DEPARTMENT OF LABOR

Occupational Safety and Health Administration

[Docket No. OSHA–2009–0005]

Avalotis Corp.: Notice of Application for a Permanent Variance and Interim Order, Grant of an Interim Order, and Request for Comments

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

ACTION: Application for a permanent variance and interim order; grant of an interim order.

SUMMARY: Avalotis Corp. (“the applicant”) applied for a permanent variance from the provisions of the OSHA standards that regulate boatswain’s chairs and hoist towers, specifically paragraph (o)(3) of 29 CFR 1926.452 and paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of 29 CFR 1926.552. In addition, the applicant requested an interim order based on the alternative conditions specified by the variance application. These alternative conditions consist of the same conditions specified in recent variances granted by OSHA from these hoist-tower and boatswain’s-chair provisions, as well as several additional conditions that would provide workers with protection from shearing, fall, and struck-by hazards. Therefore, OSHA is granting the applicant’s request for an interim order.

DATES: Comments and requests for a hearing must be submitted (postmarked, sent, or received) by December 9, 2009. The interim order specified by this notice becomes effective on November 9, 2009.

ADDRESSES: Electronic. Comments and requests for a hearing may be submitted electronically at http://www.regulations.gov, which is the Federal eRulemaking Portal. Follow the instructions online for submitting comments.

Facsimile. OSHA allows facsimile transmission of comments that are 10 pages or fewer in length (including attachments), as well as hearing requests. Send these comments and requests to the OSHA Docket Office at (202) 693–1648; hard copies of these comments are not required. Instead of transmitting facsimile copies of attachments that supplement their comments (e.g., studies and journal articles), commenters may submit these attachments, in triplicate hard copy, to the OSHA Docket Office, Technical Data Center, Room N–2625, OSHA, U.S. Department of Labor, 200 Constitution Ave., NW., Washington, DC 20210.

FOR FURTHER INFORMATION CONTACT: General information and press inquiries. For general information and press inquiries about this notice contact Jennifer Ashley, Director, OSHA Office of Communications, Room N–3647, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210; telephone: (202) 693–1000.

Technical information. For technical information about this notice, contact...
MaryAnn 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. Copies of this Federal Register notice. Electronic copies of this notice are available at http://www.regulations.gov. Electronic copies of this notice, as well as news releases and other relevant information, are available on OSHA’s Web page at http://www.osha.gov.

I. Notice of Application

Avalotis Corp. (“the applicant”) submitted an application for a permanent variance under Section 6(d) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 655) and 29 CFR 1905.11 (“Variances and other relief under section 6(d)”) (see Ex. 1—Avalotis Corp. Application). The applicant seeks a permanent variance from 29 CFR 1926.452(o)(3), which provides the tackle requirements for boatswain’s chairs. The applicant also requests a variance from paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of 29 CFR 1926.552 that regulate hoist towers. These latter paragraphs specify the following requirements:

- (c)(1)—Construction requirements for hoist towers outside a structure;
- (c)(2)—Construction requirements for hoist towers inside a structure;
- (c)(3)—Anchoring a hoist tower to a structure;
- (c)(4)—Hoistway doors or gates;
- (c)(8)—Electrically interlocking entrants’ 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 hoisting; and
- (c)(16)—Material and component requirements for construction of personnel hoists.

The applicant contends that the permanent variance would provide its workers with a place of employment that is at least as safe and healthful as they would obtain under the existing provisions. The places of employment affected by this variance application are the present and future projects where the applicant constructs chimneys.

The applicant certifies that it provided employee representatives of current workers who would be affected by the permanent variance with a copy of its variance request. The applicant also certifies that it notified its workers of the variance request by posting a summary of the application and specifying where the workers can examine a copy of the application at prominent locations where they normally post notices to its workers. In addition, the applicant informed workers and their representatives of their right to petition the Assistant Secretary of Labor for Occupational Safety and Health for a hearing on this variance application.

II. Multi-State Variance

The applicant stated that it performs chimney work in a number of States and Territories that operate OSHA-approved safety and health programs under Section 18 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.). Twenty-seven States and Territories have OSHA-approved safety and health programs. As part of this variance process, the Directorate of Cooperative and State Programs will notify the State-Plan States and Territories of this variance application and advise them that, unless they object, OSHA will assume the State’s position regarding this application is the same as its position regarding prior identical variances.

