledge of a hazard requiring foot protection, or that a reasonable person would have recognized such a hazard.”).

⁷ *Wal-Mart*, at *9 (“In sum, the Secretary's evidence is inadequate to establish actual or constructive notice of a hand hazard for which PPE would be necessary.”).

including Section 1910.132(d)(1)'s plain language and performance-oriented design, subsequent OSHA publications, and OSHA's implicit approval of global assessments through lack of enforcement.

A. The Plain Language Of Section 1910.132(d)(1) Gives Employers Flexibility In Designing PPE Hazard Assessments.

At the outset, the Commission acknowledged, as it must, that the pertinent regulation is “silent regarding the method an employer *must* use to assess its workplace for hazards” *Wal-Mart*, at *2 (emphasis added). The regulation simply states that “[t]he employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of [PPE].” 29 C.F.R. § 1910.132(d)(1). The plain reading of the language gives employers broad flexibility when choosing an assessment method to meet the PPE standard. At a minimum, the broad language of 29 C.F.R. § 1910.132(d)(1) does not plainly *prohibit* employers from conducting hazard assessments on a global (rather than a site-by-site) basis.

The majority's need to rely on the Preamble to the Final Rule and Non-Mandatory Appendix B to interpret Section 1910.132(d)(1) belies any argument that the standard's plain language requires site-specific assessments to be physically performed at each workplace. *See Wal-Mart*, at *2 (citing Personal Protective Equipment for General Industry Revisions (“Preamble” or “PPE Revisions”), 59 Fed. Reg. 16,334 (Apr. 6, 1994)). Had the meaning been plain, the

Commission could have articulated a reason as to why a global hazard assessment was “plainly” prohibited without complete reliance on outside sources. *See, e.g., Conn. Nat’l Bank v. Germain*, 503 U.S. 249, 253-54 (1992) (“When the words of a statute are unambiguous, then, this first canon is also the last: ‘judicial inquiry is complete.’” (citations omitted)); *Sec’y of Labor v. Cagle’s, Inc.*, 21 O.S.H. Cas. (BNA) ¶ 1738 (O.S.H.R.C. Sept. 29, 2006) (“In determining the applicability of a standard, we consider the standard’s text and structure. . . . If the meaning of the language is unambiguous, the inquiry ends there.”).

The conclusion that the plain language of the regulation allows employers to use global assessments as one method of meeting their PPE hazard assessment obligation is supported by the total lack of any enforcement of the agency’s current view until now. *Cf. Martin v. OSHRC*, 499 U.S. 144, 158 (1991) (identifying “adequacy of notice to regulated parties” as one factor relevant to the reasonableness of the agency’s interpretation); *see also Diamond Roofing Co. v. OSHRC*, 528 F.2d 645, 649 (5th Cir. 1976) (explaining that “statutes and regulations which allow monetary penalties against those who violate them” must “give an employer fair warning of the conduct [they] prohibi[t] or requir[e]”). RLC members have successfully utilized global assessments to satisfy the requirements of Section 1910.132(d)(1) since its revision in 1994 without any resistance from OSHA. The *amicus curiae* have no reason to believe that OSHA

was exercising its enforcement discretion to “look the other way” from this supposedly “plain” violation of the standard. Rather, as OSHA’s actions have clearly demonstrated, like the RLC members and the regulated community, OSHA has long-interpreted Section 1910.132(d)(1) to be satisfied by use of global assessments.

B. Global Hazard Assessments Comply With Section 1910.132(d)(1), As Affirmed By Its Preamble, Performance-Oriented Design, And Subsequent Publications.

The PPE standard is, by design, performance-oriented and not prescriptive—that is, the standard is focused on the end results, not the *means* of achieving those results. The PPE hazard assessment element “is a performance-oriented provision which simply requires employers to use their awareness of workplace hazards to enable them to select the appropriate PPE for the work being performed.” *Sec’y of Labor v. Jimerson Under-Ground, Inc.*, OSHRC Docket No. 04-0970, 2006 WL 1083457 at *13 (O.S.H.R.C.A.L.J. March 3, 2006). As a performance-oriented standard, Section 1910.132(d)(1) “state[s] the required result without specifically mandating how that result is to be achieved.” *Wal-Mart*, at *11 (MacDougall, C. dissenting) (citing *Sec’y of Labor v. Diebold, Inc.*, OSHRC Docket Nos. 6767, 7721 & 9496, 3 BNA OSHC 1897, 1976 WL 5900 (O.S.H.R.C. 1976), *rev’d on other grounds* 585 F.2d 1327 (6th Cir. 1978)). That is the beauty of the performance-based standard—it demands results without dictating methods, and

thereby maximizes both effectiveness and efficiency. As explained in Part I and II of this brief, RLC's members are best situated to design and conduct hazard assessments depending upon their size, operations, organizational structure, and depth of expertise at the national, regional and local levels.

The Preamble makes clear that Section 1910.132(d) focuses on achieving the ultimate goal of hazard prevention and not the methods used. *See* Preamble at 16,336 (“Paragraph (d) of the final rule is a performance-oriented provision which ***simply requires employers to use their awareness*** of workplace hazards to enable them to select the appropriate PPE for the work being performed.”) (emphasis added)). Despite this straightforward directive, the majority in *Wal-Mart* would require on-site PPE hazard assessments at each individual workplace, even if another method would be just as effective: “if the Secretary can show that the Searcy Center assessment did not take account of the conditions specific to the New Braunfels Center, he will have established Wal-Mart’s noncompliance ***irrespective of whether, under other circumstances, there may be an effective substitute for conducting an assessment on-site.***” *Wal-Mart*, at *2 (emphasis added). The Commission’s decision elevates form over substance, and ignores the performance-oriented PPE standard’s ultimate goal of hazard prevention.

OSHA’s guidance has repeatedly confirmed the retail industry’s understanding that the standard affords RLC members discretion in how best to

approach hazard assessments where more than one facility is involved. Indeed, OSHA has explicitly acknowledged the risk inherent in the site-specific approach now apparently *required* by the Secretary—*i.e.*, that it could lead to inconsistent results. An applicable OSHA guidance letter addressed liability questions posed by an employer “with multiple plant locations where similar work function is performed” that “conducts individual (plant specific) assessments.” *See* OSHA, *Letter Interpretation of the Personal Protective Standard* (July 3, 1995) (attached hereto as Exhibit 2). The employer wanted to know its potential liability if, for example, “one plant determines that safety shoes are required for a particular job whereas two or three other locations determine that similar personal protective equipment (PPE) is not required for that position.” *Id.*

OSHA responded by explaining that “[w]here such differences occur, they will be addressed on a case-by-case basis by OSHA, and ***only if the protection provided is inadequate in terms of the standard will OSHA issue citations.***” *Id.* (emphasis added). Thus, OSHA publically acknowledged that when site-specific hazard assessments are used, discrepancies within a single employer’s operations may occur. The bolded text also underscores that the regulation is about results—not process.

Additionally, the letter does not prohibit global assessments or even hint that RLC members who have chosen to conduct global hazard assessments are

somehow in violation of the regulation solely for that reason. To the contrary, the letter asks what would happen “*if* a company with multiple plant locations where similar work functions are performed conducts individual (plant specific) assessments”—a strange thing to say if global assessments are prohibited and *only* individual site hazard assessments will do. *See id.*

Indeed, in rulemaking and subsequent interpretations, OSHA has left it to employers to decide the most effective, efficient means for detecting workplace hazards, and never once prescribed steps employers must take in doing so—much less indicated that employers could be punished for common-sense industry practices that the agency has long allowed. *See, e.g.*, Preamble at 16,336; PPE for General Industry, Final Rule Corrections, 59 Fed. Reg. 33,910-01 (July 1, 1994); PPE for General Industry, Final Rule Administrative Stay, 59 Fed. Reg. 34,580-01 (July 6, 1994); Employer Payment for PPE, Final Rule, 72 Fed. Reg. 64,342-01 (Nov. 15, 2007); Standards Improvement Project—Phase III, 76 Fed. Reg. 33,590-01 (June 8, 2011); OSHA, *Letter Interpretation of Fire Retardant PPE Requirements & PPE Hazard Assessment* (Mar. 27, 1998) (attached hereto as Exhibit 3).

C. Global Hazard Assessments Comply With Section 1910.132(d)(1), As Affirmed By The Industry’s Long-Standing Practice.

As the dissent in *Wal-Mart* points out, “[b]ecause the phrase ‘assess the workplace’ in § 1910.132(d)(1) does not state with specificity what an employer

must do to comply with the standard, we are to apply the well established principle that a broadly-worded regulation may be given meaning in a particular situation by reference to objective criteria, *including the knowledge and perception of reasonable persons knowledgeable about the industry.*” *Wal-Mart*, at *12 (MacDougall, C. dissenting) (emphasis added). RLC speaks with a collective voice for the largest national and regional retailers in the United States. The retail industry is rapid-paced, innovative and results-oriented. RLC and its members have utilized global assessments to meet OSHA’s PPE standards for decades for one critically important reason—global assessments produce strong safety results. Global PPE hazard assessments allow retailers to: achieve work place safety goals; maximize the efficiency of trained safety personnel; ensure uniform implementation of work place safety rules; and produce consistent communications to employees on company safety values.

IV. OSHA’S DEPARTURE FROM THE LAW VIA AN ENFORCEMENT PROCEEDING RATHER THAN THROUGH RULEMAKING DID NOT PROVIDE FAIR NOTICE TO EMPLOYERS.

The Commission’s decision surprised RLC’s members because companies’ safety teams have long understood that Section 1910.132(d)(1) is a performance-based standard that allows each company to decide how best to reduce hazards through PPE selection, given the diverse considerations that all companies face. Despite broad statutory language permitting global assessments, OSHA now seeks

to undermine industry's successful longstanding practice of utilizing global PPE hazard assessments to provide appropriate protective equipment for employees and to ensure consistent and universal adherence to worker safety rules. The agency's sudden change of policy through an enforcement proceeding rather than through rulemaking failed to provide employers with fair notice, and therefore, is not entitled to deference by the Court.

