

CUT-OFF AND RING SAW SAFETY OPERATIONS PRACTICE

Practice Number: PRA-OPS01/01

Applicability: American Water Works Company, Inc., and its controlled subsidiaries (together “American Water” or the “Company”)

Effective Date: 04/28/2014

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I. PURPOSE

This practice provides Company requirements for use of Cut-Off saws (aka CutQuick Cut Off Machines, Quick Cut saws, Chop saws) and Ring saws (aka Power Cutter). This practice provides employees and Company contractors rules and requirements for the safe use of these saws and the minimum personal protective equipment required when they are used. Adherence to this practice will reduce exposure to rotational kickback that can occur with use of these saws.

II. SUMMARY

The following are the major sections covered within the Key Activities section of this practice:

- Cut-off and Ring saw use and applications
- Application to contractors and sub-contractors
- Procedures to follow when use of a cut-off or ring saw by employees is allowed by supervision and this American Water Practice
- Hazards
- Saw Maintenance and Operation
- Storage and Use of Quick-cut saws
- Personal Protective Equipment
- Types of abrasive wheels
- Abrasive wheel inspection
- Training
- Alternatives to Gas Powered Cut-off and Ring saws
- Definitions

This practice contains attachments for the following:

- Appendix A – Cut-off and Ring Saw Safety Checklist

- Appendix B – American Water Pipe Saw Matrix/Guidelines
- Appendix C – Summary of Policies Related to Cut Off and Ring saw Safety Operations Practice

III. KEY ACTIVITIES

The following sections detail enterprise activities involving use of Cut-off and Ring saws

Section 1: Cut-off and Ring saw Use and Applications

The use of cut-off and ring saws is prohibited for pipe cutting. Cut off saws or ring saws may only be used for pavement cutting when used in accordance with the requirements of this practice. This requirement is effective April 28, 2014.

- Cut-off and Ring saws may be used for pavement cutting if equipped with approved abrasive blades (applicable to Cut Off saws), the saw is properly mounted in a cart approved by the manufacturer and designed specifically for the saw model in use. All manufacturers' recommendations, warnings and safeguards must be followed.
- A job safety analysis must be prepared and reviewed with employees as part of their training prior to using cart mounted cut off saws or ring saws for pavement cutting. Additionally, when there are specific hazards or safety concerns at the jobsite, these will also be reviewed prior to commencement of work.
- Newly purchased cut off saws must not exceed 4.5 horsepower and must be equipped with an immovable guard with blade diameter not exceeding 14" (see Pipe saw Matrix/Guidelines Appendix C). Operational Risk Management and the Operations group purchasing the saw must review and approve the saw model in advance. Only approved saw models may be purchased.

Section 2: Application to Contractors and Sub-contractors

Contractors and subcontractors performing work for American Water will conform to the following requirements. To the extent necessary, agreements and related statements of work will be amended to enforce the requirements.

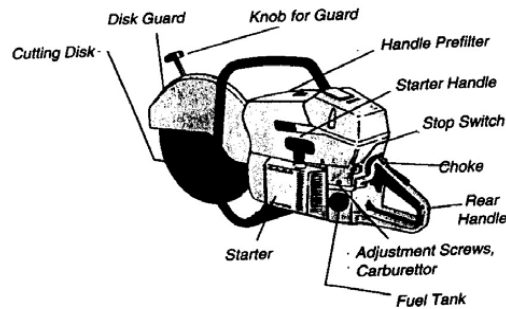
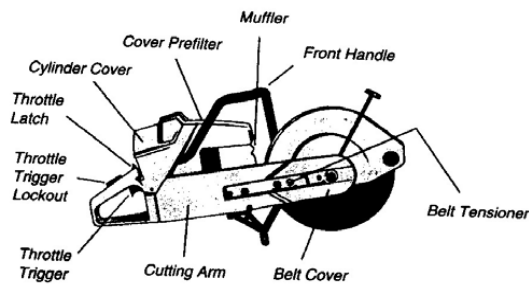
- The use of cut-off saws and ring saws for cutting pipe of any diameter is prohibited at American Water worksites.
- Cut-off and Ring saws may be used for pavement cutting if the saw is properly mounted in a cart approved by the manufacturer and designed specifically for the saw model in use. Cut off saws used for pavement cutting must be equipped with abrasive blades. No free hand use of cut off saws or ring saws for pavement cutting applications is allowed. All manufacturers' recommendations, warnings and safeguards must be followed.
- The use of diamond tipped blades is prohibited in any cut-off saw application. Only abrasive blades will be used with cut-off saws.
- Cut off saws may be used to cut concrete masonry block (concrete masonry units [CMU] if equipped with the appropriate abrasive concrete blade. All manufacturer's recommendations, warnings and safeguards must be followed.

- It remains the contractor/subcontractor’s responsibility to train their respective employees on the proper use and application of all equipment, to follow manufacturer recommendations and to comply with all applicable Federal, State and local health and safety regulations.

Contractors must be informed of the requirements applicable to them and contractors will be required to conform to the restrictions no later than April 28, 2014. These dates will also apply to sub-contractors performing work for American Water.

Section 3: When use of a cut-off or ring saw by employees is allowed by supervision and this American Water Practice, the following procedures shall apply.