Thirteen States and one Territory have agreed to the terms of the earlier variance requests addressing chimney construction (i.e., Alaska, Arizona, Indiana, Maryland, Minnesota, Nevada, New Mexico, North Carolina, Oregon, Puerto Rico, Tennessee, Vermont, Virginia, and Wyoming). Four States have imposed additional requirements and conditions (i.e., Kentucky, Michigan, South Carolina, and Utah), and four States have objected to the earlier variance requests (i.e., California, Hawaii, Iowa, and Washington). In the eight States that impose additional conditions or have declined the terms of the variance application, employers would have to contact or apply directly to the State-Plan Office and meet State-specific requirements should OSHA grant the variance request. The variance would not provide access to five State Plans that cover only public-sector workers (i.e., Connecticut, Illinois, New Jersey, New York, and the Virgin Islands), and authority over variances in these States continues to reside with Federal OSHA.

III. Supplementary Information

A. Overview

The applicant constructs remodels, repairs, maintains, inspects, and demolishes tall chimneys made of reinforced concrete, brick, and steel. This work requires the applicant to transport workers 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 requires 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 workers to various heights inside and outside a chimney, the applicant proposes to use a hoist system that would lift and lower personnel-transport devices (i.e., personnel cages, personnel platforms, or boatswain’s chairs). The applicant also would attach material-transport devices such as hoppers, concrete buckets, or other containers to the hoist system to raise or lower construction material or equipment inside or outside a chimney. The applicant would use personnel cages, personnel platforms, or boatswain’s chairs solely to transport workers with the tools and materials necessary to do their work, and not to transport only materials or tools in the absence of workers.

B. Previous Variances From 29 CFR 1926.452(o)(3) and 1926.552(c)

Since 1973, a number of chimney construction companies demonstrated to OSHA that several of the hoist-tower requirements of 29 CFR 1926.552(c) present chimney-access problems that pose a serious danger to their workers. These companies received permanent variances from these personnel-hoist and boatswain’s-chair requirements, and they used essentially the same alternate apparatus and procedures that the applicant is now proposing to use in this variance application. The Agency published the permanent variances for these companies at 38 FR 8545 (April 3, 1973), 44 FR 51352 (August 31, 1979), 50 FR 20145 (May 14, 1985), 50 FR 40627 (October 4, 1985), 52 FR 22552 (June 12, 1987), 68 FR 52961 (September 8, 2003), 70 FR 72659 (December 6, 2005), 71 FR 10557 (March 1, 2006), 74 FR 33809 (July 21, 2009), and 75 FR 59739 (October 10, 2010).
In 1980, the Agency evaluated the alternative conditions specified in the permanent variances that it granted to chimney construction companies as of that date. In doing so, OSHA observed hoisting operations conducted by these companies at various construction sites. These evaluations found that, while the alternative conditions generally were safe, compliance with the conditions among the companies was uneven (see Ex. 2—OSHA Evaluation Report). Additionally, the National Chimney Construction Safety and Health Advisory Committee (NCCSHAC), an industry-affiliated organization, conducted evaluations of the hoist systems that provided useful information regarding the safety and efficacy of the alternative conditions (see Ex. 3—NCCSHAC Report).

The permanent variance granted by OSHA to American Boiler and Chimney Co. and Oak Park Chimney Corp. (29 CFR 1926.552), which regulates the hoisting systems used to transport personnel to and from elevated work platforms by mechanical means during the construction, alteration, repair, maintenance or demolition of structures such as chimneys, has been in effect since May 14, 1985 (50 FR 20145). The first variance, granted on May 14, 1985 (50 FR 20145), addressed the boatswain’s chair to work on chimneys that are over 200 feet tall because of limited space. When limited space makes a personnel platform infeasible, the applicant would use a boatswain’s chair to lift workers to work locations. The applicant would limit use of the boatswain’s chair to elevations above the highest work location that the personnel cage and personnel platform can reach; under these conditions, the applicant would attach the boatswain’s chair directly to the hoisting cable only when the structural arrangement precludes the safe use of the block and tackle required by 29 CFR 1926.452(o)(3).