A. The Commission's Abrupt Change of Position On PPE Hazard Assessments Is Not Entitled To Deference In Light Of Longstanding Industry Practice And The Broad Regulatory Language Permitting Global Assessments.

Courts have declined to give deference to an agency's actions that abruptly change enforcement positions when there has been a longstanding industry practice permitted by the broad statutory and regulatory language. The Supreme Court's recent decision in *Christopher v. SmithKline Beecham Corp.*, 132 S. Ct. 2156 (2013), is highly instructive on this point. In reaching the conclusion that the Department of Labor's interpretation was not entitled to deference in that case, the Supreme Court emphasized that the industry "had little reason to suspect that its longstanding practice . . . transgressed the [Fair Labor Standards Act]" because "[t]he statute and regulations certainly do not provide clear notice of this." *Id.* at 2167. The Supreme Court explained that the pertinent language used "broad" terms that could "reasonably be construed" as consistent with long-standing

industry practice, and further held that “nothing in the statutory or regulatory text or the DOL’s prior guidance plainly requires a contrary reading.” *Id.*

The same thing is true here where the regulation leaves it to each retailer to decide how best to assess its own workplace. This approach only makes sense given the diversity of retailers and their size, number of locations, products, operations and relevant safety considerations. *See supra* Argument Part I. As in *Christopher*, the agency’s decision here marks a radical break from the common understanding and past enforcement of the regulation. And the lack of notice is particularly egregious because here, as in *Christopher*, the practical consequences of the agency’s about-face are serious and substantial. *See supra* Argument Part II.

B. Fair Notice Requires That Such A Radical Change Be Effectuated Through Rulemaking, Not An Enforcement Proceeding.

The Commission’s order in this case must be vacated for the additional, independent reason that such a drastic change in the regulatory regime cannot be achieved through enforcement, but must be accomplished through rulemaking. *See* the Occupational Safety and Health Act (the “OSH Act”), 29 U.S.C. §§ 652(8), 655(b) (setting forth the procedure for promulgation, modification, or revocation of standards); the Administrative Procedure Act (the “APA”), 5 U.S.C. §§ 553, 706 (setting forth procedural notice and rulemaking requirements).

The Occupational Safety and Health Act authorizes the Secretary of Labor to “promulgate, modify, or revoke any occupational safety or health standard” that is

“reasonably necessary or appropriate to provide safe or healthful employment and places of employment.” *See* 29 U.S.C. §§ 652(8), 655(b). In *Industrial Union Department v. American Petroleum Institute*, the Supreme Court held that “before [the Secretary] can promulgate *any* permanent health or safety standard, the Secretary is required to make a threshold finding that a place of employment is unsafe—in the sense that significant risks are present and can be eliminated or lessened by a change in practices.” 448 U.S. 607, 642 (1980) (J. Stevens, plurality) (emphasis in original). The Supreme Court refused to give OSHA the unchecked “power to impose enormous costs that might produce little, if any, discernible benefit,” explaining that it would be “unreasonable to assume that Congress intended to give the Secretary the unprecedented power over American industry.” *Id.* at 645.

By attempting to adopt a prescriptive “each particular worksite” requirement through an enforcement proceeding, OSHA has circumvented basic rulemaking requirements. In particular, OSHA has shirked its responsibility of proving that the change in rule would reduce a significant workplace risk. And of course, OSHA deprived the regulated community of any opportunity to demonstrate through public comment that any such requirement would be unjustified, lead to absurd and inconsistent results, and ultimately diminish worker safety.

Furthermore, as already demonstrated, the petitioner in this case could not possibly have known that the common practice of conducting hazard assessments on a global basis was prohibited. Due process mandates that “an employer receive notice of the requirements of any OSHA regulation before he is cited for an alleged violation.” *S&H Riggers & Erectors, Inc. v. OSHRC*, 659 F.2d 1273, 1279 (5th Cir. 1981); *see also Diamond Roofing Co. v. OSHRC*, 528 F.2d 645, 649 (5th Cir. 1976) (“Like other statutes and regulations which allow monetary penalties against those who violate them, an occupational safety and health standard must give an employer fair warning of the conduct it prohibits or requires, and it must provide a reasonably clear standard of culpability to circumscribe the discretion of the enforcing authority and its agents.”). Here, the petitioner had no notice whatsoever that its method of conducting workplace hazard assessments would subject it to liability and penalties. *See Martin v. OSHRC*, 499 U.S. 144, 158 (1991) (“[T]he decision to use a citation as the initial means for announcing a particular interpretation may bear on the adequacy of notice to regulated parties.”).

The retail industry is committed to providing safe work places for employees. RLC and its members share and support OSHA’s goal of increasing workplace safety, but are troubled by OSHA’s purported implementation of an entirely new safety standard without giving proper notice and an opportunity for public comment. Through public comment, RLC and its members would have had

the opportunity to submit information regarding the standard use of global assessments within the retail industry, the due diligence involved in conducting and updating global assessments (*see supra* Argument Part I), and unintended practical consequences to the detriment of retailer worker safety that will result from the elimination of this practice (*see supra* Argument Part II). Such commentary by RLC and its members would have educated OSHA as to the safety benefits of global assessments, and the harmful unintended consequences if discretion is eliminated.

CONCLUSION

For the foregoing reasons, the Commission’s order upholding the sanction against the petitioner should be reversed.

Dated: October 22, 2015

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CERTIFICATE OF SERVICE

In compliance with Fed. R. App. P. 25, 5th Cir. R. 25, and 5th Cir. I.O.P. 25, I hereby certify that on this 22nd day of October, 2015, a true and correct copy of the foregoing document was served via electronic transmission via portable document format (.pdf) to the CM/ECF internet web portal for this Court in this case on all counsel of record. All other parties will be served via regular U.S. Mail. Parties may access this filing through the Court's electronic filing system.

/s/ Jonathan L. Snare

Jonathan L. Snare

CERTIFICATE OF COMPLIANCE

Undersigned counsel certifies that this brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) and 29(d) because it contains 6,058 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii) and 5th Cir. R. 32.2.

Undersigned counsel further certifies that this brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6) because this brief has been prepared in a proportionally spaced 14-point Times New Roman typeface using Microsoft Word 2007.

/s/ Jonathan L. Snare
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EXHIBIT 1



Personal Protective Equipment



OSHA 3151-12R 2003

This informational booklet provides a general overview of a particular topic related to OSHA standards. It does not alter or determine compliance responsibilities in OSHA standards or the *Occupational Safety and Health Act of 1970*. Because interpretations and enforcement policy may change over time, you should consult current OSHA administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the Courts for additional guidance on OSHA compliance requirements.

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Personal Protective Equipment



U.S. Department of Labor

Occupational Safety and Health Administration

OSHA 3151-12R
2003

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Introduction

Hazards exist in every workplace in many different forms: sharp edges, falling objects, flying sparks, chemicals, noise and a myriad of other potentially dangerous situations. The Occupational Safety and Health Administration (OSHA) requires that employers protect their employees from workplace hazards that can cause injury.

Controlling a hazard at its source is the best way to protect employees. Depending on the hazard or workplace conditions, OSHA recommends the use of engineering or work practice controls to manage or eliminate hazards to the greatest extent possible. For example, building a barrier between the hazard and the employees is an engineering control; changing the way in which employees perform their work is a work practice control.

When engineering, work practice and administrative controls are not feasible or do not provide sufficient protection, employers must provide personal protective equipment (PPE) to their employees and ensure its use. Personal protective equipment, commonly referred to as "PPE", is equipment worn to minimize exposure to a variety of hazards. Examples of PPE include such items as gloves, foot and eye protection, protective hearing devices (earplugs, muffs) hard hats, respirators and full body suits.

This guide will help both employers and employees do the following:

- Understand the types of PPE.
- Know the basics of conducting a "hazard assessment" of the workplace.
- Select appropriate PPE for a variety of circumstances.
- Understand what kind of training is needed in the proper use and care of PPE.

The information in this guide is general in nature and does not address all workplace hazards or PPE requirements. The information, methods and procedures in this guide are based on the OSHA requirements for PPE as set forth in the Code of Federal Regulations (CFR) at 29 CFR 1910.132 (General requirements); 29 CFR 1910.133 (Eye and face protection); 29 CFR 1910.135 (Head protection); 29 CFR 1910.136 (Foot protection); 29 CFR 1910.137 (Electrical protective equipment); 29 CFR 1910.138 (Hand protection); and regulations that cover the construction industry, at



29 CFR 1926.95 (Criteria for personal protective equipment); 29 CFR 1926.96 (Occupational foot protection); 29 CFR 1926.100 (Head protection); 29 CFR 1926.101 (Hearing protection); and 29 CFR 1926.102 (Eye and face protection); and for the maritime industry at 29 CFR 1915.152 (General requirements); 29 CFR 1915.153 (Eye and face protection); 29 CFR 1915.155 (Head protection); 29 CFR 1915.156 (Foot protection); and 29 CFR 1915.157 (Hand and body protection).

This guide does not address PPE requirements related to respiratory protection (29 CFR 1910.134) as this information is covered in detail in OSHA Publication 3079, "Respiratory Protection". There is a brief discussion of hearing protection in this publication but users should refer to OSHA Publication 3074, "Hearing Conservation" for more detailed information on the requirements to protect employees' hearing in the workplace.

The Requirement for PPE

To ensure the greatest possible protection for employees in the workplace, the cooperative efforts of both employers and employees will help in establishing and maintaining a safe and healthful work environment.