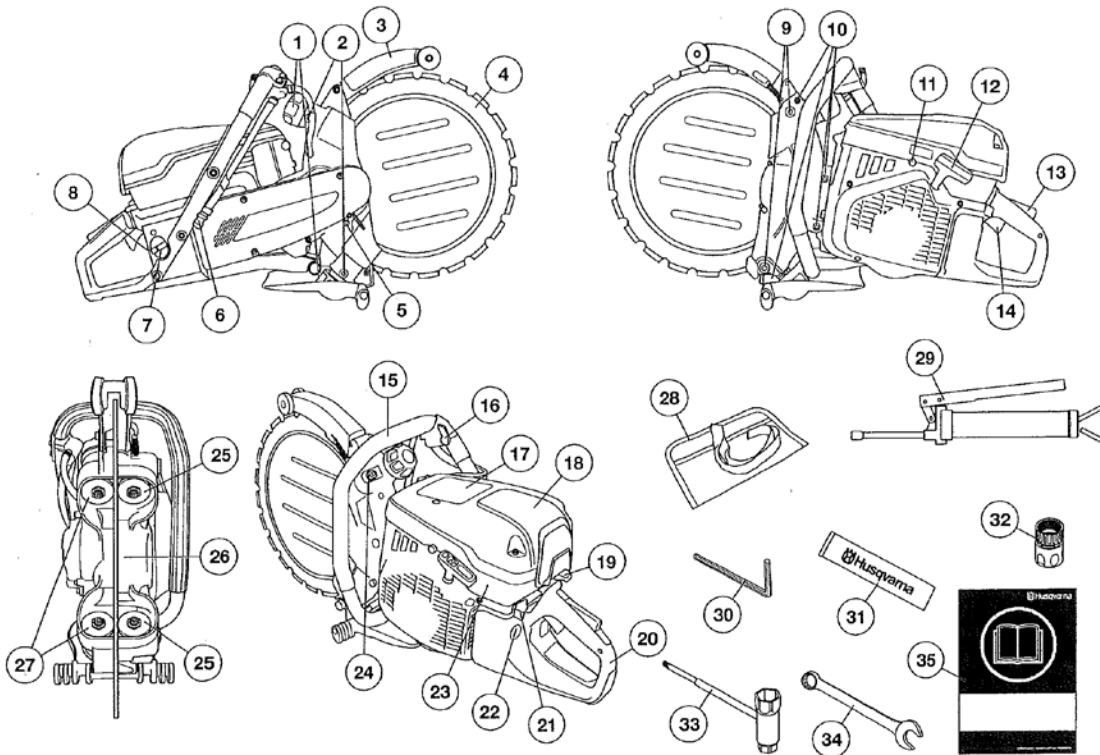
Parts of a cut-off saw:



Cart Used for Pavement Cutting (example)



Parts of a Ring saw:



What is what on the power cutter?

- | | |
|--------------------------------------|---|
| 1 Control for the guide rollers | 19 Choke |
| 2 Grease nipples | 20 Rear handle |
| 3 Blade guard/spray guard | 21 Stop switch |
| 4 Diamond blade | 22 Air purge |
| 5 Locking button for the drive wheel | 23 Cylinder cover |
| 6 Water connection with filter | 24 Locking nuts for the support roller arms |
| 7 Fuel cap | 25 Support rollers |
| 8 Type plate | 26 Drive wheel |
| 9 Adjuster screws | 27 Guide rollers |
| 10 Cover screws | 28 Tool bag |
| 11 Decompression valve | 29 Grease gun |
| 12 Starter handle | 30 6 mm hex key |
| 13 Throttle lockout | 31 Bearing grease |
| 14 Throttle trigger | 32 Water connector, GARDENA® |
| 15 Front handle | 33 Combination spanner, torx |
| 16 Water tap | 34 Open-ended spanner, 19 mm |

Section 3.1: Responsibilities

AW employees shall ensure the safe condition and maintenance of all tools and equipment.

- All tools shall be maintained in a condition that does not endanger a worker
- Tools shall not be used while they are defective or hazardous
- A copy of the tool manufacturer's operating manual shall be read, understood, reviewed periodically and kept readily available in the work area.

Tools shall be inspected by the operator before being used. Never operate or allow others to operate a cut-off or ring saw that is damaged, improperly adjusted or not completely and securely assembled.

The supervisor shall ensure that operators of cutting tools have been properly trained and authorized to assure safe operation of the cutting tool, including any limitations of use.

A Job Safety Analysis (JSA) or other method that includes similar information must be utilized as part of the training and shall include:

- Each step of the job or task
- What hazards are involved
- How to perform the job safely
- Capabilities and limitations of the tools and/or equipment

Section 3.2: Precautions and Operating Procedures

Employees shall comply with the following safety precautions and operating procedures to prevent injury.

