Best Management Practice
For Auto Repair Facilities

This BMP was prepared by JEA for the control of pollutants discharged to the sanitary sewer system.

June 2024

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Introduction

Best Management Practices (BMP) are designed to help facilities comply with environmental regulations and prevent pollution at the source. This best management practice contains a set of operating procedures and guidelines designed to reduce the amount of pollutants discharged to the JEA Water Reclamation Facilities (WRF). The development of this BMP is intended to protect the WRF and environment by providing established, common sense, and economical guidelines for automotive repair facilities.

JEA Water Reclamation Facilities receive and treat wastewater from residential, commercial, and industrial customers prior to discharge to the St. Johns River. Automotive repair facilities have the potential to discharge substances that may pass through or interfere with the operations of the WRF to cause it to discharge pollutants to the St. Johns River. **Because of this potential, JEA may require these facilities to obtain an Industrial User Discharge Permit. By implementing these Best Management Practices, automobile repair facilities may be exempt from obtaining such a permit.**

Like other businesses that use hazardous materials in their work, auto repair facilities are subject to federal, state, and local regulations including the Clean Water Act which regulates wastewater and storm runoff. As part of the Clean Water Act, the National Pretreatment Regulation (40CFR 403) was established to protect WRFs and the waterways to which they discharge. The Environmental Protection Agency (EPA) delegates this responsibility to the State of Florida Department of Environmental Protection (FDEP). The state of Florida has delegated local authority to JEA (an electric, water, and sewer utility). The responsibility of the JEA Industrial Pretreatment (IP) program is to regulate discharges to the WRF and control contaminants that enter the sanitary sewer system.

Background

Automobile repair shops produce many types of waste, some hazardous, some not necessarily hazardous but still potentially damaging to the environment if not handled properly. These wastes may be created when replacing automotive fluids, maintaining parts, and repairing equipment. All wastes require proper treatment and or disposal which could lead to significant cost to the business.

An economical method of controlling pollution and the production of wastes is to reduce or prevent them from being created. Pollution Prevention (P2) is the use of materials, processes, or practices that reduce or eliminate the creation of pollutants or wastes at the source. P2 uses recycling, good operating practices, material substitutions, and process changes to reduce or eliminate hazardous waste, non-hazardous materials, and pollution. Numerous P2 methods that are practical to implement will be included in this BMP.

Statement of Problem

Incidents of automobile fluids entering the sewer collection system can be both dangerous and costly to investigate and clean up. Costs associated with these incidents can be charged to a facility that is determined to be the source of the nuisance discharge. Fluids that are considered harmful or hazardous can cause various problems when introduced to the sanitary sewer system:

- Motor oils have the potential to harm the sanitary sewer system. These oils restrict the flow of water entering the sanitary sewer forcing water and oil to spill onto public roads and other surfaces creating a sanitary sewer overflow.
- Flammable or ignitable substances can cause fires or massive explosions in the infrastructure or at the treatment plant. Many substances can cause corrosion and damage to pipes, pumps and lift stations.
- Toxic substances can kill or inhibit the microorganisms that wastewater treatment plants rely upon to treat the wastewater.
- Many substances can produce detrimental conditions and foul odors.

Policy

JEA, as the Control Authority, is required to regulate all facilities that discharge to the WRF. The requirement of the JEA Industrial Pretreatment regulation (section 2.8) is for all automotive repair facilities discharging to the sewer system to abide by this policy and implement the Best Management Practices in this document to minimize the amount of pollutants entering the WRF.

Statement of Discharge Policy

1. All auto repair facilities that have shop floor drains which discharge to the sewer system must install an oil/water separator (IP regulation, Section 3.2 C) or seal all floor drains to prevent discharge.
2. Solvents, fuels, oil, antifreeze, and fluids from radiator flushing are strictly prohibited from being discharged to the JEA sewer system.
3. All auto repair facility discharges must be in accordance with applicable state, local or federal rules and regulations.
4. Hazardous and non-hazardous wastes must be stored and disposed of according to the Resource Conservation and Recovery Act (RCRA).

Required Practices

Post a Sign

- Post the enclosed **"Oil and Water Don't Mix"** sign in a high-profile area to remind employees of best management practices.

