



Advocacy Group

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BY FACSIMILE AND ELECTRONIC MAIL

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Room N-2625
Department of Labor
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<http://www.regulations.gov>

RE: Docket No. OSHA—2007—0026 *Confined Spaces in Construction; Proposed Rule*

Dear Docket Clerk:

On behalf of the more than 235,000 members of the National Association of Home Builders (NAHB), I am pleased to submit these comments on the Occupational Safety and Health Administration's (OSHA) Request for Comments on the proposed rule for *Confined Spaces in Construction* that was published in the *Federal Register* on November 28, 2007 (72 *Federal Register* 67352-67425). As an interested stakeholder in this regulatory activity, NAHB is concerned that changes to the Confined Spaces in Construction standards may have a substantial impact on regulated employers, including home builders, and will impact the ability of our members to provide affordable housing in the country and push homeownership beyond the reach of thousands of Americans.

The National Association of Home Builders is a Washington-based trade association involved in home building, remodeling, multifamily construction, property management, subcontracting, design, housing finance, building product manufacturing and other aspects of residential and light commercial construction. Known as "the voice of the housing industry," NAHB is affiliated with more than 800 state and local home builders associations around the country. NAHB's builder members construct about 80 percent of the new housing units, making housing one of the largest engines of economic growth in the country. Because the revised standard could impact the activities of all of our builders and remodelers, any revisions to OSHA's safety standards could have a substantial effect on the home building industry.

NAHB is concerned that OSHA's proposed Confined Spaces in Construction Standard is confusing, unduly onerous, and would impose disproportionate burdens on general contractors (or so-called "controlling contractors") in the residential construction industry. For these reasons, we

are opposed to the overly broad scope of the proposed Confined Spaces in Construction standard. It inappropriately imposes wide-ranging duties on controlling contractors/host employers and attempts to regulate spaces in residential construction, that may meet OSHA's definition of "confined spaces", but are not likely to cause death or serious physical harm to workers. There are other alternatives to OSHA's proposed rule that could reduce the impacts to the home building industry, while still protecting the safety and health of the construction workers. For these reasons, we would like to offer the following comments on OSHA's proposed Confined Spaces in Construction Standard.

I. General Comments

Currently, OSHA requires construction industry employers to provide safety training to workers who must enter a confined space during construction operations. These requirements are contained in § 1926.21(b)(6)(i), which states "All employees required to enter into confined or enclosed spaces shall be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of protective and emergency equipment required. The employer shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas."

NAHB supports OSHA's efforts to assure safe and healthful working conditions for construction personnel and we generally agree that there is a need for a more detailed and explicit standard governing confined spaces in construction—one that outlines in a simple and straightforward manner the necessary precautions that should be taken by employers to protect their own workers from atmospheric and engulfment hazards in these spaces and that places the responsibility on each employer to protect *each of his* employees when entering confined spaces in construction sites.

Safety is, and continues to be, of high importance to the home building industry and NAHB is at the forefront of enhancing safety and health in our industry. NAHB has recently renewed its alliance with OSHA to provide safety training and education to the residential construction industry workforce. Among the efforts that NAHB has made with the Agency is the production of several safety and health educational materials, including the NAHB-OSHA *Jobsite Safety Handbook*, *Fall Protection Handbook*, *Fall Protection Video*, *Scaffold Safety Handbook*, and *Scaffold Safety Video*.

However, NAHB believes that OSHA has not demonstrated that there are serious recognized hazards in confined spaces in residential structures (i.e. homes) that are likely to cause injuries to workers. OSHA's own data indicates that nearly 86% of all confined space fatalities are occurring in vertical shafts, pits, sewer/pipe/manhole, or tank/water towers, which are considered "typical" confined spaces and that there have been zero (0) fatalities in confined spaces in residential construction between 1992-2000. To place that zero in context, more than 16 million housing units were built between 1990 and 2000.¹ This demonstrates that there is very limited exposure to confined space hazards in residential construction (i.e. home building). In addition, NAHB's own fatality study data shows few, if any, fatalities occurring in confined spaces in home building. NAHB recently conducted a study looking at the causes of fatal injuries

¹ Bureau of the Census, American Housing Survey for 2001, Table 1A-1

in the residential construction industry and using the Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI). In completing this study, we determined that there were 248 (of 1,385) fatalities in residential construction (i.e. home building) from 2003-2006 that were due to exposure to harmful substances or environments. Of these 248, 66% of the fatalities were due to contact with electric current, while 12% occurred by inhalation in open or non-confined spaces. Therefore, we do not believe that OSHA has demonstrated that there is a significant risk of serious injury in confined spaces in residential structures.

II. Proposed Standard Is Confusing

The proposed Confined Space in Construction standard has been confusing to many and is not clear, readable, or easily understandable. The proposed standard appears to be complicated and bounce around from section to section with no logical flow. One NAHB member, who has more than 25 years of construction safety experience and is also a Certified Safety Professional (CSP) commented that the confined space standard in construction was “as complicated and confusing as any standard that OSHA has ever proposed.” Here are a few examples as to why we consider the proposed standard confusing.

First, one of the main problem areas is the proposed new classification system. The current general industry standard (§ 29 CFR 1910.146) has only two classifications of confined space (e.g. permit required vs. non-permit required), while the draft proposed standard for construction has four (4):

- Continuous System PRCS (CS-PRCS);
- Permit Required Confined Space (PRCS);
- Controlled atmosphere confined space (CACS); and
- Isolated Hazard Confined Space (IHCS).

NAHB questions the need to have four different types of confined space classifications. The proposed Confined Space in Construction classification system is not clear because it is difficult to differentiate between the four different classifications/definitions and would not be easily implemented. Compare this to the OSHA general industry confined space standard, where the confined space is permit-required or it is not, the requirements are based on just two classifications, which is simpler to follow and provides for adequate protection of workers. We believe having four different types of confined space classifications is confusing and would eventually lead to non-compliance with the entire confined space in construction standard.

Second, the proposed standard does not follow the typical design of an OSHA standard and is not organized in a manner in which users expect. Typically, OSHA standards follow the format of scope, application, definitions, general requirements, and specific requirements for safety systems (see layout of 1926 Subpart P – Excavations and 1926 Subpart M – Fall Protection). The proposed standard claims to take a logical approach of laying out the sequence for addressing hazards with confined spaces, but this sequence is not clear and loses any effectiveness that OSHA was looking for. For example, 1926.1201 (b) lists the Continuous System PRCS as the first of four confined spaces, but in the proposed standard, the Permit Required Confined Space (PRCS) is the first type addressed, which makes you wonder where the requirements for Continuous System PRCS are addressed. In addition the “general requirements”

for Permit Required Confined Space (PRCS), Controlled atmosphere confined space (CACS) and Isolated Hazard Confined Space (IHCS) are seemingly repeated several times in the standard (i.e. each has preparation for entry, during entry, and training criteria). We suggest that these requirements be simplified and streamlined.

Third, the complexity of the rule can be demonstrated with the non-mandatory appendix. The sample confined space entry permit is nearly five (5) pages long, while the sample verification document is six (6) pages long. Again, these complex and detailed forms would not likely be used and would eventually lead to non-compliance with the entire confined space in construction standard.

Because the proposed standard is complicated and difficult to read, it is likely that users, both builders and trade contractors, will not be able to follow and use the standard. The standard needs to be further simplified and made easy to understand. This could be done in a number of ways, including first, extending the general industry standard (29 CFR 1910.146) to the construction industry and only deviating from general industry standard when necessary to meet the needs of the construction industry. Many entities engaged in construction activities determined that the prudent course of action was to implement general industry confined space standard (§ 1910.146) rather than waiting for OSHA to adopt a Construction counterpart. It is unclear why the Agency has not proposed a standard that generally tracks the general industry confined space standard and only differs from this standard when it is absolutely necessary. NOTE: see section below “Alternatives to Proposed Standard”.

In addition, OSHA could (and should) include a Confined Space Decision Flow Chart, similar to that in § 1910.146, Appendix A (Permit-required Confined Space Decision Flow Chart), in the final Confined Spaces in Construction rule. A flow chart could be of valuable assistance to employers and employees in complying with the appropriate requirements of this standard.

Finally, there is confusion about what specifically, under the proposed standard, OSHA would be expecting builders or contractors to be looking for, and what specific triggers would be established for required actions to be taken. Some of this confusion stems from how OSHA utilizes the term “contractor”, as proposed in § 1926.1203, which we believe is a source of confusion for those working in the home building industry. The general contractors in residential construction are often referred to as a “contractor” and it is not clear what their duties would be in relation to the standard. They are unsure if they are a contractor, controlling contractor, or host employer. For example, § 1926.1204 (b) requires that the “contractor” determine if there are any confined spaces on a construction site and if these spaces are subject to any hazards. Home builders who have reviewed this section were under the impression that they are required to comply with this provision, even if they had no employees who would enter the space. In order to ensure clarity of the standard and each employer’s duties, the term and definition for “Contractor”, as proposed in the standard, should be deleted and a new term “subcontractor” be used as a replacement and defined in accordance with § 1926.13 (c). Subcontractor should be defined as “is a person who agrees to perform any part of the labor or material requirements of a contract for construction, alteration or repair.” This terminology is also consistent with § 1926.16 (Rules of construction) which differentiates between a “prime contractor” and “subcontractors”.

Finally, the overall multi-employer provisions are unclear. NAHB has surveyed its members and has found that some confusion has been caused by the use of the term “host employer.” Although NAHB believes that it knows the answers to these questions, NAHB recommends that OSHA confirm our suggested responses clearly in any hearing announcement so that public participants are not misled during the hearings by the wording of the proposed provisions.

- a. Would the landowner be considered a “host employer”? Suggested answer: To be a “host employer” under the construction standard for confined space entry (subpart AA of 29 C.F.R. part 1926), a landowner would have to satisfy all three of the following criteria: It would have to (a) “own[] or manage[] the property where construction is taking place”; (b) be an “employer”; and (c) be itself “engaged in construction work.” Sections 1926.1202(a) and 1926.1203 (definition of “host employer”). If it satisfied only the first two criteria, it might well be instead subject to host employer provisions of the general industry standard, 29 C.F.R. § 1910.146.
- b. What would be the landowner’s status if it contracts directly with all of the specialty trades? Suggested answer: The landowner would have no duties under the standard if it had no employees at all (a home owner, for example, might fit this category) or had no employees “engaged in construction work” (an owner of an office building might fit this category). Hence, if an owner of an office building or a piece of unimproved land was engaged in none of the construction work, it would not be considered a “host employer” under 29 C.F.R. Part 1926, Subpart AA (though it might well be subject to the general industry standard, 29 C.F.R. § 1910.146). This would not change if it contracted directly with all of the specialty trades for construction services. So long as it did not engage in construction work, it would not be covered as a host employer under the construction standard for confined space entry. If the landowner did have employees and engaged in the construction work, it would be covered under subpart AA as a host employer rather than under the general industry standard. If the landowner engaged in the construction work and also “has overall responsibility for construction at the worksite,” then it would also be the controlling employer.