In general, employers are responsible for:

- Performing a "hazard assessment" of the workplace to identify and control physical and health hazards.
- Identifying and providing appropriate PPE for employees.
- Training employees in the use and care of the PPE.
- Maintaining PPE, including replacing worn or damaged PPE.
- Periodically reviewing, updating and evaluating the effectiveness of the PPE program.

In general, employees should:

- Properly wear PPE,
- Attend training sessions on PPE,
- Care for, clean and maintain PPE, and
- Inform a supervisor of the need to repair or replace PPE.



Specific requirements for PPE are presented in many different OSHA standards, published in 29 CFR. Some standards require that employers provide PPE at no cost to the employee while others simply state that the employer must provide PPE. Appendix A at page 40 lists those standards that require the employer to provide PPE and those that require the employer to provide PPE at no cost to the employee.

The Hazard Assessment

A first critical step in developing a comprehensive safety and health program is to identify physical and health hazards in the workplace. This process is known as a "hazard assessment." Potential hazards may be physical or health-related and a comprehensive hazard assessment should identify hazards in both categories. Examples of physical hazards include moving objects, fluctuating temperatures, high intensity lighting, rolling or pinching objects, electrical connections and sharp edges. Examples of health hazards include overexposure to harmful dusts, chemicals or radiation.

The hazard assessment should begin with a walk-through survey of the facility to develop a list of potential hazards in the following basic hazard categories:

- Impact,
- Penetration,
- Compression (roll-over),
- Chemical,
- Heat/cold,
- Harmful dust,
- Light (optical) radiation, and
- Biologic.

In addition to noting the basic layout of the facility and reviewing any history of occupational illnesses or injuries, things to look for during the walk-through survey include:

- Sources of electricity.
- Sources of motion such as machines or processes where



movement may exist that could result in an impact between personnel and equipment.

- Sources of high temperatures that could result in burns, eye injuries or fire.
- Types of chemicals used in the workplace.
- Sources of harmful dusts.
- Sources of light radiation, such as welding, brazing, cutting, furnaces, heat treating, high intensity lights, etc.
- The potential for falling or dropping objects.
- Sharp objects that could poke, cut, stab or puncture.
- Biologic hazards such as blood or other potentially infected material.

When the walk-through is complete, the employer should organize and analyze the data so that it may be efficiently used in determining the proper types of PPE required at the worksite. The employer should become aware of the different types of PPE available and the levels of protection offered. It is definitely a good idea to select PPE that will provide a level of protection greater than the minimum required to protect employees from hazards.

The workplace should be periodically reassessed for any changes in conditions, equipment or operating procedures that could affect occupational hazards. This periodic reassessment should also include a review of injury and illness records to spot any trends or areas of concern and taking appropriate corrective action. The suitability of existing PPE, including an evaluation of its condition and age, should be included in the reassessment.

Documentation of the hazard assessment is required through a written certification that includes the following information:

- Identification of the workplace evaluated;
- Name of the person conducting the assessment;
- Date of the assessment; and
- Identification of the document certifying completion of the hazard assessment.



Selecting PPE

All PPE clothing and equipment should be of safe design and construction, and should be maintained in a clean and reliable fashion. Employers should take the fit and comfort of PPE into consideration when selecting appropriate items for their workplace. PPE that fits well and is comfortable to wear will encourage employee use of PPE. Most protective devices are available in multiple sizes and care should be taken to select the proper size for each employee. If several different types of PPE are worn together, make sure they are compatible. If PPE does not fit properly, it can make the difference between being safely covered or dangerously exposed. It may not provide the level of protection desired and may discourage employee use.

OSHA requires that many categories of PPE meet or be equivalent to standards developed by the American National Standards Institute (ANSI). ANSI has been preparing safety standards since the 1920s, when the first safety standard was approved to protect the heads and eyes of industrial workers. Employers who need to provide PPE in the categories listed below must make certain that any new equipment procured meets the cited ANSI standard. Existing PPE stocks must meet the ANSI standard in effect at the time of its manufacture or provide protection equivalent to PPE manufactured to the ANSI criteria. Employers should inform employees who provide their own PPE of the employer's selection decisions and ensure that any employee-owned PPE used in the workplace conforms to the employer's criteria, based on the hazard assessment, OSHA requirements and ANSI standards. OSHA requires PPE to meet the following ANSI standards:

- Eye and Face Protection: ANSI Z87.1-1989 (USA Standard for Occupational and Educational Eye and Face Protection).
- Head Protection: ANSI Z89.1-1986.
- Foot Protection: ANSI Z41.1-1991.

For hand protection, there is no ANSI standard for gloves but OSHA recommends that selection be based upon the tasks to be performed and the performance and construction characteristics of the glove material. For protection against chemicals, glove selection



must be based on the chemicals encountered, the chemical resistance and the physical properties of the glove material.

Training Employees in the Proper Use of PPE

Employers are required to train each employee who must use PPE. Employees must be trained to know at least the following:

- When PPE is necessary.
- What PPE is necessary.
- How to properly put on, take off, adjust and wear the PPE.
- The limitations of the PPE.
- Proper care, maintenance, useful life and disposal of PPE.

Employers should make sure that each employee demonstrates an understanding of the PPE training as well as the ability to properly wear and use PPE before they are allowed to perform work requiring the use of the PPE. If an employer believes that a previously trained employee is not demonstrating the proper understanding and skill level in the use of PPE, that employee should receive retraining. Other situations that require additional or retraining of employees include the following circumstances: changes in the workplace or in the type of required PPE that make prior training obsolete.

The employer must document the training of each employee required to wear or use PPE by preparing a certification containing the name of each employee trained, the date of training and a clear identification of the subject of the certification.

Eye and Face Protection

Employees can be exposed to a large number of hazards that pose danger to their eyes and face. OSHA requires employers to ensure that employees have appropriate eye or face protection if they are exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, potentially infected material or potentially harmful light radiation.



Many occupational eye injuries occur because workers are not wearing any eye protection while others result from wearing improper or poorly fitting eye protection. Employers must be sure that their employees wear appropriate eye and face protection and that the selected form of protection is appropriate to the work being performed and properly fits each worker exposed to the hazard.

Prescription Lenses

Everyday use of prescription corrective lenses will not provide adequate protection against most occupational eye and face hazards, so employers must make sure that employees with corrective lenses either wear eye protection that incorporates the prescription into the design or wear additional eye protection over their prescription lenses. It is important to ensure that the protective eyewear does not disturb the proper positioning of the prescription lenses so that the employee's vision will not be inhibited or limited. Also, employees who wear contact lenses must wear eye or face PPE when working in hazardous conditions.

Eye Protection for Exposed Workers

OSHA suggests that eye protection be routinely considered for use by carpenters, electricians, machinists, mechanics, millwrights, plumbers and pipefitters, sheetmetal workers and tinsmiths, assemblers, sanders, grinding machine operators, sawyers, welders, laborers, chemical process operators and handlers, and timber cutting and logging workers. Employers of workers in other job categories should decide whether there is a need for eye and face PPE through a hazard assessment.

Examples of potential eye or face injuries include:

- Dust, dirt, metal or wood chips entering the eye from activities such as chipping, grinding, sawing, hammering, the use of power tools or even strong wind forces.
- Chemical splashes from corrosive substances, hot liquids, solvents or other hazardous solutions.
- Objects swinging into the eye or face, such as tree limbs, chains, tools or ropes.
- Radiant energy from welding, harmful rays from the use of lasers or other radiant light (as well as heat, glare, sparks, splash and flying particles).



Types of Eye Protection

Selecting the most suitable eye and face protection for employees should take into consideration the following elements:

- Ability to protect against specific workplace hazards.
- Should fit properly and be reasonably comfortable to wear.
- Should provide unrestricted vision and movement.
- Should be durable and cleanable.
- Should allow unrestricted functioning of any other required PPE.

The eye and face protection selected for employee use must clearly identify the manufacturer. Any new eye and face protective devices must comply with ANSI Z87.1-1989 or be at least as effective as this standard requires. Any equipment purchased before this requirement took effect on July 5, 1994, must comply with the earlier ANSI Standard (ANSI Z87.1-1968) or be shown to be equally effective.

An employer may choose to provide one pair of protective eyewear for each position rather than individual eyewear for each employee. If this is done, the employer must make sure that employees disinfect shared protective eyewear after each use. Protective eyewear with corrective lenses may only be used by the employee for whom the corrective prescription was issued and may not be shared among employees.

Some of the most common types of eye and face protection include the following:

- **Safety spectacles.** These protective eyeglasses have safety frames constructed of metal or plastic and impact-resistant lenses. Side shields are available on some models.
- **Goggles.** These are tight-fitting eye protection that completely cover the eyes, eye sockets and the facial area immediately surrounding the eyes and provide protection from impact, dust and splashes. Some goggles will fit over corrective lenses.
- **Welding shields.** Constructed of vulcanized fiber or fiberglass and fitted with a filtered lens, welding shields protect eyes from burns caused by infrared or intense radiant light; they also protect both the eyes and face from flying sparks, metal spatter and slag chips produced during welding, brazing, soldering and



cutting operations. OSHA requires filter lenses to have a shade number appropriate to protect against the specific hazards of the work being performed in order to protect against harmful light radiation.

- **Laser safety goggles.** These specialty goggles protect against intense concentrations of light produced by lasers. The type of laser safety goggles an employer chooses will depend upon the equipment and operating conditions in the workplace.
- **Face shields.** These transparent sheets of plastic extend from the eyebrows to below the chin and across the entire width of the employee's head. Some are polarized for glare protection. Face shields protect against nuisance dusts and potential splashes or sprays of hazardous liquids but will not provide adequate protection against impact hazards. Face shields used in combination with goggles or safety spectacles will provide additional protection against impact hazards.

Each type of protective eyewear is designed to protect against specific hazards. Employers can identify the specific workplace hazards that threaten employees' eyes and faces by completing a hazard assessment as outlined in the earlier section.

