

Best-in-Class Thoughts

"Coming together is a beginning; keeping together is progress; working together is success."

– Henry Ford

"With integrity, you have nothing to fear, since you have nothing to hide. With integrity, you will do the right thing, so you will have no guilt."

– Zig Ziglar



this issue

Driver Vehicle Inspection Report **P.1**

Vacuum Truck Best Practices **P.2**

Hydroblasting Safety **P.3**

10 Tips for Shift Work **P.4**

Top MER Job Postings **P.5**

Note from Leanne

Every year, MER Environmental Field Services become fully engaged in "outage season," a stretch of time where a number of MER's energy and industrial clients shut down all or portions of their facilities to perform large-scale maintenance. Typically, these shutdowns require a significant amount of resources to complete the scheduled tasks in a relatively short amount

of time and because many clients hold these outages at the same time each year (during times of lower demand for their product/services), MER personnel and equipment are in high demand across the organization.

During these campaigns, safety can be challenged as we manage longer-than-typical work shifts, increased utilization of sub-contractors and compressed production schedules. In the face of these obstacles, it's paramount that we stay disciplined in our focus on employee safety. Consider implementing a structured break schedule to address hazards of long hours and a subcontractor-specific tailgate meeting to help temporary laborers better understand MER's safety culture. Outage season is a great time of year that provides our company with awesome business potential; let's make sure we keep our employees safe and make it through another outage season with no injuries!

Are You Prepared for Driving?

MER requires all vehicles to be inspected prior to leaving the Resource Center and/or at the beginning of each day. The Driver Vehicle Inspection Report (DVIR) is available in paper or digital form (on driver's tablets via Pedigree) and clearly lists what areas and items are to be inspected on both trucks and trailers. If a defect is found during the inspection, it needs to be brought to the attention of the local mechanic or manager before the truck leaves the yard; if necessary, the unit will be taken out of service and can't be used until all necessary repairs are completed.

Drivers should also check the following items before operating a commercial motor vehicle:

- ☐ **Personal items** – Driver's License, DOT card, cash (tolls), phone, hands-free device, etc.
- ☐ **Site-specific PPE** (i.e. FR clothing)
- ☐ **Cab clean. View unobstructed.**
- ☐ **Cargo properly secured.**
- ☐ **Required paperwork** – WOWS, Driver's Log (today & last 7 days), Bill of Lading/Manifest
- ☐ **MER Vehicle Permit Binder** – Registrations, Annual & State Inspections, Federal & State Permits/Licenses, Spill Response Plan, HAZMAT Transportation Security Plan, etc.
- ☐ **CMV/HAZMAT Kits** – CSA Handbook, ERG, FMC Safety Regulations Pocketbook, Hazardous Materials Compliance Pocketbook, HAZMAT Handbook, H.O.S. Handbook

DRIVER'S VEHICLE INSPECTION REPORT

CARRIER: _____
ADDRESS: _____
DATE: _____ TIME: _____ A.M. _____ P.M.
CHECK AND DEFECTIVE ITEM AND DATE DETAILS UNDER "REMARKS"

TRUCK/ TRAILER NO.	ODOMETER READING
☐ Air Compressor ☐ Air Lines ☐ Battery ☐ Belts and Hoses ☐ Brake Accessories ☐ Brakes, Parking ☐ Brakes, Service ☐ Body ☐ Brake Accessories ☐ Brakes, Parking ☐ Brakes, Service ☐ Clutch ☐ Coupling Devices ☐ Defroster/Heater ☐ Drive Line ☐ Engine ☐ Exhaust ☐ Fifth Wheel ☐ Fluid Levels ☐ Frame and Assembly	☐ Front Axle ☐ Fuel Tanks ☐ Horn ☐ Lights ☐ Headlight ☐ Tail/Dash ☐ Turn Indicators ☐ Clearance Marker ☐ Mirrors ☐ Muffler ☐ Oil Pressure ☐ Radiator ☐ Rear End ☐ Reflectors
☐ Safety Equipment ☐ Fire Extinguisher ☐ Flare/Flares/Fuses ☐ Reflective Triangles ☐ Spare Bulbs and Fuses ☐ Spare Seal Beam ☐ Starter ☐ Steering ☐ Suspension System ☐ Tire Chains ☐ Tires ☐ Transmission ☐ Trip Recorder ☐ Wheels and Rims ☐ Windows ☐ Windshield Wipers ☐ Other	☐ Hitch ☐ Landing Gear ☐ Lights - All ☐ Reflectors/Reflective Tape ☐ Roof ☐ Suspension System ☐ Tarpaulin ☐ Tires ☐ Wheels and Rims ☐ Other