III. Scope Of The Standard Is Too Broad

OSHA defines a “confined space” in the proposed rule as “a space that has the following characteristics: Is large enough and so arranged that an employee can bodily enter it, has limited or restricted means for entry and exit, and is not designed for continuous employee occupancy.” Certainly, single family homes contain spaces that fit within OSHA’s definition of “confined spaces”, but NAHB does not believe that those spaces are what OSHA had in mind. Indeed, such an interpretation is clearly beyond any reasonable application of the standard. Crawlspace and many attics fit this definition, as could utility closets that contain water heaters, HVAC equipment, or other apparatus that is installed as a feature of the home. In addition, cabinets, unfinished basements (before stairs are installed), swimming pools, window wells, and the area under porches could fall within OSHA’s definition of “confined spaces”. OSHA’s omission of cost estimates or data for single-family construction could mean that OSHA does not consider these spaces to be confined spaces?² Or if they are confined spaces, their omission could indicate

²CONSAD Report, page ES.7, June 8, 2005, states “Excluded from the analysis because F.W. Dodge data exclude all one and two family structures. Also, it is unlikely that many of these structures will have confined spaces.”

they do not present the kind of risk the standard is intended to address. And finally, by omitting costs for single family construction, OSHA could be signaling that it intends to exempt single family construction from the standard. Yet none of this is clear. OSHA must clearly identify the types of spaces and structures it is targeting under the proposal.

If the standard is meant to apply to single family construction, then the costs have been severely underestimated. The amount of single family residential construction is similar in size to the amount of all private non-residential construction combined. Sometimes there is more single family than non-residential, and sometimes the other way around, but they remain of similar magnitude.³ Therefore, OSHA may have underestimated the costs by almost half, by looking at only multifamily and non-residential construction. In addition, OSHA and the Small Entity Representatives from the Small Business Advocacy Review Panel on Confined Spaces in Construction both recognize that single family residential construction may create spaces that would fall under the literal definitions of a controlled space, yet the Regulatory Flexibility Analysis explicitly excludes consideration of this industry sector. If OSHA does not intend to exempt single family construction from the application of the rule, then the Regulatory Flexibility Analysis is fatally deficient, even though a Small Business Regulatory Enforcement and Fairness Act (SBREFA) panel was convened. Also, the cost effectiveness and cost benefit analyses are fatally flawed, because they ignore half of the industry to be regulated.

If OSHA means that the general contractors described in SIC 1521 are highly unlikely to have employees enter a confined space, NAHB agrees wholeheartedly. As long as the standard holds the general contractor responsible for only his/her own employees, the cost to general contractors may indeed be quite small. However, NAHB is concerned that OSHA is attempting an elaborate and extensive expansion of its so-called “controlling employer” doctrine, in which it assumes, contrary to industry practice, that the general contractor has the physical, legal, technical, and commercial ability and right to control the safety operations of all trade contractors or subcontractors on the job site. If true, this expansion could result in significant cost increases. While there are construction projects where the general contractor has a permanent physical presence and supervisory role, that arrangement is not typical of single family construction. Most single family general contractors are very small firms that may send an employee to a particular job site only periodically to check the progress and quality of the work. These inspections may take place in the evening or on weekends, when there are no workers on the site.

NAHB believes that OSHA should exempt attics, crawl spaces, basements, cabinets, and similar areas in home building from the confined space standard, as these do not contain hazardous atmospheres or engulfment hazards. Likewise, NAHB supports OSHA’s exception to the proposed Confined Spaces in Construction for non-sewer construction work regulated by 29 CFR part 1926, Subpart P (Excavations). Confined spaces encountered during trenching and excavation operations in construction are already regulated under this subpart and the safety requirements outlined in 1926.651(g) are sufficient to protect workers from hazardous atmospheres that may be present. The precautions include testing the trench/excavation(s) before workers enter them when a hazardous atmosphere exists or could reasonably be expected to exist (e.g. excavations near landfills or in areas where hazardous substances may be stored) and providing proper respiratory protection or ventilation to prevent exposure to harmful levels of

³ Bureau of the Census, Construction Spending (Value Put in Place).

atmospheric contaminants and to assure acceptable atmospheric conditions. In addition, existing standard 1926.651(g) prescribes the requirements for emergency rescue where hazardous atmospheric conditions exist or may be reasonably expected to develop during work in an excavation or trench. NAHB is in agreement with OSHA that the existing OSHA requirements applicable to excavation activities are sufficient to address and protect employees from confined space hazards in those situations. We also believe that the following should be exempt from the OSHA confined space standard: 1) public water and sewer tap installations from a house to the main line, as these residential taps typically are 1" diameter pipe for water services and 6" diameter pipe for sanitary sewer services and are considered a part of the excavation covered by Subpart P thus not considered "sewer work" (this process is akin to attaching a garden hose to a spigot), and 2) house foundation/basement excavations (which become trenches by definition when formwork, foundations, or walls are constructed) could be considered an enclosed area; but, since it would usually be subject to natural ventilation, it should not be considered a confined space.

Finally, § 1926.1201 (a) states that this standard "sets out safety precautions that must be taken when working within or near a confined space..." NAHB is unsure what the term "near" means; is this working within 1 foot, 5 feet, 20 feet of a confined space? All of these distances could be interpreted as "near" a confined space. This is too vague to allow an employer establish that he or she has complied with the standard. We believe that OSHA should better define the term working "near" a confined space. NAHB suggests that OSHA delete the terms "or near" as this rule should address the protection of workers *entering* confined spaces.

IV. "Controlling Contractor"/"Host Employer" Duties Are problematic

NAHB believes that the proposed "controlling contractor"/"host employer" duties are extremely broad, illegal, do not reflect an appropriate application of responsibilities, and expand the duties of general contractors in the residential construction industry, and are therefore problematic.

a. There Is No Legal Basis For Imposing Duties On "Controlling Employers" Outside The Employment Relationship

Nothing in the words or legislative history of the OSH Act suggests that one employer may be held responsible for conditions to which his own employees are not exposed.⁴ On the contrary, the language of the OSH Act and its legislative history forcefully demonstrate that Congress intended to not impose such liability.

Section 5(a)(2) uses the word "employer." This can only mean that liability is confined to the employment relationship for, just as it is meaningless to speak of one as a "parent" except in

⁴ See John Zebrowski, Note, *OSHA: Developing Outlines of Liability In Multi-Employer Situations*, 62 GEO. L.J. 1483, 1485 (1974) ("nothing in the legislative history or in the Act itself gives guidance" on how standards "should apply to multi-employer situations"); *Horn v. C.L. Osborn Contracting Co.*, 423 F. Supp. 801, 808 (M.D. Ga. 1976) ("No legislative history nor statutory provision has been cited by the Plaintiff to support the proposition that Congress intended to create a duty on behalf of the employer with respect to persons other than its own employees"), *aff'd in relevant part, rev'd on another ground*, 591 F.2d 318, 321 (5th Cir. 1979).

regard to his or her own child, it is meaningless to speak of a person as an “employer” except in regard to his own employee. As one court has observed:

“[E]mployer” and “employee” are correlative terms. Each implies the existence of the other, just as “parent” implies the existence of a “child,” and “husband” implies the existence of a “wife.” A law that defines the rights and duties of husbands and wives has reference to the obligations of each husband to his own wife, not to the wife of another. Similarly, the duty of an employer to employees clearly means to his own employees and not to those of some other employer, unless the language permits no other conclusion.

Horn v. Shirley, 441 S.W.2d 468, 471 (Ark. 1969). This narrow usage of the term can be found in the Act. Thus, section 3(5) defines “employer” as “a person engaged in a business affecting commerce who has employees ...” while section 3(6) defines “employee” as “an employee of an employer who is employed in a business of *his* employer which affects commerce.” (Emphasis added.) These definitions together mean that an “employer” within the meaning of section 5(a)(2) must be defined in reference to “his” employees, not that of another entity. Compare the National Labor Relations Act, 29 U.S.C. § 152(3), which states that the definition of “employee” generally “shall not be limited to the employees of a particular employer”⁵

The two variance provisions of the OSH Act (Sections 6(d) and 6(b)(6)(A)) also provide a clear window into what Congress saw as the duty imposed by section 5(a)(2). They permit an employer to depart from a standard’s literal words if he will provide safe workplaces “to *his* employees” or “safeguard *his* employees.” (Emphasis added.) Thus, the only employers who can obtain a variance are those whose *own* employees are exposed. This necessarily means that Congress contemplated that only such an employer would *need* a variance. See *Melerine v. Avondale Shipyards, Inc.*, 659 F.2d 706, 712 (5th Cir. 1981) (noting these provisions).

Other provisions of the Act show that Congress conceived of duties as pertaining to the employment relationship. Thus, section 6(b)(4) requires that a standard’s delay in effective date be long enough to permit employers to familiarize themselves “and *their* employees” with the new standard. (Emphasis added.) Section 8(e) requires OSHA to afford a right to accompany the inspector to representatives of the employer and “*his* employees.”

A page by page search of the legislative history of the Act reveals that there are no passages whatsoever that suggest extra-employment liability. The Senate committee that principally drafted the OSH Act stated that the duty imposed by section 5(b) of the OSH Act upon employees to obey standards would not diminish “the employer’s responsibility to assure compliance by *his own* employees.” S. Rep. No. 1282, 91st Cong., 2d Sess. 10 (1970) (“Senate

⁵ 29 U.S.C. § 152(3) states in part:

§ 152. Definitions
When used in this subchapter--

* * *

(3) The term “employee” shall include any employee, and shall not be limited to the employees of a particular employer, unless this subchapter explicitly states otherwise

Report”), *reprinted in* Senate Subcommittee on Labor, Legislative History of the Occupational Safety and Health Act of 1970, 92d Cong., 1st Sess. 150 (Comm. Print 1971) (“Leg. Hist.”) (emphasis added). The Committee stated that research and training programs provided by the Act would help commit employees to the safety “efforts of *their* employers.” *Id.* (emphasis added). The OSH Act’s co-drafter, Representative Steiger,⁶ described his substitute bill, which the House passed, as assuring effectiveness and equity to employees “and to those by whom they are employed.” Leg. Hist. at 1060. *See also* Senate Report at 8, Leg. Hist. at 148 (“his employees”); S. Rep. at 10, Leg. Hist. at 150 (“affected employees ... their employers”; S. Rep. at 11, Leg. Hist. at 151 (“employees ... their own places of employment”); H.R. Rep. No. 1291, 91st Cong., 2d Sess. 19 (1970), *reprinted in* Leg. Hist. at 831, 849 (“his employees” protected by variance provision). There are no contrary passages.