Precautions:

- **Use of diamond tipped cutting wheels (blades) is prohibited.**
- **Use of Cut-Off saws and Ring saws to cut pipe is prohibited. Cut Off saws and Ring saws may only be used for pavement cutting when mounted in a cart.**
- Know the application, limitation, and potential hazards of the saw used.
- Only use cutting wheels authorized by the saw manufacturer.
- Select the proper abrasive wheel or blade for the job.
- Remove adjusting keys and wrenches before turning on the saw.
- Keep guards in place and in working order.
- Maintain working areas free of clutter.
- Keep alert to potential hazards in the working environment such as damp locations or the presence of highly combustible materials.
- Dress properly to prevent loose clothing from being caught in moving parts.
- Wear the proper PPE listed in this Practice.
- Do not surprise or distract anyone using a power tool.

Operating Procedures:

- A cut-off and ring saw safety checklist must be completed by the operator of the saw prior to each use.
- DO NOT drop start a saw (holding the starter cable and dropping the saw as opposed to securing the saw and pulling the starter cable). Follow the manufacturer's starting instructions. Pull the starting rope to the compression point and then pull with quick short strokes.
- Start the saw with the unit mounted in a cart, with the blade facing away from any co-workers or bystanders

- DO NOT operate with other workers or pedestrians near the saw. Reference manufacturer's guidelines for clearance distances.
- .DO NOT disengage or remove abrasive wheel guards.
- For cut off saws, always fit the abrasive wheel so that the arrow on the abrasive wheel points in the direction of the rotation of the spindle.
- Always stop the engine before removing the saw from the cart.
- Always protect the cutting wheel from hitting the ground or other objects to help prevent damage that can cause the wheel to shatter during operation.
- Use only cutting attachments authorized by the manufacturer of your saw.
- Never remove or alter the wheel guard on the saw.

Section 3.3: Hazards

The use of cut-off and ring saws may involve both safety and health hazards.

Safety hazards are caused by the high-speed rotation and exposure of the abrasive wheel or blade during operation. Rotational kick back caused from improper use or pinching of the blade can cause serious injury. Potential for injury exists from:

- use of inappropriate disks and blades for the operation
- improper starting of saw
- kickback and pull-away
- shifting of the material during cutting
- improper cutting stance and grip

Potential health hazards are caused by noise exposure and exhaust from the internal combustion engine (if so equipped); the common power source. The cutting operation may also create clouds of dust when dry cutting masonry and showers of hot sparks when cutting metal.

Section 3.4: Controlling hazards

Major safety hazards can be controlled by:

- Only using the saws when mounted in a cart.
- Training operators to use saws properly and to utilize appropriate personal protective equipment.
- Inspecting and maintaining saws in good working condition, per manufacturer's guidelines and utilizing the **proper abrasive wheels or blade for the material being cut.**
- Using the saw with all guards in place.
- Only using the lower (3-6 o'clock) quadrant of the abrasive wheel for pipe cutting when using a ring saw.
- Keeping work secured to prevent it from shifting during cutting.

Never remove guards from any equipment. Cut off saws must be equipped with a fixed guard.

Section 3.5: Health Concerns

A gas powered saw produces exhaust that contains hazardous materials, (e.g. carbon monoxide, which cannot be detected without special monitoring equipment). To reduce the risk of serious or fatal injury from inhalation of this exhaust, never run the saw indoors or in poorly ventilated areas.

Exposure to airborne Asbestos fibers may cause serious illness. Cut off and ring saws are NOT to be used on asbestos containing pipe. See Health and Safety Procedure “Asbestos Containing Materials” for required work practice information.

Section 3.6: Saw Maintenance and Operation

A gas powered saw must be serviced and maintained in accordance with the manufacturer's instructions. Guards and air-intakes should be inspected and cleaned regularly. Abrasive wheels shall be inspected for damage before and during use of the saw. Replace the abrasive wheel immediately if it is cracked or warped. Never use a wheel that wobbles or has ever wobbled. Never transport the saw with the abrasive wheel attached. Doing so can damage the abrasive wheel and may not be detected during subsequent use resulting in serious injury. Store cutting wheels on a flat surface in a dry place, preferably at a constant temperature where there is not a risk of freezing. Do not store the cut-off saw with a wheel mounted on the machine. Follow all manufacturers' guidelines for use, storage and replacement of abrasive wheels.

Section 3.7: Starting Procedures

Start the saw only on a hard smooth surface. DO NOT drop start a saw. Never attempt to start a saw when the cutting wheel is in a cut.

Section 3.8: Support

For repeated cuts of masonry or metal pieces, a jig designed and built to hold material in place without manual contact improves efficiency and safety.

Section 3.9: Stance and Grip

Maintain good balance and footing at all times. Hold your forward arm straight to keep the saw from kicking back or climbing out of cut. Stand off the centerline of the saw while cutting, if possible. This will limit employee exposure should kick back occur.

Section 3.10: Cutting

Use wet-cutting methods wherever feasible since the water can act as a lubricant in a pinch situation and thus reduce the likelihood of reactive forces and the energy of such forces that do occur. The material cut must be secure so that it will not shift during cutting. Insert the wheel into the material only as deep as necessary to make the cut. Reintroduction of the abrasive wheel or blade into a previous cut is prohibited.

