

investigation was initiated on October 17, 2005 in response to a petition filed by a company official on behalf of workers of Ranco North America, a division of Invensys, Brownsville, Texas.

The worker group is covered by a certification, (TA-W-53,125) which expired on October 23, 2005. The plant closed and all workers were separated in June 2005. Consequently, further investigation in this case would serve no purpose, and the investigation has been terminated.

Signed at Washington, DC, this 23rd day of November 2005.

**Linda G. Poole,**

*Certifying Officer, Division of Trade Adjustment Assistance.*

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BILLING CODE 4510-30-P

## DEPARTMENT OF LABOR

### Employment and Training Administration

[TA-W-58,216]

#### Yankee Plastics, Incorporated Easthampton, MA; Notice of Termination of Investigation

Pursuant to section 221 of the Trade Act of 1974, as amended, an investigation was initiated on October 26, 2005 in response to a worker petition filed by a company official on behalf of workers at Yankee Plastics, Incorporated, Easthampton, Massachusetts.

The petitioner has requested that the petition be withdrawn. Consequently the investigation has been terminated.

Signed at Washington, DC, this 14th day of November 2005.

**Richard Church,**

*Certifying Officer, Division of Trade Adjustment Assistance.*

[FR Doc. E5-6877 Filed 12-5-05; 8:45 am]

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## DEPARTMENT OF LABOR

### Occupational Safety and Health Administration

[V-04-2]

#### International Chimney Corporation, Karrena International, LLC, and Matrix Service Industrial Contractors, Inc.; Grant of a Permanent Variance

**AGENCY:** Occupational Safety and Health Administration (OSHA), Department of Labor.

**ACTION:** Notice of a grant of a permanent variance.

**SUMMARY:** This notice announces the grant of a permanent variance to International Chimney Corporation, Karrena International, LLC, and Matrix Service Industrial Contractors, Inc. ("the employers"). The permanent variance addresses the provision that regulates the tackle used for boatswains' chairs (§ 1926.452 (o)(3)), as well as the provisions specified for personnel hoists by paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of § 1926.552. Instead of complying with these provisions, the employers must comply with a number of alternative conditions listed in this grant; these alternative conditions regulate rope-guided personnel-hoisting systems used during inside or outside chimney construction to raise or lower employees in personnel cages, personnel platforms, and boatswains' chairs between the bottom landing of a chimney and an elevated work location. Accordingly, OSHA finds that these alternative conditions protect employees at least as well as the requirements specified by § 1926.452(o)(3) and § 1926.552(c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16).

**DATES:** The effective date of the permanent variance is December 6, 2005.

**FOR FURTHER INFORMATION:** For information about this notice contact Ms. MaryAnn S. Garrahan, Director, Office of Technical Programs and Coordination Activities, Room N-3655, OSHA, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210; telephone (202) 693-2110; fax (202) 693-1644. You may obtain additional copies of this notice from the Office of Publications, Room N-3101, OSHA, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210; telephone (202) 693-1888. For electronic copies of this notice, contact the Agency on its Webpage at <http://www.osha.gov>, and select "Federal Register," "Date of Publication," and then "2005."

Additional information also is available from the following OSHA Regional Offices:

U.S. Department of Labor, OSHA, JFK Federal Building, Room E340, Boston, MA 02203, telephone: (617) 565-9860; fax: (617) 565-9827

U.S. Department of Labor, OSHA, 201 Varick St., Room 670, New York, NY 10014, telephone: (212) 337-2378; fax: (212) 337-2371

U.S. Department of Labor, OSHA, Curtis Building, Suite 740 West, 170 South

Independence Mall West, Philadelphia, PA 19106-3309, telephone: (215) 861-4900; fax: (215) 861-4904

U.S. Department of Labor, OSHA, Sam Nunn Atlanta Federal Center, 61 Forsyth St., SW., Room 6T50, Atlanta, GA 30303, telephone: (404) 562-2300; fax: (404) 562-2295

U.S. Department of Labor, OSHA, 230 South Dearborn St., Room 3244, Chicago, IL 60604, telephone: (312) 353-2220; fax: (312) 353-7774

U.S. Department of Labor, OSHA, 525 South Griffith St., Suite 602, Dallas, TX 75202, telephone: (214) 767-4736; fax: (214) 767-4760

U.S. Department of Labor, OSHA, City Center Square, 1100 Main St., Suite 800, Kansas City, MO 64105, telephone: (816) 426-5861; fax: (816) 426-2750

U.S. Department of Labor, OSHA; *Overnight:* 1999 Broadway, Suite 1690, Denver, CO 80201-6550; *Mail:* P.O. Box 46550, Denver, CO 80201-6550, telephone: (720) 264-6550; fax: (720) 264-6585

U.S. Department of Labor, OSHA, 71 Stevenson St., Room 420, San Francisco, CA 94105, telephone: (415) 975-4310; fax: (415) 744-4319

U.S. Department of Labor, OSHA, 1111 Third Ave., Suite 715, Seattle, WA 98101-3212, telephone: (206) 553-5930; fax: (206) 553-6499

