



# National Coalition on Ergonomics

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July 6, 2005

Mr. Robert W. Pitulej  
Deputy Director  
Directorate of Evaluation and Analysis  
Occupational Safety and Health Administration  
United States Department of Labor  
200 Constitution Avenue, NW  
Washington, DC 20210

**Re: *Information Quality Correction Request No. 123 (April 1, 2005)  
Ergonomics Guidelines for Poultry Processing, Retail Grocery Stores, and  
Nursing Homes***

Dear Deputy Director Pitulej:

We received your letter of June 13, 2005, stating that the Department of Labor would need until July 28, 2005, to respond to the above-referenced Information Quality Correction Request. We agree that the Department should take the time necessary to carefully review the issues we have raised, and we look forward to receiving the Department's final response.

During your consideration, we also respectfully ask the Department to take note of two subsequent postings on OSHA's website that underscore the concerns raised in our Correction Request:

First, on page 2 of our Correction Request, we demonstrated that the Guidelines are not tailored to "issues that are unique to the industry or facility." See <http://www.osha.gov/ergonomics/FAQs-external.html>; see also *OSHA Protocol for Developing Industry and Task Specific Ergonomic Guidelines* ([http://www.osha.gov/SLTC/ergonomics/guidelines\\_protocol.html](http://www.osha.gov/SLTC/ergonomics/guidelines_protocol.html)) (promising industry-specific guidelines). A recently posted web page for the lumber and building trades industry, <http://www.osha.gov/SLTC/nlbmda/recognition.html>, provides further evidence that these documents are readily interchangeable among different industries. In that posting, OSHA specifically cites the Grocery Guidelines as a reference addressing "hazards and possible solutions common to the lumber and building material dealer industry." OSHA asserts that, "[a]lthough developed for grocery stores, many of the hazards and solutions apply to the lumber and building material dealer industry." *Id.* These statements reinforce our previously stated concern that the Guidelines do not

meet OSHA's promise of industry-specific suggestions. Instead, the Guidelines represent a broad-brush, scientifically unsupported attack on "manual handling," promoting the same basic approach as the rescinded final standard.

Second, on pages 6 to 7 of our submission, we noted observations made by the American College of Occupational and Environmental Medicine ("ACOEM") about the absence of evidence concerning causality and the "lack of quantitative exposure-response data." Since then, OSHA has provided a link to yet another document on its website that promotes—and even expands upon—erroneous categorical claims concerning causality and quantitative relationships. See <http://www.osha.gov/SLTC/nlbmda/recognition.html> (linking to Princeton Plasma Physics Laboratory ES&H Directive ("Directive"), June 28, 2000, [http://www.pppl.gov/eshis/ESHD\\_MANUAL/safety/occh4.pdf](http://www.pppl.gov/eshis/ESHD_MANUAL/safety/occh4.pdf)). Without reservation or qualification, the Directive asserts that "manual lifting and moving of material" is responsible for a "large number" of injuries and is particularly "conducive to back injury." Directive, §§ 4.1, 4.6. As a remedy, the Directive claims that specific "Manual Lifting Weight Limits" must be observed to "ensure the safety of the employee." *Id.* § 4.6.1. Among other things, the Directive imposes an absolute 50-pound weight limit "[e]ven under ideal circumstances," *id.* § 4.6.1(c), and directs that loads always must be pushed because "[p]ulling loads is unsafe," *id.* § 4.6.1.

The Directive justifies these rigid rules by falsely asserting that "[t]he National Institute for Occupational, Safety, and Health ("NIOSH") recommends a 40-pound limit with a two-hour per day time limit." *Id.* § 4.6.1(c). The NIOSH document cited in the Directive, however, actually recommends an "action limit" of 90 pounds and a "maximum permissible limit" of 270 pounds for lifts performed throughout the day under ideal conditions, based on position, distance moved, and the frequency of the lift. See NIOSH, *Work Practices Guide for Manual Lifting* (1981) (cited in Directive, § 4.7).<sup>1</sup>

More recently, NIOSH issued a "revised" formula that yields a "recommended weight limit" ("RWL") of 51 pounds for lifting tasks extending up to one hour, which reduces to 95% of this level (48.45 pounds) if the task lasts up to two hours. T. Waters, V. Putz-Anderson & A. Garg, *Applications Manual for the Revised NIOSH Lifting Equation* (1994).<sup>2</sup> NIOSH, however, does not

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The formula used to determine these limits is set forth on page 126 of the document. "Ideal" conditions include a load six inches away from the body and 30 inches above the ground, which is lifted no further than 10 inches no more frequently than once every five minutes throughout the day. See *id.* at 126.