Section 3.11: Storage and use of Fuel

- Store flammable materials well away from work site
- Fuel your saw in a well-ventilated area, outdoors only
- Always shut off the engine and allow it to cool before refueling
- Never smoke while refueling
- Verify and only use the proper fuel/fuel mixture for the specific saw.
- Never refuel close to an open flame
- Dust may collect on the powerhead, especially around the carburetor, and may absorb gasoline resulting in danger of fire. Clean dust from the powerhead regularly.
- Relieve fuel tank pressure by loosening fuel cap slowly

- Select bare ground for refueling and move at least 10 feet from fueling area before starting the engine
- Wipe off any spilled fuel before starting your saw and check for leakage.
- Fuel saw before starting a new cut.
- If fuel is spilled onto clothes, immediately remove clothing, rinse the affected area and change into clean clothing.
- Ensure that the fuel storage container is properly labeled

Section 3.12: Protective Equipment

- Clothing must be sturdy and snug-fitting, but allow complete freedom of movement. Avoid loose clothing, jewelry, unconfined long hair or anything that could become caught on any obstacles or moving parts. Avoid wearing hooded sweatshirts or other clothing that has strings or other materials that can become entangled in the saw or abrasive wheel.
- Minimum PPE to be worn when using a saw:
 - safety glasses or goggles meeting ANSI Z-87.1 standards
 - face shield meeting ANSI Z-87.1 standards
 - steel or composite toed boots meeting ANSI Z41 standards
 - hard hat
 - hearing protection
 - gloves
- Additional PPE that should be considered when using a saw:
 - leather chaps to protect the legs from sparks;
 - NIOSH approved dust respirator to limit inhalation of hazardous dusts. Consult with Operational Risk Management on the proper respirator selection and use in accordance with the OSHA Respiratory Protection Standard (29 CFR 1910.134) and company practice.
 - Reflective vest if performing work on or near a roadway.

Refer to the Pipe Saw Matrix in section 3.16 of this Practice for additional detail and requirements.

Note: Ensure that proper ventilation is available when working in spaces with limited air circulation. Gasoline fueled saws produce carbon monoxide and other exhaust contaminants.

Section 3.13: Types of Abrasive Wheels (Cut off saws)

Before use of a gas powered cut-off or ring saw, you must inspect the abrasive wheel by making sure that the correct abrasive wheel is on the machine, and to see if the abrasive wheel needs to be changed (i.e. dull, warped, loose teeth, cracks, chips). Abrasive wheels, diamond-tipped abrasive wheels, and carbide-tipped abrasive wheels are the three basic types available. **American Water does not allow the use of diamond tipped cutting wheels (blades) for any cut-off saw application.** Abrasive wheels must only be used to cut the materials specified by the manufacturer for that particular wheel. The Table below provides general information about the types of cutting wheels and what materials they should be used to cut. Always check the abrasive wheel manufacturer’s specifications to determine the proper use.

Cutting Wheel Type	Abrasive Wheels	Materials
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Concrete	All-around use, most economical for cutting concrete and masonry. Water-cooling is recommended to increase disk life and reduce dust.	Concrete, stone, masonry, products, cast iron, aluminum, copper, brass, cables, hard rubber, plastic
Metal	Primarily for steel, not suited for masonry products, Water-cooling is not recommended with metal abrasive wheels.	Steel, steel alloys, other hard metals such as iron.
Type	Diamond Disks and Blades	Materials
Diamond Abrasive Wheel	Use of diamond tipped blades in cut off saws is prohibited by American Water	
Dry-Cut Diamond Abrasive wheel	Use of diamond tipped blades in cut off saws is prohibited by American Water	

Warning – Use only abrasive wheels recommended by the Cut Off saw manufacturer/distributor and allowed by American Water for pavement and concrete masonry cutting applications. Unauthorized abrasive wheels may shatter or break. Refer to a manufacturer/distributor abrasive wheel selection guide.

Section 3.14: Abrasive Wheel and Blade Inspection

Always inspect the abrasive wheel or blade prior to use. Conduct a 360-degree inspection looking for cracks, damage or excessive wear. Check with your supervisor for the abrasive wheel or blade “end of service life”. End of service life is defined as the date of purchase and the number of hours in use. This is contained in the manufacturer’s literature. Change blades as specified or more frequently if damage is suspected or observed to avoid blade shatter and possible injury.

Additional considerations are as follows:

- DO NOT exceed the maximum operating speed marked on the abrasive wheel or blade
- DO NOT use an abrasive wheel or blade that has been dropped
- DO NOT cut any material for which the abrasive wheel or blade is not authorized.
- DO NOT grind on the side of the abrasive wheel
- **Never store and re-use an abrasive wheel that has been used with water. Use these abrasive wheels only on the same day.**
- For cut off saws, remove the abrasive wheel from the saw before transporting and store in a flat position not standing on the cutting edge.
- Test each wheel immediately after installation for approximately one minute at maximum speed without cutting, making sure to keep bystanders away.

Section 3.15: Training

- Employees operating Cut Off saws or Ring saws will be trained and classified as authorized users.

- New employees will be trained and classified as authorized users prior to use of pipe cutting equipment.
- Employees will not use any new cutting tools until they have received required training
- After initial training, employees will receive refresher training annually
- Only trained employees who have been designated as authorized users are permitted to use cutting tools
- All manufacturers' recommendations for use of any cutting tool must be followed at all times.

Section 3.16: Alternatives to Gas Powered Cut-off and Ring Saws

There are several alternatives to gas powered cut-off and ring saws. Refer to Appendix C: the "American Water Pipe Saw Matrix/Guidelines".

