

Crane or Derrick Suspended Personnel Platforms

OSHA 3100
2002 (Revised)



Occupational
Safety and Health
Administration

U.S. Department of Labor

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

This publication is in the public domain and may be reproduced, fully or partially, without permission. Source credit is requested but not required.

This information is available to sensory impaired individuals upon request.

Voice phone: (202) 693-1999;
Teletypewriter (TTY) number: (877) 889-5627.

Crane or Derrick Suspended Personnel Platforms



U.S. Department of Labor
Elaine L. Chao, Secretary

Occupational Safety and Health Administration
John L. Henshaw, Assistant Secretary

OSHA 3100
2002 (Revised)

Contents

Introduction

What does this booklet cover? 1

What OSHA standards govern
suspended personnel platforms? 1

Crane and Derrick Operations

What are the requirements for
safe crane operation? 3

Must cranes and derricks have certain
instruments and components? 4

Personnel Platforms

What are the design specifications for
personnel platforms? 6

What are the load restrictions for
personnel platforms? 7

What does the OSHA standard
require concerning rigging? 8

Are there any requirements for inspections
and tests before hoisting personnel? 9

What actions are required after
the trial lift? 10

Must employers meet with workers before hoisting operations begin?	12
--	----

Safe Work Practices

How can workers make hoisting operations safer?	13
How can crane and derrick operators make lift operations safer?	14
What rules apply to cranes traveling while hoisting personnel?	14

OSHA Assistance

What are safety and health system management guidelines?	16
What are state programs?	17
How do I obtain consultation services?	18
What are Voluntary Protection Programs (VPPs)?	20
What is the Strategic Partnership Program?	20
Does OSHA offer training and education?	21
Does OSHA provide any information electronically?	23

How do I learn more about related
OSHA publications? 24

How do I contact OSHA about emergencies,
complaints, or further assistance? 24

OSHA Office Directory

OSHA Regional Offices 26

OSHA Area Offices 28

States with Approved Plans 32

OSHA Consultation Projects 33

Introduction

What does this booklet cover?

This booklet highlights selected OSHA requirements for hoisting personnel by crane or derrick in the construction industry, prescribes the measures employers must take to bring their work operations into compliance, and describes safe work practices for employees. It is not a substitute for OSHA standards. OSHA standards for hoisting personnel are written in performance-oriented language that allow employers flexibility in deciding how to best protect employees from the hazards of hoisting operations and how to comply with the standards.

What OSHA standards govern suspended personnel platforms?

The following standards cover the use of suspended personnel platforms:

- Title 29 of the *Code of Federal Regulations (CFR)* Part 1926.550 limits the use of personnel hoisting in the construction industry and prescribes safety measures for these operations.
- Title 29 *CFR* Part 1926.550(g) covers personnel platforms that are suspended from the load line and used in construction.

- Title 29 *CFR* Part 1910.180(h)(3)(v) covers the use of suspended personnel platforms in general industry and generally prohibits hoisting, lowering, swinging, or traveling while anyone is on the load or hook. When the use of a conventional means of access to any elevated worksite would be impossible or more hazardous, however, a violation of 1910.180(h)(3)(v) will be treated as *de minimis*—in effect, disregarded—if the employer has complied with the provisions in 29 *CFR* Part 1926.550(g)(3-8).

Title 29 *CFR* Part 1926.550(g)(2) prohibits hoisting personnel on a platform suspended by a crane or derrick except when no safe alternative is possible. Steel erection is unique because conventional means of access are not feasible. Consequently, 29 *CFR* Part 1926.753(c)(4) unconditionally allows the use of crane-suspended or derrick-suspended personnel platforms during steel erection. In all cases, compliance with the provisions of 29 *CFR* Part 1926.550(g)(3-8) will best protect personnel being hoisted by these platforms when such hoisting is necessary.

Crane and Derrick Operations

When conventional means of access (e.g., scaffolds, ladders) are unsafe, personnel hoisting operations that comply with the provisions of the OSHA standard are allowed. Employee safety—not practicality or convenience—must determine an employer's choice of method.