Welding Operations

The intense light associated with welding operations can cause serious and sometimes permanent eye damage if operators do not wear proper eye protection. The intensity of light or radiant energy produced by welding, cutting or brazing operations varies according to a number of factors including the task producing the light, the electrode size and the arc current. The following table shows the minimum protective shades for a variety of welding, cutting and brazing operations in general industry and in the shipbuilding industry.



Table 1
Filter Lenses for Protection Against Radiant Energy

Operations	Electrode size in 1/32" (0.8mm)	Arc current	Minimum* protective shade
Shielded metal arc welding	< 3	< 60	7
	3 - 5	60 - 160	8
	5 - 8	160 - 250	10
	> 8	250 - 550	11
Gas metal arc welding and flux cored arc welding		< 60	7
		60 - 160	10
		160 - 250	10
		250 - 500	10
Gas tungsten arc welding		< 50	8
		50 - 150	8
		150 - 500	10
Air carbon	(light)	< 500	10
Arc cutting	(heavy)	500 - 1,000	11
Plasma arc welding		< 20	6
		20 - 100	8
		100 - 400	10
		400 - 800	11
Plasma arc cutting	(light)**	< 300	8
	(medium)**	300 - 400	9
	(heavy)**	400 - 800	10
Torch brazing			3
Torch soldering			2
Carbon arc welding			14



Table 1 (continued)
Filter Lenses for Protection Against Radiant Energy

Operations	Plate thickness inches	Plate thickness mm	Minimum* protective shade
Gas welding: Light	< 1/8	< 3.2	4
Gas welding: Medium	1/8 - 1/2	3.2 - 12.7	5
Gas welding: Heavy	> 1/2	> 12.7	6
Oxygen cutting: Light	< 1	< 25	3
Oxygen cutting: Medium	1 - 6	25 - 150	4
Oxygen cutting: Heavy	> 6	> 150	5

Source: 29 CFR 1910.133(a)(5).

* As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.

** These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the workpiece.



The construction industry has separate requirements for filter lens protective levels for specific types of welding operations, as indicated in the table below:

Table 2
Construction Industry Requirements for Filter Lens Shade Numbers for Protection Against Radiant Energy

Welding Operation	Shade Number
Shielded metal-arc welding 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	10
Gas-shielded arc welding (nonferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	11
Gas-shielded arc welding (ferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	12
Shielded metal-arc welding 3/16-, 7/32-, 1/4-inch diameter electrodes	12
5/16-, 3/8-inch diameter electrodes	14
Atomic hydrogen welding	10 - 14
Carbon-arc welding	14
Soldering	2
Torch brazing	3 or 4
Light cutting, up to 1 inch	3 or 4
Medium cutting, 1 to 6 inches	4 or 5
Heavy cutting, more than 6 inches	5 or 6
Gas welding (light), up to 1/8-inch	4 or 5
Gas welding (medium), 1/8- to 1/2-inch	5 or 6
Gas welding (heavy), more than 1/2-inch	6 or 8

Source: 29 CFR 1926.102(b)(1).



Laser Operations

Laser light radiation can be extremely dangerous to the unprotected eye and direct or reflected beams can cause permanent eye damage. Laser retinal burns can be painless, so it is essential that all personnel in or around laser operations wear appropriate eye protection.

Laser safety goggles should protect for the specific wavelength of the laser and must be of sufficient optical density for the energy involved. Safety goggles intended for use with laser beams must be labeled with the laser wavelengths for which they are intended to be used, the optical density of those wavelengths and the visible light transmission.

The table below lists maximum power or energy densities and appropriate protection levels for optical densities 5 through 8.

Table 3
Selecting Laser Safety Glass

Intensity, CW maximum power density (watts/cm ²)	Attenuation	
	Optical density (O.D.)	Attenuation factor
10 ⁻²	5	10 ⁵
10 ⁻¹	6	10 ⁶
1.0	7	10 ⁷
10.0	8	10 ⁸

Source: 29 CFR 1926.102(b)(2).

Head Protection

Protecting employees from potential head injuries is a key element of any safety program. A head injury can impair an employee for life or it can be fatal. Wearing a safety helmet or hard hat is one of the easiest ways to protect an employee's head from



injury. Hard hats can protect employees from impact and penetration hazards as well as from electrical shock and burn hazards.

Employers must ensure that their employees wear head protection if any of the following apply:

- Objects might fall from above and strike them on the head;
- They might bump their heads against fixed objects, such as exposed pipes or beams; or
- There is a possibility of accidental head contact with electrical hazards.

Some examples of occupations in which employees should be required to wear head protection include construction workers, carpenters, electricians, linemen, plumbers and pipefitters, timber and log cutters, welders, among many others. Whenever there is a danger of objects falling from above, such as working below others who are using tools or working under a conveyor belt, head protection must be worn. Hard hats must be worn with the bill forward to protect employees properly.

In general, protective helmets or hard hats should do the following:

- Resist penetration by objects.
- Absorb the shock of a blow.
- Be water-resistant and slow burning.
- Have clear instructions explaining proper adjustment and replacement of the suspension and headband.

Hard hats must have a hard outer shell and a shock-absorbing lining that incorporates a headband and straps that suspend the shell from 1 to 1 1/4 inches (2.54 cm to 3.18 cm) away from the head. This type of design provides shock absorption during an impact and ventilation during normal wear.

Protective headgear must meet ANSI Standard Z89.1-1986 (Protective Headgear for Industrial Workers) or provide an equivalent level of protection. Helmets purchased before July 5, 1994 must comply with the earlier ANSI Standard (Z89.1-1969) or provide equivalent protection.



Types of Hard Hats

There are many types of hard hats available in the marketplace today. In addition to selecting protective headgear that meets ANSI standard requirements, employers should ensure that employees wear hard hats that provide appropriate protection against potential workplace hazards. It is important for employers to understand all potential hazards when making this selection, including electrical hazards. This can be done through a comprehensive hazard analysis and an awareness of the different types of protective headgear available.

Hard hats are divided into three industrial classes:

- **Class A hard hats** provide impact and penetration resistance along with limited voltage protection (up to 2,200 volts).
- **Class B hard hats** provide the highest level of protection against electrical hazards, with high-voltage shock and burn protection (up to 20,000 volts). They also provide protection from impact and penetration hazards by flying/falling objects.
- **Class C hard hats** provide lightweight comfort and impact protection but offer no protection from electrical hazards.

Another class of protective headgear on the market is called a "bump hat," designed for use in areas with low head clearance. They are recommended for areas where protection is needed from head bumps and lacerations. These are not designed to protect against falling or flying objects and are not ANSI approved. It is essential to check the type of hard hat employees are using to ensure that the equipment provides appropriate protection. Each hat should bear a label inside the shell that lists the manufacturer, the ANSI designation and the class of the hat.

Size and Care Considerations

Head protection that is either too large or too small is inappropriate for use, even if it meets all other requirements. Protective headgear must fit appropriately on the body and for the head size of each individual. Most protective headgear comes in a variety of sizes with adjustable headbands to ensure a proper fit (many adjust in 1/8-inch increments). A proper fit should allow sufficient clearance between the shell and the suspension system for



ventilation and distribution of an impact. The hat should not bind, slip, fall off or irritate the skin.

Some protective headgear allows for the use of various accessories to help employees deal with changing environmental conditions, such as slots for earmuffs, safety glasses, face shields and mounted lights. Optional brims may provide additional protection from the sun and some hats have channels that guide rainwater away from the face. Protective headgear accessories must not compromise the safety elements of the equipment.

Periodic cleaning and inspection will extend the useful life of protective headgear. A daily inspection of the hard hat shell, suspension system and other accessories for holes, cracks, tears or other damage that might compromise the protective value of the hat is essential. Paints, paint thinners and some cleaning agents can weaken the shells of hard hats and may eliminate electrical resistance. Consult the helmet manufacturer for information on the effects of paint and cleaning materials on their hard hats. Never drill holes, paint or apply labels to protective headgear as this may reduce the integrity of the protection. Do not store protective headgear in direct sunlight, such as on the rear window shelf of a car, since sunlight and extreme heat can damage them.

Hard hats with any of the following defects should be removed from service and replaced:

- Perforation, cracking, or deformity of the brim or shell;
- Indication of exposure of the brim or shell to heat, chemicals or ultraviolet light and other radiation (in addition to a loss of surface gloss, such signs include chalking or flaking).

Always replace a hard hat if it sustains an impact, even if damage is not noticeable. Suspension systems are offered as replacement parts and should be replaced when damaged or when excessive wear is noticed. It is not necessary to replace the entire hard hat when deterioration or tears of the suspension systems are noticed.

Foot and Leg Protection

Employees who face possible foot or leg injuries from falling or rolling objects or from crushing or penetrating materials should



wear protective footwear. Also, employees whose work involves exposure to hot substances or corrosive or poisonous materials must have protective gear to cover exposed body parts, including legs and feet. If an employee's feet may be exposed to electrical hazards, non-conductive footwear should be worn. On the other hand, workplace exposure to static electricity may necessitate the use of conductive footwear.

Examples of situations in which an employee should wear foot and/or leg protection include:

- When heavy objects such as barrels or tools might roll onto or fall on the employee's feet;
- Working with sharp objects such as nails or spikes that could pierce the soles or uppers of ordinary shoes;
- Exposure to molten metal that might splash on feet or legs;
- Working on or around hot, wet or slippery surfaces; and
- Working when electrical hazards are present.

Safety footwear must meet ANSI minimum compression and impact performance standards in ANSI Z41-1991 (American National Standard for Personal Protection-Protective Footwear) or provide equivalent protection. Footwear purchased before July 5, 1994, must meet or provide equivalent protection to the earlier ANSI Standard (ANSI Z41.1-1967). All ANSI approved footwear has a protective toe and offers impact and compression protection. But the type and amount of protection is not always the same. Different footwear protects in different ways. Check the product's labeling or consult the manufacturer to make sure the footwear will protect the user from the hazards they face.