IV. MARKET-BASED BUSINESS VARIANCES

- This practice is relevant for MBB.

V. WAIVERS

Any deviation, waiver or exception from this practice requires the prior written approval of the Document Author or ELT sponsor of this practice. If the deviation, waiver or exception conflicts with any policy, approval from the ELT Sponsor of that policy is required. The Document Author, or her or his designee, is responsible for tracking all requests for waivers, decisions with respect to those requests, and maintaining documentation related to each waiver request. Each individual receiving a waiver is responsible for retaining documentation of the waiver that was granted.

VI. DEFINITIONS

- Abrasive Wheels (may be referred to as a blade or disc) - The cutting component of the cut off saw consisting of abrasive grains held together by organic or inorganic bonds. Diamond and reinforced abrasive wheels are included and can be identified by the label on both the cutting wheel and the package. **The use of diamond tipped blades is prohibited in any cut-off saw application.** Only abrasive blades will be used with cut-off saws. Use only authorized abrasive wheels with approved RPM rating for the cut-off saw being used. Use only manufacturer recommended and approved abrasive wheels. Never use a cutting wheel with a lower speed rating than that of the power cutter. Use of the wrong abrasive wheel or material for which it was not designed may cause the abrasive wheel to shatter causing serious or fatal injury.
- Blade – The cutting band on a ring saw. These are not solid blades, but rather a band composed of diamond tipped abrasive material that rotates by contact with rollers.
- Cut-Off saw – A class of gas powered hand held saws that can be used for cutting a variety of materials based on the abrasive wheel used. These are also referred to as "quick-saws, chop-saws and may have the brand name of Cutquick® saw.
- Gas Powered Cut-Off and Ring saws – Hand held portable circular saws, used for cutting concrete, reinforced concrete, asphalt and masonry products.

- Kickback – The sudden reaction that causes the power cutter and cutting wheel to be thrown from an object when the upper quadrant of the abrasive wheel, known as the kickback zone, touches an object.
- Kickback zone – The upper quadrant of the abrasive wheel on Cut Off saws and Ring saws (from 1 o'clock to 3 o'clock relative position).
- Ring saw - A class of gas powered hand held saws that can be used for cutting a variety of materials. These saws do not have a solid blade, but rather utilize a circular cutting band that rotates by direct contact with rollers. The cutting bands are diamond tipped abrasive material.
- Lock-in – Pinching of the abrasive wheel caused by work piece shifting.

VII. NON-COMPLIANCE

Any employee who violates or circumvents the practice may be subject to disciplinary action up to and including termination.

VIII. PRACTICE REVIEW

This Practice will be reviewed and revised as necessary, not to exceed 3-year intervals

Next Review By: 4/17/17

Approval Date: 4/17/14

Last Reviewed: 5/28/2013

Appendix A – Cut-off and Ring Saw Safety Checklist – For Use When Pavement Cutting

LEAD PERSON: _____

SAW OPERATOR: _____ Time: _____
(Please Print)

DATE: _____ LOCATION: _____

Follow the manufacturer's safe operating instructions, use two hands, and don the required personal protective equipment including: Hard hat, safety glasses, face shield, hearing protection, work gloves, safety vest, steel or composite toed boots.

Note: Use only abrasive cutting wheels. Diamond tip metal blades must not be used.

Confirm each of the following. If any item cannot be confirmed, DO NOT PROCEED and consult with your supervisor prior to use.

Item	Y	N
1. Cut Off or Ring saws will not be used to cut pipe at any American Water project		
2. Cut off saws or ring saws may only be used for pavement cutting when used in accordance with the requirements of this practice.		
3. Cut off or Ring saws will not be used unless mounted in a cart, exclusively for pavement cutting.		
4. The operator of the saw is trained and authorized for use of the saw by American Water.		
5. The abrasive blade is approved by the manufacturer for the model used and the material to be cut		
6. The abrasive blade has been inspected with no defects found.		
7. The saw guard is in place, secure and covers as much of the top quadrant of the wheel as possible		
8. The abrasive blade is installed so that the arrow on the wheel points in the direction of the rotation of the spindle.		
9. Only the 3-6 o'clock position of the wheel will be used for cutting.		
10. Required PPE (listed above) is worn.		

Each Item must be confirmed by checking the "Y" box prior to beginning work.

Return this form to your supervisor at the end of the shift

Appendix B – American Water Pipe Saw Matrix/Guidelines

Pipe Cutting with Cut Off saws is prohibited

American Water Pipe Cutting Guidelines

Pipe Type						
	Cast iron ⁴	DICL ⁴	Asbestos Cement ¹	PVC Pipe ⁴	Clay Pipe ⁴	Pavement ⁵
4"	AB,C,G	A,C,G	AB,D,E,G	B,D,E	A,D	F ^{2,3,5} ,G,H ^{2,3,5}
6"	AB,C,G	A,C,G	AB,D,E,G	B,D,E	A,D	
8"	AB,C,G	A,C,G	AB,D,E,G	B,D,E	A,D	
10"	AB,C,G	A,C,G	AB,D,E,G	B,D,E	A,D	
12"	AB,C,G	A,C,G	AB,D,E,G	B,D,E		
16"	AB,C,G	A,C,G		B,D,E		
18"	AB,C,G	A,G				
20">	AB,C,G	A,G				