#### SUPPLEMENTARY INFORMATION:

##### I. Background

In the past 30 years, a number of chimney-construction companies have demonstrated to OSHA that several personnel-hoist requirements (*i.e.*, paragraphs (c)(1), (c)(2), (c)(3), (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of § 1926.552), as well as the tackle requirements for boatswains' chairs (*i.e.*, paragraph (o)(3) of § 1926.452), result in access problems that pose a serious danger to their employees. These companies requested permanent variances from these requirements, and proposed alternative equipment and procedures to protect employees while being transported to and from their elevated worksites during construction and repair work inside and outside chimneys. The Agency subsequently granted these companies permanent variances based on the proposed alternatives (see 38 FR 8545 (April 3, 1973), 44 FR 51352 (August 31, 1979), 50 FR 40627 (October 4, 1985), 52 FR 22552 (June 12, 1987), and 68 FR 52961 (September 8, 2003)).<sup>1</sup>

<sup>1</sup> Zurn Industries, Inc. received two permanent variances from OSHA. The first variance, granted

On September 15, 2004, International Chimney Corporation, and Karrena International, LLC, and on January 10, 2005, Matrix Service Industrial Contractors, Inc., respectively, applied for a permanent variance from the same personnel-hoist and boatswains'-chair requirements as the previous companies, and proposed as an alternative to these requirements the same equipment and procedures approved by OSHA in the earlier variances. The Agency published their variance application in the **Federal Register** on April 21, 2005 (70 FR 20773). OSHA received no hearing requests or comments in response to this **Federal Register** notice. However, States and Territories having OSHA-approved safety and health programs ("State-Plan States and Territories") have commented on earlier variance applications involving the same standards submitted by other employers engaged in chimney construction and repair. OSHA is relying on these previous comments to determine the position of these State-Plan States and Territories on the variance application submitted by the present employers (see section V ("Multi-State Variance") of this notice for a discussion of these comments).

International Chimney Corporation, Karrena International, LLC, and Matrix Service Industrial Contractors, Inc. ("the employers") construct, remodel, repair, maintain, inspect, and demolish tall chimneys made of reinforced concrete, brick, and steel. This work, which occurs throughout the United States, requires the employers to transport employees and construction material to and from elevated work platforms and scaffolds located, respectively, inside and outside tapered chimneys. While tapering contributes to the stability of a chimney, it necessitates frequent relocation of, and adjustments to, the work platforms and scaffolds so that they will fit the decreasing circumference of the chimney as construction progresses upwards.

To transport employees to various heights inside and outside a chimney, the employers proposed in their variance application to use a hoist system that lifts and lowers personnel-transport devices that include personnel cages, personnel platforms, or boatswains' chairs. In this regard, the

on May 14, 1985 (50 FR 20145), addressed the boatswains'-chair provision (then in paragraph (l)(5) of § 1926.451), as well as the hoist-platform requirements of paragraphs (c)(1), (c)(2), (c)(3), and (c)(14)(i) of § 1926.552. The second variance, granted on June 12, 1987 (52 FR 22552), includes these same paragraphs, as well as paragraphs (c)(4), (c)(8), (c)(13), and (c)(16) of § 1926.552.

employers proposed to use personnel cages, personnel platforms, or boatswains' chairs solely to transport employees with the tools and materials necessary to do their work, and not to transport only materials or tools on these devices in the absence of employees. In addition, the employers proposed to attach a hopper or concrete bucket to the hoist system to raise or lower material inside or outside a chimney.

The employers also proposed to use a hoist engine, located and controlled outside the chimney, to power the hoist system. The proposed system consisted of a wire rope that: Spools off the winding drum (also known as the hoist drum or rope drum) into the interior of the chimney; passes to a footblock that redirects the rope from the horizontal to the vertical planes; goes from the footblock through the overhead sheaves above the elevated platform; and finally drops to the bottom landing of the chimney where it connects to a personnel- or material-transport device. The cathead, which is a superstructure at the top of a derrick, supports the overhead sheaves. The overhead sheaves (and the vertical span of the hoist system) move upward with the derrick as chimney construction progresses. Two guide cables, suspended from the cathead, eliminate swaying and rotation of the load. If the hoist rope breaks, safety clamps activate and grip the guide cables to prevent the load from falling. The employers proposed to use a headache ball, located on the hoist rope directly above the load, to counterbalance the rope's weight between the cathead sheaves and the footblock.

Additional conditions that the employers proposed to follow to improve employee safety included:

- Attaching the wire rope to the personnel cage using a keyed-screwpin shackle or positive-locking link;
- Adding limit switches to the hoist system to prevent overtravel by the personnel- or material-transport devices;
- Providing the safety factors and other precautions required for personnel hoists specified by the pertinent provisions of § 1926.552(c), including canopies and shields to protect employees located in a personnel cage from material that may fall during hoisting and other overhead activities;
- Providing falling-object protection for scaffold platforms as specified by § 1926.451(h)(1);
- Conducting tests and inspections of the hoist system as required by §§ 1926.20(b)(2) and 1926.552(c)(15);

- Establishing an accident-prevention program that conforms to § 1926.20(b)(3);

- Ensuring that each employee who uses a personnel platform or boatswains' chair wears a full body harness and lanyard, and that the lanyard is attached to the lifeline during the entire period of vertical transit; and
- Securing the lifelines (used with a personnel platform or boatswains' chair) to the rigging at the top of the chimney and to a weight at the bottom of the chimney to provide maximum stability to the lifelines.