<sup>2</sup> The revised equation establishes a "load constant" of 51 pounds, which purportedly "represents the maximum recommended load weight to be lifted under ideal conditions." *Id.* at 12.

recommend this as a ceiling; instead, it advises employers to assess manual lifting jobs using a “lifting index”—the ratio of actual weight to the RWL. NIOSH explicitly acknowledges that workers “may be able to work above a lifting index of 1.0 . . . without substantially increasing their risk of low-back injuries above the baseline rate of injury.” *Id.* at 35. In a subsequent analysis submitted during the 2000 ergonomics rulemaking, NIOSH opined that, while employers should strive for a 1.0 lifting index, “in no case should the lifting index exceed a value of 2.0.” NIOSH, *Posthearing Brief to OSHA* at 42 (Aug. 10, 2000) (Docket No. S-777, Ex. 500-206-1). A 2.0 lifting index, if applied to tasks performed for two hours a day under ideal conditions, would produce a recommended ceiling of approximately 97 pounds.

None of this has been scientifically validated. Indeed, an attempted validation study that included some of the authors of the revised NIOSH equation found that injury risk actually decreased for tasks that exceeded a “lifting index” of 3.0. *See* W. Marras, L. Fine, S. Ferguson, & T. Waters, “The Effectiveness of Commonly Used Lifting Assessment Methods To Identify Industrial Jobs Associated With Elevated Risk of Low-Back Disorders,” *Ergonomics* 42:229-245, at 240-41 (1999).

The Directive also claims that “the Department of Labor recommends a 50-pound limit for repetitious lifting of compact objects.” The source for this statement appears to be a World War II-era bulletin issued by the now-defunct Bureau of Labor Standards, which “recommended a maximum limit (for compact objects) of 50 pounds for male workers and 25 pounds for female workers.” G. Nelson & H. Wickes, *Manual Lifting: Historical Sources of Current Standards Regarding Acceptable Weights of Lift* (<http://www.hazardcontrol.com/ml-historical.html>) (describing Bureau of Labor Standards, U.S. Department of Labor, *Bulletin No. 11 – A Guide to the Prevention of Weight Lifting Injuries*). The Bureau declared this bulletin to be obsolete 40 years ago, five years before OSHA came into existence. *Id.*

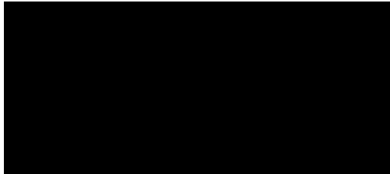
OSHA now breathes new life into this ancient advice by endorsing it on its website. Indeed, OSHA describes this outdated material as setting forth “safety practices that must be established and followed by all those involved in manual lifting,” implying that the weight limits are so well-established and incontestable as to require mandatory implementation. *See* <http://www.osha.gov/SLTC/nlbmda/recognition.html> (emphasis added). Even the most ardent advocates of ergonomic regulation have not been so bold as to suggest—at least in modern times—that the science justifies a rigid weightlifting limit applicable to all workers in all situations. Yet this is exactly what this OSHA-endorsed Directive calls for.

This newly posted document continues the pattern established in the Guidelines, which repeatedly offer broad statements about alleged causes and supposed “solutions” without appropriate scientific support. As “influential”

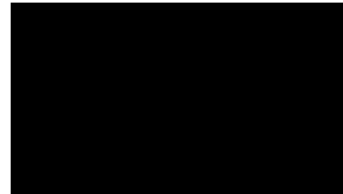
documents, the Guidelines are held to a far higher standard under the Information Quality Act. Further, many employers will no doubt read and rely on these public pronouncements as truly scientifically based guidelines simply because they now have the apparent imprimatur of OSHA. It is imperative, therefore, that OSHA carefully review and reconsider the Guidelines and ancillary web-based materials to ensure that they reflect the appropriate level of scientific uncertainly surrounding these important issues.

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Sincerely,



Co-Chair  
National Coalition on Ergonomics



Co-Chair  
National Coalition on Ergonomics

(Names have been removed in order to protect the privacy of the individuals submitting the complaint.)

cc: Dr. John D. Graham

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