

Worksite: \_\_\_\_\_ Instructor: \_\_\_\_\_ Date/Time: \_\_\_\_\_

### Topic C104: Abrasive Cutting Wheels (Wet Saws, etc.)

**Introduction:** In many workplaces, wet saws and abrasive cutting wheels are used to cut material such as brick, tile, block, paving stones, concrete, and more. While these tools are extremely versatile, they also present several hazards which can only be understood by knowing what the wet saw or abrasive cutting wheel does and how it works. A wet saw or abrasive cutting wheel is essentially an overhead table saw for masonry and tile that uses water as a means of keeping the blade (usually a diamond impregnated abrasive blade) cool during the cutting operation.

Here are some safety tips for using a wet saw and abrasive cutting wheel:

- Inspect the wet saw or abrasive cutting wheel for:
  - mounting flanges of equal diameter,
  - excessive wear and flatness,
  - defects to the blade,
  - damage to the electrical cord, and table stability.
- Prior to operation, check the saw for proper operating conditions:
  - All fluids are at proper levels.
  - V-belts should be properly tensioned and pulleys checked for excessive wear.
  - Blade shaft bearings should be free of end and radial play.
  - Lead-off adjustments are set correctly, to allow the blade to travel straight.
  - mounting flanges have adequate relief around the arbor hole.
- Ensure the wet saw is positioned on a solid level surface prior to use.
- Don't over reach while operating the wet saw.
- Do not remove the safety guard. The guards are there to protect you, use them.
- Do not distract an operator while they are cutting material with a wet saw or using a cutting wheel.
- Always ensure that water is flowing freely over the blade before beginning to cut any material. This will increase blade life, cutting efficiency, and dust control. Make sure the water is clean and free of debris.
- Always keep fingers free and clear of the cutting wheel or wet saw by using a push stick.
- When using a diamond saw blade, make sure that it is mounted on the correct diameter blade arbor between proper blade flanges, and is securely tightened by hand with a wrench.
- Do not force the wet saw to cut faster. This will lead to breaking the blade or material and may cause an injury. Cutting material only while the wet saw operates at the proper speed will ensure a good cut.
- Never use a wet saw or cutting wheel while wearing loose clothing or wearing gloves that don't fit properly. Your clothes may get caught in the saw and cause injury. Always tuck away long hair in a hat or use a hair clip.
- Wear eye, face and hearing protection when working with the wet saw or abrasive cutting wheel to prevent injury.
- Never fuel a gas powered wet saw or cutting wheel while it is still running, around an open flame, or any other potential ignition source.
- Operate the equipment in a well-lighted area.
- Do not operate a wet saw in damp or wet locations, or when it's raining due to electrical hazards.

**Conclusion:** Abrasive cutting wheels are essential when working with masonry materials, as a means of cutting plugs or making tight splices. Always keep your area clean and free of trip hazards. Only trained and qualified employees should work with a wet saw or cutting wheel. Do not allow bystanders in the work area unless they are wearing eye/face protection. Follow these guidelines to ensure safe operation and avoid injury.

**Employee Attendance:** (Names or signatures of personnel who are attending this meeting)

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*These guidelines do not supersede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.*