TRAILER(S) NO.(S) _____
☐ Brake Connections
☐ Coupling Devices
☐ Coupling (King Pin)
☐ Doors
☐ Hitch
☐ Landing Gear
☐ Lights - All
☐ Reflectors/Reflective Tape
☐ Roof
☐ Suspension System
☐ Tarpaulin
☐ Tires
☐ Wheels and Rims
☐ Other

Remarks: _____

Vacuum Truck Best Practices

Vacuum Truck Safety

1. The tank is a confined space. The tank on most vacuum trucks meets the definition of a confined space and must be treated as such.

2. Keep all body parts away from working end of hose. The larger the diameter of the hose, the bigger the suction force; if an 8-inch hose gets stuck to your body at 27 inches Hg, it can be fatal. To prevent contact, attach a handle to control the end of the hose; do not use your hands to remove material stuck on mouth of the hose.

3. Use an inline vacuum release, a.k.a. "T-break". There are three vacuum releases available with a truck: a remote release, a manual release near the truck itself, and a T-break (mechanical device placed in the hose that kills the vacuum). Injuries often occur because users don't install an inline relief and are working too far away from the truck to quickly access the pendant (remote) or manual relief on the truck. The T-break should be installed between the last section of hose and the working section of hose. The cord that releases the T-break should be manned by a "buddy" to relieve the vacuum in the event of an emergency. Additionally, the truck operator should never be more than 25' from the truck and never out of the line-of-site for emergency purposes.



4. Always ground the truck, regardless of the product. For example, static electricity built up while sucking grain dust could trigger a dust explosion. Air movers should never be used on anything with a flash point of 140 degrees or less.

Staying Productive

1. Hose diameter is very important. Just how much impact can a slight change in diameter make? If a 1/4-inch hose and a 3/8-inch hose are connected to two jars; how quickly does each jar load? You might think that since the 3/8-inch hose is 50% larger in diameter, it would vacuum the contents 50% faster than the 1/4-inch hose. Instead, the jar loads nine times faster with the 3/8-inch hose!

2. Hose diameter is also paramount in getting the most out of your truck. Changing hose diameters in the suction hose is not only inefficient, it can cause a stop up. If a line begins with a 100 feet of 8-inch hose, and then change to a 4-inch hose, the speed of air at the start of the 4-inch hose is deafening. The truck is trying to suction an amount of air designed to go into an 8-inch hose at full throttle through a 4-inch opening. The material flies through the 4-inch hose; then, when it enters the 8-inch section, the speed of air is reduced, and material clogs up the hose. This is a very common mistake.

3. Performance decreases as friction loss increases. Use your mouth to blow through it a 7-inch long hose with a 1/4-inch diameter. Not difficult. Then try to do the same with a 7-foot length of the same hose. This gives you some idea of how hard your machine has to work. It doesn't matter if the air is being sucked or blown through a hose, it still suffers from friction loss.

4. Smooth-bore hoses almost always work better. Polyethylene corrugated hose is lightweight and easy to handle, but long lengths can devastate the performance of the truck. This hose may work on a short job, but on a longer and tougher job, a smooth-bore pipe or rubber hose may be necessary for the majority of the hose length; save the lightweight hose for the last section (working end).