## II. Proposed Variance From § 1926.452(o)(3)

The employers noted in their variance request that it is necessary, on occasion, to use a boatswains' chair to transport employees to and from a bracket scaffold on the outside of an existing chimney during flue installation or repair work, or to transport them to and from an elevated scaffold located inside a chimney that has a small or tapering diameter. Paragraph (o)(3) of § 1926.452, which regulates the tackle used to rig a boatswains' chair, states that this tackle must "consist of correct size ball bearings or bushed blocks containing safety hooks and properly 'eye-spliced' minimum five-eighth ( $\frac{5}{8}$ ) inch diameter first-grade manila rope [or equivalent rope]."

The primary purpose of this paragraph is to allow an employee to safely control the ascent, descent, and stopping locations of the boatswains' chair. However, the employers stated in their variance request that, because of space limitations, the required tackle is difficult or impossible to operate on some chimneys that are over 200 feet tall. Therefore, as an alternative to complying with the tackle requirements specified by § 1926.452(o)(3), the employers proposed to use the hoisting system described above in section I ("Background") of this notice to raise or lower employees in a personnel cage to work locations both inside and outside a chimney. In addition, the employers proposed to use a personnel cage for this purpose to the extent that adequate space is available, and to use a personnel platform, when using a personnel cage was infeasible because of limited space. When available space makes using a personnel platform infeasible, the employers proposed to use a boatswains' chair to lift employees to work locations. The proposed variance limited use of the boatswains' chair to elevations above the last work location that the personnel platform can reach; under these conditions, the employers proposed to attach the

boatswains' chair directly to the hoisting cable only when the structural arrangement precludes the safe use of the block and tackle required by § 1926.452(o)(3).

### III. Proposed Variance From § 1926.552(c)

Paragraph (c) of § 1926.552 specifies the requirements for enclosed hoisting systems used to transport employees from one elevation to another. This paragraph ensures that employers transport employees safely to and from elevated work platforms by mechanical means during the construction, alteration, repair, maintenance, or demolition of structures such as chimneys. However, this standard does not provide specific safety requirements for hoisting employees to and from elevated work platforms and scaffolds in tapered chimneys; the tapered design requires frequent relocation of, and adjustment to, the work platforms and scaffolds. The space in a small-diameter or tapered chimney is not large enough or configured so that it can accommodate an enclosed hoist tower. Moreover, using an enclosed hoist tower for outside operations exposes employees to additional fall hazards because they need to install extra bridging and bracing to support a walkway between the hoist tower and the tapered chimney.

Paragraph (c)(1) of § 1926.552 requires the employers to enclose hoist towers located outside a chimney on the side or sides used for entrance to, and exit from, the chimney; these enclosures must extend the full height of the hoist tower. The employers asserted in their proposed variance that it is impractical and hazardous to locate a hoist tower outside tapered chimneys because it becomes increasingly difficult, as a chimney rises, to erect, guy, and brace a hoist tower; under these conditions, access from the hoist tower to the chimney or to the movable scaffolds used in constructing the chimney exposes employees to a serious fall hazard. Additionally, they noted that the requirement to extend the enclosures 10 feet above the outside scaffolds often exposes the employees involved in building these extensions to dangerous wind conditions.

Paragraph (c)(2) of § 1926.552 requires that employers enclose all four sides of a hoist tower even when the tower is located inside a chimney; the enclosure must extend the full height of the tower. In the proposed variance, the employers contended that it is hazardous for employees to erect and brace a hoist tower inside a chimney, especially small-diameter or tapered chimneys or

chimneys with sublevels, because these structures have limited space and cannot accommodate hoist towers; space limitations result from chimney design (e.g., tapering), as well as reinforced steel projecting into the chimney from formwork that is near the work location.

As an alternative to complying with the hoist-tower requirements of paragraphs (c)(1) and (c)(2) of § 1926.552, the employers proposed to use the rope-guided hoist system discussed in section I ("Background") of this notice to transport employees to and from work locations inside and outside chimneys. They claimed that this hoist system would make it unnecessary for them to comply with other provisions of § 1926.552(c) that specify requirements for hoist towers, including:

- (c)(3)—Anchoring the hoist tower to a structure;
- (c)(4)—Hoistway doors or gates;
- (c)(8)—Electrically interlocking entrance doors or gates that prevent hoist movement when the doors or gates are open;
- (c)(13)—Emergency stop switch located in the car;
- (c)(14)(i)—Using a minimum of two wire ropes for drum-type hoisting; and
- (c)(16)—Construction specifications for personnel hoists, including materials, assembly, structural integrity, and safety devices.

The employers asserted that the proposed hoisting system protected employees at least as effectively as the personnel-hoist requirements of § 1926.552(c).

### IV. Comments on the Proposed Variance

OSHA received no hearing requests or comments in response to the proposed variance that it published in the April 21, 2005, *Federal Register*.