Foot and leg protection choices include the following:

- **Leggings** protect the lower legs and feet from heat hazards such as molten metal or welding sparks. Safety snaps allow leggings to be removed quickly.
- **Metatarsal guards** protect the instep area from impact and compression. Made of aluminum, steel, fiber or plastic, these guards may be strapped to the outside of shoes.
- **Toe guards** fit over the toes of regular shoes to protect the toes from impact and compression hazards. They may be made of steel, aluminum or plastic.



- **Combination foot and shin guards** protect the lower legs and feet, and may be used in combination with toe guards when greater protection is needed.
- **Safety shoes** have impact-resistant toes and heat-resistant soles that protect the feet against hot work surfaces common in roofing, paving and hot metal industries. The metal insoles of some safety shoes protect against puncture wounds. Safety shoes may also be designed to be electrically conductive to prevent the buildup of static electricity in areas with the potential for explosive atmospheres or nonconductive to protect workers from workplace electrical hazards.

Special Purpose Shoes

Electrically conductive shoes provide protection against the buildup of static electricity. Employees working in explosive and hazardous locations such as explosives manufacturing facilities or grain elevators must wear conductive shoes to reduce the risk of static electricity buildup on the body that could produce a spark and cause an explosion or fire. Foot powder should not be used in conjunction with protective conductive footwear because it provides insulation, reducing the conductive ability of the shoes. Silk, wool and nylon socks can produce static electricity and should not be worn with conductive footwear. Conductive shoes must be removed when the task requiring their use is completed. Note: Employees exposed to electrical hazards must never wear conductive shoes.

Electrical hazard, safety-toe shoes are nonconductive and will prevent the wearers' feet from completing an electrical circuit to the ground. These shoes can protect against open circuits of up to 600 volts in dry conditions and should be used in conjunction with other insulating equipment and additional precautions to reduce the risk of a worker becoming a path for hazardous electrical energy. The insulating protection of electrical hazard, safety-toe shoes may be compromised if the shoes become wet, the soles are worn through, metal particles become embedded in the sole or heel, or workers touch conductive, grounded items. Note: Nonconductive footwear must not be used in explosive or hazardous locations.



Foundry Shoes

In addition to insulating the feet from the extreme heat of molten metal, foundry shoes keep hot metal from lodging in shoe eyelets, tongues or other shoe parts. These snug-fitting leather or leather-substitute shoes have leather or rubber soles and rubber heels. All foundry shoes must have built-in safety toes.

Care of Protective Footwear

As with all protective equipment, safety footwear should be inspected prior to each use. Shoes and leggings should be checked for wear and tear at reasonable intervals. This includes looking for cracks or holes, separation of materials, broken buckles or laces. The soles of shoes should be checked for pieces of metal or other embedded items that could present electrical or tripping hazards. Employees should follow the manufacturers' recommendations for cleaning and maintenance of protective footwear.

Hand and Arm Protection

If a workplace hazard assessment reveals that employees face potential injury to hands and arms that cannot be eliminated through engineering and work practice controls, employers must ensure that employees wear appropriate protection. Potential hazards include skin absorption of harmful substances, chemical or thermal burns, electrical dangers, bruises, abrasions, cuts, punctures, fractures and amputations. Protective equipment includes gloves, finger guards and arm coverings or elbow-length gloves.

Employers should explore all possible engineering and work practice controls to eliminate hazards and use PPE to provide additional protection against hazards that cannot be completely eliminated through other means. For example, machine guards may eliminate a hazard. Installing a barrier to prevent workers from placing their hands at the point of contact between a table saw blade and the item being cut is another method.



Types of Protective Gloves

There are many types of gloves available today to protect against a wide variety of hazards. The nature of the hazard and the operation involved will affect the selection of gloves. The variety of potential occupational hand injuries makes selecting the right pair of gloves challenging. It is essential that employees use gloves specifically designed for the hazards and tasks found in their workplace because gloves designed for one function may not protect against a different function even though they may appear to be an appropriate protective device.

The following are examples of some factors that may influence the selection of protective gloves for a workplace.

- Type of chemicals handled.
- Nature of contact (total immersion, splash, etc.).
- Duration of contact.
- Area requiring protection (hand only, forearm, arm).
- Grip requirements (dry, wet, oily).
- Thermal protection.
- Size and comfort.
- Abrasion/resistance requirements.

Gloves made from a wide variety of materials are designed for many types of workplace hazards. In general, gloves fall into four groups:

- Gloves made of leather, canvas or metal mesh;
- Fabric and coated fabric gloves;
- Chemical- and liquid-resistant gloves;
- Insulating rubber gloves (See 29 CFR 1910.137 and the following section on electrical protective equipment for detailed requirements on the selection, use and care of insulating rubber gloves).

Leather, Canvas or Metal Mesh Gloves

Sturdy gloves made from metal mesh, leather or canvas provide protection against cuts and burns. Leather or canvas gloves also protect against sustained heat.



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- **Leather gloves** protect against sparks, moderate heat, blows, chips and rough objects.
 - **Aluminized gloves** provide reflective and insulating protection against heat and require an insert made of synthetic materials to protect against heat and cold.
 - **Aramid fiber gloves** protect against heat and cold, are cut- and abrasive-resistant and wear well.
 - **Synthetic gloves** of various materials offer protection against heat and cold, are cut- and abrasive-resistant and may withstand some diluted acids. These materials do not stand up against alkalis and solvents.

Fabric and Coated Fabric Gloves

Fabric and coated fabric gloves are made of cotton or other fabric to provide varying degrees of protection.

- **Fabric gloves** protect against dirt, slivers, chafing and abrasions. They do not provide sufficient protection for use with rough, sharp or heavy materials. Adding a plastic coating will strengthen some fabric gloves.
- **Coated fabric gloves** are normally made from cotton flannel with napping on one side. By coating the unnapped side with plastic, fabric gloves are transformed into general-purpose hand protection offering slip-resistant qualities. These gloves are used for tasks ranging from handling bricks and wire to chemical laboratory containers. When selecting gloves to protect against chemical exposure hazards, always check with the manufacturer or review the manufacturer's product literature to determine the gloves' effectiveness against specific workplace chemicals and conditions.

Chemical- and Liquid-Resistant Gloves

Chemical-resistant gloves are made with different kinds of rubber: natural, butyl, neoprene, nitrile and fluorocarbon (viton); or various kinds of plastic: polyvinyl chloride (PVC), polyvinyl alcohol and polyethylene. These materials can be blended or laminated for



better performance. As a general rule, the thicker the glove material, the greater the chemical resistance but thick gloves may impair grip and dexterity, having a negative impact on safety.

Some examples of chemical-resistant gloves include:

- **Butyl gloves** are made of a synthetic rubber and protect against a wide variety of chemicals, such as peroxide, rocket fuels, highly corrosive acids (nitric acid, sulfuric acid, hydrofluoric acid and red-fuming nitric acid), strong bases, alcohols, aldehydes, ketones, esters and nitrocompounds. Butyl gloves also resist oxidation, ozone corrosion and abrasion, and remain flexible at low temperatures. Butyl rubber does not perform well with aliphatic and aromatic hydrocarbons and halogenated solvents.
- **Natural (latex) rubber gloves** are comfortable to wear, which makes them a popular general-purpose glove. They feature outstanding tensile strength, elasticity and temperature resistance. In addition to resisting abrasions caused by grinding and polishing, these gloves protect workers' hands from most water solutions of acids, alkalis, salts and ketones. Latex gloves have caused allergic reactions in some individuals and may not be appropriate for all employees. Hypoallergenic gloves, glove liners and powderless gloves are possible alternatives for workers who are allergic to latex gloves.
- **Neoprene gloves** are made of synthetic rubber and offer good pliability, finger dexterity, high density and tear resistance. They protect against hydraulic fluids, gasoline, alcohols, organic acids and alkalis. They generally have chemical and wear resistance properties superior to those made of natural rubber.
- **Nitrile gloves** are made of a copolymer and provide protection from chlorinated solvents such as trichloroethylene and perchloroethylene. Although intended for jobs requiring dexterity and sensitivity, nitrile gloves stand up to heavy use even after prolonged exposure to substances that cause other gloves to deteriorate. They offer protection when working with oils, greases, acids, caustics and alcohols but are generally not recommended for use with strong oxidizing agents, aromatic solvents, ketones and acetates.



The following table from the U.S. Department of Energy (Occupational Safety and Health Technical Reference Manual) rates various gloves as being protective against specific chemicals and will help you select the most appropriate gloves to protect your employees. The ratings are abbreviated as follows: VG: Very Good; G: Good; F: Fair; P: Poor (not recommended). Chemicals marked with an asterisk (*) are for limited service.