Required PPE								
Pipe Cutting Options		Face Shield	Safety Glasses	Ear Plugs	Gloves	Safety Vest	Safety Shoes	Hard Hat
A	Manual Hinged 4-Wheel Cutter	N	Y	N	Y	Y	Y	Y
B	Hydraulic "Snap" Cutter	N	Y	N	Y	Y	Y	Y
C	Wachs Guillotine Saw	N	Y	Y	Y	Y	Y	Y
D	Hand Saw	N	Y	N	Y	Y	Y	Y
E	Reciprocating Saw	Y	Y	N	Y	Y	Y	Y
F	Stihl 420 or equivalent Cut saw (4.5 HP max with 12" or 14" abrasive wheel) w/ fixed guard	Y	Y	Y	Y	Y	Y	Y
G	"Chain" Saw specifically approved for pipe cutting - hydraulic, pneumatic or gas powered	Y	Y	Y	Y	Y	Y	Y
H	Ring Saw	Y	Y	Y	Y	Y	Y	Y

FOOTNOTE ¹: Asbestos Containing Materials must be cut using wet methods

FOOTNOTE ²: Diamond blades are prohibited for use in any Cut-off saw application at American Water

FOOTNOTE ³: A Cut Off Saw Safety checklist must be completed by the operator of the saw prior to each use.

FOOTNOTE ⁴: All pipe inside an excavation is required to be supported before making any cuts to prevent pinching of the cutting tool

FOOTNOTE ⁵: Cut off Saws and Ring Saws must be mounted in a cart for pavement cutting

Use of Cut Off or Ring Saws to Cut Pipe is prohibited on American Water projects. All employees are to follow all OSHA and Manufacturers' Guidelines when operating pipe cutting tools.

Cutters	Unit Weight	Pipe Size	Pipe Material	Pro's	Con's
PowerGrit Saw (Chain saw), Hydraulic	27.3 lbs	Varies with bar length	Cast Iron, DICI, PVC, HDPE	Can cut from the bottom up, 35 to 50 cuts per chain	hydraulic power water supply c in winter mont
PowerGrit Saw (Chain saw), Pneumatic	27.3 lbs	Varies with bar length	Cast Iron, DICI, PVC, HDPE	Can cut from the bottom up, 35 to 50 cuts per chain	pneumatic po easily bogge water supply c in winter mont
PowerGrit Saw (Chain saw), Gas	27.3 lbs	Varies with bar length	Cast Iron, DICI, PVC, HDPE	Can cut from the bottom up, 35 to 50 cuts per chain	exhaust fumes
EZ Saw, Pneumatic or electric	11 lbs	1 in to 12 in	SS, DICI & Cast Iron		
Guillotine Saw, Diamond wire	75 lbs.	4 in to 16 in	cold steel, cast iron & DICI	made quick cuts, only requires 2.5 inches of clearance, 30+ cuts per blade	16 in max cut. blade. NOTE diameter pipe are available.
Hydraulic Pipe Cutters	85 - 269 lbs	2 l to 20 in	Cart Iron, Tile, & Concrete	minimal clearance needed to make cuts, no sparks, noise or fumes; cuts remotely	very heavy, no clean cut. Not with ductile
Hinge Cutters	21 - 68 lbs	2 in to 12 in	Cast iron	works well in slight spaces, makes clean cuts, reasonable cost	takes extra ph effort to use, li size it will cut
Rotary Cutter	41 - 295 lbs	18 in to 36 in	SS, DICI & Cast Iron	works well in slight spaces, makes clean cuts, reasonable cost	takes extra ph effort to use, li size it will cut
Snap Cutters, Ratcheting	17 - 24 lbs	2 in to 15 in	Cast Iron	no exhaust fumes	
Snap Cutters, single stroke	26 - 33 lbs	2 in to 15 in	Cast Iron	No moving parts	Heavy, cumber inch max cut
Universal Pipe Cutter, pneumatic	138 Lbs. Total NOTE: single heaviest component: 28 Lbs.	6 in to 48 in	Cast Iron, ductile, clay & concrete	easily set-up, no exhaust fumes	needs 12 cle needs water s air compresso & 90 psi)

Appendix C – Summary of Policies Related to Cut Off and Ring saw Operations Safety Practice

Practice	Related Policy
Cut Off and Ring Saw Operations Safety Practice	Health and Safety Policy

ATTACHMENT 1

DBE Good Faith Efforts Requirements



Guidelines for Meeting the California State Revolving Fund (CASRF) Programs (Clean Water and Drinking Water SRF) Disadvantaged Business Enterprise Requirements

The Disadvantaged Business Enterprise (DBE) Program is an outreach, education, and objectives program designed to increase the participation of DBEs in the Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) Programs.

How to Achieve the Purpose of the Program

Recipients of CWSRF/DWSRF financing that are subject to the DBE requirements (recipients) are required to seek, and are encouraged to use, DBEs for their procurement needs. Recipients should award a "fair share" of sub-agreements to DBEs. This applies to all sub-agreements for equipment, supplies, construction, and services.