OSHA’s early implementation of the OSH Act evinced its understanding that Congress did not intend to impose extra-employment liability. As noted above, when OSHA in 1971 adopted by reference “established federal standards” governing construction and maritime work originally adopted under other federal statutes, it wrote scope provisions limiting their reach under the OSH Act to protection of one’s own employees. *See* 36 Fed. Reg. 10466, 10467-69 (1971), adopting 29 C.F.R. §§ 1910.12-1910.16. These scope provisions bore an unmistakable resemblance to the “his employees” language of the OSH Act’s General Duty Clause.⁷ The Labor Department also forwent adapting for use under the OSH Act the multi-employer liability provision (29 C.F.R. § 1926.16) that it had adopted the Construction Safety Act. OSHA’s early multi-employer citation policy was soon changed by the Field Operations Manual (May 1974) to cover only exposing employers.⁸ Similarly, the independent Occupational Safety and Health Review Commission also appreciated early Congress’s intent on this issue. In *Martin Iron Works, Inc.*, 2 BNA OSHC 1063 (No. 606, 1974), the Commission held that an employer could not be held liable for violations of standards to which his own employees were not exposed.⁹

In sum, there is literally nothing in the Act or its legislative history that contains the slightest support for the imposition of liability outside the employment relationship. On the contrary, all indications are that Congress intended to confine liability to the employment relationship. The statute is not silent on this issue. The words “employer,” “employee,” “employment”, and “place of employment” speak forcefully to it. That is why the D.C. Circuit in *IBP* saw “tension” between the control theory and “the language of the statute.”

⁶ The OSH Act is popularly known as the “Williams-Steiger Occupational Safety and Health Act of 1970.” POPULAR NAMES ACT TABLE, 29 U.S.C.A. p. xxii; title of 29 C.F.R. Part 1975 (2004).

⁷ Even in later rulemakings, OSHA agreed or implied that it lacks the authority to impose extra-employment liability. Thus, in 1990 OSHA decided to not extend liability for construction site safety to engineers, stating in part that “OSHA observes that the Agency’s jurisdiction is based on the employer/employee relationship.” 55 Fed. Reg. 42306, 42311-12 (1990). In 1986, OSHA told the D.C. Circuit that it lacked the authority to impose duties on building owners, remarking that they are “outside the domain of the OSH Act.” OSHA Brief at 96 in *Building & Constr. Trades Dep’t v. Brock*, 838 F.2d 1258, 1278 (D.C. Cir 1988) (remanding issue). (On remand, OSHA stated that it had authority over building owners, but it cited no statutory source. 59 Fed. Reg. 40964, 41013 col. 3 (1994).)

⁸ OSHA FIELD OPERATIONS MANUAL Chap. X, ¶ F.1.b(4) (May 1974): “An employer will not be cited if his employees are not exposed or potentially exposed to an unsafe or unhealthful condition – even if that employer created the condition.”

⁹ *See also Hawkins Constr. Co.*, 1 BNA OSHC 1761 (No. 949, 1974); *Gilles & Cotting, Inc.*, 1 BNA OSHC 1388 (No. 504, 1973), *aff’d in relevant part, vacated in part on another ground*, 504 F.2d 1255 (4th Cir. 1974).

NAHB acknowledges that there is a line of commonly cited cases to the contrary. In addition to *Brennan v. OSHRC (Underhill Constr. Corp.)*, 513 F.2d 1032 (2d Cir. 1975), these include *Marshall v. Knutson Constr. Co.*, 566 F.2d 596 (8th Cir. 1977); *Beatty Equipment Leasing, Inc. v. Secretary of Labor*, 577 F.2d 534, 536 (9th Cir. 1978); *Universal Constr. Co., Inc. v. OSHRC*, 182 F.3d 726 (10th Cir. 1999); *United States v. Pitt-Des Moines, Inc.*, 168 F.3d 976 (7th Cir. 1999); and *R.P. Carbone Constr. Co. v. OSHRC*, 166 F.3d 815 (6th Cir. 1998).

At their core, these cases did little more than observe that section 5(a)(2) – unlike section 5(a)(1) – does not use the phrase “his employees” when it commands each “employer” to “comply” with occupational safety and health standards. But this contrast does not mean that liability can be imposed on so-called “controlling” employers, for the statute nowhere hinges liability on such a concept. An interpretation to be legitimate must rest on *some* source in the language of the statute. *E.g.*, *Conoco, Inc. v. FERC*, 90 F.3d 536, 552-53 (D.C. Cir. 1996), *cert. denied*, 519 U.S. 1142 (1997).¹⁰

As to whether the word “comply” can be stretched to mean that one employer must supervise another, the much-cited contrast in wording in sections 5(a)(1) and (2) would gain the Agency no traction here. The only relevant difference between those provisions is the phrase “his employees” in section 5(a)(1). Its absence from section 5(a)(2) has given rise to the notion that the duty to “comply” in section 5(a)(2) requires an employer to not *create* a violative condition regardless of whether one’s own employees are exposed. *But this difference in wording could not justify a control doctrine.* Nothing in the difference in wording or any other part of the Act supports the imposition of a duty on one employer to supervise the conduct of another. All that section 5(a)(2) says is that an employer must “comply” with “standards” – nothing else. Any control test thus falls far outside the range of “available ambiguity” and is impermissible. *E.g.*, *John Hancock Mut. Life Ins. Co. v. Harris Trust & Sav. Bank*, 510 U.S. 86, 109 (1993) (no deference because agency interpretation “has clearly exceeded the scope of available ambiguity”); *City of Chicago v. Env’tl. Def. Fund*, 511 U.S. 328 (1994) (no deference because the agency’s interpretation “goes far beyond whatever ambiguity [the statute] contains”).

The so-called “controlling employer” doctrine also has a dubious provenance. Although the Commission’s discussion of the so-called “controlling” employer in *Grossman Steel & Aluminum Corp.*, 4 BNA OSHC 1185 (No. 12775, 1976), did not cite any authority, it likely relied on *Brennan v. OSHRC (Underhill Constr. Corp.)*, 513 F.2d 1032 (2d Cir. 1975). But *Underhill* was extremely limited, and imposed no duty to supervise other employers. It concerned only a creating subcontractor, one who placed materials near floor edges above employees of other employers working on lower levels. The Second Circuit held the employer liable because it both created the condition *and* controlled the area in which it occurred:

[I]t was Dic-Underhill that created the hazards and maintained the area in which they were located. It was an employer on a construction site, where there are generally a number of employers and employees. It had control

¹⁰ In the era when the foundational opinions in this field were issued, the Supreme Court had not yet begun to emphasize strongly the importance of basing decisions on statutory language. *See, e.g.*, James J. Brudney & Corey Ditslear, *Canons of Construction and the Elusive Quest for Neutral Reasoning*, 58 VANDERBILT L. REV. 1 (2005) (forthcoming) (noting sharp increase in cases emphasizing tie to statutory language from Burger to Rehnquist Court), available at Social Science Research Network <papers.ssrn.com/sol3/papers.cfm?abstract_id=534982>.

over the areas in which the hazards were located and the duty to maintain those areas. *Necessarily it must be responsible for creation of a hazard.*

513 F.2d at 1039 (footnote omitted; emphasis added). *Accord, United States v. MYR Group, Inc.*, 361 F.3d 364, 366-67 (7th Cir. 2004) (approving liability for creating employer).

The other apparent foundation of *Grossman Steel* was the Seventh Circuit's decision in *Anning-Johnson Co. v. OSHRC*, 516 F.2d 1081 (7th Cir. 1975). But that decision concerned only non-controlling, non-creating subcontractors and, with respect to general contractors, had only the following tentative dictum: "[W]e are not at all sure that a general contractor, who has no employees of his own exposed to a cited condition is necessarily excused from liability under the Act." This said nothing about *when* a general contractor might be liable. *Grossman Steel's* principal rationale for the multi-employer doctrine – that "a hazard created by one employer can foreseeably affect the safety of employees of other employers" (4 BNA OSHC at 1188) – justifies the imposition of liability on at most creating, not controlling, employers. Even the "multi-employer citation policy" in OSHA's first Compliance Operations Manual (Nov. 15, 1971) covered only creating and exposing, not controlling, employers.¹¹

The Commission's decision in *Anning-Johnson Co.*, 4 BNA OSHC 1193 (Nos. 3694 & 4409, 1976), likewise stated, without any factual support or discussion, that "typically a general contractor ... possesses sufficient control over the entire worksite ... to take the necessary steps to assure compliance." The Commission appeared to rely on *Clarkson Construction Co. v. OSHRC*, 531 F.2d 451 (10th Cir. 1976), but that case concerned (among other things) an exposing employer. The same is true of the subsequent decisions in *Knutson Constr. Co.*, 4 BNA OSHC 1759 (No. 765, 1976), *aff'd*, 566 F.2d 596 (8th Cir. 1977), where the Commission found "that Knutson's employees had access to the zone of danger underneath the scaffold," and *Beatty Equipment Leasing, Inc.*, 4 BNA OSHC 1211 (No. 3901, 1976), *aff'd*, 577 F.2d 534, 536 (9th Cir. 1978), which concerned a creating employer.

¹¹ The manual stated at Chap. X, ¶ E, p. X-7:

E. Establishment Operated by Employee of One Employer While Employees of a Second Employer Are Also Working in That Establishment

1. Generally, each employer is responsible for the working conditions of his own employees. Difficult matters of judgment in citing will arise where employees of different employers are working in the same establishment. For example, employees of an employer who operates an establishment may be present, along with employees of a second employer (or contractor) who may be working in or on the same establishment, such as employees whose employer has contracted with the operating employer to perform such work as remodeling, general maintenance, or special services.

2. The following guidelines will be helpful in determining which employer to cite. If a question remains in any case, contact the Regional Administrator for guidance as to particular situations.

a. If an employer creates a violating condition and that condition affects his employees or another employer's employees, or both, then the employer who created the condition will be cited. Two or more employers who create a violating condition may each be cited for the violation.

b. An employer, although not creating the hazard, may be cited if he knew or reasonably should have known of the hazard before permitting his employees to work in the hazardous area or with hazardous equipment.

More importantly, none of the foundational opinions in this area provide legal support for broadly requiring one employer to police the conduct of another. None explain how the limited language of *Underhill* could justify the imposition of a duty on general contractors to seek out and prevent violations by subcontractors. None explain how they could dispense with the element of creation that was essential to *Underhill*, or transmute control over a particular geographical work area into control over the operations of other employers. None cited a source in the language of the Act that authorized it to impose on one entity a duty of supervision over another. And none ever explained or justified the implicit assumption that all general contractors have the resources to police all subcontractors.

Likewise the case law has never been able to prescribe clear and coherent rules of conduct that general contractors can understand and follow. Construction sites are so varied and dynamic that any attempt to prescribe detailed rules of conduct would fail or be unmanageably prolix. The current rule – which amounts to a prescription for “reasonable” oversight – is so vague as to leave general contractors at sea, at the mercy of unscrupulous competitors, and open to unpredictable second-guessing by zealous compliance officers, particularly in the emotional aftermath of an accident. In many segments of the construction industry, the costs of a duty to supervise the safety programs of subcontractors cannot be borne. The economic waste imposed by the doctrine is immense. General contractors ostensibly must learn their subcontractors’ business, duplicate much of their expertise, and check on things that the subcontractor is already required to perform and check on. In the end, inasmuch as general contractors are necessarily more remote from the work than their subcontractors, it is doubtful that the controlling-employer aspect has had anywhere near enough of a salutary effect on employee safety to justify its immense and unpredictable costs.