Table 4
Chemical Resistance Selection Chart for Protective Gloves

Chemical	Neoprene	Latex/Rubber	Butyl	Nitrile
Acetaldehyde*	VG	G	VG	G
Acetic acid	VG	VG	VG	VG
Acetone*	G	VG	VG	P
Ammonium hydroxide	VG	VG	VG	VG
Amy acetate*	F	P	F	P
Aniline	G	F	F	P
Benzaldehyde*	F	F	G	G
Benzene*	P	P	P	F
Butyl acetate	G	F	F	P
Butyl alcohol	VG	VG	VG	VG
Carbon disulfide	F	F	F	F
Carbon tetrachloride*	F	P	P	G
Castor oil	F	P	F	VG
Chlorobenzene*	F	P	F	P
Chloroform*	G	P	P	F
Chloronaphthalene	F	P	F	F
Chromic acid (50%)	F	P	F	F
Citric acid (10%)	VG	VG	VG	VG
Cyclohexanol	G	F	G	VG
Dibutyl phthalate*	G	P	G	G
Diesel fuel	G	P	P	VG
Diisobutyl ketone	P	F	G	P
Dimethylformamide	F	F	G	G
Diocetyl phthalate	G	P	F	VG
Dioxane	VG	G	G	G

**Table 4 (continued) Chemical Resistance Selection Chart for Protective Gloves**

Epoxy resins, dry	VG	VG	VG	VG
Ethyl acetate*	G	F	G	F
Ethyl alcohol	VG	VG	VG	VG
Ethyl ether*	VG	G	VG	G
Ethylene dichloride*	F	P	F	P
Ethylene glycol	VG	VG	VG	VG
Formaldehyde	VG	VG	VG	VG
Formic acid	VG	VG	VG	VG
Freon 11	G	P	F	G
Freon 12	G	P	F	G
Freon 21	G	P	F	G
Freon 22	G	P	F	G
Furfural*	G	G	G	G
Gasoline, leaded	G	P	F	VG
Gasoline, unleaded	G	P	F	VG
Glycerin	VG	VG	VG	VG
Hexane	F	P	P	G
Hydrazine (65%)	F	G	G	G
Hydrochloric acid	VG	G	G	G
Hydrofluoric acid (48%)	VG	G	G	G
Hydrogen peroxide (30%)	G	G	G	G
Hydroquinone	G	G	G	F
Isooctane	F	P	P	VG
Kerosene	VG	F	F	VG
Ketones	G	VG	VG	P
Lacquer thinners	G	F	F	P
Lactic acid (85%)	VG	VG	VG	VG
Lauric acid (36%)	VG	F	VG	VG
Lineolic acid	VG	P	F	G
Linseed oil	VG	P	F	VG
Maleic acid	VG	VG	VG	VG
Methyl alcohol	VG	VG	VG	VG
Methylamine	F	F	G	G
Methyl bromide	G	F	G	F
Methyl chloride*	P	P	P	P

**Table 4 (continued) Chemical Resistance Selection Chart for Protective Gloves**

Methyl ethyl ketone*	G	G	VG	P
Methyl isobutyl ketone*	F	F	VG	P
Methyl methacrylate	G	G	VG	F
Monoethanolamine	VG	G	VG	VG
Morpholine	VG	VG	VG	G
Naphthalene	G	F	F	G
Napthas, aliphatic	VG	F	F	VG
Napthas, aromatic	G	P	P	G
Nitric acid*	G	F	F	F
Nitric acid, red and white fuming	P	P	P	P
Nitromethane (95.5%)*	F	P	F	F
Nitropropane (95.5%)	F	P	F	F
Octyl alcohol	VG	VG	VG	VG
Oleic acid	VG	F	G	VG
Oxalic acid	VG	VG	VG	VG
Palmitic acid	VG	VG	VG	VG
Perchloric acid (60%)	VG	F	G	G
Perchloroethylene	F	P	P	G
Petroleum distillates (naphtha)	G	P	P	VG
Phenol	VG	F	G	F
Phosphoric acid	VG	G	VG	VG
Potassium hydroxide	VG	VG	VG	VG
Propyl acetate	G	F	G	F
Propyl alcohol	VG	VG	VG	VG
Propyl alcohol (iso)	VG	VG	VG	VG
Sodium hydroxide	VG	VG	VG	VG
Styrene	P	P	P	F
Styrene (100%)	P	P	P	F
Sulfuric acid	G	G	G	G
Tannic acid (65)	VG	VG	VG	VG
Tetrahydrofuran	P	F	F	F
Toluene*	F	P	P	F
Toluene diisocyanate (TDI)	F	G	G	F



Table 4 (continued) Chemical Resistance Selection Chart for Protective Gloves

Trichloroethylene*	F	F	P	G
Triethanolamine (85%)	VG	G	G	VG
Tung oil	VG	P	F	VG
Turpentine	G	F	F	VG
Xylene*	P	P	P	F

Note: When selecting chemical-resistant gloves be sure to consult the manufacturer's recommendations, especially if the gloved hand(s) will be immersed in the chemical.

Care of Protective Gloves

Protective gloves should be inspected before each use to ensure that they are not torn, punctured or made ineffective in any way. A visual inspection will help detect cuts or tears but a more thorough inspection by filling the gloves with water and tightly rolling the cuff towards the fingers will help reveal any pinhole leaks. Gloves that are discolored or stiff may also indicate deficiencies caused by excessive use or degradation from chemical exposure.

Any gloves with impaired protective ability should be discarded and replaced. Reuse of chemical-resistant gloves should be evaluated carefully, taking into consideration the absorptive qualities of the gloves. A decision to reuse chemically-exposed gloves should take into consideration the toxicity of the chemicals involved and factors such as duration of exposure, storage and temperature.

Body Protection

Employees who face possible bodily injury of any kind that cannot be eliminated through engineering, work practice or administrative controls, must wear appropriate body protection while performing their jobs. In addition to cuts and radiation, the following are examples of workplace hazards that could cause bodily injury:

- Temperature extremes;
- Hot splashes from molten metals and other hot liquids;



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- Potential impacts from tools, machinery and materials;
 - Hazardous chemicals.

There are many varieties of protective clothing available for specific hazards. Employers are required to ensure that their employees wear personal protective equipment only for the parts of the body exposed to possible injury. Examples of body protection include laboratory coats, coveralls, vests, jackets, aprons, surgical gowns and full body suits.

If a hazard assessment indicates a need for full body protection against toxic substances or harmful physical agents, the clothing should be carefully inspected before each use, it must fit each worker properly and it must function properly and for the purpose for which it is intended.

Protective clothing comes in a variety of materials, each effective against particular hazards, such as:

- **Paper-like fiber** used for disposable suits provide protection against dust and splashes.
- **Treated wool and cotton** adapts well to changing temperatures, is comfortable, and fire-resistant and protects against dust, abrasions and rough and irritating surfaces.
- **Duck** is a closely woven cotton fabric that protects against cuts and bruises when handling heavy, sharp or rough materials.
- **Leather** is often used to protect against dry heat and flames.
- **Rubber, rubberized fabrics, neoprene and plastics** protect against certain chemicals and physical hazards. When chemical or physical hazards are present, check with the clothing manufacturer to ensure that the material selected will provide protection against the specific hazard.

Hearing Protection

Determining the need to provide hearing protection for employees can be challenging. Employee exposure to excessive noise depends upon a number of factors, including:

- The loudness of the noise as measured in decibels (dB).
- The duration of each employee's exposure to the noise.
- Whether employees move between work areas with different noise levels.



- Whether noise is generated from one or multiple sources.

Generally, the louder the noise, the shorter the exposure time before hearing protection is required. For instance, employees may be exposed to a noise level of 90 dB for 8 hours per day (unless they experience a Standard Threshold Shift) before hearing protection is required. On the other hand, if the noise level reaches 115 dB hearing protection is required if the anticipated exposure exceeds 15 minutes.

For a more detailed discussion of the requirements for a comprehensive hearing conservation program, see OSHA Publication 3074 (2002), "Hearing Conservation" or refer to the OSHA standard at 29 CFR 1910.95, Occupational Noise Exposure, section (c).

Table 5, below, shows the permissible noise exposures that require hearing protection for employees exposed to occupational noise at specific decibel levels for specific time periods. Noises are considered continuous if the interval between occurrences of the maximum noise level is one second or less. Noises not meeting this definition are considered impact or impulse noises (loud momentary explosions of sound) and exposures to this type of noise must not exceed 140 dB. Examples of situations or tools that may result in impact or impulse noises are powder-actuated nail guns, a punch press or drop hammers.

Table 5
Permissible Noise Exposures

Duration per day, in hours	Sound level in dB*
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

*When measured on the A scale of a standard sound level meter at slow response.

Source: 29 CFR 1910.95, Table G-16.



If engineering and work practice controls do not lower employee exposure to workplace noise to acceptable levels, employees must wear appropriate hearing protection. It is important to understand that hearing protectors reduce only the amount of noise that gets through to the ears. The amount of this reduction is referred to as attenuation, which differs according to the type of hearing protection used and how well it fits. Hearing protectors worn by employees must reduce an employee's noise exposure to within the acceptable limits noted in Table 5. Refer to Appendix B of 29 CFR 1910.95, Occupational Noise Exposure, for detailed information on methods to estimate the attenuation effectiveness of hearing protectors based on the device's noise reduction rating (NRR). Manufacturers of hearing protection devices must display the device's NRR on the product packaging. If employees are exposed to occupational noise at or above 85 dB averaged over an eight-hour period, the employer is required to institute a hearing conservation program that includes regular testing of employees' hearing by qualified professionals. Refer to 29 CFR 1910.95(c) for a description of the requirements for a hearing conservation program.

Some types of hearing protection include:

- **Single-use earplugs** are made of waxed cotton, foam, silicone rubber or fiberglass wool. They are self-forming and, when properly inserted, they work as well as most molded earplugs.
- **Pre-formed or molded earplugs** must be individually fitted by a professional and can be disposable or reusable. Reusable plugs should be cleaned after each use.
- **Earmuffs** require a perfect seal around the ear. Glasses, facial hair, long hair or facial movements such as chewing may reduce the protective value of earmuffs.

OSHA Assistance

OSHA can provide extensive help through a variety of programs, including technical assistance about effective safety and health programs, state plans, workplace consultations, voluntary protection programs, strategic partnerships, training and education, and more. An overall commitment to workplace safety and health can add value to your business, to your workplace and to your life.



Safety and Health Program Management Guidelines

Effective management of worker safety and health protection is a decisive factor in reducing the extent and severity of work-related injuries and illnesses and their related costs. In fact, an effective safety and health program forms the basis of good worker protection and can save time and money (about \$4 for every dollar spent) and increase productivity and reduce worker injuries, illnesses and related workers' compensation costs.