The key functional components of the DBE Program are as follows:

- Fair Share Objectives
- DBE Certification
- Six Good Faith Efforts
- Contract Administration Requirements
- DBE Reporting

Disadvantaged Business Enterprises are:

- Entities owned and/or controlled by socially and economically disadvantaged individuals as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d) (8% statute), respectively;
- Minority Business Enterprise (MBE) - entities that are at least 51% owned and/or controlled by a socially and economically disadvantaged individual as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note), and Public Law 102-389 (42 U.S.C. 4370d), respectively;
- Women Business Enterprise (WBE) - entities that are at least 51% owned and/or controlled by women;
- Small Business Enterprise (SBE);
- Small Business in a Rural Area (SBRA);
- Labor Surplus Area Firm (LSAF); or
- Historically Underutilized Business (HUB) Zone Small Business Concern or a concern under a successor program.

Certifying DBE Firms:

Under the DBE Program, entities can no longer self-certify and contractors and sub-contractors must be certified at bid opening. Contractors and sub-contractors must provide to the CASRF recipient proof of DBE certification. Certifications will be accepted from the following:

- The U.S. Environmental Protection Agency (USEPA)
- The Small Business Administration (SBA)
- The Department of Transportation's State implemented DBE Certification Program (with U.S. citizenship)
- Tribal, State and Local governments
- Independent private organization certifications

If an entity holds one of these certifications, it is considered acceptable for establishing status under the DBE Program.

Six Good Faith Efforts (GFE)

All CWSRF/DWSRF financing recipients are required to complete and ensure that the prime contractor complies with the GFE below to ensure that DBEs have the opportunity to compete for financial assistance dollars.

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practical through outreach and recruitment activities. For Tribal, State and Local Government Recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
2. Make information on forthcoming opportunities available to DBEs. Posting solicitations for bids or proposals for a minimum of 30 calendar days in a local newspaper, before the bid opening date.
3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs.
4. Encourage contracting with a group of DBEs when a contract is too large for one firm to handle individually.
5. Use the services of the SBA **and/or** Minority Business Development Agency (MBDA) of the US Department of Commerce.
6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.

The forms listed in the table below and attached to these guidelines; must be completed and submitted with the GFE:

FORM NUMBER	FORM NAME	REQUIREMENT	PROVIDED BY	COMPLETED BY	SUBMITTED TO
SWRCB Form 4500-2 or EPA Form	DBE Sub-Contractor Participation Form	As Needed to Report Issues	Recipient	Sub-contractor	EPA DBE Coordinator
SWRCB Form 4500-3 or EPA Form	DBE Sub-Contractor Performance Form	Include with Bid or Proposal Package	Prime Contractor	Sub-Contractor	SWRCB by Recipient
SWRCB Form 4500-4 or EPA Form	DBE Sub-Contractor Utilization Form	Include with Bid or Proposal Package	Recipient	Prime Contractor	SWRCB by Recipient

The completed forms must be submitted with each Bid or Proposal. The recipient shall review the bidder’s documents closely to determine that the GFE was performed **prior** to bid or proposal opening date. Failure to complete the GFE and to substantiate completion of the GFE before the bid opening date could jeopardize CWSRF/DWSRF financing for the project. The following situations and circumstances require action as indicated:

1. If the apparent successful low bidder was rejected, a complete explanation must be provided.
2. Failure of the apparent low bidder to **perform** the GFE **prior** to bid opening constitutes a non-responsive bid. The construction contract may then be awarded to the next low, responsive, and responsible bidder that meets the requirements or the Recipient may re-advertise the project.
3. If there is a bid dispute, all disputes shall be settled **prior** to submission of the Final Budget Approval Form.

Administration Requirements

- A recipient of CWSRF/DWSRF financing must require entities receiving funds to create and maintain a Bidders List if the recipient of the financing agreement is subject to, or chooses to follow, competitive bidding requirements.
- The Bidders list must include all firms that bid or quote on prime contracts, or bid or quote on subcontracts, including both DBEs and non-DBEs.

- Information retained on the Bidder's List must include the following:
 1. Entity's name with point of contact;
 2. Entity's mailing address and telephone number;
 3. The project description on which the entity bid or quoted and when;
 4. Amount of bid/quote; and
 5. Entity's status as a DBE or non-DBE.
- The Bidders List must be kept until the recipient is no longer receiving funding under the agreement.
- The recipient shall include Bidders List as part of the Final Budget Approval Form.
- A recipient must require its prime contractor to pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the Recipient.
- A recipient must be notified in writing by its prime contractor prior to any termination of a DBE subcontractor by the prime contractor.
- If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six GFEs if soliciting a replacement subcontractor.
- A recipient must require its prime contractor to employ the six GFEs even if the prime contractor has achieved its fair share objectives.

Reporting Requirements

For the duration of the construction contract(s), the recipient is required to submit to the State Water Resources Control Board DBE reports annually by October 10 of each fiscal year on the attached Utilization Report form (UR-334). Failure to provide this information as stipulated in the financial agreement language may be cause for withholding disbursements.