OSHA has not only carried the idea of the controlling employer far beyond the legal boundaries of the Act. OSHA has carried the idea beyond the ability of all parts of the regulated community to accept its enforcement efforts as legitimate. It is not required that an agency regulate vigorously at the extreme outer boundaries of legal authority that was created by imaginative interpretation rather than a solid grounding in statutory language, and it is rarely wise. In sum, proposed § 1926.1202(d) should not be adopted.

b. There Is No Legal Basis For Imposing Duties On “Controlling Employers” That Are Not Specified In A Standard

NOTE: In these comments, we use the term “broad controlling-employer doctrine” to refer to the practice of imposing a duty not specified in a standard on an employer by reason of being a “controlling” employer. We use the term “narrow controlling-employer doctrine” to refer to the practice of imposing a duty specified in a standard on an employer by reason of being a “controlling” employer; an example can be found in, for example, § 1926.752(a) (steel erection; “controlling contractor” to notify contractors regarding strength of footings, etc.).

Without at all conceding that OSHA has the authority to impose liability on so-called “controlling” employers, it is the position of the NAHB that any such liability could not be imposed unless a standard specifies such duties.

Although proposed § 1926.1202(d) speaks of the duties of controlling contractors “under this standard” (*i.e.*, subpart AA), the proposed subpart nowhere states what those duties are nor indicates where they can be found. The reference to OSHA Instruction CPL 2-00.124, Multi-Employer Citation Policy (Dec. 10, 1999) in the preamble at 67356 col. 3 suggests that the reference to unspecified duties was deliberate, and that OSHA intends to imply that a “controlling employer” is broadly responsible for confined space entries on a multi-employer site, even if the controlling employer’s own employees do not participate and would not be affected by any confined space entry.

Section 5(a)(2) may not be used to impose controlling-employer liability when a standard does not specify it, and proposed § 1926.1202(d) accordingly should not imply that such liability exists when a standard does not specify it. Section 5(a)(2) states that each employer “shall comply with ... standards promulgated under this Act.” The conduct OSHA has sought to impose on the controlling employer under the broad controlling-employer doctrine is not compliance with a standard. OSHA instead seeks to force controlling employers to engage in the practices of inspecting, supervising, and punishing the behavior of contractors – and thereby force *them* to comply with a standard. OSHA Instruction CPL 2-00.124, Multi-Employer Citation Policy (Dec. 10, 1999) (controlling employer must “conduct[] periodic inspections of appropriate frequency”; “implement[] an effective system for promptly correcting hazards; “enforce[] the *other employer’s* compliance with safety and health requirements with an effective, graduated system of enforcement and follow-up inspections”) (emphasis added), *relied upon* in 72 Fed. Reg. at 67356 col. 3. None of these practices are specified in proposed subpart AA.

A pre-condition for liability under section 5(a)(2) of the Act is that the required conduct be specified in a standard. Not only does section 5(a)(2) impose an obligation to comply only with a “standard promulgated under this Act,” but section 3(8) defines a standard as one that “requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes ...” Thus, the “conditions” or “practices” that OSHA seeks to “require” must be in a “standard promulgated under this Act.” To be so promulgated, they must be published for public comment, and be supported by substantial evidence of, *inter alia*, feasibility, significant risk¹² and “reasonableness.”¹³ They must undergo review under the Paperwork Reduction Act, 44 U.S.C. §3501 *et seq.*; the Regulatory Flexibility Act of 1980, 5 U.S.C. §601 *et seq.*; and the Small Business Regulatory Enforcement and Fairness Act, 5 U.S.C. §801 *et seq.* (SBREFA). A construction rule must be considered by the National Advisory Committee on Construction Safety and Health (ACCSH).¹⁴ They must then be approved by a departmental official accountable to the President, be approved by the Office of Management and Budget, and be published in the Federal Register for codification in the Code of Federal Regulations. This process forces agencies to be realistic and balanced, to base rules on facts rather than guesswork,¹⁵ and to write with

¹² Section 3(8), 29 U.S.C. § 652(8), requires that standards be “reasonably necessary and appropriate.” This means that they must be technologically and economically feasible (*Am. Textile Mfgs. Inst. v. Donovan*, 452 U.S. 490, 504 (1981)) and must regulate a significant risk. *Industrial Union Dep’t v. American Petroleum Institute*, 448 U.S. 607 (1980).

¹³ *Atlantic & Gulf Stevedores, Inc. v. OSHRC*, 534 F.2d 541, 551 (3d Cir. 1976).

¹⁴ See § 1911.10(a); *National Constructors Ass’n v. Marshall*, 581 F.2d 960 (D.C. Cir. 1978).

¹⁵ For example, the SBREFA process caused OSHA to withdraw draft provisions of a proposed chromium standard. “Supporting Statement for the Information-Collection Requirements of the Chromium (VI) Standard for General Industry, Maritime, and Construction ... (2004), available at www.osha.gov/Reduction_Act/1218-AB45.html (no

clarity. Inasmuch as “conditions” or “practices” that are “required” but have not been “promulgated under this Act” in this manner are not “standards” under section 3(8) or enforceable under section 5(a)(2), the broad controlling-employer doctrine is inconsistent with the language of the Act.¹⁶

The broad controlling-employer doctrine also violates the intent of Congress. The legislative history of the Act makes clear that Congress intended that amorphous statutory doctrines not govern employer conduct in preference to duties specified by standards. Take, for example, the General Duty Clause of the Act, section 5(a)(1), 29 U.S.C. § 654(a)(1), which was controversial and much criticized for its amorphousness.¹⁷ The Senate committee that principally drafted the Act stated that the General Duty Clause “would not be a general substitute for reliance on standards but would” protect employees “working under special circumstances for which no standard has yet been adopted.”¹⁸ For that reason, courts have emphasized that “enforcement through the application of standards is preferred because standards provide employers notice of what is required under the OSH Act.”¹⁹ The Clause was hemmed in by several criteria – that a hazard be “recognized,” that the hazard be “serious,” that the hazard affect one’s own employees, that it impose only feasible requirements, and that it would be displaced by any applicable standard. The Clause was also thought to echo an already-existing common-law duty.²⁰

application to maritime and construction; no exposure monitoring, action level; limited medical surveillance; no regulated areas).

¹⁶ See generally the excellent discussion of this oft-overlooked point by Commissioner Visscher in *McDevitt Street Bovis, Inc.*, 19 BNA OSHC 1108, 1113 (OSHRC 2000) (dissenting opinion):

The employer's duty under § 5(a)(2) of the Act is to "comply with occupational safety and health standards promulgated under this Act." A general contractor's duty to supervise, however, cannot be found in any of the standards thus far promulgated by the Secretary. On the contrary, the Secretary has chosen *not* to impose this duty on general contractors. In establishing her initial body of construction safety standards as permitted under OSH Act section 6(a), 29 U.S.C. § 655(a), the Secretary adopted the standards that had been previously promulgated under the Contract Work Hours and Safety Standards Act (Construction Safety Act), 40 U.S.C. § 333. The regulations under the Construction Safety Act include a provision that does establish a broad duty for the "prime contractor" to assure safety compliance throughout the job. *See* 29 C.F.R. § 1518.16. But when the Secretary adopted Construction Safety Act standards as OSH Act standards, she chose not to include that provision, nor has she since proposed any such standard of her own.

In the absence of a standard setting forth MSB's duty to supervise, the majority opinion cites two possible "sources" for MSB's duty to supervise. First, the majority says that MSB is "responsible for the violations under the multi-employer liability doctrine." But that simply begs the question, for the doctrine cannot impose a duty that is not imposed by a standard. Second, the majority appears to base MSB's duty to supervise on the presence of MSB employees on the workplace, as well as contract provisions that allowed MSB to demand that CPD comply with safety requirements. But the majority can point to no standard as a source for the proposition that a general contractor who is present on the worksite has a legal duty under the OSH Act to supervise and enforce standards against the subcontractors. ...

¹⁷ *E.g.*, H. REP. NO. 91-1291, at 50-51 (1970) (minority views) ("H. REP."), reprinted in SUBCOMM. ON LABOR, SENATE COMM. ON LABOR & PUBLIC WELFARE, THE LEGISLATIVE HISTORY OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 at 889-81 (Comm. Print 1971) ("LEG. HIST."); floor remarks of Mr. Smith, reprinted at 980.

¹⁸ S. REP. NO. 91-1282, at 10 (1970) ("S. REP."), reprinted in LEG. HIST. at 150.

¹⁹ *Metzler v. Arcadian Corp.*, 110 F.3d 1192, 1196 (5th Cir. 1997); *see also id.* at 1199 (standards are "preferred enforcement mechanism"). *See generally Usery v. Marquette Cement Mfg. Co.*, 568 F.2d 902, 905 n.5 (2d Cir. 1977) ("The standards presumably give the employer superior notice of the alleged violation and should be used instead of the general duty clause whenever possible.").

²⁰ S. REP. at 9, LEG. HIST. at 149.

By contrast, the duty imposed by the broad controlling-employer doctrine is far more amorphous than the General Duty Clause. See *Anning-Johnson Co.*, 4 BNA OSHC 1193, 1200-01 (OSHRC 1976) (Commissioner Moran, dissenting) (doctrine imposes “broad nebulous principles even more indeterminate than the General Duty Clause”). The duties imposed by the broad controlling-employer doctrine are not tethered to any standard, and can smother specific multi-employer provisions specified in a standard; they bear no relationship to but instead contravene common law principles; they are not limited to industry practice or knowledge, or to serious hazards; by definition they are not confined to protection of one’s own employees; and, worse of all, they are limited by only the concept of “reasonableness,” which in reality provides no guidance at all.

The broad controlling-employer doctrine is also inconsistent with the structure of the Act. As this rulemaking indicates well, the broad controlling-employer doctrine undermines the rulemaking process, for it makes pointless any attempt to put specificity in a standard’s specific multi-employer provisions. The broad controlling-employer doctrine levels the contours in any specific multi-employer provision and thus nullifies the rulemaking decisions that gave rise to them. No matter how disciplined the rulemaking process, no matter how sensible the limits placed on a duty of a controlling employer in a rulemaking, the broad controlling-employer doctrine undermines them. And no controlling employer could feel safe in complying with only a specific multi-employer provision in a standard, for it would have notice of when it had done enough.

NAHB understands that OSHA can point to several court and Commission decisions that uphold the broad version of controlling-employer liability. Likewise, employers can point to several decisions that uphold or suggest a contrary view. NAHB believes, however, that in none of the cases upon which OSHA might rely has a court, in a fully-briefed case, examined in detail the argument that the broad version of controlling-employer liability is objectionable on the grounds above.

The above partly explains why in large sectors of the construction industry, the broad controlling-employer doctrine is seen as illegitimate. NAHB asks OSHA to understand why this perception exists. Today, general contractors, and especially residential builders and other small general contractors, are faced with uncertain and unrealistic demands that have never been imposed in rulemaking but that are imposed *ad hoc* by OSHA inspectors and *post hoc* by the administrative law judges and members of the Occupational Safety and Health Review Commission. The demands are based on a doctrine that originated in a dictum in a Commission decision (*Grossman Steel & Aluminum Corp.*, 4 BNA OSHC 1185 (OSHRC 1976)) in which no general contractor participated and in which the point was not briefed. That dictum was, in turn, based on factual and legal assumptions that, while they may have held true at one time in some segments of the construction industry (the large commercial construction industry of the mid-1970’s), they do not now hold true in the home building industry and likely never did.