### V. Multi-State Variance

The variance application stated that the employers perform chimney work in a number of geographic locations in the United States, some of which could include locations in one or more of the States and Territories that operate OSHA-approved safety and health programs under section 18 of the Occupational Safety and Health Act of 1970 ("State-Plan States and Territories"; see 29 U.S.C. 651 et seq.). State-Plan States and Territories have primary enforcement responsibility over the work performed in those States and Territories. Under the provisions of 29 CFR 1952.9 ("Variances affecting multi-state employers") and 29 CFR 1905.14(b)(3) ("Actions on

applications"), a permanent variance granted by the Agency becomes effective in State-Plan States and Territories as an authoritative interpretation of the applicants' compliance obligation when: (1) The relevant standards are the same as the Federal OSHA standards from which the applicants are seeking the permanent variance; and (2) the State-Plan State or Territory does not object to the terms of the variance application.

OSHA requested comments on this application from each of the State-Plan States and Territories. The Agency noted in its request that, absent any comment, it would assume that the State or Territory's position regarding this variance application was the same as the position it took on two previous variance applications.<sup>2</sup> As noted above under section I ("Background"), OSHA received no comments from the State-Plan States and Territories to this variance application, indicating that they continue to endorse their previous positions regarding the alternative conditions proposed under this variance application. The following paragraphs provide a summary of the positions previously taken by the State-Plan States and Territories on these alternative conditions.

Alaska, Arizona, Indiana, Maryland, Minnesota, Nevada, New Mexico, North Carolina, Oregon, Puerto Rico, Tennessee, Vermont, Virginia, and Wyoming reported that their standards are identical to the Federal standards, and that they agreed to accept the alternative conditions. Although Kentucky is in agreement with the terms of the variance, affected employers will have to apply to the State for a State variance until such time as a pending regulatory revision is completed. South Carolina also agreed to accept the alternative conditions, although the employers must file with the South Carolina Commissioner of Labor the final order granted by the Secretary of Labor. Utah agreed to accept the Federal variance, but requires the employers to contact the Occupational Safety and Health Division, Labor Commission of Utah, regarding a procedural formality that must be completed before implementing the variance in that State. Michigan agreed with the alternative conditions, but noted that its standards are not identical to the OSHA standards covered by the variance application. Therefore, Michigan cautioned that,

<sup>2</sup> The two previous variance applications were from (1) American Boiler and Chimney Co. and Oak Park Chimney Corp. (68 FR 52961, September 8, 2003), and (2) Alberici Mid-Atlantic, LLC, Commonwealth Dynamics, Inc., and R and P Industrial Chimney Co., Inc. (69 FR 48754, August 10, 2004).

should the employers elect to apply the variance in Michigan, they must comply with several provisions in the Michigan standards that are not addressed in the OSHA standard.

California, Iowa, Hawaii, and Washington have standards that either differ from the Federal standards or did not agree to the alternative conditions proposed in the variance application, and would not permit the employers to implement in their States any variance resulting from this application without further application to the State. The OSHA-approved safety and health programs for Connecticut, New Jersey, New York, and the Virgin Islands cover only public-sector (*i.e.*, State and local government) employment; therefore, in these State-Plan States, the authority to cover private-sector employers under the variance continues to reside with Federal OSHA.

#### VI. Decision

International Chimney Corporation, Karrena International, LLC, and Matrix Service Industrial Contractors, Inc., seek a permanent variance from the provision that regulates the tackle used for boatswains' chairs (§ 1926.452 (o)(3)), as well as the provisions specified for personnel hoists by paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of § 1926.552. Paragraph (o)(3) of § 1926.452 states that the tackle used for boatswains' chairs must "consist of correct size ball bearings or bushed blocks containing safety hooks and properly 'eye-spliced' minimum five-eighth (5/8) inch diameter first-grade manila rope [or equivalent rope]." The primary purpose of this provision is to allow an employee to safely control the ascent, descent, and stopping locations of the boatswains' chair. The proposed alternative to these requirements allows the employer to use a boatswains' chair to lift employees to work locations inside and outside a chimney when both a personnel cage and a personnel platform are infeasible. The employers proposed to attach the boatswains' chair to the hoisting system described as an alternative for paragraph (c) of § 1926.552.

Paragraph (c) of § 1926.552 specifies the requirements for enclosed hoisting systems used to transport personnel from one elevation to another. This paragraph ensures that employers transport employees safely to and from elevated work platforms by mechanical means during construction work involving structures such as chimneys. In this regard, paragraph (c)(1) of § 1926.552 requires employers to enclose hoist towers located outside a

chimney on the side or sides used for entrance to, and exit from, the structure; these enclosures must extend the full height of the hoist tower. Under the requirements of paragraph (c)(2) of § 1926.552, employers must enclose all four sides of a hoist tower located inside a chimney; these enclosures also must extend the full height of the tower.

As an alternative to complying with the hoist-tower requirements of § 1926.552(c)(1) and (c)(2), the employers proposed to use a rope-guided hoist system to transport employees to and from elevated work locations inside and outside chimneys. The proposed hoist system includes a hoist machine, cage, safety cables, and safety measures such as limit switches to prevent overrun of the cage at the top and bottom landings, and safety clamps that grip the safety cables if the main hoist line fails. To transport employees to and from elevated work locations, the employers proposed to attach a personnel cage to the hoist system. However, when they can demonstrate that adequate space is not available for the cage, they may use a personnel platform above the last worksite that the cage can reach. Further, when the employers show that space limitations make it infeasible to use a work platform for transporting employees, they have proposed to use a boatswains' chair above the last worksite serviced by the personnel platform. Using the proposed hoist system as an alternative to the hoist-tower requirements of § 1926.552(c)(1) and (c)(2) eliminates the need to comply with the other provisions of § 1926.552(c) that specify requirements for hoist towers. Accordingly, the employers have requested a permanent variance from these and related provisions (*i.e.*, paragraphs (c)(3), (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16)).