What are the requirements for safe crane operation?

Because using cranes or derricks to hoist personnel poses a serious risk to the employees being lifted, any cranes and derricks that hoist personnel must conform to the following:

- Be placed on a firm foundation;
- Be uniformly level within 1 percent of level grade;
- Have a minimum safety factor of seven for the load line (wire rope) of the crane or derrick (this means it must be capable of supporting seven times the maximum intended load);

- Move the personnel platform slowly and cautiously without any sudden jerking of the crane, derrick, or platform;
- Have rotation-resistant rope with a minimum safety factor of ten; and
- Have all brakes and locking devices on the crane or derrick set when the occupied personnel platform is in a stationary working position.

In addition, the combined weight of the loaded personnel platform and its rigging must not exceed 50 percent of the rated capacity of the crane or derrick for the radius and configuration of the crane or derrick.

Note: *The crane operator must always be at the controls when the crane engine is running and the personnel platform is occupied.* The crane operator also must have full control over the movement of the personnel platform.

Must cranes and derricks have certain instruments and components?

Yes. Employers must ensure the following:

- Cranes and derricks with variable angle booms must have a boom angle indicator that is visible to the operator.
- Cranes with telescoping booms must be equipped with a device to clearly indicate the boom's extended length, or the load radius to be used during the lift must be accurately determined prior to hoisting personnel.
- Cranes and derricks must be equipped with (1) an anti-two-blocking device that prevents contact between the load block or overhaul ball and the boom tip, or (2) a two-block damage-prevention feature that deactivates the hoisting action before damage occurs.

Personnel Platforms

What are the design specifications for personnel platforms?

A qualified engineer, or a qualified person competent in structural design, must design platforms used for lifting personnel to do the following:

- Support platform weight and at least five times the maximum intended load.
- Minimize tipping caused by personnel movement on platforms by having an appropriate suspension system.
- Keep tools, materials, and equipment from falling on employees below by having a standard guardrail system that is enclosed from the toeboard to the mid-rail.

Platforms also must have the following:

- Inside grab rail;
- Permanent marking or plate that clearly indicates the platform's weight and rated load capacity or maximum intended load;
- Access gate, if provided, that does not swing outward during hoisting and is equipped with

a restraining device to prevent accidental opening; and

- Adequate headroom for employees.

In addition, the OSHA standard requires the following:

- All personnel must wear hard hats and have overhead protection on the platform when exposed to falling objects.
- All rough edges on the platform must be ground smooth to prevent injuries to employees.
- All welding on the personnel platform and its components must be performed by a qualified welder who is familiar with weld grades, types, and materials specified in the platform design.

What are the load restrictions for personnel platforms?

The loading of personnel platforms must conform to the following requirements:

- Personnel platforms must not be loaded in excess of their rated load capacity or maximum intended load as indicated on permanent markings.

- Only personnel instructed in the requirements of the standard and the task to be performed—along with their tools, equipment, and materials needed for the job—are allowed on the platform.
- All materials and tools must be secured and evenly distributed to balance the load while the platform is in motion.

What does the OSHA standard require concerning rigging?

Rigging for personnel platforms must conform to the following requirements:

- Legs of bridles must be connected to a master link or shackle so that the load is evenly positioned among the bridle legs when a wire rope bridle is used to connect the platform to the load line.
- Bridles and associated rigging for attaching the personnel platform to the hoist line must not be used for any other purpose.
- Hooks and other attachment assemblies must be closed and locked to eliminate the hook

throat opening (an alloy anchor-type shackle with a bolt, nut, and retaining pin may be used as an alternative).

Note: “Mousing” (wrapping wire around a hook to cover the hook opening) is prohibited.

Are there any requirements for inspections and tests before hoisting personnel?