The resulting broad controlling-employer doctrine requires home builders to be the policemen of specialized contractors even when their own craft workers are off the jobsite and

even when – as is increasingly the case – they have no craft workers.²¹ It requires them to make sure that subcontractors train, oversee and discipline their own employees.²² It forces them to ensure the safety of equipment that their own employees will never use and to oversee the safety of tasks in which they do not participate.²³ It also imposes large and unbearable costs and burdens directly on home builders.²⁴

The home building industry has many small firms that operate over limited geographic areas. The vast majority of NAHB single-family home builders are very small. About 81 percent of them build fewer than 25 homes per year; about 61 percent build ten homes or fewer. Competitive pressures to hold down costs, and thus prices to customers, force them to be lean in capital and labor. These pressures, in turn, force them to rely heavily on specialized subcontractors to perform much or even all of the actual labor. Work typically performed by subcontractors includes excavation, framing, roofing, plumbing, electrical, tile, finish carpentry, masonry, painting, dry wall, and paving. During the past 40 years, this trend has significantly accelerated. In 2003, two-thirds of home builders subcontracted 75 percent or more of the construction costs, whereas in 1959 only 31 percent of them subcontracted that percentage. About 19 percent of the builders subcontracted less than 25 percent of their construction costs in 1959 compared to only 4 percent of builders in 2003. In 2002, 26 subcontractors were used on an average home, compared to 23 in 1999.²⁵ This ever-increasing trend explains why the home-building industry finds it increasingly difficult to meet the demands of the broad controlling-employer doctrine.

Because their volume of work is unpredictable and seasonal, home builders must keep their managerial and laboring workforces small. They *cannot*, therefore, maintain on their payroll the number of managers that the controlling-employer doctrine requires for supervision of their subcontractors' safety practices. It is common for a small builder with no craft employees (*i.e.*, laboring employees) of his own to have only a few (sometimes no more than one or two) managerial employees, who must travel back and forth among about four sites scattered around a 50 square mile area. In addition, subcontractors and their employees work off and on at the typical home building site; the general contractor schedules the subcontractors, but consistent with their status as subcontractors, the general contractor often has little control over and less knowledge of when they might be working on a given site. Subcontractors set their own hours and days of work, although they will accommodate the builder's need with respect to the schedule for the project. The builder knows *something* about every specialized contractor's work, and has overall responsibility to ensure that the home is satisfactorily completed, but he does not control the means and methods of the subcontractors' work and for the reasons discussed above the builder does not have the ability to know whether the subcontractor is diligently implementing its safety program, or that the subcontractor's employees are properly trained.

²¹ *E.g.*, *Bertrand Goldberg Assocs.*, 4 BNA OSHC 1587 (OSHRC 1976).

²² See *R.P. Carbone Constr. Co. v. OSHRC*, 166 F.3d 815, 820 (6th Cir. 1998) (general contractor "must apprise itself as to what safety efforts the subcontractor has made"), citing *Blount Int'l Ltd.*, 15 BNA OSHC 1897, 1900 n.3 (OSHRC 1992).

²³ *E.g.*, *McDevitt*, 19 BNA OSHC at 1108-09 (lead opinion) and 1113 (dissenting opinion).

²⁴ OSHA has acknowledged that, in a rulemaking, it "must respond rationally to ... differences among ... industry sectors." 57 Fed. Reg. 6356, 6399 (1992) (PSM preamble), citing *Building and Constr. Trades Dep't, AFL-CIO v. Brock*, 838 F.2d 1258, 1272-73 (D.C. Cir. 1988).

²⁵ The information in this paragraph is from Gopal Ahluwalia, "Subcontracting and Channels of Distribution," HOUSING ECONOMICS (May 2003). That article is attached.

Most general contractors do not have the resources or expertise to recognize, discover, and correct hazards created by the specialty trade subcontractors. General contractors use the specialty trade subcontractors because they do not have the resources, experience, and expertise to perform the work and identify or correct related hazards; for this reason, the broad controlling-employer doctrine threatens to destroy the economies created by specialization. The requirement that punitive sanctions be imposed by the general contractor is also quite inappropriate. The only sanction that can be imposed directly is to exclude the subcontractor from the site but that is not feasible because it would essentially shut down the job or throw it so off-schedule as to threaten the profitability of the operation. See *IBP, Inc. v. Herman*, 144 F.3d 861, 865-66 (D.C. Cir. 1998) (cancellation of contract like using a “howitzer to hit a small target”); *Anning-Johnson Company v. OSHRC*, 516 F.2d 1081, 1090 (7th Cir. 1975) (“[T]he withdrawal of a single subcontractor, upon whose work future construction depends, could conceivably cause an entire project to shut down.”); cf. *Grossman Steel & Aluminum Corp.*, 4 BNA OSHC 1185 (OSHRC 1976) (withdrawal of employer not required; “unrealistic”).

It is not possible, therefore, for home builders to comply with the requirement of the broad controlling-employer doctrine that they supervise all subcontractors.²⁶ The broad controlling-employer doctrine is disruptive of established working relationships and threatens to undermine the industry’s competitive structure. While its effects have been difficult to withstand at all times, they are difficult especially now, when the industry is under considerable economic stress.

These problems are exacerbated by the vagueness of the broad controlling-employer doctrine, which gives home builders no clear idea of how much oversight is enough. The policy tells them only that they must exercise “reasonable oversight” – which provides them with no useful guidance and permits unpredictable second-guessing by OSHA and the Commission. As former Commissioner Visscher noted in *McDevitt*, 19 BNA OSHC at 1115: “The ‘duty to supervise’ ... lacks any definition as to its scope. ... W[as the general contractor] to walk the worksite more frequently? Hire separate safety inspectors? Train [subcontractor] employees on how to erect scaffolding? Assume permanent responsibility for [the subcontractor’s] OSHA compliance?” The vagaries of the broad controlling-employer doctrine not only encourage disrespect for OSHA but put home builders who do try to oversee subcontractors at an unfair disadvantage; they can be underbid by builders who take advantage of the broad controlling-employer doctrine’s lack of clarity and can allocate less money to such oversight. Without at all conceding that OSHA has the authority to impose liability on so-called “controlling” employers, NAHB observes that this phenomenon would be far less likely to occur if standards specified clear controlling employer duties.

Again, without at all conceding that OSHA has the authority to impose liability on so-called “controlling” employers, NAHB would, if OSHA is determined to force the issue, urge OSHA to, instead of relying on the broad controlling-employer doctrine, adopt standards stating what home builders and contractors on small construction sites are expected to do with respect to protection of the employees of their contractors. This would not be the first time that the Agency has adopted rules specially tailored to the residential construction industry. See, e.g., §§ 1926.501(b)(13) and 1926.502(k) (fall protection provisions for “residential construction”);

²⁶ See 57 Fed. Reg. at 6399 (standard is economically infeasible if it “threaten[s] massive dislocation” in an industry, citing *American Iron and Steel Inst. v. OSHA*, 939 F.2d 975, 980 (D.C. Cir. 1991)).

OSHA Instruction STD 03-00-001 (formerly STD 3.1), Interim Fall Protection Compliance Guidelines for Residential Construction (1999). Nor would it be the first time that broadly-applicable rules have posed special problems for the home building industry.²⁷

For example, if a home builder or other small project builder who is a general contractor is expected to be continuously on the job site because it has its own craft employees involved in the actual building process, a standard could state how often it is expected to inspect worksite operations in which its own employees are not engaged. A weekly inspection would likely be a reasonable choice of frequency. As to subject matter, the standard could specify the points that the weekly all-crafts inspection would feasibly cover; these would be confined to hazards that are commonly recognized (*i.e.*, not those that might require special expertise or knowledge), such as personal protective equipment (including the wearing of safety harnesses) and guardrails on building edges. Such a standard might state a presumption that, unless all contractors agree in writing on a different allocation of responsibility, such a home builder would provide and be responsible for guardrails on floor edges, provision of temporary power circuits with ground fault circuit interrupters (GFCIs), and an onsite trash-collection bin, but that contractors who erect a scaffold would be responsible for scaffold safety features such as guardrails. It might state that such a home builder must notify a creating, controlling or exposing subcontractor of any safety infractions that it sees or that is brought to its attention, but would not require that the builder impose punitive sanctions on the subcontractor. The documentation created by such a system would provide OSHA compliance safety and health officers with a clear view of the safety conditions at the worksite, and the quality of the efforts that a particular contractor did, or did not, make. The knowledge that such a record would exist and would be available to OSHA would serve as a deterrent to subcontractors who might be tempted to ignore warnings.

On worksites in which the general contractor is not continuously present or lacks its own craft employees involved in the actual building process, the standards could require instead that unless all contractors with craft employees involved in the actual building process agree in writing on the designation of a contractor as the lead (controlling) contractor, the highest tier contractor(s) who do have craft labor working on the job would each be considered to be controlling contractors. A failure to so agree would thus have the effect of depriving them of the multi-employer defenses recognized in case law. Each of them would, therefore, have to engage in the weekly inspection and other activities outlined above. Without at all conceding that OSHA has the authority to impose liability on so-called “controlling” employers, this system should, if OSHA is determined to impose some sort of controlling-employer liability, be substituted for proposed § 1926.1202(d) at least in residential construction (generally, SIC Codes 1521 and 1522) and in construction work with less than 15 workers usually present at one time.

A perception of political legitimacy lends public respect, moral force and practical effectiveness to governmental programs. Proposed § 1926.1202(d) would endorse and perpetuate a broad doctrine that lacks perceived political legitimacy and will fail to reach OSHA’s goals in a manner that could justify its many costs. Without at all conceding that OSHA has the authority to impose liability on so-called “controlling” employers, if OSHA is determined to force the issue, it should at least shift away from the broad controlling-employer doctrine and to the narrow

²⁷ See Report of the Hazard Communication Workgroup to the National Advisory Committee on Occupational Safety and Health (NACOSH) (1996) (remarks by Michael O'Brien of NAHB re inappropriateness of reliance on MSDS's rather than labels in homebuilding).

controlling-employer doctrine. Not adopting proposed § 1926.1202(d), or substituting for it a special set of rules for home builders and other small employers, would be perceived as less illegitimate scheme than the present, completely untethered broad controlling liability scheme.

c. Expansion Of “Controlling Employer” Duties Is Inappropriate

Proposed § 1926.1202(d) should not be adopted. It states:

§ 1926.1202 *Scope*.

* * *

(d) The duties of controlling contractors under this standard include, but are not limited to, the duties specified in § 1926.1204(a).