Today's high-powered vacuum trucks can give an operator a false sense of security because they can be very forgiving performance-wise, even when not used properly. But in the end, performance relates directly to the operator's knowledge and care. Knowledge of your truck and common safety measures will aid performance and prevent serious accidents.

www.guzzler.com/Portals/0/PDF/TechInfo/Back%20to%20Basics.pdf

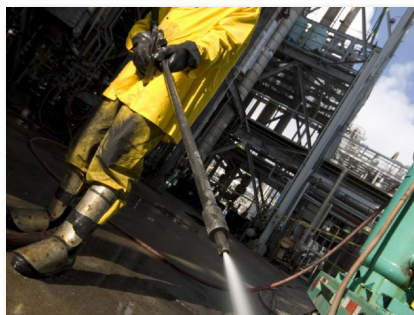


There's an App for that!

Sleep Time
Azumio Inc.



Fall asleep, stay asleep, and wake up refreshed! Sleep Time includes Sleep Cycle Smart Alarm Clock, Sleep Tracker with Sleep Cycle Analysis and Soundscape for Better Sleep. Sleep Time doubles as a comprehensive sleep analysis app and alarm clock. Celebrating the release of version 2.21, Sleep Time is the first sleep app with iOS 8 support and Apple Health integration!



Pressure Washing and Hydroblasting

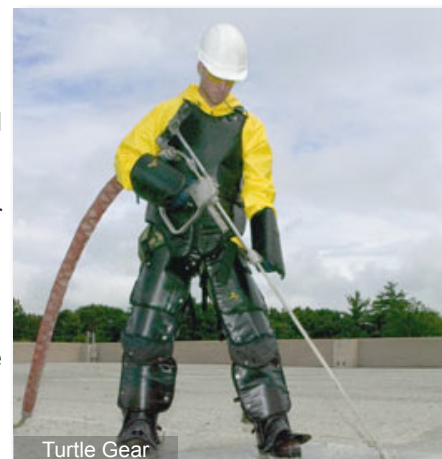
The use of pressure washers and hydroblasters has become more common over the past few years, often replacing the need for sand blasting and other cutting and cleaning methods. The uses of water washing vary widely, but include surface cleaning and preparation (i.e. paint and grease removal), pipe/tube cleaning, tank cleaning, water-jet cutting, etc.

Although pressure washer and hydroblasters are fairly simple to operate, they can be dangerous if not properly used. Pressurized water is pumped through a flexible steel braided hose and discharged through a pipe, called a lance, which has an orifice at the end. The water jets exit the orifice and act much like a band saw; this cutting action is the main hazard because the high pressure water can cut through boots, gloves, aprons and other protective clothing in a fraction of a second. If the jets cut into a foot or hand, it could result in amputation or other severe injury, or the cleaning solution and/or water may be injected into the blood stream, which could be fatal.

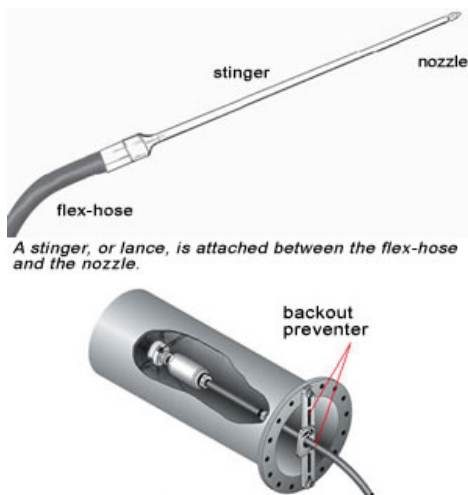
In general, the term “pressure washer” refers to equipment that is not capable of generating more than 5,000 pounds per square inch (psi); most of MER’s general pressure washers range from 1,000 to 3,500 psi. “High pressure washing,” or hydroblasting, refers to a system capable of generating a pressure of 5,000 psi or more. This includes high pressure washing systems used at lower pressures and high volume.