Yes. Before hoisting employees, crane or derrick operators must conduct a trial lift of an unoccupied personnel platform *immediately prior to placing personnel on the platform* by taking the following actions:

- Load the platform at least to its anticipated lift weight during the trial lift.
- Start the lift at ground level, or at the location where employees will enter the platform, and proceed to each location where the platform will be hoisted and positioned.
- Check all systems, controls, and safety devices to ensure that they are functioning properly and that there are no interferences.

- Ensure that all boom or hoisting configurations necessary to reach work locations will allow operators to remain under the 50 percent load limit of the hoist's rated capacity.
- Repeat the lift before hoisting personnel if a crane or derrick is moved to a new location or returned to a previous location.

What actions are required after the trial lift?

After the trial lift, employers must ensure that the personnel platform is hoisted a few inches and inspected to ensure that it is secure and properly balanced. Before workers are hoisted, employers must ensure that a check is performed to ensure the following:

- Hoist ropes are free of kinks.
- Multiple part lines are not twisted around each other.
- Primary attachment is centered over the platform.
- No slack is in the wire rope.

- All ropes are properly seated on drums and in sheaves.

Immediately after the trial lift, an employer-designated competent person must conduct a thorough visual inspection of the crane or derrick, the personnel platform, and the crane or derrick base support or ground to determine if the lift test exposed any defects or produced any adverse effects on any component or structure. The competent person must correct any defects found during inspections before personnel are hoisted. A competent person is one who can identify existing and predictable hazards in the workplace and is authorized to correct them (see 29 *CFR* 1926.32(f)).

Employers must ensure that the platform and rigging are proof tested to 125 percent of the platform's rated capacity in the following circumstances:

- When initially brought to a job site;
- After any repair or modification; and
- Prior to hoisting personnel.

Proof testing is achieved by holding the loaded platform, with the load evenly distributed, in a suspended position for 5 minutes. Then a competent person must inspect the platform and rigging for defects. If the competent person detects any problems, they must be corrected and another proof test conducted. Operators must not hoist personnel until proof testing requirements are met.

Must employers meet with workers before hoisting operations begin?

Yes. Before any hoisting operations are performed, employers must meet with all workers involved in personnel hoisting operations—crane or derrick operators, signal persons, employees to be lifted, and the person responsible for the hoisting operation—to review all of the OSHA requirements in 29 *CFR* Part 1926.550(g) and the procedures everyone must follow. Employers must hold this meeting before the trial lift at each new worksite and repeat it for all employees newly assigned to the operation.

Safe Work Practices

How can workers make hoisting operations safer?

Workers can contribute to safe personnel hoisting operations and help reduce the number of associated accidents and injuries. Employees must follow the following safe work practices:

- Use tag lines unless their use creates an unsafe condition.
- Keep all body parts inside the platform during raising, lowering, and positioning.
- Make sure a platform is secured to the structure where work is to be performed before entering or exiting it, unless such securing would create an unsafe condition.
- Wear a personal fall arrest system. The lanyard must be attached to the lower load block or overhaul ball or to a structural member within the personnel platform. If the hoisting operation is performed over water, the requirements in 29 *CFR* Part 1920.106 apply.
- Stay in view of, or in direct communication with, the operator or signal person.

How can crane and derrick operators make lift operations safer?

To make lift operations safer, crane and derrick operators must adhere to the following safe work practices:

- Do not leave crane or derrick controls when the engine is running or when the platform is occupied.
- Stop all hoisting operations if there are any indications of danger, including weather conditions.
- Do not make any lifts on another load line of a crane or derrick that is being used to hoist personnel.

What rules apply to cranes traveling while hoisting personnel?

Personnel hoisting is prohibited while cranes are traveling except when employers demonstrate that this is the least hazardous way to accomplish the task or when portal, tower, or locomotive cranes are used. When cranes are moving while hoisting personnel, operators must observe the following rules:

- Restrict travel to affixed track or runway.
- Limit travel to the radius of the boom during the lift.
- Ensure that booth is parallel to the direction of travel.
- Conduct trial runs before employees occupy platforms.
- Check air pressure of the tires and apply chart capacity for lifts to remain under the 50 percent limit of the hoist's rated capacity *if the crane has rubber tires*. Outriggers may be partially retracted as necessary for travel.