To assist employers and employees in developing effective safety and health programs, OSHA published recommended Safety and Health Program Management Guidelines (Federal Register 54 (16): 3904-3916, January 26, 1989). These voluntary guidelines apply to all places of employment covered by OSHA.

The guidelines identify four general elements critical to the development of a successful safety and health management program:

- Management leadership and employee involvement.
- Work analysis.
- Hazard prevention and control.
- Safety and health training.

The guidelines recommend specific actions, under each of these general elements, to achieve an effective safety and health program. The Federal Register notice is available online at www.osha.gov.

State Programs

The Occupational Safety and Health Act of 1970 (OSH Act) encourages states to develop and operate their own job safety and health plans. OSHA approves and monitors these plans. There are currently 26 state plans: 23 cover both private and public (state and local government) employment; 3 states, Connecticut, New Jersey and New York, cover the public sector only. States and territories with their own OSHA-approved occupational safety and health plans must adopt standards identical to, or at least as effective as, the federal standards.



Consultation Services

Consultation assistance is available on request to employers who want help in establishing and maintaining a safe and healthful workplace. Largely funded by OSHA, the service is provided at no cost to the employer. Primarily developed for smaller employers with more hazardous operations, the consultation service is delivered by state governments employing professional safety and health consultants. Comprehensive assistance includes an appraisal of all-mechanical systems, work practices and occupational safety and health hazards of the workplace and all aspects of the employer's present job safety and health program. In addition, the service offers assistance to employers in developing and implementing an effective safety and health program. No penalties are proposed or citations issued for hazards identified by the consultant. OSHA provides consultation assistance to the employer with the assurance that his or her name and firm and any information about the workplace will not be routinely reported to OSHA enforcement staff.

Under the consultation program, certain exemplary employers may request participation in OSHA's Safety and Health Achievement Recognition Program (SHARP). Eligibility for participation in SHARP includes receiving a comprehensive consultation visit, demonstrating exemplary achievements in workplace safety and health by abating all identified hazards and developing an excellent safety and health program.

Employers accepted into SHARP may receive an exemption from programmed inspections (not complaint or accident investigation inspections) for a period of one year. For more information concerning consultation assistance, see the OSHA website at www.osha.gov.

Voluntary Protection Programs (VPP)

Voluntary Protection Programs and onsite consultation services, when coupled with an effective enforcement program, expand worker protection to help meet the goals of the OSH Act. The three levels of VPP are Star, Merit, and Demonstration designed to recognize outstanding achievements by companies that have successfully incorporated comprehensive safety and health programs into their total management system. The VPPs motivate others to achieve excellent safety and health results in the same outstanding



way as they establish a cooperative relationship between employers, employees and OSHA.

For additional information on VPP and how to apply, contact the OSHA regional offices listed at the end of this publication.

Strategic Partnership Program

OSHA's Strategic Partnership Program, the newest member of OSHA's cooperative programs, helps encourage, assist and recognize the efforts of partners to eliminate serious workplace hazards and achieve a high level of worker safety and health. Whereas OSHA's Consultation Program and VPP entail one-on-one relationships between OSHA and individual worksites, most strategic partnerships seek to have a broader impact by building cooperative relationships with groups of employers and employees. These partnerships are voluntary, cooperative relationships between OSHA, employers, employee representatives and others (e.g., trade unions, trade and professional associations, universities and other government agencies).

For more information on this and other cooperative programs, contact your nearest OSHA office, or visit OSHA's website at www.osha.gov.

Alliance Programs

The Alliance Program enables organizations committed to workplace safety and health to collaborate with OSHA to prevent injuries and illnesses in the workplace. OSHA and the Alliance participants work together to reach out to, educate and lead the nation's employers and their employees in improving and advancing workplace safety and health.

Alliances are open to all groups, including trade or professional organizations, businesses, labor organizations, educational institutions and government agencies. In some cases, organizations may be building on existing relationships with OSHA that were developed through other cooperative programs.

There are few formal program requirements for Alliances and the agreements do not include an enforcement component. However, OSHA and the participating organizations must define, implement and meet a set of short- and long-term goals that fall into three categories: training and education; outreach and commu-



nication; and promoting the national dialogue on workplace safety and health.

OSHA Training and Education

OSHA area offices offer a variety of information services, such as compliance assistance, technical advice, publications, audiovisual aids and speakers for special engagements. OSHA's Training Institute in Arlington Heights, Ill., provides basic and advanced courses in safety and health for federal and state compliance officers, state consultants, federal agency personnel, and private sector employers, employees and their representatives.

The OSHA Training Institute also has established OSHA Training Institute Education Centers to address the increased demand for its courses from the private sector and from other federal agencies. These centers are nonprofit colleges, universities and other organizations that have been selected after a competition for participation in the program.

OSHA also provides funds to nonprofit organizations, through grants, to conduct workplace training and education in subjects where OSHA believes there is a lack of workplace training. Grants are awarded annually. Grant recipients are expected to contribute 20 percent of the total grant cost.

For more information on grants, training and education, contact the OSHA Training Institute, Office of Training and Education, 2020 South Arlington Heights Road, Arlington Heights, IL 60005, (847) 297-4810 or see "Outreach" on OSHA's website at www.osha.gov. For further information on any OSHA program, contact your nearest OSHA area or regional office listed at the end of this publication.

Information Available Electronically

OSHA has a variety of materials and tools available on its website at www.osha.gov. These include e-Tools such as Expert Advisors, Electronic Compliance Assistance Tools (e-cats), Technical Links; regulations, directives and publications, videos and other information for employers and employees. OSHA's software programs and compliance assistance tools walk you through challenging safety and health issues and common problems to find the best solutions for your workplace.



OSHA's CD-ROM includes standards, interpretations, directives and more, and can be purchased on CD-ROM from the U.S. Government Printing Office. To order, write to the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 or phone (202) 512-1800, or order online at <http://bookstore.gpo.gov>.

OSHA Publications

OSHA has an extensive publications program. For a listing of free or sales items, visit OSHA's website at www.osha.gov or contact the OSHA Publications Office, U.S. Department of Labor, 200 Constitution Avenue, NW, N-3101, Washington, DC 20210. Telephone (202) 693-1888 or fax to (202) 693-2498.

Contacting OSHA

To report an emergency, file a complaint or seek OSHA advice, assistance or products, call (800) 321-OSHA or contact your nearest OSHA regional or area office listed at the end of this publication. The teletypewriter (TTY) number is (877) 889-5627.

You can also file a complaint online and obtain more information on OSHA federal and state programs by visiting OSHA's website at www.osha.gov.



OSHA Regional Offices

Region I

(CT,* ME, MA, NH, RI, VT*)
JFK Federal Building, Room E340
Boston, MA 02203
(617) 565-9860

Region II

(NJ,* NY,* PR,* VI*)
201 Varick Street, Room 670
New York, NY 10014
(212) 337-2378

Region III

(DE, DC, MD,* PA,* VA,* WV)
The Curtis Center
170 S. Independence Mall West
Suite 740 West
Philadelphia, PA 19106-3309
(215) 861-4900

Region IV

(AL, FL, GA, KY,* MS, NC,* SC,* TN*)
61 Forsyth Street, SW
Atlanta, GA 30303
(404) 562-2300

Region V

(IL, IN,* MI,* MN,* OH, WI)
230 South Dearborn Street, Room 3244
Chicago, IL 60604
(312) 353-2220



Region VI

(AR, LA, NM,* OK, TX)
525 Griffin Street, Room 602
Dallas, TX 75202
(214) 767-4731 or 4736 x224

Region VII

(IA,* KS, MO, NE)
City Center Square
1100 Main Street, Suite 800
Kansas City, MO 64105
(816) 426-5861

Region VIII

(CO, MT, ND, SD, UT,* WY*)
1999 Broadway, Suite 1690
PO Box 46550
Denver, CO 80201-6550
(303) 844-1600

Region IX

(American Samoa, AZ,* CA,* HI, NV,* Northern Mariana Islands)
71 Stevenson Street, Room 420
San Francisco, CA 94105
(415) 975-4310

Region X

(AK,* ID, OR,* WA*)
1111 Third Avenue, Suite 715
Seattle, WA 98101-3212
(206) 553-5930

*These states and territories operate their own OSHA-approved job safety and health programs (Connecticut, New Jersey and New York plans cover public employees only). States with approved programs must have a standard that is identical to, or at least as effective as, the federal standard.

Note: To get contact information for OSHA Area Offices, OSHA-approved State Plans and OSHA Consultation Projects, please visit us online at www.osha.gov or call us at 1-800-321-OSHA.