The applicant states that it is necessary, on occasion, to use a boatswain’s chair to transport workers to and from a bracket scaffold on the outside of an existing tapered chimney during flue installation or repair work, or to and from an elevated scaffold located inside a chimney that has a tapering diameter. Paragraph (o)(3) of 29 CFR 1926.452, which regulates the tackle used to rig a boatswain’s 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 (5/8") inch (1.6 cm) diameter first-grade manila rope [or equivalent rope].” The primary purpose of this paragraph is to allow a worker to safely control the ascent, descent, and stopping locations of the boatswain’s chair. However, the applicant notes that the required tackle is difficult or impossible to use on some chimneys that are over 200 feet tall because of space limitations. Therefore, as an alternative to complying with the tackle requirements specified by 29 CFR 1926.452(o)(3), the applicant proposes to use the hoisting system described in Section II.E (“Proposed Alternative to 29 CFR 1926.452(o)(3) and 29 CFR 1926.552(c)” of this notice, both inside and outside a chimney, to raise or lower workers in a personnel cage to work locations. The applicant would use a personnel cage for this purpose to the extent that adequate space is available; it would use a personnel platform if the enclosed hoist tower for outside operations exposes workers to additional fall hazards because extra bridging and bracing must be installed to support a walkway between the hoist tower and the tapered chimney.

Paragraph (c)(1) of 29 CFR 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 chimney; these enclosures must extend the full height of the hoist tower. The applicant asserts 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 workers to a serious fall hazard. Additionally, the applicant notes that the requirement to extend the enclosures 10 feet above the highest work location that the personnel cage and personnel platform can reach; under these conditions, the applicant would attach the boatswain’s chair directly to the hoisting cable only when the structural arrangement precludes the safe use of the block and tackle required by 29 CFR 1926.452(o)(3).

C. Requested Variance From 29 CFR 1926.452(o)(3)

Paragraph (c) of 29 CFR 1926.552 specifies the requirements for enclosed hoisting systems used to transport personnel from one elevation to another. This paragraph ensures that employers transport workers 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 personnel 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 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 workers to additional fall hazards because extra bridging and bracing must be installed to support a walkway between the hoist tower and the tapered chimney.

Paragraph (c)(2) of 29 CFR 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 chimney; these enclosures must extend the full height of the hoist tower. The applicant asserts 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 workers to a serious fall hazard. Additionally, the applicant notes that the requirement to extend the enclosures 10 feet above the highest work location that the personnel cage and personnel platform can reach; under these conditions, the applicant would attach the boatswain’s chair directly to the hoisting cable only when the structural arrangement precludes the safe use of the block and tackle required by 29 CFR 1926.452(o)(3).
sides of a hoist tower even when the tower is located inside a chimney; the enclosure must extend the full height of the tower. The applicant contends that it is hazardous for workers to erect and brace a hoist tower inside a chimney, especially tapered chimneys, 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 29 CFR 1926.552(c)(1) and (c)(2), the applicant proposes to use the hoist system described below in Section ILE (‘‘Proposed Alternative to 29 CFR 1926.452(o)(3) and 29 CFR 1926.552(c)’’ of this notice to transport workers to and from work locations inside and outside chimneys. Use of the proposed hoist system would eliminate the need for the applicant to comply with other provisions of 29 CFR 1926.552(c) that specify requirements for hoist towers. Therefore, the applicant also is requesting a permanent variance from the following related provisions:

- (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; and
- (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)—Material and component requirements for construction of personnel hoists.

The applicant asserts that the proposed hoisting system would protect its workers at least as effectively as the hoist-tower requirements of 29 CFR 1926.552(c).

E. Proposed Alternative to 29 CFR 1926.452(o)(3) and 29 CFR 1926.552(c)

To power the hoist system, the applicant would use a hoist engine, located and controlled outside the chimney. The system also would consist of a wire rope that: spoils off the hoist 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 the hoist system, supports the overhead sheaves. The overhead sheaves (and the vertical span of the hoist system) move upward with the hoist system 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 applicant would 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.