OSHA Assistance

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

What are safety and health system management guidelines?

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

To assist employers and employees in developing effective safety and health programs, OSHA published recommended *Safety and Health Program Management Guidelines*

(*Federal Register* 54 (16): 3904-3916, January 26, 1989). These voluntary guidelines can be applied to all places of employment covered by OSHA.

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

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

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

What are state programs?

The *Occupational Safety and Health Act of 1970* (OSH Act) encourages states to develop and operate their own job safety and health

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

How do I obtain consultation services?

Consultation assistance is available on request to employers who want help in establishing and maintaining a safe and healthful workplace. Largely funded by OSHA, the service is provided at no cost to the employer. Primarily developed for smaller employers with more hazardous operations, the consultation service is delivered by state governments employing professional safety and health consultants. Comprehensive assistance includes an appraisal of all mechanical systems, work practices, and occupational safety and health hazards of the workplace and all aspects of the employer's present job safety and health

program. In addition, the service offers assistance to employers in developing and implementing an effective safety and health program. No penalties are proposed or citations issued for hazards identified by the consultant. OSHA provides consultation assistance to the employer with the assurance that his or her name and firm and any information about the workplace will not be routinely reported to OSHA enforcement staff.

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

Employers accepted into SHARP may receive an exemption from programmed inspections (not complaint or accident investigation inspections) for a period of 1 year. For more information concerning consultation assistance, see the list of consultation projects listed at the end of this publication.

What are Voluntary Protection Programs (VPPs)?

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

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

What is the Strategic Partnership Program?

OSHA's Strategic Partnership Program, the newest member of OSHA's cooperative programs, helps encourage, assist, and

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

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

Does OSHA offer training and education?

OSHA's area offices offer a variety of information services, such as compliance assistance, technical advice, publications, audiovisual aids and speakers for special engagements. OSHA's Training Institute in

Des Plaines, IL, provides basic and advanced courses in safety and health for federal and state compliance officers, state consultants, federal agency personnel, and private sector employers, employees, and their representatives.

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

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

For more information on grants, training, and education, contact the OSHA Training Institute, Office of Training and Education, 1555 Times Drive, Des Plaines, IL 60018, (847) 297-4810. For further information on

any OSHA program, contact your nearest OSHA area or regional office listed at the end of this publication.

Does OSHA provide any information electronically?

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

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

How do I learn more about related OSHA publications?

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

How do I contact OSHA about emergencies, complaints, or further assistance?

To report an emergency, file a complaint, or seek OSHA advice, assistance, or products, call 1-800-321-OSHA or contact your nearest OSHA regional or area office listed at the end of this publication. The teletypewriter (TTY) number is 1-877-889-5627.

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

For more information on grants, training, and education, contact the OSHA Training Institute, Office of Training and Education, 1555 Times Drive, Des Plaines, Il 60018, (847) 297-4810, or see **Outreach** on OSHA's website at www.osha.gov.

OSHA Office Directory

OSHA Regional Offices

Region I

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

Region II

(NJ,* NY,* PR,* VI*)
201 Varick Street, Room 670
New York, NY 10014
(212) 337-2357

Region III

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

Region IV

(AL, FL, GA, KY,* MS, NC,* SC,* TN*)
SNAF
61 Forsyth Street SW, Room 6T50
Atlanta, GA 30303
(404) 562-2300

Region V

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

Region VI

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

Region VII

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

Region VIII

(CO, MT, ND, SD, UT,* WY*)
1999 Broadway, Suite 1690
PO Box 46550
Denver, CO 80202-5716
(303) 844-1600

Region IX

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

Region X

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

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

OSHA Area Offices

Anchorage, AK
(907) 271-5152

Birmingham, AL
(205) 731-1534

Mobile, AL
(251) 441-6131

Little Rock, AR
(501) 324-6291 (5818)