Appendix A

OSHA Standards that Require PPE

29 CFR 1910, General Industry

Standards that Require the Employer to Provide PPE:

- 1910.28 Safety requirements for scaffolds
- 1910.66 Powered platforms for building maintenance
- 1910.67 Vehicle-mounted elevating and rotating work platforms
- 1910.94 Ventilation
- 1910.119 Process safety management of highly hazardous chemicals
- 1910.120 Hazardous waste operations and emergency response
- 1910.132 General requirements (personal protective equipment)
- 1910.133 Eye and face protection
- 1910.135 Occupational foot protection
- 1910.136 Occupational foot protection
- 1910.137 Electrical protective devices
- 1910.138 Hand protection
- 1910.139 Respiratory protection for M. tuberculosis
- 1910.157 Portable fire extinguishers
- 1910.160 Fixed extinguishing systems, general
- 1910.183 Helicopters
- 1910.218 Forging machines
- 1910.242 Hand and portable powered tools and equipment, general
- 1910.243 Guarding of portable power tools
- 1910.252 General requirements (welding, cutting and brazing)
- 1910.261 Pulp, paper, and paperboard mills
- 1910.262 Textiles
- 1910.268 Telecommunications
- 1910.269 Electric power generation, transmission and distribution
- 1910.333 Selection and use of work practices
- 1910.335 Safeguards for personnel protection
- 1910.1000 Air contaminants
- 1910.1003 13 carcinogens, etc.
- 1910.1017 Vinyl chloride
- 1910.1029 Coke oven emissions
- 1910.1043 Cotton dust
- 1910.1096 Ionizing radiation



Standards that Require the Employer to Provide PPE at No Cost to the Employee:

- 1910.95 Occupational noise exposure
- 1910.134 Respiratory protection
- 1910.146 Permit-required confined spaces
- 1910.156 Fire brigades
- 1910.266 Logging operations
- 1910.1001 Asbestos
- 1910.1018 Inorganic Arsenic
- 1910.1025 Lead
- 1910.1027 Cadmium
- 1910.1028 Benzene
- 1910.1030 Bloodborne pathogens
- 1910.1044 1,2-dibromo-3-chloropropane
- 1910.1045 Acrylonitrile
- 1910.1047 Ethylene oxide
- 1910.1048 Formaldehyde
- 1910.1050 Methylenedianiline
- 1910.1051 1,3-Butadiene
- 1910.1052 Methylene chloride
- 1910.1450 Occupational exposure to chemicals in laboratories

29 CFR 1915, Shipyard Employment

Standards that Require the Employer to Provide PPE:

- 1915.12 Precautions and the order of testing before entering confined and enclosed spaces and other dangerous atmospheres
- 1915.13 Cleaning and other cold work
- 1915.32 Toxic cleaning solvents
- 1915.34 Mechanical paint removers
- 1915.35 Painting
- 1915.51 Ventilation and protection in welding, cutting and heating
- 1915.73 Guarding of deck openings and edges
- 1915.77 Working surfaces
- 1915.135 Powder actuated fastening tools
- 1915.156 Foot protection
- 1915.157 Hand and body protection
- 1915.158 Lifesaving equipment
- 1915.159 Personal fall arrest systems (PFAS)



Standards that Require the Employer to Provide PPE at No Cost to the Employee:

- 1915.154 Respiratory Protection
- 1915.1001 Asbestos

29 CFR 1917, Marine Terminals

Standards that Require the Employer to Provide PPE:

- 1917.22 Hazardous cargo
- 1917.25 Fumigants, pesticides, insecticides and hazardous waste
- 1917.26 First aid and lifesaving facilities
- 1917.91 Eye and face protection
- 1917.93 Head protection
- 1917.95 Other protective measures
- 1917.126 River banks
- 1917.152 Welding, cutting and heating (hot work)
- 1917.154 Compressed air

Standards that Require the Employer to Provide PPE at No Cost to the Employee:

- 1917.92 Respiratory protection

29 CFR 1918, Longshoring

Standards that Require the Employer to Provide PPE:

- 1918.85 Containerized cargo operations
- 1918.88 Log operations
- 1918.93 Hazardous atmospheres and substances
- 1918.94 Ventilation and atmospheric conditions
- 1918.104 Foot protection
- 1918.105 Other protective measures

Standards that Require the Employer to Provide PPE at No Cost to the Employee:

- 1918.102 Respiratory protection

29 CFR 1926, Construction

Standards that Require the Employer to Provide PPE:

- 1926.28 Personal protective equipment
- 1926.52 Occupational noise exposure



1926.57	Ventilation
1926.64	Process safety management of highly hazardous chemicals
1926.65	Hazardous waste operations and emergency response
1926.95	Criteria for personal protective equipment
1926.96	Occupational foot protection
1926.100	Head protection
1926.101	Hearing protection
1926.102	Eye and face protection
1926.104	Safety belts, lifelines and lanyards
1926.105	Safety nets
1926.106	Working over or near water
1926.250	General requirements for storage
1926.300	General requirements (Hand and power tools)
1926.302	Power-operated hand tools
1926.304	Woodworking tools
1926.353	Ventilation and protection in welding, cutting and heating
1926.354	Welding, cutting and heating in way of preservative coatings
1926.416	General requirements (Electrical)
1926.451	General requirements (Scaffolds)
1926.453	Aerial lifts
1926.501	Duty to have fall protection
1926.502	Fall protection systems criteria and practices
1926.550	Cranes and derricks
1926.551	Helicopters
1926.701	General requirements (Concrete and masonry construction)
1926.760	Fall protection (Steel erection)
1926.800	Underground construction
1926.951	Tools and protective equipment
1926.955	Overhead lines
1926.1101	Asbestos

Standards that Require the Employer to Provide PPE at No Cost to the Employee:

1926.60	Methylenedianiline
1926.62	Lead
1926.103	Respiratory protection
1926.1127	Cadmium



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EXHIBIT 2



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• **Standard Number:** 1910.132; 1910.133; 1910.134; 1910.135; 1910.136; 1910.137; 1910.138

July 3, 1995

Mitchell S. Allen, Esquire
Constangy, Brooks, & Smith
Suite 2400
230 Peachtree Street, N.W.
Atlanta, Georgia 30303-1557

Dear Mr. Allen:

This is a response to your letter of September 16, 1994 requesting an interpretation of our Personal Protective Equipment standard, 29 CFR 1910.132-.138. We regret that due to the volume of requests for letters of interpretation or clarification, we were unable to respond to your inquiry sooner. Specifically, you asked if a company with multiple plant locations where similar work functions are performed conducts individual (plant specific) assessments, what is the exposure to the company where, for example, one plant determines that safety shoes are required for a particular job whereas two or three other locations determine that similar personal protective equipment (PPE) is not required for that position.

A hazard assessment is an important element of a PPE program because it produces the information needed to select the appropriate PPE for any hazards present or likely to be present at particular workplaces. We believe that the employer will be capable of determining and evaluating the hazards of a particular workplace, and that where multiple sites are involved, similar analyses will produce similar results. That is, it will be the exception, rather than the rule for management at different sites with similar hazards to choose vastly different PPE. Where such differences occur, they will be addressed on a case-by-case basis by OSHA, and only if the protection provided is inadequate in terms of the standard will OSHA issue citations. Paragraph (d) of the final rule is a performance-oriented provision which simply requires employers to use their awareness of workplace hazards to enable them to select the appropriate PPE for the work being performed. Paragraph (d) clearly indicates that the employer is accountable both for the quality of the hazard assessment and for the adequacy for the PPE selected.

You also asked if an employer has the burden of proving why foot protection has not been required for employees performing the job functions enumerated in section 10 of Appendix B. Appendix B to the standard, which lists occupations for which foot protection should be "routinely" considered, is a non-mandatory appendix provided for guidance. What the employer is required to do is to perform a hazard assessment, and OSHA would expect that an employer will be particularly careful before considering that none of its employees in the listed occupations are exposed to hazards which necessitated the use of PPE. In litigation, of course, it would OSHA's burden to prove that a hazard assessment was not done. OSHA also believes that a standard of objective reasonableness is implicit in the requirement and that accordingly OSHA could cite for an unreasonable assessment. Again, the burden of proof would be on OSHA.

We appreciate your interest in employee safety and health. If we can be of further assistance, please contact Mr. Russelle R. McCollough of my staff, telephone 202-219-8031.

Sincerely,

Raymond E. Donnelly, Director
Office of General Industry Compliance
Assistance

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● **Standard Number:** 1910.132; 1910.1029(h)(1); 1910.272 App A

March 27, 1998

Mr. Daniel T. Hopper, Jr.
Occupational Safety and Health Engineer
4532 39th Street
Zachary, Louisiana 70791

Dear Mr. Hopper:

Thank you for your letter of January 24, requesting an interpretation from the Occupational Safety and Health Administration (OSHA), regarding the use of fire retardant clothing in various industries, which does not include fire fighting brigades, and electrical distribution. In your letter you asked for a response from OSHA for five specific questions, which are listed below.

Question #1

Have there been any directives issued to Area Offices that would mandate the use of Fire Retardant Clothing other than those for fire brigades and electrical distribution workers?

Answer:

The answer to your question is no. However, the Grain Handling Facilities Standard, 29 CFR 1910.272 Appendix A, Section 3, Training, states that the types of work clothing should also be considered in the training program at least to caution against using polyester clothing that easily melts and increases the severity of burns, as compared to wool or fire retardant cotton.

The Coke Oven Emissions Standard, 29 CFR 1910.1029(h)(1) states that the employer shall provide and assure the use of appropriate protective clothing and equipment, such as but not limited to: flame resistant jacket, pants, and gloves.

The Personal Protective Equipment Standard, Subpart I 29 CFR 1910.132(d)(1) requires the employer to assess the workplace to determine if hazards are present, or likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment.

Question #2

Have there been any studies conducted on the economic impact that may be encountered with the use of Fire Retardant Clothing?

Answer:

OSHA has not conducted an economic impact study on the use of Fire Retardant Clothing.

Question #3

If the use of these garments are in fact required, should one, as a Designated Competent Person for the Personal Protective Equipment Standard, be concerned with any associated heat and cold stress factors that may be present due to atmospheric conditions?

Answer:

The answer to your question is yes. Stress factors such as heat and cold atmospheric conditions are hazards that are covered under our Personal Protective Equipment Standard, Subpart I, 29 CFR 1910.132(a).

Question #4

If a company issues fire retardant clothing that is in disrepair knowing that the garments are defective, could they be found in violation of any of the OSHA standards?

Answer:

The answer to your question is yes. The Personal Protective Equipment Standard, Subpart I, 29 CFR 1910.132(e) states that defective or damaged personal protective equipment shall not be used.

Question #5

Could I, as a Safety and Health Engineer, use a negative hazard assessment to determine the need for fire retardant clothing based on the factors such as past history and present Process Safety Management progressions?

Answer:

The answer to your question is yes. 29 CFR 1910.132(d)(1) states the employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall: select, and have each effected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment.

Thank you for your interest in safety and health. If you have any questions or concerns please contact Russelle McCollough of my staff, at (202) 219-8031.

Sincerely,

John B. Miles, Jr., Director
Directorate of Compliance Programs

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