After thoroughly reviewing the variance application, as well as earlier comments made by State-Plan States and Territories in response to two previous variance applications proposing the same alternative conditions, OSHA has made only minor editorial amendments and technical corrections to the proposed variance. Therefore, under Section 6(d) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 655), and based on the record discussed above, the Agency finds that when the employers comply with the conditions of the following order, their employees will be exposed to working conditions that are at least as safe and healthful as they would be if the employers complied with paragraph (o)(3) of § 1926.452, and paragraphs (c)(1) through (c)(4), (c)(8), (c)(13),

(c)(14)(i), and (c)(16) of § 1926.552. This decision also is an authoritative interpretation of the employers' compliance obligations in the following 18 State-Plan States and Territories with OSHA-approved safety and health programs covering the private sector: Alaska, Arizona, Indiana, Maryland, Minnesota, Nevada, New Mexico, North Carolina, Oregon, Puerto Rico, Tennessee, Virginia, Vermont, and Wyoming, and in Kentucky, Michigan, South Carolina, and Utah when the employers meet specified conditions.

#### VII. Order

OSHA issues this order authorizing International Chimney Corporation, Karrena International, LLC, and Matrix Service Industrial Contractors, Inc. ("the employers") to comply with the following conditions instead of complying with paragraph (o)(3) of § 1926.452 and paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of § 1926.552:

##### 1. Scope of the Permanent Variance

(a) This permanent variance applies only when the employers use a rope-guided hoist system during inside or outside chimney construction to raise or lower their employees between the bottom landing of a chimney and an elevated work location on the inside or outside surface of the chimney.

(b) Except for the requirements specified by § 1926.452 (o)(3) and § 1926.552(c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16), the employers must comply fully with all other applicable provisions of 29 CFR parts 1910 and 1926.

##### 2. Replacing a Personnel Cage With a Personnel Platform or a Boatswains' Chair

(a) *Personnel platform.* When the employers demonstrate that available space makes a personnel cage for transporting employees infeasible, they may replace the personnel cage with a personnel platform when they limit use of the personnel platform to elevations above the last work location that the personnel cage can reach.

(b) *Boatswains' chair.* When the employers demonstrate that available space makes a personnel platform for transporting employees infeasible, they may replace the personnel platform with a boatswains' chair when they limit use of the boatswains' chair to elevations above the last work location that the personnel platform can reach.

##### 3. Qualified Competent Person

(a) The employers must:

(i) Provide a qualified competent person, as specified in paragraphs (f) and (m) of § 1926.32, who is responsible for ensuring that the design, maintenance, and inspection of the hoist system comply with the conditions of this grant and with the appropriate requirements of 29 CFR part 1926 ("Safety and Health Regulations for Construction"); and

(ii) Ensure that the qualified competent person is present at ground level to assist in an emergency whenever the hoist system is raising or lowering employees.

(b) The employers must use a qualified competent person to design and maintain the cathead described under Condition 8 ("Cathead and Sheave") below.

#### 4. Hoist Machine

(a) *Type of hoist.* The employers must designate the hoist machine as a portable personnel hoist.

(b) *Raising or lowering a transport.* The employers must ensure that:

(i) The hoist machine includes a base-mounted drum hoist designed to control line speed; and

(ii) Whenever they raise or lower a personnel or material hoist (e.g., a personnel cage, personnel platform, boatswains' chair, hopper, concrete bucket) using the hoist system:

(A) The drive components are engaged continuously when an empty or occupied transport is being lowered (i.e., no "freewheeling");

(B) The drive system is interconnected, on a continuous basis, through a torque converter, mechanical coupling, or an equivalent coupling (e.g., electronic controller, fluid clutches, hydraulic drives);

(C) The braking mechanism is applied automatically when the transmission is in the neutral position and a forward-reverse coupling or shifting transmission is being used; and

(D) No belts are used between the power source and the winding drum.

(c) *Power source.* The employers must power the hoist machine by an air, electric, hydraulic, or internal-combustion drive mechanism.

(d) *Constant-pressure control switch.* The employers must:

(i) Equip the hoist machine with a hand- or foot-operated constant-pressure control switch (i.e., a "deadman control switch") that stops the hoist immediately upon release; and

(ii) Protect the control switch to prevent it from activating if the hoist machine is struck by a falling or moving object.

(e) *Line-speed indicator.* The employers must:

(i) Equip the hoist machine with an operating line-speed indicator maintained in good working order; and

(ii) Ensure that the line-speed indicator is in clear view of the hoist operator during hoisting operations.

(f) *Braking systems.* The employers must equip the hoist machine with two (2) independent braking systems (i.e., one automatic and one manual) located on the winding side of the clutch or couplings, with each braking system being capable of stopping and holding 150 percent of the maximum rated load.