Phoenix, AZ
(602) 640-2348

Sacramento, CA
(916) 566-7471

San Diego, CA
(619) 557-5909

Denver, CO
(303) 844-5285

Greenwood Village, CO
(303) 843-4500

Bridgeport, CT
(203) 579-5581

Hartford, CT
(860) 240-3152

Wilmington, DE
(302) 573-6518

Fort Lauderdale, FL
(954) 424-0242

Jacksonville, FL
(904) 232-2895

Tampa, FL
(813) 626-1177

Savannah, GA
(912) 652-4393

Smyrna, GA
(770) 984-8700

Tucker, GA
(770) 493-6644/6742/
8419

Des Moines, IA
(515) 284-4794

Boise, ID
(208) 321-2960

Calumet City, IL
(708) 891-3800

Des Plaines, IL
(847) 803-4800

Fairview Heights, IL
(618) 632-8612

North Aurora, IL
(630) 896-8700

Peoria, IL
(309) 671-7033

Indianapolis, IN
(317) 226-7290

Wichita, KS
(316) 269-6644

Frankfort, KY
(502) 227-7024

Baton Rouge, LA
(225) 389-0474 (0431)

Braintree, MA
(617) 565-6924

Methuen, MA
(617) 565-8110

Springfield, MA
(413) 785-0123

Linthicum, MD
(410) 865-2055/2056

Augusta, ME
(207) 622-8417

Bangor, ME
(207) 941-8177

Portland, ME
(207) 780-3178

Lansing, MI
(517) 327-0904

Minneapolis, MN
(612) 664- 5460

Kansas City, MO
(816) 483-9531

St. Louis, MO
(314) 425-4249

Jackson, MS
(601) 965-4606

Billings, MT
(406) 247-7494

Raleigh, NC
(919) 856-4770

Bismark, ND
(701) 250-4521

Omaha, NE
(402) 221-3182

Concord, NH
(603) 225-1629

Avenel, NJ
(732) 750-3270

Hasbrouck Heights, NJ
(201) 288-1700

Marlton, NJ
(856) 757-5181

Parsippany, NJ
(973) 263-1003

Carson City, NV
(775) 885-6963

Albany, NY
(518) 464-4338

Bayside, NY
(718) 279-9060

Bowmansville, NY
(716) 684-3891

New York, NY
(212) 337-2636

North Syracuse, NY
(315) 451-0808

Tarrytown, NY
(914) 524-7510

Westbury, NY
(516) 334-3344

Cincinnati, OH
(513) 841-4132

Cleveland, OH
(216) 522-3818

Columbus, OH
(614) 469-5582

Toledo, OH
(419) 259-7542

Oklahoma City, OK
(405) 278-9560

Portland, OR
(503) 326-2251

Allentown, PA
(610) 776-0592

Erie, PA
(814) 833-5758

Harrisburg, PA
(717) 782-3902

Philadelphia, PA
(215) 597-4955

Pittsburgh, PA
(412) 395-4903

Wilkes-Barre, PA
(570) 826-6538

Guaynabo, PR (787) 277-1560	Houston, TX (281) 286-0583/0584 (5922)
Providence, RI (401) 528-4669	Lubbock, TX (806) 472-7681 (7685)
Columbia, SC (803) 765-5904	Salt Lake City, UT (801) 530-6901
Nashville, TN (615) 781-5423	Norfolk, VA (757) 441-3820
Austin, TX (512) 916-5783 (5788)	Bellevue, WA (206) 553-7520
Corpus Christi, TX (361) 888-3420	Appleton, WI (920) 734-4521
Dallas, TX (214) 320-2400 (2558)	Eau Claire, WI (715) 832-9019
El Paso, TX (915) 534-6251	Madison, WI (608) 264-5388
Fort Worth, TX (817) 428-2470 (485-7647)	Milwaukee, WI (414) 297-3315
Houston, TX (281) 591-2438 (2787)	Charleston, WV (304) 347-5937