We first make a technical observation about a possible drafting error. Section 1926.1202(d) appears to state that the duties of so-called “controlling” contractors are not limited to the duties specified in paragraph (a) of proposed § 1926.1204. The limitation of the cross-reference to paragraph (a) may be in error, for paragraph (d) of proposed § 1926.1204 also purports to impose a duty on “controlling” employers. We infer from the preamble that a reference to “§ 1926.1204,” or § 1926.1204(a) and (d)”, rather than to “§ 1926.1204(a)” was meant.

This provision should be deleted. First, NAHB vigorously disagrees with the underlying premise of this proposed provision – that the OSH Act permits the imposition of duties on employers because they are so-called “controlling” employers. The OSH Act, properly construed, does not impose liability on the basis of so-called “control” for conditions that neither affect a controlling employer’s own employees nor were physically created by the controlling employer. Second, assuming solely for the sake of argument that there can be under the OSH Act liability as a so-called “controlling employer” for conditions that neither affect a controlling employer’s own employees nor were physically created by the controlling employer, at most it would only be for violating duties of controlling employers that are specified in a standard.

d. Information Exchange Requirements Are Burdensome And Unrealistic

Proposed § 1926.1204(a) states:

§ 1926.1204 *Worksite evaluation, information exchange, and coordination*.

* * *

(a) Neither the controlling contractor nor the host employer is required to obtain the information listed in this paragraph. However, if they have it, they must provide it to the contractor for the contractor’s evaluation before the contractor first enters a confined space:

NAHB most vigorously disagrees with the underlying premise of this proposed provision – that the Occupational Safety and Health Act of 1970 (OSH Act or the Act), 29 U.S.C. 651 et seq imposes duties on so-called “controlling” employers. For that reason alone, this provision may not be adopted.

Without at all conceding that OSHA has the authority to impose liability on so-called “controlling” employers, no such information-exchange provision is appropriate, necessary or

feasible for the home building industry except possibly where already-existing sewers are to be entered. The essential problem is that in the home building industry, any information that the so-called “host” or “controlling” employer would have would almost never be of any use at all to subcontractors who planned to enter what might be classified as a “confined” space. Conditions on such worksites change so rapidly, and the probability of a hazardous confined space on a new home site is so low in the first place, that any such information would either quickly become useless, or would always be so near to useless, that any increase in employee safety or health could not even arguably justify the burden of compliance. Outdated information could even become a trap, by mis-describing the site conditions. That burden would include the administrative costs of receiving, classifying, filing, retaining, and then forwarding scattered information and papers. In the home building industry, the burden of compliance balanced against the vanishingly small likelihood that the provision would ever be of any use to employee safety or health militates in favor of making the provision inapplicable there.

Again without at all conceding that OSHA has the authority to impose liability on so-called “controlling” employers, or that any such provision should apply in the home building industry, this provision is flawed for another reason: It does not condition the provision of information on the making of a request by the contractor planning to enter a space. If any such provision were to be adopted, the words “on request” should be added after “provide it”. Any such provision should make clear that the so-called “controlling” employer is to provide that information “on request.” While OSHA’s “controlling employer” theory is unrealistic in many construction settings, and especially on home building sites, the proposed rule is even less practical and even more out of keeping with the realities of the construction site. Host employers or controlling contractors often will not know in advance whether or when specialized contractors will be entering a confined space. Typically general contractors on home building jobsites have a general knowledge of the work and areas their subcontractors are working in, but as a job progresses the subcontractors could create confined spaces for themselves or others which may need to be accessed in the course of their work. Therefore, the general contractors would not know whether or when to provide information they might have. Hence, any such provision should be written so that a contractor who plans on entering a confined space be required to request that the so-called “controlling” employer provide information that it may have.

NAHB recognizes that some “host” employers or “controlling” contractors in large commercial construction work might, to comply with such a provision, provide certain information at the start of the job in a package, but at this early stage such packages may not convey complete information. Requiring the “controlling” employer to convey the required information as it comes to his attention may result in information coming to the specialized contractors piecemeal as the host employer or controlling contractor learns of it. Such piecemeal transmission would be burdensome and increase the likelihood that some of the information will be lost or not conveyed to the proper person. The better solution is to make clear that the “host” employer or “controlling” contractor is to provide whatever information it may have when a contractor planning an entry requests it.

This change would also, as a practical matter, conform the assumption behind the construction standard to that behind the general industry standard. The contractor duties under the general industry standard are triggered when the “host” employer “arranges to have employees of another employer (contractor) perform work that involves permit space entry.” By making such

an arrangement, the “host” employer would know of the entry in advance. Having the entering contractor request the information from the “host” employer or “controlling” contractor would convey that same knowledge to the “host” employer, and the two standards would effectively be conformed.

Finally, OSHA should make clear that the language of this provision would create merely a “pass-through” requirement – i.e., that it would not require the “host” or “controlling” employer to evaluate the information that it provides. Such a requirement is not only not imposed by the words of the proposed provision, but as explained elsewhere in these comments, would be impractical in many settings in the home building industry.

e. Coordination Procedures Are Unworkable

Proposed § 1926.1204(d) should not be adopted. That provision states:

§ 1926.1204 *Worksite evaluation, information exchange, and coordination.*

* * *

(d) If more than one employer will have employees in the space at the same time, the controlling contractor shall coordinate entry operations with the contractors.

The rationale for the provision as a whole is to protect employees “from hazards that could result from a lack of coordination between contractors in the space.” *Id.* at 67361-62. The rationale for placing a duty of coordination on the controlling contractor is that it is “in the best position to ensure adequate coordination between contractors whose work (and associated hazards) may affect one another.” *Id.* at 67361.

Without at all conceding that OSHA has the authority to impose liability on so-called “controlling” employers, this provision is inappropriate and infeasible in all construction settings, and especially in residential construction. The proposed provision would require the so-called “controlling” employer to determine if a space is regulated under part AA and then “coordinate” entry “operations” even if the controlling employer is not as knowledgeable of the hazards as the specialty trade subcontractors, even if the controlling employer has *no* knowledge of the hazards or of how to coordinate such an entry, and even if the controlling employer will not be present on the worksite during all parts of the operation. The controlling contractor might not even know that an entry is contemplated.

The basic problem is that the assumption underlying its rationale is frequently untrue, and is very frequently untrue in the residential housing industry. The controlling contractor is frequently *not* “in the best position to ensure adequate coordination between contractors whose work (and associated hazards) may affect one another.” General contractors, especially small residential general contractors, typically have only general knowledge. They often lack the knowledge or expertise to determine and classify the trade subcontractors’ confined or hazardous enclosed spaces, especially if the hazards will evolve or change depending on the chemicals or machinery that the subcontractor introduces into the space without the controlling employer’s knowledge. The controlling contractor may not even be on the jobsite when an entry begins. Yet, the proposed provision makes no distinction based on whether expertise or presence exists in a particular case. Placing broad responsibility on an entity without expertise or knowledge is a sure-

fire recipe for endangering rather than protecting employees. Rarely has NAHB seen a proposed provision so fraught with problems, so lacking in justification, and so unrealistic in its assumptions.

NAHB urges OSHA to delete this provision. At a minimum, it should be re-written to closely resemble the general industry provision (§ 1910.146(c)(8)(iv)), which requires a host employer to coordinate entry operations with a contractor only when the host employer and the contractor *both* have employees working in or near a permit space.

f. Small Business Advocacy Review Panel Recommended Removal Of “Controlling Contractor” Provisions

The Small Business Advocacy Review Panel on the Draft OSHA Standard for Confined Spaces in Construction stated their concern about the “controlling contractor” provisions, which they believed would alter the existing relationship between contractors and subcontractors with little gain in reduced risk to employees. Panel members noted that these provisions add requirements for the “controlling employer” and “host employer” who may be “lacking in knowledge and experience” of confined space hazards and that most general contractors (i.e. controlling contractor/host employer) do not have the resources or expertise to recognize, discover, and correct hazards created by the specialty trade subcontractors. It is not productive to put responsibility in the hands of people who may not be capable to act on it.

This panel recommended that OSHA consider removing the “controlling contractor” provisions or clarifying the purpose of this provision, which we believe OSHA has not. Every Small Entity Representative made this recommendation, which was submitted to the Assistant Secretary of Labor for OSHA in November 2003 by the Small Business Advocacy Review Panel. To ignore the recommendation of every one of the Small Entity Representatives is to flout the Regulatory Flexibility Act.

V. Alternatives To Proposed Standard

An alternative to the proposed Confined Spaces in Construction standard would be to extend the general industry standard (29 CFR 1910.146), to the construction industry and only deviate from general industry standard when necessary to meet the needs of the construction industry.

OSHA states in the preamble to the Confined Spaces in Construction standard rule that the Agency does not believe that the general industry standard adequately addresses the unique characteristics of confined spaces in construction because the general industry standard does not specify the appropriate level of employee protection based on the hazards created by construction activities performed in confined spaces. OSHA recognizes that the confined space in construction standard varies substantially from the general industry standard. OSHA also notes that the Advisory Committee for Construction Safety and Health (ACCSH) established in 1994 that the general industry standard “did not meet the needs of the construction industry....” However OSHA has failed to recognize and understand that many construction firms that perform work in confined spaces already effectively use OSHA’s general industry confined space standard as a guideline for safe confined space entry and the general industry standard has seemingly worked very well to keep both general industry and construction workers safe from confined space

hazards. This is based on many years of experience, not just an ACCSH recommendation one year after the general industry standard was issued. NAHB believes that many construction employers who use the general industry standard are comfortable with the effectiveness of the standard.

Additionally, the costs required to implement the general industry standard in the construction industry would be significantly smaller as there is a wealth of compliance assistance and training material already available for construction employers using the general industry confined space standard. Extensive resources have already been invested in implementing confined space procedures and training in construction based on general industry confined space standard.

Finally, the Small Business Advocacy Review Panel on the Draft OSHA Standard for Confined Spaces in Construction also indicated a preference for using the General Industry standard for construction work, as opposed to the draft standard and recommended that OSHA adopt the existing OSHA General Industry standard. It is unclear why OSHA would not carefully examine and consider implementation of this recommendation.

In summary, NAHB is concerned that the proposed rule for Confined Spaces in Construction is not clear about what is considered a confined space during home construction, is confusing and difficult to read, and impermissibly expands the liability of "controlling contractors" and "host employers". We urge OSHA to give serious consideration to extending the general industry standard (29 CFR 1910.146) to the construction industry and only deviate from general industry standard when necessary to meet the needs of the construction industry.

Thank you for the opportunity to comment on OSHA's proposed rule for Confined Spaces in Construction. Please call NAHB's Assistant Staff Vice President of Labor, Safety and Health, Rob Matuga, at (202) 266-8507 if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. P. Killmer', with a long horizontal flourish extending to the right.

William P. Killmer

WPK/rm

Gopal Ahluwalia, "Subcontracting and Channels of Distribution,"

HOUSING ECONOMICS (May 2003)

Subcontracting and Channels of Distribution

Gopal Ahluwalia

The National Association of Home Builders has been conducting surveys for the past 15 years to determine the share of construction costs that are subcontracted and the channels of distribution for construction materials. An NAHB survey of single family builders completed recently shows an ongoing trend toward subcontracting. About two thirds of the builders have been subcontracting more than 75 percent of the construction cost. The amount of work subcontracted increases with the size of the builder firm. But builders of all sizes purchase large proportions of some types of materials that are used by their subcontractors.