The applicant would implement additional conditions to improve worker safety, including:

1. Attaching the wire rope to the personnel cage using a keyed-screwpin shackle or positive-locking link;
2. Adding limit switches to the hoist system to prevent overtravel by the personnel- or material-transport devices;
3. Providing the safety factors and other precautions required for personnel hoists specified by the pertinent provisions of 29 CFR 1926.552(c), including canopies and shields to protect workers located in a personnel cage from material that may fall during hoisting and other overhead activities;
4. Providing falling-object protection for scaffold platforms as specified by 29 CFR 1926.451(b)(1);
5. Conducting tests and inspections of the hoist system as required by 29 CFR 1926.20(b)(2) and 1926.552(c)(15);
6. Establishing an accident prevention program that conforms to 29 CFR 1926.20(b)(3);
7. Equipping workers who use a personnel cage, personnel platform, or boatswain’s chair with, and ensuring that they use, personal fall arrest systems meeting the requirements of 29 CFR 1926.502(d);
8. Ensuring that workers using a personnel cage secure their personal fall arrest system to an attachment point located inside the cage, and that workers using personnel platforms or boatswain’s chairs secure their personal fall arrest systems to a vertical lifeline;
9. When using vertical lifelines, securing the lifelines to the top of the chimney and weighting the lifelines properly or suitably affixing the lifelines to the bottom of the chimney, and ensuring that workers remain attached to their lifeline during the entire period of vertical transit;
10. Providing instruction to each worker who uses a personnel platform or boatswain’s chair regarding the shearing hazards posed by the hoist system (e.g., work platforms, scaffolds), and the need to keep their limbs or other body parts clear of these hazards during hoisting operations;
11. Providing the instruction on shearing hazards before a worker uses one of these personnel-transport devices at the worksite; and periodically, and as necessary, thereafter, including whenever the worker demonstrates a lack of knowledge about the hazard or how to avoid it, a modification occurs to an existing shearing hazard, or a new shearing hazard develops at the worksite;
12. Attaching a readily visible warning to each personnel platform and boatswain’s chair notifying workers in a language they understand of potential shearing hazards during hoisting operations. For warnings located on personnel platforms, using the following (or equivalent) wording: ‘‘Warning—To avoid serious injury, keep your hands, arms, feet, legs, and other parts of your body inside this platform while it is in motion.’’ For boatswain’s chairs, the warning would use the following (or equivalent) wording: ‘‘Warning—To avoid serious injury, do not extend your hands, arms, feet, legs, or other parts of your body from the side or to the front of this chair while it is in motion’’; and
13. Establishing a clearly designated exclusion zone around the hoist system’s bottom landing and prohibiting any worker from entering the exclusion zone except to access a personnel cage, personnel platform, boatswain’s chair, or material-transport device, and then only when the personnel- and material-transport device is at the bottom landing and not in operation.

In its revised letter of interpretation (see Ex. 4—2009 Revised OSHA Letter of Interpretation), OSHA revised the requirements for using personal fall protection systems specified in previous variances addressing these hoist systems (see Conditions 7 and 8, above). This revision requires the applicant to provide workers using personnel cages with personal fall protection systems, and to ensure that the workers use these systems in accordance with 29 CFR 1926.502(d). OSHA believes this revision will protect workers from falling out of a personnel cage in the event the door of the cage opens inadvertently during lifting operations.

Conditions 10–13 are new conditions that were added when OSHA revised its letter of interpretation. OSHA believes that these additional conditions are necessary to protect workers from shearing, fall, and struck-by hazards associated with using hoist systems in chimney construction. Accordingly, conditions 10–12 address shearing hazards that workers may encounter while a personnel platform or
III. Grant of Interim Order

In addition to requesting a permanent variance, the applicant also requested an interim order that would remain in effect until the Agency makes a decision on its application for a permanent variance. During this period, the applicant must comply fully with the conditions of the interim order as an alternative to complying with the tackle requirements provided for boatswain’s chairs by 29 CFR 1926.452(o)(3) and the requirements for hoist towers specified by paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of 29 CFR 1926.552.