Basic High-Pressure Water Safety Precaution

- ◆ **Personal Protective Equipment (PPE)** – Proper PPE will be selected based on the specific task begin performed. In general, the following should be used a guideline for PPE selection. Note: All operations require at least a hard hat, safety glasses and approved face shield, protective chemical suit or rain suit, and hearing protection.
 - Water Washing (less than 1,000 psi) – Steel-toe rubber boots or equivalent.
 - Pressure Washing (1,000 psi to 5,000 psi) – Steel-toe rubber boots with metatarsal guards or equivalent.
 - High Pressure Water Washing or Hydroblasting (5,000 psi to 25,000 psi) – PVC or other heavy gloves, metatarsal and shin guards.
 - Ultra Hydroblasting (above 25,000 psi) – PVC or other heavy gloves and turtle gear.
- ◆ **Dead man switches/triggers** – Must never be taped, tied, or otherwise altered so the equipment stays in the “on” position.
- ◆ **Lance** – Must be a minimum of 36” long to keep the operator from pointing it at himself.
- ◆ **Flex-Lancing** – Use a stinger at least the diameter of the largest part of the pipe, in addition to a backout preventer.



Turtle Gear



- ◆ **Use Clean Water** (if possible) – In addition to machine component damage caused by particulates, raw water may contain small quantities of nitrogen, ammonia, or chlorine which could be deadly if vaporized in a confined space. Additionally, unclean water can cause infections if injected into the skin.
- ◆ **Proper Hose and Fittings Inspection and Use** – When laying hoses, handle them with care. Also, check each hose to ensure it is marked with the manufacturer’s symbol, serial number and maximum operating pressure. Pad sharp corners or suspend the hose where necessary. Fittings are particularly susceptible to thread wear and wrench damage.
- ◆ **Training** - Hydroblaster Operators must have proper training, which includes a classroom training, a hands-on checklist and at least 25-hours of supervised operations.

10 Tips for Shift Work

Shift work twirls the dials on your body's biological clock until it can't tell when it should wake you up and when it should let you sleep. And although there's no single magic plan that's right for everyone, there is agreement among sleep researchers that the following strategies will help you get a good night's sleep. Here's how to get started:

- 1. Get your partner on board** – Shift work is tough on the entire family. Make sure your partner knows how it will affect him or her (increased parental responsibilities and household tasks, less time with you) before you begin night or rotating work.
- 2. Give your body a three-day warning (if possible)** – If you're headed toward a major change in work schedule, try to begin to alter your sleep time three days in advance. For example,

<u>Current Shift:</u> 5:00 p.m. to 1:00 a.m.	<u>Moving to:</u> 11:00 p.m. to 7:00 a.m.	<u>Current Sleep:</u> 3:00 to 11:00 a.m.
<u>Day 1:</u> Sleep 5:00 a.m. to 1:00 p.m.	<u>Day 2:</u> Sleep 7:00 a.m. to 3:00 p.m.	<u>Day 3:</u> Sleep 8:00 a.m. to 4:00 p.m.
<u>Day 4:</u> Begin the new 11:00 p.m. to 7:00 a.m. shift. Sleep 9:00 a.m. to 5:00 p.m.		
- 3. Maintain a schedule** – Keep the same sleep/wake schedule on your off days as on your workdays. It will help your body understand when you need to be alert and when you need to sleep.
- 4. Work clockwise** – If you work rotating shifts, ask your manager to schedule succeeding shifts so that a new shift starts later than the last one. If you've just finished a 3:00 to 11:00 p.m. shift, for example, you'll be more alert and sleep better if the next shift you work is 11:00 p.m. to 7:00 a.m.
- 5. Get outdoors** – Once you wake up, take a walk and sit in the sun. The sun cues your biological clock that it's time to be alert.
- 6. Pass up opportunities** – Shift work stresses the body, puts your health at-risk and denies time with family. Even if you need extra money, think twice about accepting an opportunity to work overtime or extra hours or skip vacations.
- 7. Get a pickup** – The AAA Foundation projects that drowsy driving plays a role in an average of 328,000 crashes annually. This total includes 109,000 crashes that result in injuries and 6,400 fatal crashes. Take the bus, hire a cab, have someone better rested than you are pick you up after your shift and take you home.
- 8. Make sleep a family effort** – Discuss your sleep needs with kids. Ask that they not go into your room unless it's an emergency, and be sure to specify precisely what is, and what is not, an emergency.

Fitness Challenge

10 Minutes of Sun Salutation (Surya Namaskar)

It is not by coincidence that most yoga classes incorporate several rounds of Surya Namaskara, or Sun Salutations. The sequence of movements is known to, not only strengthen the physical body, but also contribute greatly to the mental and spiritual health. Moving through the twelve powerful postures helps to keep the body healthy and the mind calm. Sun Salutation benefits are available to everyone, since every asana in it can be adapted to every body and stage it might be in (pregnancy, joint injury recovery, etc.).