(g) *Slack-rope switch.* The employers must equip the hoist machine with a slack-rope switch to prevent rotation of the winding drum under slack-rope conditions.

(h) *Frame.* The employers must ensure that the frame of the hoist machine is a self-supporting, rigid, welded-steel structure, and that holding brackets for anchor lines and legs for anchor bolts are integral components of the frame.

(i) *Stability.* The employers must secure hoist machines in position to prevent movement, shifting, or dislodgement.

(j) *Location.* The employers must:

(i) Locate the hoist machine far enough from the footblock to obtain the correct fleet angle for proper spooling of the cable on the drum; and

(ii) Ensure that the fleet angle remains between one-half degree ( $1/2^\circ$ ) and one and one-half degrees ( $1\ 1/2^\circ$ ) for smooth drums, and between one-half degree ( $1/2^\circ$ ) and two degrees ( $2^\circ$ ) for grooved drums, with the lead sheave centered on the drum.<sup>1</sup>

(k) *Drum and flange diameter.* The employers must:

(i) Provide a winding drum for the hoist that is at least 30 times the diameter of the rope used for hoisting; and

(ii) Ensure that the winding drum has a flange diameter that is at least one and one-half ( $1\ 1/2$ ) times the winding-drum diameter.

(l) *Spooling of the rope.* The employers must never spool the rope closer than two (2) inches (5.1 cm) from the outer edge of the winding-drum flange.

(m) *Electrical system.* The employers must ensure that all electrical equipment is weatherproof.

(n) *Limit switches.* The employers must equip the hoist system with limit

<sup>1</sup> This variance adopts the definition of, and specifications for, fleet angle from *Cranes and Derricks*, H. I. Shapiro, et al. (eds.); New York: McGraw-Hill. Accordingly, the fleet angle is "[t]he angle the rope leading onto a [winding] drum makes with the line perpendicular to the drum rotating axis when the lead rope is making a wrap against the flange."

switches and related equipment that automatically prevent overtravel of a personnel cage, personnel platform, boatswains' chair, or material-transport device at the top of the supporting structure and at the bottom of the hoistway or lowest landing level.

#### 5. Methods of Operation

(a) *Employee qualifications and training.* The employers must:

(i) Ensure that only trained and experienced employees, who are knowledgeable of hoist-system operations, control the hoist machine; and

(ii) Provide instruction, periodically and as necessary, on how to operate the hoist system, to each employee who uses a personnel cage for transportation.

(b) *Speed limitations.* The employers must operate the hoist at or below the following speeds:

(i) Two hundred and fifty (250) feet (76.9 m) per minute when a personnel cage is being used to transport employees;

(ii) One hundred (100) feet (30.5 m) per minute when a personnel platform or boatswains' chair is being used to transport employees; or

(iii) A line speed that is consistent with the design limitations of the system when only material is being hoisted.

(c) *Communication.* The employers must:

(i) Use a voice-mediated intercommunication system to maintain communication between the hoist operator and the employees located in or on a moving personnel cage, personnel platform, or boatswains' chair;

(ii) Stop hoisting if, for any reason, the communication system fails to operate effectively; and

(iii) Resume hoisting only when the site superintendent determines that it is safe to do so.

#### 6. Hoist Rope

(a) *Grade.* The employers must use a wire rope for the hoist system (i.e., "hoist rope") that consists of extra-improved plow steel, an equivalent grade of non-rotating rope, or a regular lay rope with a suitable swivel mechanism.

(b) *Safety factor.* The employers must maintain a safety factor of at least eight (8) times the safe workload throughout the entire length of hoist rope.

(c) *Size.* The employers must use a hoist rope that is at least one-half ( $1/2$ ) inch (1.3 cm) in diameter.

(d) *Inspection, removal, and replacement.* The employers must:

(i) Thoroughly inspect the hoist rope before the start of each job and on completing a new setup;

(ii) Maintain the proper diameter-to-diameter ratios between the hoist rope and the footblock and the sheave by inspecting the wire rope regularly (see Conditions 7(c) and 8(d) below); and

(iii) Remove and replace the wire rope with new wire rope when any of the conditions specified by § 1926.552(a)(3) occurs.

(e) *Attachments.* The employers must attach the rope to a personnel cage, personnel platform, or boatswains' chair with a keyed-screwpin shackle or positive-locking link.

(f) *Wire-rope fastenings.* When the employers use clip fastenings (e.g., U-bolt wire-rope clips) with wire ropes, they must:

(i) Use Table H-20 of § 1926.251 to determine the number and spacing of clips;

(ii) Use at least three (3) drop-forged clips at each fastening;

(iii) Install the clips with the "U" of the clips on the dead end of the rope; and

(iv) Space the clips so that the distance between them is six (6) times the diameter of the rope.

#### 7. Footblock

(a) *Type of block.* The employers must use a footblock:

(i) Consisting of construction-type blocks of solid single-piece bail with a safety factor that is at least four (4) times the safe workload, or an equivalent block with roller bearings;

(ii) Designed for the applied loading, size, and type of wire rope used for hoisting;

(iii) Designed with a guard that contains the wire rope within the sheave groove;

(iv) Bolted rigidly to the base; and

(v) Designed and installed so that it turns the moving wire rope to and from the horizontal or vertical as required by the direction of rope travel.