The total value of new housing put in place during 2002 was \$297 billion, excluding land. It is estimated that about \$120 billion of that was the value of building materials used. Remodeling expenditures (including additions and alterations, major improvements, and maintenance and repair), during 2002 represented additional expenditures of

\$170 billion. Households purchased about \$14 billion dollars worth of materials for DIY jobs. It is estimated that of the remaining \$156 billion dollars, \$48 billions was spent on building materials by remodeling contractors. Thus a total of \$62 billion was the value of building materials used in remodeling and thereby bringing the total value of material used in residential construction to over \$ 180 billions of dollars.

Subcontracting

According to the 1997 Census of Construction, the 17 categories of special trade contractors included more than 400,000 establishments with paid employees. Of these about 210,000 establishments were involved in residential construction. Plumbing, heating and air conditioning establishments made up the largest category of special trade contractors, accounting for over 20 percent of the special trade contractors with paid employees.

Subcontracting always has been a major feature of the home building industry, but NAHB surveys of builders show that the extent of sub-

contracting has increased significantly during the past 40 years. During 2003, two-thirds of the builders subcontracted 75 percent or more of the construction costs whereas during 1959 only 31 percent of the builders subcontracted 75 percent or more of the construction costs. About 19 percent of the builders subcontracted less than 25 percent for the construction costs in 1959 compared to only 4 percent of the builders in 2003. (Table 1).

The percentage of construction costs subcontracted increased with the size of the builders. During 2002, more than 75 percent of the construction cost was subcontracted by 55 percent of the small builders (less than 25 units), 73 percent of the medium builders (25 to 99 units) and 82 percent of the large builders (100 or more units). (Table 1). There were also significant regional differences in the share of construction costs subcontracted. In the Northeast, 61 percent of the builders subcontracted 75 percent or more of construction costs, compared to 54 percent in the Midwest, 78 percent in the South and 72 percent in the West.

**Table 1. Percentage of Construction Costs Subcontracted in the Past 12 Months
(Percent of Respondents)**

	1959	1964	1969	1977	1987	1993	1999	2003			
								All Builders	Number of Units Started		
									Less than 25 units	25 to 99 units	100+ units
None				1%	3%	-	1%	2%	3%	1%	-
1% to 24%	19%	14%	12%	9	11	6%	5	2	1	-	6%
25% to 49%	23	22	20	15	13	15	13	15	23	12	4
50% to 74%	27	27	28	16	18	16	16	15	19	14	8
75% to 99%				35	34	38	39	37	34	41	38
100%	31	37	40		24	21	25	26	21	32	44

Source: BEC Survey, 1994 Building Industry Survey and similar NAHB surveys taken in previous years.
Note: In 1959, 1964 and 1969 categories were combined (None to 24%) and (75% or more).

**Table 2. Share of On-site Costs
(Census of Construction)**

	1977	1982	1987	1992	1997
Single Family General Contractors					
Payroll (Construction workers)	3,066,031	2,748,962	4,342,944	4,869,474	6,238,689
Materials, Components, and supplies	8,013,183	6,357,278	12,863,522	16,665,885	23,816,340
Work subcontracted out to others	6,222,320	5,530,765	11,778,907	14,973,107	17,011,670
Subcontract share	36.0%	37.8%	40.6%	41.0%	36.1%
Multifamily Builders					
Payroll (Construction workers)	484,890	759,607	1,130,329	717,595	1,022,265
Materials, Components, and supplies	1,084,421	1,659,617	2,796,294	1,932,265	3,762,633
Work subcontracted out to others	2,239,350	4,276,061	7,058,100	3,497,038	7,165,301
Subcontract share	58.8%	63.9%	64.3%	56.9%	59.9%
Operative Builders					
Payroll (Construction workers)	1,053,389	709,719	1,478,312	1,044,923	1,396,143
Materials, Components, and supplies	5,639,757	3,613,878	12,773,237	12,755,391	17,011,670
Work subcontracted out to others	9,184,892	6,766,373	22,122,017	17,744,712	27,940,926
Subcontract share	57.8%	61.0%	60.8%	56.3%	60.3%

Source: U.S. Census Bureau. Compiled by NAHB Economics.

Note: Only costs shown were included in calculation of subcontract share. Other costs such as fringe benefits for construction workers, permit fees, rent of equipment are excluded.

The Census of Construction, conducted every five years (i.e. years ending in 2 or 7) shows a somewhat different picture.¹ According to the Census of Construction data, the share of construction costs subcontracted by general contractors for construction or remodeling of single family homes was 38 percent in 1982, 41 percent in 1987, and declined to 36 percent in 1997. The share of construction costs subcontracted by multifamily builders was 64 percent in 1982 and in 1987, but declined to 57 percent in 1992 and increased to 60 percent in 1997. For operative builders (for-sale builders) the share of construction costs subcontracted was 61 percent during 1982 and 1987, but declined to 56 percent in 1992 and increased to 60 percent in 1997. (Table 2).

More than 90 percent of builders in the latest NAHB survey reported that foundations, carpentry, drywall, plumbing, electrical wiring, brick walls and security systems are always subcontracted. (Table 3). Between 80 percent to 90 percent of builders responding always subcontracted roofing, wood flooring, fireplaces,

bathrooms, kitchen cabinets, kitchen countertops, exterior siding, painting and concrete work. Work that involves framing, paneling, interior doors and windows is always subcontracted by 70 percent of the builders. Table 2 also shows that for every type of work examined there was an increase in the share of builders that always subcontracted such work in 2002 compared to 1994.

Labor Only or Labor and Materials

Traditionally, subcontractors provided both labor and materials, but during the past decade there has been an increasing trend for subcontracting labor only. During 2002, the most common types of work subcontracted for labor only was framing (80 percent), followed by interior doors (58 percent), doors and windows (57 percent), and roofing (54 percent). Common jobs subcontracted least for labor only were: plumbing (6 percent), electrical wiring (7 percent) and security systems (3 percent). (Table 4).

Not only were small builders likely to subcontract less than large builders, when they did subcontract, they were more likely to only subcontract for labor. The only jobs where large builders are subcontracting only labor more than the small builders are bathrooms, painting, kitchen cabinets, kitchen countertops and security systems. (Table 4).

In 2002, 26 subcontractors were used on an average home, compared to 23 in 1999. Large builders (100 or more units) on an average used 29 subcontractors to build their homes during 2002, compared to 24 for small builders (less than 25 units). The increase in the number of subcontractors used partly reflects expansion in the features and amenities supplied with new homes.

Where Builders Buy Materials

During the past five years there has been a significant trend towards consolidation in the home building industry because of mergers and acquisitions by some of the national

**Table 3. Jobs Always, Sometimes, or Never Subcontracted:
1994 vs. 2002 (Percent of Respondents)**

Job Type	Always		Sometimes		Never	
	1994	2002	1994	2002	1994	2002
Foundations	81%	93%	13%	6%	6%	1%
Framing	59	76	20	14	21	11
Roofing	73	88	19	8	8	5
Wood flooring	69	85	17	10	14	6
Carpeting	95	99	3	1	2	0
Drywall	85	92	12	5	3	2
Paneling	63	74	14	8	24	17
Fireplace	83	88	12	8	5	4
Plumbing	95	97	3	3	3	0
Electrical wiring	93	98	4	0	3	2
Bathroom	76	81	13	11	11	8
Kitchen cabinets	71	80	17	10	13	10
Kitchen countertops	75	84	16	11	9	5
Brick work	93	95	5	4	2	1
Exterior siding	63	81	23	11	15	8
Interior doors	57	73	16	10	27	17
Painting	74	86	20	10	6	4
Doors and windows	64	74	14	9	22	17
Concrete flatwork	78	89	17	9	6	3
Security system	na	97	na	1	na	2

Source: NAHB Economics Group.

builders. Housing production for some of the largest builders doubled during that period. Some of the national builders have been planning to centralize the purchase of building materials. Such an arrangement could eliminate the middleman and the manufacturers will be able to offer deep discounts. There is no indication from the survey data that this has happened, but anecdotal evidence suggests that this may happen, at least among the national builders, during the next three years.

In surveys over the past 15 years, builders were asked if they purchased the materials used in construction of homes directly from the factory, from manufacturers' distribution centers, from general merchant stores, from home improvement centers, from lumber yards, from specialty retailers, through a co-op, or through the internet, or whether subcontractors provided the material. Although multiple sources could be reported, most builders identified only one source for each material.

There have been modest shifts in the distribution channels through which builders purchase most products. The two leading sources of supply for most building materials continue to be subcontractors and lumber yards, followed by manufacturers' distribution centers and specialty retailers. (Table 4). In the latest survey, conducted in January 2003, builders indicated that the items generally purchased by subcontractors included paint (71%), plumbing fixtures (63%), insulation (78%), heating and air-conditioning (85%), gypsum wall-board (57%), resilient flooring (60%) and electrical wiring (90%). The items that were most commonly purchased from lumber yards were framing lumber (83%), trusses (53%), plywood/structural panels (76%), non-structural sheathing (75%) and interior doors (51%).

For some of the materials there is no single dominant source of pro-

**Table 4. Subcontracts—Labor Only and Labor and Materials
(Percent of Respondents)**

Job Type	If subcontracted, is it typically for?		Jobs Contracted for Labor Only		
	Labor Only	Labor & Materials	Number of Units Started		
			Less than 25 Units	25 to 99 Units	100+ Units
Foundations	35%	65%	46%	30%	14%
Framing	80	20	85	86	81
Roofing	54	46	62	54	37
Wood flooring	16	84	21	11	9
Carpeting	10	90	12	6	11
Drywall	27	73	29	25	24
Paneling	38	63	47	37	19
Fireplace	13	87	15	14	9
Plumbing	6	94	9	2	6
Electrical wiring	7	93	10	5	5
Bathroom	18	82	16	19	21
Kitchen cabinets	24	76	20	28	27
Kitchen countertops	17	83	16	14	22
Brick work	41	59	48	38	31
Exterior siding	46	54	53	44	31
Interior doors	58	42	70	51	50
Painting	17	83	20	9	24
Doors and windows	57	43	70	52	43
Concrete flatwork	39	61	47	35	26
Security systems	3	97	2	3	6

Source: NAHB Economics Group.

