

READY MIX WASHOUT GUIDEBOOK

Vehicle and Equipment Washout at Construction Sites

INTRODUCTION

Mixer trucks, concrete pump trucks and concrete finishing tools must be washed at job sites. This is necessary to prevent road hazards and for the continued use of the equipment. However, washout of concrete equipment must be done with careful regard for its potential impact on the environment. The wastes from concrete washout can harm the environment if allowed to runoff from construction sites. As populations have grown and construction has crowded into new areas, building sites have become a significant environmental threat.



Concrete washout wastes are caustic. That is, they have a high pH and if allowed to enter surface waters, washout wastes can change the pH of the water. This change can, in turn, harm wildlife that depends on these surface waters. Additionally, washout wastes contain fine particles of sand and cement. If these particles become suspended in the waters of a pond or stream, they can interfere with the ability of fish to breathe.

Concrete washout wastes pose a very real threat to surface waters and to all life forms that depend on them. It is up to everyone in the ready mix industry to ensure that the wastes from job site concrete operations are handled properly. This means paying close attention to where and how we washout our vehicles and equipment.

REGULATIONS & LIABILITIES

Our customers, the developers and contractors who use our concrete, must obey all environmental rules and regulations. Construction sites are generally prohibited from discharging anything other than clean storm water or snowmelt into “state waters”. State waters are defined as “any and all (natural) subsurface or surface waters which are contained in or flow in or through the state”. Most construction sites obtain a permit that controls the runoff of storm water from the site. If concrete washout from a ready mix truck or pump were allowed to runoff a permitted site in a rainstorm or during a rapid snowmelt, that would be an illegal discharge and a violation of the site’s permit. The ready mix operator would be liable for this illegal discharge

and the site’s permit holder could be cited for a violation of their permit. A fine of up to \$25,000 per day of violation could be imposed on the ready mix operator or the permit holder.



At the same time, newspapers and TV stations love to cover stories on corporate polluters. Corporate polluters make good headlines. It is up to all ready mix operators to ensure that ready mix work practices do not give our customers or our industry a bad name.

JOBSITE WASHOUT LOCATIONS



Possibly the most important factor when washing out your vehicle or tools at the job site is the location for the washout. An acceptable washout location will have the following characteristics:

- Washout water should not leave the washout location
- Runoff from a rainstorm or rapid snowmelt will not carry wastes away from the washout location

- Washout will not impact future land uses (i.e., parks, open spaces, etc.)
- Permission to washout has been granted by the property owner
- The location is accessible to the vehicle

Never washout into or near a stream, river, lake or wetland. Never washout into a drainage ditch. Most ditches lead to a surface water body eventually.

Most construction sites will have designated a specific washout site. If you are unfamiliar with a site or do not see any sign, ask the site supervisor to point out the washout location. When you washout there, make sure to position your vehicle or tools so that your washout wastes fall onto the washout area. Wastes should not flow or runoff from the designated area.

Sometimes, a pit, depression or bermed area will have been excavated for washout. Such contained washout areas may be necessary where the site slopes steeply or where it is near a stream or river.

If there is no designated washout location and nobody to designate one, it may be up to you to find a suitable location. If you must washout onto a new washout location, pick it wisely. Choose a site using the criteria previously discussed.

It is often useful to washout onto or near piles of loose excavated dirt. The loose dirt absorbs the waste and often forms a barrier against runoff.



If you know of an area that is about to be paved over, such as a roadbed, you can washout there. Once paved over, your wastes will never leave the site. One good way to know if you have picked a good washout location is to ask yourself the question: “What would happen to my washout wastes if a big rain storm were to hit as soon as I leave?” If the answer is “Nothing”, then you have picked a good location. If the answer is, “This waste would probably be washed off and flow into the river or lake”, then you had better keep looking for an acceptable location.

Pump trucks may require a special location to washout. Since pumps usually generate a larger volume of wastes than mixers, pump trucks may not be able to use mixer

truck washout areas. If the designated washout location might be overwhelmed by the volume from a pump truck, the pump truck operator will have to find a better location.

WASHOUT PROCEDURES

When washing out, there are a few simple rules to follow.

- Do not leave extra mud in your chutes or hopper after the pour
- Remove as much mud as possible without using water
- Use as little water as possible when washing out
- Stop washing out in a particular location if you observe the water is running off
- Never add anything to your wash water

Always try to empty your chutes or hopper at the pour. Try not to leave any mud in the chutes or hopper when you are done with the pour. The less mud left in the chutes, the easier and quicker the washout.

At the washout location, scrape as much mud from your chutes as possible before washing them. Using non-water-cleaning



methods minimizes the chance for washout wastes to flow offsite.

After scraping, washout your vehicle with the drum in the “charge” position. Wash from the top down, starting with the fins and load hopper, and then work your way down. Use as little water as it takes to do the job. Excess wash water usage increases the chances of wastes running off the site. If you see your wastes beginning to flow or migrate away from the washout location, stop your washout and point out the problem to the site supervisor. A new washout location may have to be designated.

Never back-flush your truck at the job site except in an emergency and then only after obtaining the permission of the site owner and contractor. Normally, back-flushing should only be done back at the plant. Back-flushing generates too large a volume of wastes for most job site washout locations to handle.

Never add anything to your wash water. Solvents or acid such as are used at the plant cannot be used at the job site. Adding anything to your wash water could injure yourself or your co-workers as well as do harm to the environment. Water with acid or



solvents could be considered a hazardous waste and discharging it could be both a federal and a state crime.

Pump truck operators should use their sponges to draw mud through the delivery tube back into the hopper. This cleans the tube without using any water and reduces the threat of washout waste running off the site.

DIFFICULT SITES

Some job sites may not have enough open ground suitable for washout. Urban sites, high-density residential developments or construction of buildings inside of fully developed areas may have no open ground nearby. In these cases, washout requires special care. Washout will have to be done without leaving any wastes behind.

It may be tempting to washout into a storm sewer or drainage ditch, but this would be a big mistake. Washing out into a sewer or ditch is exactly the same as



washing out into a stream or river, because that is where most storm sewers and ditches lead. So do not be tempted even if it seems like the easiest solution.



At a job site where washout is difficult, you may have to washout into a bucket, wheelbarrow or other container. When doing this make sure to position the container so that it catches all of your wastes. You may have to move it

around as you wash different areas of your vehicle. Make sure it does not leak or overflow. You may have to empty it more than once to get a complete washout.

Empty the container back into the drum when it is about half full. Lifting a full bucket up to the drum would be dangerous. Lift the bucket up to each platform, maintaining “three point” contact with the ladder at all times. Or, have someone hand it up to you.

Some sites may only be able to dispose of washout wastes on locations that are inaccessible to vehicles. For these sites, you may have to washout into a wheelbarrow or container and then carry the container to the designated disposal site.

It may seem like disposal of concrete wastes is the responsibility of the contractor or developer, and technically it may indeed be. However, when concrete wastes are incorrectly disposed, guess who most people think is responsible? As a ready mix operator, it is in your best interest to see that the wastes from your vehicle are properly disposed.

CONCLUSION

The ready mix industry is one of the most visible members of the building trades. Our trucks are on the highways every day and ready mix company names are well recognized by the public. Past washout practices have not always been as careful as are now required by current environmental regulations. It is up to each of us in the ready mix industry to take special care and precautions to protect our industry from violating existing regulations and from negative publicity. Please stay aware and alert to your washout procedures and help our industry stay a good neighbor wherever we work.

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A Companion Guide
for the Video:

*"Building for a Cleaner
Environment"*