CONTACT FOR MORE INFORMATION

SWRCB, CASRF – Barbara August (916) 341-6952 barbara.august@waterboards.ca.gov

US EPA, Region 9 – Joe Ochab (415) 972-3761 ochab.joe@epa.gov

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**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form**

A Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE¹ subcontractor² the opportunity to describe work received and/or report any concerns regarding the funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Amount Received by Prime Contractor

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

Please use the space below to report any concerns regarding the above funded project:

Subcontractor Signature	Print Name
Title	Date

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.

Send completed Form 4500-2 to:

Mr. Joe Ochab, DBE Coordinator
US EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105

FORM 4500-2 (DBE Subcontractor Participation Form)



**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. A Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractor's bid or proposal package.

Subcontractor Name		Project Name	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity	

Contract Item Number	Description of Work Submitted from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: _DOT _SBA Other: _____		Meets/exceeds EPA certification standards? YES NO Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.

FORM 4500-3 (DBE Subcontractor Performance Form)



Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractor's² and the estimated dollar amount of each subcontract. A Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Issuing/Funding Entity			

I have identified potential DBE certified subcontractors. YES NO If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address / Phone / Email	Estimated Dollar Amount	Currently DBE Certified?

--Continue on back if needed--

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.

FORM 4500-4 (DBE Subcontractor Utilization Form)

**STATE WATER RESOURCES CONTROL BOARD - DIVISION OF FINANCIAL ASSISTANCE
DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION
CALIFORNIA STATE REVOLVING FUNDS**

INSTRUCTIONS FOR COMPLETING FORM UR-334

- Box 1** Grant or Financing Agreement Number.
- Box 2** Annual reporting period.
- Box 3** Enter the dates between which you made procurements under this financing agreement or grant.
- Box 4** Enter the total amount of payments paid to the contractor or sub-contractors during this reporting period.
- Box 5** Enter Recipient's Name and Address.
- Box 6** Enter Recipient's Contact Name and Phone Number.
- Box 7** Enter details for the **DBE purchases only** and be sure to limit them to the current period. 1) Use either an "R" or a "C" to represent "Recipient" or "Contractor." 2) Enter a dollar total for DBE and total the two columns at the bottom of the section. 3) Provide the payment date. 4) Enter a product type choice from those at the bottom of the page. 5) List the vendor name and address in the right-hand column
- Box 8** Initial here if no DBE contractors or sub-contractors were paid during this reporting period.
- Box 9** Initial this box only if all purchases under this financing agreement or grant have been completed during this reporting period or a previous period. If you initial this box, we will no longer send you a survey.
- Box 10** This box is for explanatory information or questions.
- Box 11** Provide an authorized representative signature.
- Box 12** Enter the date form completed.

ATTACHMENT 2

Davis Bacon Contract Provisions

DAVIS BACON REQUIREMENTS

The Recipient shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section 5.

Requirements under the Consolidated Appropriations Act, 2014 (P.L. 113-76)

For Recipients That Are Governmental Entities:

If a Recipient has questions regarding when Davis Bacon (DB) applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State Water Board.

The Recipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/whd/>

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2014 Consolidated Appropriation Act, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If the Recipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the Recipient must discuss the situation with the State Water Board State before authorizing work on that site.

2. Obtaining Wage Determinations.

- (a) Recipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.
 - (i) While the solicitation remains open, the Recipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The Recipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the Recipients may request a finding from the State Water Board that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State Water Board will provide a report of its findings to the Recipient.
 - (ii) If the Recipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State Water Board, at the request of the Recipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The Recipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.
- (b) If the Recipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the Recipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

DAVIS BACON REQUIREMENTS

- (c) Recipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.
 - (d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a Recipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the Recipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the Recipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The Recipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.
3. Contract and Subcontract provisions.
- (a) The Recipient shall insure that the Recipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal Agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2014 Consolidated Appropriations Act, the following clauses:
 - (1) Minimum wages.
 - (i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b) (2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a) (1) (iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. Recipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

DAVIS BACON REQUIREMENTS

- (ii)(A) The Recipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (2) The classification is utilized in the area by the construction industry; and
 - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Recipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the Recipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Recipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

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- (2) Withholding. The Recipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
- (3) Payrolls and basic records.
- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b) (2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the Recipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the Recipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Recipient(s) for transmission to the State or EPA

DAVIS BACON REQUIREMENTS

if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the Recipient(s).

- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - (1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a) (3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
 - (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
 - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
 - (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.
 - (D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.
- (4) Apprentices and trainees--
- (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary

DAVIS BACON REQUIREMENTS

employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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- (iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.
 - (5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
 - (6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
 - (7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
 - (8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
 - (9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Recipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.
 - (10) Certification of eligibility.
 - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.
4. Contract Provision for Contracts in Excess of \$100,000.
- (a) Contract Work Hours and Safety Standards Act. The Recipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.
 - (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such

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laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.
 - (3) Withholding for unpaid wages and liquidated damages. The Recipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
 - (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.
- (b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Recipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Recipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the USEPA, the Department of Labor, and the State Water Board, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

- (a) The Recipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The Recipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

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- (b) The Recipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Recipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB. Recipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.
- (c) The Recipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The Recipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the Recipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract . Recipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the Recipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.
- (d) The Recipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.
- (e) Recipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/contacts/whd/america2.htm>.