Based on its previous experience with permanent variances from these provisions granted to other companies, OSHA believes that an interim order is justified in this case. As noted above in Section II.B (Previous Variances from 29 CFR 1926.452(o)(3) and 1926.552(c)) of this notice, the Agency has granted a number of permanent variances from these provisions since 1973. Over this period, the affected companies have effectively used the alternative conditions specified in the variances. The conditions of the interim order requested by the applicant substantially duplicate the conditions approved recently in the permanent variance granted to American Boiler and Chimney Co. and Oak Park Chimney Corp. (see 68 FR 52961), while adding conditions that would provide workers with protection from shearing, fall, and struck-by hazards. In granting a permanent variance to American Boiler and Chimney Co. and Oak Park Chimney Corp., the Agency stated, “When the employers comply with the conditions of the following order, their workers 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 29 CFR 1926.452, and paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of 29 CFR 1926.552.” (See 68 FR 52967.)

Based on its determination that the alternative conditions proposed by American Boiler and Chimney Co. and Oak Park Chimney Corp. will protect workers at least as effectively as the requirements of paragraph (o)(3) of 29 CFR 1926.452 and paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of 29 CFR 1926.552, as well as the additional conditions specified in this variance application that will protect workers from shearing, fall, and struck-by hazards, OSHA has decided to grant an interim order to the applicant pursuant to the provisions of 29 CFR 1905.11(c). Accordingly, in lieu of complying with paragraph (o)(3) of 29 CFR 1926.452 and paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of 29 CFR 1926.552, the applicant will: (1) Provide notice of this grant of an interim order to the workers affected by the conditions of the interim order using the same means it used to inform these workers of their applications for a permanent variance; and (2) comply with the conditions listed below in Section IV (“Specific Conditions of the Interim Order and the Application for a Permanent Variance”) of this application for the period between the date of this Federal Register notice and the date the Agency publishes its final decision on the application in the Federal Register; the interim order will remain in effect during this period unless OSHA modifies or revokes it in accordance with the requirements of 29 CFR 1905.13.

IV. Specific Conditions of the Interim Order and the Application for a Permanent Variance

The following conditions apply to the interim order being granted by OSHA to Avalotis Corp. as part of its application for a permanent variance described in this Federal Register notice. In addition, these conditions specify the alternatives to the requirements of paragraph (o)(3) of 29 CFR 1926.452 and paragraphs (c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16) of 29 CFR 1926.552 that the applicant is proposing in its application for a permanent variance. These conditions include:

1. Scope

(a) The interim order/permanent variance applies/would apply only to tapered chimneys when the applicant uses a hoist system during inside or outside chimney construction to raise or lower its workers between the bottom landing of a chimney and an elevated work location on the inside or outside surface of the chimney.

(b) When using a hoist system as specified in this interim order/ permanent variance, the applicant must/would:

(i) Use the personnel cages, personnel platforms, or boatswain’s chairs raised and lowered by the hoist system solely to transport workers with the tools and materials necessary to do their work; and

(ii) Attach a hopper or concrete bucket to the hoist system to raise and
lower all other materials and tools inside or outside a chimney.

(c) Except for the requirements specified by 29 CFR 1926.452(o)(3) and 1926.552(c)(1) through (c)(4), (c)(8), (c)(13), (c)(14)(i), and (c)(16), the applicant must/would 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 Boatswain’s Chair

(a) Personnel platform. When the applicant demonstrates that available space makes a personnel cage for transporting workers infeasible, it may replace the personnel cage with a personnel platform when it limits use of the personnel platform to elevations above the last work location that the personnel cage can reach.

(b) Boatswain’s chair. The applicant must/would:

(i) Before using a boatswain’s chair, demonstrate that available space makes it infeasible to use a personnel platform for transporting workers;

(ii) Limit use of a boatswain’s chair to elevations above the last work location that the personnel platform can reach; and

(iii) Use a boatswain’s chair in accordance with block-and-tackle requirements specified by 29 CFR 1926.452(o)(3), unless it can demonstrate that the structural arrangement of the chimney precludes such use.

3. Qualified Competent Person

(a) The applicant must/would:

(i) Provide a qualified competent person, as specified in paragraphs (f) and (m) of 29 CFR 1926.32, who is responsible for ensuring that the design, maintenance, and inspection of the hoist system comply with the conditions specified herein 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 workers.

(b) The applicant must/would 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 applicant must/would designate the hoist machine as a portable personnel hoist.

(b) Raising or lowering a transport. The applicant must/would ensure that:

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

(ii) Whenever it raises or lowers a personnel or material hoist (e.g., a personnel cage, personnel platform, boatswain’s 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 applicant must/would power the hoist machine by an air, electric, hydraulic, or internal-combustion drive mechanism.