Table 6. Channels of Distribution For

	1987	1994	1999	2001	2002		1987	1994	1999	2001	2002
Paint						Kitchen Appliances					
Subcontractor	62%	64%	68%	68%	71%	Subcontractor	8%	6%	5%	6%	11%
Lumber yard	10	4	3	2	1	Lumber yard	7	1	3	4	*
Direct from factory	3	1	3	1	1	Direct from factory	18	15	18	20	20
Mfr. distr. center	16	17	15	14	15	Mfr. distr. center	35	35	33	28	26
Gen. merch. store	2	3	2	1	2	Gen. merch. store	4	10	4	6	7
Specialty store	11	13	12	11	8	Specialty store	26	33	37	34	35
Home improv. center	-	2	1	2	1	Home improv. center	-	1	*	1	*
Plumbing Fixtures						Heating & A.C.					
Subcontractor	79%	76%	75%	75%	80%	Subcontractor	80%	93%	92%	81%	85%
Lumber yard	4	2	1	1	1	Lumber yard	2	na	*	1	1
Direct from factory	1	1	1	1	2	Direct from factory	2	na	1	3	2
Mfr. distr. center	12	14	13	11	10	Mfr. distr. center	8	4	3	4	5
Gen. merch. store	1	1	1	1	1	Gen. merch. store	1	na	*	*	*
Specialty store	6	9	12	11	6	Specialty store	6	2	4	4	6
Home improv. center	-	2	2	1	*	Home improv. center	-	na	*	*	*
Wood Flooring						Kitchen Cabinets					
Subcontractor	47%	42%	60%	62%	63%	Subcontractor	36%	31%	29%	30%	29%
Lumber yard	28	34	15	13	10	Lumber yard	12	10	7	7	9
Direct from factory	2	2	1	2	2	Direct from factory	18	16	21	19	20
Mfr. distr. center	10	8	5	10	10	Mfr. distr. center	16	19	18	17	18
Gen. merch. store	1	1	2	1	2	Gen. merch. store	1	1	1	1	2
Specialty store	11	12	18	14	12	Specialty store	17	23	25	22	23
Home improv. center	-	3	1	2	1	Home improv. center	-	3	2	*	*
Framing Lumber						Countertops					
Subcontractor	7%	4%	6%	9%	6%	Subcontractor	48%	46%	44%	40%	40%
Lumber yard	73	87	88	80	83	Lumber yard	11	10	6	6	9
Direct from factory	5	1	2	1	2	Direct from factory	13	10	11	14	13
Mfr. distr. center	11	3	2	5	3	Mfr. distr. center	12	13	13	12	14
Gen. merch. store	1	1	1	1	1	Gen. merch. store	1	1	1	1	2
Specialty store	5	1	1	2	3	Specialty store	16	21	26	23	22
Home improv. center	-	3	1	5	1	Home improv. center	-	1	1	1	1
Light Weight Steel						Gypsum Wallboard					
Subcontractor	na	14%	17%	15%	20%	Subcontractor	47%	49%	55%	53%	57%
Lumber yard	na	29	18	17	18	Lumber yard	34	31	24	20	20
Direct from factory	na	8	9	11	13	Direct from factory	3	1	1	4	*
Mfr. distr. center	na	17	17	18	13	Mfr. distr. center	10	10	10	8	8
Gen. merch. store	na	1	3	2	3	Gen. merch. store	1	1	*	1	2
Specialty store	na	30	34	32	32	Specialty store	8	8	11	11	11
Home improv. center	na	2	2	3	*	Home improv. center	-	4	4	2	1
Trusses						Builders Hardware					
Subcontractor	na	5%	5%	8%	6%	Subcontractor	11%	10%	12%	12%	18%
Lumber yard	na	55	55	49	53	Lumber yard	54	49	39	39	33
Direct from factory	na	23	27	24	27	Direct from factory	3	1	1	2	2
Mfr. distr. center	na	6	8	6	6	Mfr. distr. center	15	13	13	12	13
Gen. merch. store	na	na	*	1	1	Gen. merch. store	3	3	3	3	4
Specialty store	na	6	7	10	6	Specialty store	17	21	31	25	27
Home improv. center	na	1	*	3	*	Home improv. center	-	9	7	11	2

Source: NAHB Economics Group.

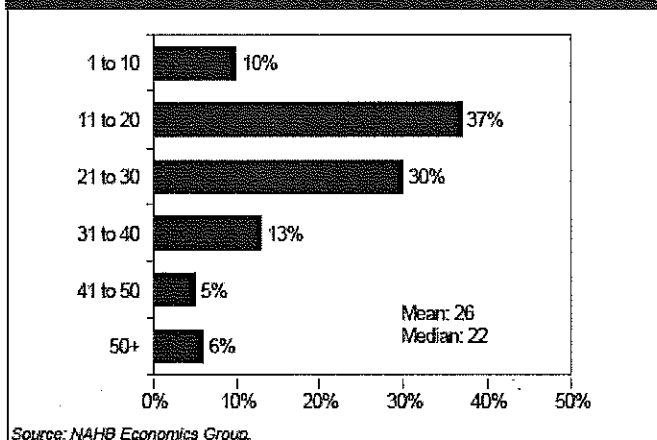
Note: In 1987 Home Improv. center/Lumber yard was combined. * denotes less than 1/2 percent.

HOUSING ECONOMICS

Building Materials (Percent of Builders)

	1987	1994	1999	2001	2002		1987	1994	1999	2001	2002
Plywood/structural panels						Resilient Flooring					
Subcontractor	7%	5%	8%	8%	7%	Subcontractor	56%	51%	54%	50%	60%
Lumber yard	72	80	81	70	76	Lumber yard	12	10	6	9	13
Direct from factory	4	4	7	6	7	Direct from factory	2	2	*	2	*
Mfr. distr. center	11	5	4	6	4	Mfr. Distr. center	10	9	7	9	7
Gen. merch. store	1	1	*	1	1	Gen. merch. store	2	1	*	1	2
Specialty store	5	2	3	6	3	Specialty store	17	26	33	26	15
Home improv. center	-	2	1	5	1	Home improv. center	-	3	2	1	2
Non-Structural Sheathing						Exterior Siding					
Subcontractor	na	5%	7%	7%	14%	Subcontractor	19%	23%	28%	27%	35%
Lumber yard	na	84	85	74	75	Lumber yard	55	54	45	36	34
Direct from factory	na	1	2	1	2	Direct from factory	5	2	2	5	2
Mfr. distr. center	na	4	3	6	3	Mfr. distr. center	13	10	14	14	9
Gen. merch. store	na	na	*	1	1	Gen. merch. store	1	*	1	1	1
Specialty store	na	1	3	4	3	Specialty store	9	10	14	18	14
Home improv. center	na	3	3	5	1	Home improv. center	-	3	2	1	3
Insulation						Interior Doors					
Subcontractor	87%	74%	87%	75%	78%	Subcontractor	10%	6%	9%	8%	9%
Lumber yard	24	17	6	9	13	Lumber yard	55	59	58	53	51
Direct from factory	2	1	1	1	2	Direct from factory	9	5	4	5	4
Mfr. distr. center	5	3	4	4	*	Mfr. distr. center	15	12	12	15	12
Gen. merch. store	na	na	*	*	*	Gen. merch. store	1	1	1	3	2
Specialty store	4	5	8	5	5	Specialty store	12	14	18	14	16
Home improv. center	-	2	2	2	*	Home improv. center	-	4	3	7	5
Roofing						Power Tools					
Subcontractor	36%	33%	36%	35%	40%	Subcontractor	15%	12%	8%	10%	10%
Lumber yard	44	44	30	31	26	Lumber yard	37	31	26	23	17
Direct from factory	3	1	1	1	3	Direct from factory	2	1	*	1	1
Mfr. distr. center	10	12	14	14	14	Mfr. distr. center	17	12	9	9	7
Gen. merch. store	1	1	*	1	1	Gen. merch. store	7	11	8	11	11
Specialty store	8	10	21	14	15	Specialty store	21	30	30	20	21
Home improv. center	-	3	1	3	1	Home improv. center	-	22	30	34	33
Windows/Exterior Doors						Lighting Fixtures					
Subcontractor	36%	33%	36%	36%	40%	Subcontractor	na	18%	20%	17%	24%
Lumber yard	41	40	39	35	28	Lumber yard	na	3	4	4	3
Direct from factory	13	13	10	15	10	Direct from factory	na	1	1	3	3
Mfr. distr. center	23	26	26	23	30	Mfr. distr. center	na	19	17	22	19
Gen. merch. store	1	na	1	1	1	Gen. merch. store	na	5	2	2	5
Specialty store	15	16	22	23	22	Specialty store	na	50	54	43	34
Home improv. center	-	4	2	2	*	Home improv. center	na	9	9	9	11
Bricks						Electrical Wiring					
Subcontractor	37%	30%	28%	25%	29%	Subcontractor	na	90%	91%	87%	90%
Lumber yard	13	5	2	6	4	Lumber yard	na	1	1	1	1
Direct from factory	14	14	12	13	8	Direct from factory	na	na	*	1	*
Mfr. distr. center	18	27	26	26	29	Mfr. distr. center	na	4	3	4	3
Gen. merch. store	1	1	2	1	3	Gen. merch. store	na	na	1	*	*
Specialty store	37	30	31	27	27	Specialty store	na	5	6	3	5
Home improv. center	-	1	*	1	*	Home improv. center	na	1	1	1	2

Figure 1. Number of Subcontractors Used to Build a Single-Family Detached House During 2002 (Percent of Respondents)



curement, but builders used a variety of sources. Roofing was purchased through subcontractors by 40 percent and from lumber yards by 26 percent of the builders. Windows/exterior doors were purchased from manufacturers' distribution centers by 30 percent of the builders, from lumber yards by 28 percent, and from specialty retailers by 22 percent of the builders (Table 5).

Paint was supplied by subcontractors to 71 percent of the builders in 2002, up from 62 percent in 1987, while home improvement/lumber yards supplied paint to only 2 percent of the builders in 2002, down from 10 percent in 1987. Wood Flooring was supplied by subcontractors to 63 percent of the builders in 2002, up from 47 percent in 1987. Home improvement/lumber yards supplied wood

flooring to only 11 percent of the builders in 2002, down from 28 percent in 1987. The distribution channels for plumbing fixtures and framing lumber were largely the same in 2002 as in earlier years. Trusses were supplied to over 50 percent of the builders by lumber yards and to about 25 percent of the builders directly from factory in 2002 and 1994. A subcontractor was the source of insulation material supply for 78 percent of the builders in 2002, up from 67 percent in 1987. Lumber yards were the source for 13 percent of the builders in 2002, down from 24 percent in 1987. (Table 5)

Conclusion

There is a definite trend towards subcontracting partly because of increasing complexity and ameni-

ties in new homes. Horizontal consolidation in the home building industry has not brought vertical integration, since large builders used subcontractors even more than small builders. Channels of distribution have not changed very significantly during the past 20 years. New home builders rarely purchase from consumer-focused home improvement center such as Home Depot and Lowes, though their subcontractors may. Materials are rarely ordered from the internet.

The trend towards greater use of subcontractors is partly offset by greater use of labor only subcontractors, but the net effect for most materials has been an increase in the share for builders relying on subcontractors to supply the materials, although there have been exceptions for materials such as insulation and HVAC, where the still-large share of builders relying on subcontractors for materials has declined.

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¹ Estimate for total construction cost was prepared by adding the amount paid to the construction employees on payroll, purchases of materials, supplies, and fuels and work subcontracted. The share of construction cost subcontracted was arrived at by dividing construction cost subcontracted by this measure of total construction cost. The wages paid to the construction workers do not include the amount spent by the builders on fringe benefits.