

RUSHING PERFORMANCE.....CLEAN EVERY TIME!!

SERIES ONE: DEFINING FLEET RELATED SOIL, METHODS OF REMOVAL, CHEMISTRY BASICS, AND EQUIPMENT OPTIONS

DEFINING FLEET RELATED SOIL – WHERE DOES ALL THIS DIRT COME FROM???

- 1. Organic Soil Road grease/grime fifth wheel grease, driving through new paving areas, engine related grease or other lubrication spots that transfer from one area to another during transit, rain aided mud or dirt, dust, etc.
- 2. Inorganic Soils Exhaust smut blowing onto painted surfaces, road salts (chlorides), Acidic rain/precipitation, ultraviolet rays. Others?
- **3.** Particulate Soils Dust, dirt, storm wind containing either, asphalt or asphalt sealant particles, brake dust, (also inorganic) trash related debris that blows from medians or emergency stop lanes, etc.

ANYTHING WE OVERLOOKED?



WHY ARE ROAD SOILS SO DIFFICULT TO REMOVE?

- Road film and organic soil tend to have an affinity for painted surfaces that have been impacted over time by UV rays.
- How do UV rays impact most painted surfaces on tractors/trailers? Create a "roughened, dry, textured" surface that soils, particularly inorganic soils, love to CLING to such as a strong magnet clings to a steel surface.
- The unique combination of inorganic, organic, and particulate soils mandate a unique cleaning chemical product approach to be removed effectively.



METHODS OF FLEET RELATED SOIL REMOVAL

- 1. Water Can water alone, if unheated, properly wash a tractor and trailer?
- 2. Water with Pressure Hand-held pressure wash system could be effective with heat and water only, couldn't it??
- **3.** Water with Pressure and Heat This would be ideal when using water only but still.....can a water only approach thoroughly clean fleet related soil??
- 4. Mechanical Systems:
- Hand-held mobile or stationary pressure wash units For small fleets, or engine cleaning, forklift cleaning, shop floor cleaning this type of system could be a good choice. Combines pressure forces from 800psi-2500psi, heated or non-heated water, and a cleaning product injected at a pre-defined rate.
- **Drive-Through Automatic Wash Systems** Driver's or assigned personnel drive the equipment through the wash at prescribed speed. The system incorporates usually heated water/chemical mix, pressure, a combination of spray nozzle types for effective soil lifting and removal, and mechanical brushes that are designed to clean various areas of the tractor trailer units. Time involved: 90 seconds 2 minutes
- **Gantry Automatic Wash Systems** This type automatic wash system moves around the vehicle while vehicle is in a stopped position. Gantry systems incorporate usually brushes, cleaning products heated or unheated, and pressure to accomplish the cleaning task. Time involved: 10-15 minute cycles



FLEET CLEANING CHEMISTRY 101

- Acidic Based Cleaning Products Acid based cleaning products can be applied manually or automatically and are used primarily to brighten or remove oxidation from aluminum or painted surfaces or as "all the above" + a pre-cursor as a Step 1 product application in automatic systems. (re: Hydroshock) – Removal of INORGANIC soils
- 2. Alkaline Based Cleaning Products Used in manual cleaning systems to remove organic soils primarily (bugs, oils, greases, etc.) from tractors, fifth wheels, engines, etc. Also used as a Step 2 cleaning product that directly follows the Step 1 cleaning product to create the Hydroshock Cleaning Effect. Low pH product shocked by high pH product to loosen inorganic and organic soils for lifting and ultimate removal by rinse.
- **3.** Neutal pH Cleaning Products A new breed of environmentally friendly One Step cleaning for fleets that are highly monitored/controlled by their respective local municipalities. Neutral pH products rely primarily on surfactant technologies for their ability to clean and can be effective in maintaining proper fleet cleanliness. Can be used in manual or automatic cleaning systems.

pH Scale

0....1....2....3....4....5....6....7....8....9....10....11....12....13....14

----- Acidic----- Neutral---- Alkaline-----



FLEET CLEANING – THINGS TO CONSIDER IF YOU ARE CONSIDERING A NEW WASH SYSTEM

- 1. How are you currently cleaning your fleet?
- 2. What are you paying to clean your fleet?
- 3. Is your fleet static, growing, receding in pieces of equipment used?
- 4. Location! Multiple terminals, one single terminal? What works best for you?
- 5. Available space? Existing building or must a new building for a wash system be installed?
- 6. Water quality? Are you aware of effluent discharge rules as mandated by the local municipality?
- 7. Will water discharged be required to be captured and subsequent treatment be required?
- 8. Are utilities required for a wash system available or in place currently?
- 9. What are your goals from a cleaning perspective? Hand wash quality? Clean from 10 feet? 20 feet?
- 10. What are your budget goals, considerations, restraints?



RUSHING FLEET CLEANING DIVISION PERFORMANCE CAPABILITIES OVERVIEW

- Rushing Enterprises designs, fabricates, installs, and maintains state-ofthe-art Drive Through truck-wash cleaning systems.
- Rushing Enterprises creates, formulates, and blends best in class truckwash cleaning products.
- Rushing Enterprises employs highly talented, trained, and responsive Technical Support Representatives assigned to maintain our customers truck- wash cleaning systems.
- Rushing Enterprises invests in significant research and development efforts to foster an environment of continuous improvement in its cleaning systems and cleaning products.