(d) Constant-pressure control switch. The applicant must/would:

(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 applicant must/would:

(i) Equip the hoist machine with an operating line-speed indicator maintained in proper 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 applicant must/would 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 applicant must/would equip the hoist machine with a slack-rope switch to prevent rotation of the winding drum under slack-rope conditions.

(h) Frame. The applicant must/would 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 applicant must/would secure hoist machines in position to prevent movement, shifting, or dislodgement.

(j) Location. The applicant must/would:

(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°) and one and one-half degrees (1 1⁄2°) for smooth drums, and between one-half degree (1⁄2°) and two degrees (2°) for grooved drums, with the lead sheave centered on the drum.

5. Methods of Operation

(a) Worker qualifications and training. The applicant must/would:

(i) Ensure that only trained and experienced workers, 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 worker who uses a personnel cage, personnel platform, or boatswain’s chair for transportation.

(b) Speed limitations. The applicant must/would never operate the hoist at a speed in excess of:

5This provision adopts the definition of, and specifications for, fleet angle from Cranes and Derricks, H. I. Shapiro, et al. (eds.); New York: McGraw-Hill; 3rd ed., 1989, page 592. 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.”
must/would:

(i) Two hundred and fifty (250) feet (76.9 m) per minute when a personnel cage is being used to transport workers;
(ii) One hundred (100) feet (30.5 m) per minute when a personnel platform or boatswain’s chair is being used to transport workers; or
(iii) A line speed that is consistent with the design limitations of the system when only material is being hoisted (i.e., using a dedicated material-transport device such as a hopper or concrete bucket).

(c) Communication. The applicant must/would:

(i) Use an electronic voice-communication system to maintain communication between the hoist operator and the workers located in or on a moving personnel cage, personnel platform, or boatswain’s chair;
(ii) Stop hoisting if, for any reason, the communication system fails to operate effectively; and
(iii) Resume hoisting only when the worksite superintendent determines that it is safe to do so.

6. Hoist Rope

(a) Grade. The applicant must/would 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 applicant must/would maintain a safety factor of at least eight (8) times the safe workload throughout the entire length of hoist rope.

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

(d) Inspection, removal, and replacement. The applicant must/would:

(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 condition specified by 29 CFR 1926.552(a)(3) occurs.

(e) Attachments. The applicant must/would attach the rope to a personnel cage, personnel platform, or boatswain’s chair with a keyed-screwpin shackle or positive-locking link.

(f) Wire-rope fastenings. When the applicant uses clip fastenings (e.g., U-bolt wire-rope clips) with wire ropes, it must/would:

(i) Use Table H–20 of 29 CFR 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 applicant must/would 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 direction as required by the direction of rope travel.

(b) Directional change. The applicant must/would 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 applicant must/would require 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 applicant must/would 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 applicant must/would 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 applicant must/would 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 applicant must/would 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 applicant must/would affix two (2) guide ropes by swivels to the cathead. The applicant must/would ensure that the guide ropes:

(i) Consist of steel safety cables not less than 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 applicant must/would fasten one end of each guide rope securely to the overhead support, with appropriate tension applied at the foundation.

(c) Height. The applicant must/would rig the guide ropes along the entire height of the hoist-machine structure.

10. Personnel Cage

(a) Construction. The applicant must/would ensure that the personnel cage is of steel-frame construction and capable of supporting a load that is four (4) times its maximum rated load capacity. The applicant must/would 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;
(vi) Safe handholds (e.g., rope grips—not rails or hard protrusions) that accommodate each occupant; and
(v) Attachment points to which workers must/would secure their personal fall protection systems.

(b) Overhead weight. The applicant must/would ensure that the personnel cage has 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 applicant must/would:

(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 applicant must/would ensure that the personnel cage has 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 applicant must/would post the *To reduce impact hazards should workers lose their balance because of cage movement.
procedures for operating the personnel cage conspicuously at the hoist operator’s station.