States with Approved Plans

Juneau, AK
(907) 465-2700

Phoenix, AZ
(602) 542-5795

San Francisco, CA
(415) 703-5050

Wethersfield, CT
(860) 263-6505

Honolulu, HI
(808) 586-8844

Des Moines, IA
(515) 281-3447

Indianapolis, ID
(317) 232-2378

Indianapolis, IN
(317) 232-3325

Frankfort, KY
(502) 564-3070

Baltimore, MD
(410) 767-2215

Lansing, MI
(517) 322-1814

St. Paul, MN
(651) 284-5010

Raleigh, NC
(919) 807-2900

Trenton, NJ
(609) 292-2975

Santa Fe, NM
(505) 827-2850

Carson City, NV
(775) 684-7260

Salem, OR
(503) 378-3272

Hato Rey, PR
(787) 754-2119

Columbia, SC
(803) 896-4300

Nashville, TN
(615) 741-2582

Salt Lake City, UT
(801) 530-6901

Richmond, VA
(804) 786-2377

Christiansted, St. Croix, VI
(340) 773-1990

Montpelier VT
(802) 828-2288

Olympia, WA
(360) 902-4200
(360) 902-5430

Cheyenne, WY
(307) 777-7786

OSHA Consultation Projects

Anchorage, AK
(907) 269-4957

Tuscaloosa, AL
(205) 348-3033

Little Rock, AR
(501) 682-4522

Phoenix, AZ
(602) 542-1695

Sacramento, CA
(916) 263-2856

Fort Collins, CO
(970) 491-6151

Wethersfield, CT
(860) 566-4550

Washington, DC
(202) 541-3727

Wilmington, DE
(302) 761-8219

Tampa, FL
(813) 974-9962

Atlanta, GA
(404) 894-2643

Tiyam, GU
9-1-(671) 475-1101

Honolulu, HI
(808) 586-9100

Des Moines, IA
(515) 281-7629

Boise, ID
(208) 426-3283

Chicago, IL
(312) 814-2337

Indianapolis, IN
(317) 232-2688

Topeka, KS
(785) 296-2251

Frankfort, KY
(502) 564-6895

Baton Rouge, LA
(225) 342-9601

West Newton, MA
(617) 727-3982

Laurel, MD
(410) 880-4970

Augusta, ME
(207) 624-6400

Lansing, MI
(517) 322-1809

Saint Paul, MN
(651) 284-5060

Jefferson City, MO
(573) 751-3403

Pearl, MS
(601) 939-2047

Helena, MT
(406) 444-6418

Raleigh, NC
(919) 807-2905

Bismarck, ND
(701) 328-5188

Lincoln, NE
(402) 471-4717

Concord, NH
(603) 271-2024

Trenton, NJ
(609) 292-3923

Santa Fe, NM
(505) 827-4230

Henderson, NV
(702) 486-9140

Albany, NY
(518) 457-2238

Columbus, OH
(614) 644-2631

Oklahoma City, OK
(405) 528-1500

Salem, OR
(503) 378-3272

Indiana, PA
(724) 357-2396

Hato Rey, PR
(787) 754-2171

Providence, RI
(401) 222-2438

Columbia, SC
(803) 734-9614

Brookings, SD
(605) 688-4101

Nashville, TN
(615) 741-7036

Austin, TX
(512) 804-4640

Salt Lake City, UT
(801) 530-6901

Richmond, VA
(804) 786-6359

Christiansted, St. Croix, VI
(809) 772-1315

Montpelier, VT
(802) 828-2765

Olympia, WA
(360) 902-5638

Madison, WI
(608) 266-9383

Waukesha, WI
(262) 523-3044

Charleston, WV
(304) 558-7890

Cheyenne, WY
(307) 777-7786



OSHA

**Occupational Safety
and Health Administration**

U.S. Department of Labor