<http://yogatime.tv/blog/sun-salutation-benefits/>



- 9. Stick to Perrier** – If you feel like a nightcap/morningcap, make it water. Although alcohol may seem to relax you so you can get to sleep quickly, it actually disrupts your sleep later in the night. As a result, you get less sleep that's less than refreshing.

- 10. Forget the quick fix** – There isn't any; although, there are plenty of people around who will sell you one. One example: Sales of the herb valerian, which has historically been used to aid sleep, have reached more than a million dollars a year. Yet, a review of 37 sleep studies reveals that it doesn't do a thing.

www.besthealthmag.ca/best-you/sleep/10-sleep-tips-for-shift-workers#YAEpG1vpsKzG8gYH.99



MER**Values****Professionalism****Integrity****Mutual Respect****Discipline**

Hazard Recognition and Mitigation Success

Recently a team of MER employees were tasked with performing asbestos abatement in an underground electric utility manhole. The experienced MER site supervisor identified that the line that needed to be abated was too close to energized lines and that the work could not be done safely as currently configured. The site supervisor immediately notified the local Logistics Coordinator who instructed the site supervisor to stand by and not perform the work until the hazard was communicated to the proper customer contacts.

MER management communicated the hazard to the customer, both sides agreed that there was a health and safety concern. Working with the customer, it was determined that the best corrective action was to eliminate the hazard by scheduling the work during an upcoming shutdown. The team of MER employees will now be able to do the abatement in an electrically safe work environment.

This story is a great example of a site supervisor thoroughly investigating the job site, identifying a hazardous condition and following the appropriate chain of command to get the issue resolved. Job well done!



Employee Development

Been thinking about moving up in MER?

As the MER Family of Companies continues to grow, so does our need for personnel, which makes right now an extra exciting time for us all! MER's growth and restructure not only allows us to hire more employees, but it also gives our current employees an opportunity to develop and move into other desired positions. Because we value our employees, MER always prefers to promote within when we have interested qualified internal candidates. Although this isn't always possible, we encourage our employees to apply for positions that interest them; if nothing else, it will let management know the path they're interested in and help us develop a career path (i.e. what training or skill should I pursue?). MER's open positions are available on our website (www.MoranEnvironmental.com/Employment), but we have also listed our top open positions for MER below. Don't be afraid to look outside your current region; if you're interested in posted position, please apply on-line or contact the Recruitment Team at recruitment@moranenvironmental.com.

Randolph, MA: - Logistics Coordinator - Project Manager - Class A/B CDL Driver

Newtown, CT: - Project Manager - Class A/B CDL Driver

Newark, DE: - Logistics Coordinator - Class A/B CDL Driver

Norfolk, VA: - Class A/B CDL Driver

Richmond, VA: - Class A/B CDL Driver

Florence, SC: - Asbestos Technician

Charleston, SC: - Project Accountant - Class A/B CDL Driver

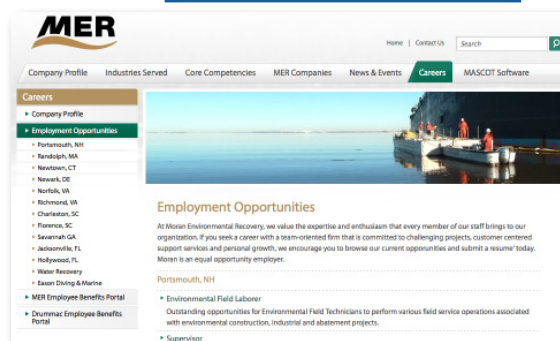
Savannah, GA: - Class A/B CDL Driver

Jacksonville, FL: - Logistics Coordinator - Class A/B CDL Driver

Hollywood, FL: - Class A/B CDL Driver - Heavy Truck Mechanic

H&S Team: - Confined Space Rescue Coordinator

Check out www.MoranEnvironmental.com/



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Safety Brief

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