(e) Capacity. The applicant must/would:
   (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) Worker notification. The applicant must/would post a sign in each personnel cage notifying workers 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 applicant must/would:
   (i) Conduct static drop tests of each personnel cage that 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 Non-Guided 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 workers 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 applicant must/would:
      (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.
   (b) Attach to the personnel cage. The applicant must/would attach safety clamps to each personnel cage for gripping the guide ropes.
   (c) Operation. The applicant must/would ensure that the safety clamps attached to the personnel cage:
      (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 applicant must/would keep the safety clamp assemblies clean and functional at all times.

12. Overhead Protection
   (a) The applicant must/would install a canopy or shield over the top of the personnel cage that is made of steel plate at least three-sixteenth (3⁄16) of an inch (4.763 mm) thick, or material of equivalent strength and impact resistance, to protect workers (i.e., both inside and outside the chimney) from material and debris that may fall from above.
   (b) The applicant must/would ensure that the canopy or shield slopes to the outside of the personnel cage.

13. Emergency-Escape Device
   (a) Location. For workers using a personnel cage, the applicant must/would 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 applicant must/would ensure that written instructions for operating the emergency-escape device are attached to the device.
   (c) Training. The applicant must/would instruct each worker who uses a personnel cage for transportation on how to operate the emergency-escape device:
      (i) Before the worker uses a personnel cage for transportation; and
      (ii) Periodically, and as necessary, thereafter.

14. Personnel Platforms
   When the applicant elects to replace the personnel cage with a personnel platform in accordance with Condition 2(a), above, they must/would:
   (a) Ensure that an enclosure surrounds the platform, and that this enclosure is at least 42 inches (106.7 cm) above the floor of the platform;
   (b) Provide overhead protection when an overhead hazard is, or could be, present; and
   (c) Comply with the applicable scaffolding strength requirements specified by 29 CFR 1926.451(a)(1).

15. Protecting Workers From Fall and Shearing Hazards
   (a) Fall hazards. The applicant must/would:
      (i) Before workers use personnel cages, personnel platforms, or boatswain’s chairs, equip the workers with, and ensure that they use, personal fall arrest systems that meet the requirements of 29 CFR 1926.502(d);
      (ii) Ensure that workers using personnel cages secure their personal fall arrest systems to attachment points located inside the cage;
      (iii) Ensure that workers using personnel platforms and boatswain’s chairs secure their personal fall arrest systems to a vertical lifeline; and
      (iv) When using vertical lifelines:
         (A) Secure the lifelines to the top of the chimney;
         (B) Weight the lifelines properly or suitably affix the lifelines to the bottom of the chimney; and
         (C) Ensure that workers remain attached to their lifeline during the entire period of vertical transit.
   (b) Shearing hazards. The applicant must/would:
      (i) Provide workers who use personnel platforms or boatswain’s chairs with instruction on the shearing hazards posed by the hoist system (e.g., work platforms, scaffolds), and the need to keep their limbs or other body parts clear of these hazards during hoisting operations;
      (ii) Provide the instruction on shearing hazards:
         (A) Before a worker uses a personnel platform or boatswain’s chair at the worksite; and
         (B) Periodically, and as necessary, thereafter, including whenever a worker demonstrates a lack of knowledge about the hazard or how to avoid it, a modification occurs to an existing shearing hazard, or a new shearing hazard develops at the worksite; and
         (iii) Attach a readily visible warning to each personnel platform and boatswain’s chair notifying workers in a language they understand of potential shearing hazards they may encounter during hoisting operations, and that uses the following (or equivalent) wording:
            (A) For personnel platforms:
               “Warning—To avoid serious injury, keep your hands, arms, feet, legs, and other parts of your body inside this platform while it is in motion”;
            (B) For boatswain’s chairs:
               “Warning—To avoid serious injury, do not extend your hands, arms, feet, legs,
or other parts your body from the side or to the front of this chair while it is in motion.”

16. Exclusion Zone

The applicant must/would:
(a) Establish a clearly designated exclusion zone around the bottom landing of the hoist system; and
(b) Prohibit any worker from entering the exclusion zone except to access a personnel- or material-transport device, and then only when the device is at the bottom landing and not in operation (i.e., when the drive components of the hoist machine are disengaged and the braking mechanism is properly applied).

17. Inspections, Tests, and Accident Prevention

(a) The applicant must/would:
(i) Conduct inspections of the hoist system as required by 29 CFR 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 29 CFR 1926.552(c)(15).