(b) *Directional change.* The employers must ensure that the angle of change in the hoist rope from the horizontal to the vertical direction at the footblock is approximately 90°.

(c) *Diameter.* The employers must ensure that the line diameter of the footblock is at least 24 times the diameter of the hoist rope.

#### 8. Cathead and Sheave

(a) *Support.* The employers must use a cathead (i.e., "overhead support") that consists of a wide-flange beam or two (2) steel-channel sections securely bolted back-to-back to prevent spreading.

(b) *Installation.* The employers must ensure that:

(i) All sheaves revolve on shafts that rotate on bearings; and

(ii) The bearings are mounted securely to maintain the proper bearing position at all times.

(c) *Rope guides.* The employers must provide each sheave with appropriate rope guides to prevent the hoist rope from leaving the sheave grooves when the rope vibrates or swings abnormally.

(d) *Diameter.* The employers must use a sheave with a diameter that is at least 24 times the diameter of the hoist rope.

#### 9. Guide Ropes

(a) *Number and construction.* The employers must affix two (2) guide ropes by swivels to the cathead. The guide ropes must:

(i) Consist of steel safety cables that are at least one-half (1/2) inch (1.3 cm) in diameter; and

(ii) Be free of damage or defect at all times.

(b) *Guide rope fastening and alignment tension.* The employers must fasten one end of each guide rope securely to the overhead support, with appropriate tension applied at the foundation.

(c) *Height.* The employers must rig the guide ropes along the entire height of the hoist-machine structure.

#### 10. Personnel Cage

(a) *Construction.* A personnel cage must be of steel-frame construction and capable of supporting a load that is four (4) times its maximum rated load capacity. The employers also must ensure that the personnel cage has:

(i) A top and sides that are permanently enclosed (except for the entrance and exit);

(ii) A floor securely fastened in place;

(iii) Walls that consist of 14-gauge, one-half (1/2) inch (1.3 cm) expanded metal mesh, or an equivalent material;

(iv) Walls that cover the full height of the personnel cage between the floor and the overhead covering;

(v) A sloped roof constructed of one-eighth (1/8) inch (0.3 cm) aluminum, or an equivalent material; and

(vi) Safe handholds (e.g., rope grips—but *not* rails or hard protrusions<sup>2</sup>) that accommodate each occupant.

(b) *Overhead weight.* A personnel cage must have an overhead weight (e.g., a headache ball of appropriate weight) to compensate for the weight of the hoist rope between the cathead and footblock. In addition, the employers must:

(i) Ensure that the overhead weight is capable of preventing line run; and

(ii) Use a means to restrain the movement of the overhead weight so that the weight does *not* interfere with safe personnel hoisting.

(c) *Gate.* The personnel cage must have a gate that:

(i) Guards the full height of the entrance opening; and

(ii) Has a functioning mechanical lock that prevents accidental opening.

(d) *Operating procedures.* The employers must post the procedures for operating the personnel cage conspicuously at the hoist operator's station.

(e) *Capacity.* The employers must:

(i) Hoist no more than four (4) occupants in the cage at any one time; and

(ii) Ensure that the rated load capacity of the cage is at least 250 pounds (113.4 kg) for each occupant so hoisted.

(f) *Employee notification.* The employers must post a sign in each personnel cage notifying employees of the following conditions:

(i) The standard rated load, as determined by the initial static drop test specified by Condition 10(g) ("Static drop tests") below; and

(ii) The reduced rated load for the specific job.

(g) *Static drop tests.* The employers must:

(i) Conduct static drop tests of each personnel cage, and these tests must comply with the definition of "static drop test" specified by section 3 ("Definitions") and the static drop-test procedures provided in section 13 ("Inspections and Tests") of American National Standards Institute (ANSI) standard A10.22-1990 (R1998) ("American National Standard for Rope-Guided and Nonguided Worker's Hoists—Safety Requirements");

(ii) Perform the initial static drop test at 125 percent of the maximum rated load of the personnel cage, and subsequent drop tests at no less than 100 percent of its maximum rated load; and

(iii) Use a personnel cage for raising or lowering employees only when no damage occurred to the components of the cage as a result of the static drop tests.

#### 11. Safety Clamps

(a) *Fit to the guide ropes.* The employers must:

(i) Fit appropriately designed and constructed safety clamps to the guide ropes; and

(ii) Ensure that the safety clamps do not damage the guide ropes when in use.

<sup>2</sup> To reduce impact hazards should employees lose their balance because of cage movement.

(b) *Attach to the personnel cage.* The employers must attach safety clamps to each personnel cage for gripping the guide ropes.

(c) *Operation.* The safety clamps attached to the personnel cage must:

- (i) Operate on the "broken rope principle" defined in section 3 ("Definitions") of ANSI standard A10.22-1990 (R1998);
- (ii) Be capable of stopping and holding a personnel cage that is carrying 100 percent of its maximum rated load and traveling at its maximum allowable speed if the hoist rope breaks at the footblock; and
- (iii) Use a pre-determined and pre-set clamping force (*i.e.*, the "spring compression force") for each hoist system.