(b) The applicant must/would comply with the accident prevention requirements of 29 CFR 1926.20(b)(3).

18. Welding

(a) The applicant must/would ensure that only qualified welders weld components of the hoisting system.

(b) The applicant must/would 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”).

19. OSHA Notification

(a) At least 15 calendar days prior to commencing any chimney construction operation using the conditions specified herein, the applicant must/would notify the OSHA Area Office nearest to the worksite, or the appropriate State Plan Office, of the operation, including the location of the operation and the date the operation will commence;

(b) The applicant must/would inform OSHA national headquarters as soon as it has knowledge that it will:
(i) Cease to do business; or
(ii) Transfer the activities covered by this permanent variance to a successor company.

V. Authority and Signature

Jordan Barab, 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. 5–2007 (72 FR 31160), and 29 CFR part 1905.

Signed at Washington, DC, on November 2, 2009.

Jordan Barab,
Acting Assistant Secretary of Labor for Occupational Safety and Health.

[FR Doc. E9–26930 Filed 11–6–09; 8:45 am]
BILLING CODE 4510–26–P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice (09–094)]

NASA International Space Station Advisory Committee; Meeting

AGENCY: National Aeronautics and Space Administration (NASA).

ACTION: Notice of meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, Public Law 92–463, as amended, the National Aeronautics and Space Administration announces an open meeting of the NASA International Space Station Advisory Committee.


ADDRESS:
National Aeronautics and Space Administration Headquarters, 300 E Street, SW., Room 7H45, Washington, DC 20546.

FOR FURTHER INFORMATION CONTACT: Dr. J. Donald Miller, Office of External Relations, (202) 358–1527, National Aeronautics and Space Administration, Washington, DC 20546–0001.

SUPPLEMENTARY INFORMATION: This meeting will be open to the public upon the seating capacity of the room. Five seats will be reserved for members of the press. The purpose of the meeting is to assess NASA and Roscosmos plans to support a six-person crew aboard the International Space Station, including transportation, crew rotation, training, and micro meteoroid and orbital debris shielding. Attendees will be requested to sign a register and to comply with NASA security requirements, including the presentation of a valid picture ID, before receiving an access badge. Foreign nationals attending this meeting will be required to provide the following information: Full name; gender; date/place of birth; citizenship; visa/green card information (number, type, expiration date); passport information (number, country, expiration date); employer/affiliation information (name of institution, address, country, phone); title/position of attendee. To expedite admittance, attendees should provide identifying information in advance by contacting Dr. Miller via e-mail at j.d.miller@nasa.gov or by telephone at (202) 358–1527 by December 2, 2009.

It is imperative that the meeting be held on this date to accommodate the scheduling priorities of the key participants.


P. Diane Rausch,
Advisory Committee Management Officer, National Aeronautics and Space Administration.

[FR Doc. E9–26907 Filed 11–6–09; 8:45 am]
BILLING CODE 7510–13–P

NUCLEAR REGULATORY COMMISSION

[Docket No. 40–9068; NRC–2009–0391]

Notice of Availability of Draft Environmental Assessment and Opportunity To Provide Comments for Exemption Request for Lost Creek ISR, LLC, Sweetwater County, WY

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Notice of availability.

DATES: Comments regarding this draft Environmental Assessment must be received by December 9, 2009.

FOR FURTHER INFORMATION CONTACT: Stephen J. Cohen, Team Leader, Uranium Recovery Licensing Branch, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC, 20555. Telephone: (301) 401–7182; fax number: (301) 415–5369; e-mail: stephen.cohen@nrc.gov.

SUPPLEMENTARY INFORMATION: The U.S. Nuclear Regulatory Commission (NRC) staff, pursuant to 10 CFR 51.33, is publishing a draft environmental assessment (EA) for public review and comment. The draft EA pertains to the planned issuance of an exemption from the commencement of construction requirements in 10 CFR 40.32(e) to Lost Creek ISR, LLC. The request for this exemption was submitted to the NRC staff on July 2, 2009. Also pending before the NRC is Lost Creek’s earlier license application for authorization to operate an in situ recovery (ISR) uranium milling facility in Sweetwater County, Wyoming. Issuance of the