(d) *Maintenance.* The employers must keep each safety-clamp assembly clean and functional at all times.

#### 12. Overhead Protection

(a) The employers must install a canopy or shield over the top of the personnel cage that is made of steel plate at least three-sixteenths ( $\frac{3}{16}$ ) of an inch (4.763 mm) thick, or material of equivalent strength and impact resistance, to protect employees (*i.e.*, both inside and outside the chimney) from material and debris that may fall from above.

(b) The employers must ensure that the canopy or shield slopes to the outside of the personnel cage.<sup>3</sup>

#### 13. Emergency-Escape Device

(a) *Location.* The employers must provide an emergency-escape device in at least one of the following locations:

- (i) In the personnel cage, provided that the device is long enough to reach the bottom landing from the highest possible escape point; or
- (ii) At the bottom landing, provided that a means is available in the personnel cage for the occupants to raise the device to the highest possible escape point.

(b) *Operating instructions.* The employers must ensure that written instructions for operating the emergency-escape device are attached to the device.

(c) *Training.* The employers must instruct each employee who uses a personnel cage for transportation on how to operate the emergency-escape device:

- (i) Before the employee uses a personnel cage for transportation; and
- (ii) Periodically, and as necessary, thereafter.

#### 14. Personnel Platforms and Fall-Protection Equipment

(a) *Personnel platforms.* When the employers elect to replace the personnel cage with a personnel platform in accordance with Condition 2(a) of this variance, they must:

(i) Ensure that an enclosure surrounds the platform, and that this enclosure is at least 42 inches (106.7 cm) above the platform's floor;

(ii) Provide overhead protection when an overhead hazard is, or could be, present; and

(iii) Comply with the applicable scaffolding strength requirements specified by § 1926.451(a)(1).

(b) *Fall-protection equipment.* Before employees use work platforms or boatswains' chairs, the employers must:

(i) Equip the employees with, and ensure that they use, full body harnesses, lanyards, and lifelines as specified by § 1926.104 and the applicable requirements of § 1926.502(d);

(ii) Secure the lifelines to the top of the chimney and to a weight at the bottom of the chimney; and

(iii) Ensure that employees attach their lanyards to the lifeline during the entire period of vertical transit.

#### 15. Inspections, Tests, and Accident Prevention

(a) The employers must:

- (i) Conduct inspections of the hoist system as required by § 1926.20(b)(2);
- (ii) Ensure that a competent person conducts daily visual inspections of the hoist system; and
- (iii) Inspect and test the hoist system as specified by § 1926.552(c)(15).

(b) The employers must comply with the accident-prevention requirements of § 1926.20(b)(3).

#### 16. Welding

(a) The employers must use only qualified welders to weld components of the hoisting system.

(b) The employers must ensure that the qualified welders:

(i) Are familiar with the weld grades, types, and materials specified in the design of the system; and

(ii) Perform the welding tasks in accordance with 29 CFR part 1926, subpart J ("Welding and Cutting").

#### VII. Authority and Signature

Jonathan L. Snare, Acting Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Ave., NW., Washington, DC directed the preparation of this notice. This notice is issued under the authority specified by section 6(d) of the Occupational Safety

and Health Act of 1970 (29 U.S.C. 655), Secretary of Labor's Order No. 5-2002 (67 FR 65008), and 29 CFR part 1905.

Signed at Washington, DC, on November 28, 2005.

**Jonathan L. Snare,**

*Acting Assistant Secretary of Labor.*

[FR Doc. E5-6883 Filed 12-5-05; 8:45 am]

**BILLING CODE 4510-26-P**

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## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice ( 05-155)]

### Notice of Prospective Patent License

**AGENCY:** National Aeronautics and Space Administration.

**ACTION:** Notice of prospective patent license.

**SUMMARY:** NASA hereby gives notice that BCG Wireless of Washington, DC has applied for a partially exclusive license to practice the inventions described and claimed in U.S. Patent No. 5,983,162, entitled "Computer Implemented Empirical Mode Decomposition Method, Apparatus and Article of Manufacture," and U.S. Patent No. 6,631,325, entitled "Computer Implemented Empirical Mode Decomposition Method Apparatus, and Article of Manufacture Utilizing Curvature Extrema," and U.S. Patent No. 6,901,353, entitled "Computing Instantaneous Frequency by Normalizing Hilbert Transform," which are assigned to the United States of America as represented by the Administrator of the National Aeronautics and Space Administration. Written objections to the prospective grant of a license should be sent to NASA Goddard Space Flight Center. NASA has not yet made a determination to grant the requested license and may deny the requested license even if no objections are submitted within the comment period.

**DATES:** Responses to this notice must be received by December 21, 2005.

**FOR FURTHER INFORMATION CONTACT:** Keith Dixon, NASA Goddard Space Flight Center, Code 140.1, Greenbelt, MD 20771, (301) 286-7351.

Dated: November 21, 2005.

**Keith T. Sefton,**

*Deputy General Counsel, (Admin. and Mgmt.).*

[FR Doc. E5-6900 Filed 12-5-05; 8:45 am]

**BILLING CODE 7510-13-P**

<sup>3</sup> Paragraphs (a) and (b) were adapted from OSHA's Underground Construction Standard (§ 1926.800(t)(4)(iv)).