Container Management and Storage

Improper storage practices

Proper storage practices

- Store material and wastes in appropriate storage containers.
    - Store in a manner that minimizes the potential for accidental discharge to drains (in secondary containment or located away from drains).
    - Containers or drums must be kept in good condition and stored in a manner that minimizes risks of ruptures, leaks, or corrosion.
    - Inspect storage containers regularly for leaks, rust, or defects.
    - Keep containers closed unless volatile explosion is possible and ventilation is needed.
    - Store materials in compatible containers. For example, use plastic containers for corrosive materials.
    - Retain waste manifests or disposal records for three years.

- Have a spill plan in place so personnel are prepared if a leak occurs.
    - Keep spill control and absorbent materials in a central known location accessible to all employees.
    - Train all employees to quickly respond to spills. See more information on employee training under best management practices (page 16).

Maintenance Practices

- Maintain your equipment. Routinely check hydraulic and other equipment for small leaks and other needed repairs.
- Locate and repair all leaks to prevent loss of raw materials. Practice preventive maintenance to avoid future losses.

Suggested Pollution Prevention Practices

A Successful Program Begins at the Top

- The facility management should demonstrate a commitment to pollution prevention (P2) that employees will follow. Meaningful support from management is essential for success.
- Employees should be trained for P2 practices. The training records should be kept to confirm that employees periodically review the material.

Operate a "Dry Shop"

Preventing Leaks and Spills:

- Keep a drip pan under vehicles when detaching hoses, removing drain plugs, unscrewing filters or removing parts that may cause a leak. Use a drip pan under any vehicle that ***may*** leak while working on it.
- Use larger, flat, low-brimmed pans under cars when ordinary drip pans are too cumbersome.
- Promptly transfer used fluids to storage for recycling. Don't leave drip pans or other open containers where they may be bumped and spilled.
- Drain and replace motor oil, coolant, and other fluids in areas where there are no floor drains.

Cleaning the Floor in the Service Area

- A "sealed" concrete floor or a floor with an oil-resistant coating is easier to clean and maintain.
- Sweep the floor rather than wet mopping or spraying it down with water. Use a damp mop for general cleanup.
- Use dry cleanup practices such as rags or absorbent whenever possible for routine clean-up. (Contaminated rags or absorbent must be handled appropriately).
- Label shop drains as a reminder that they eventually discharge to local water ways where your employees may fish and recreate.

Spills

- Have a written spill procedure posted in areas where spills may occur. Train your employees on how to respond to a spill.
- Small Spills may be cleaned up with rags. Absorbent may be used; however, used absorbent may be considered a hazardous waste (check with your local hazardous materials management agency).
- Use a special hydrophobic mop or a squeegee to clean up the spill. Dispose of the "absorbed" waste in the appropriate waste container, not a drain.

- For spills that leave your facility, refer to your hazardous materials response plan, filed with your fire department or other regulatory authority that describes how to prepare for and respond to larger spills.
- Post emergency contact numbers and train all employees on who needs to be contacted in the event of a spill. In the event of any discharge that may enter the sanitary sewer system and adversely impact the Water Reclamation Facility (WRF), the User shall **notify JEA**. Appendix D provides contact information and should be clearly posted in your shop area.

Handling Contaminated Rags

- Do not launder rags used for clean-up and spills of contaminated waste on-site. Store soiled rags in a closed container according to your local fire codes.
- If you use a laundry service, inform your laundry of the rags' contents. Use a laundry facility that is permitted to handle the contaminated rags.

Removing and Storing Batteries

- Store batteries, new and used, either on an open rack (so that you can tell immediately if any are cracked and leaking) or within a secondary containment.

Storage and Disposal of Wastes

- When choosing storage locations for waste containers, keep them away from:
  - Floor drains
  - Electrical service panels/heat sources
  - Customer/employee walkways
  - Building access/egress by public
  - Storm water drainage and contamination
  - Vehicle movements
- Keep containers on an impermeable surface like concrete. Store them under cover.
- Rain mixed with hazardous waste may be required to be treated as a hazardous waste.
- Keep dissimilar fluids separate so they may be recycled. Contact your recycler for the company's specific requirements.

DO NOT store chemicals near drains!!!

The key to Pollution Prevention is for everyone at your shop to know what causes water pollution. Make the "Pollution Prevention Practices" part of your daily operating procedures!

Best Management Practices For Specific Auto Repair Related Wastes

Used Oil

Used oil includes motor oil, brake fluid, transmission fluid, and hydraulic oil. Automotive fluids become contaminated when additives break down or the oil picks up metals from the engine wear. Contaminated oil can endanger human health, the environment and the community. Recycling is the simplest and preferred method to manage used motor oil. Avoid mixing used oil with other wastes, such as antifreeze, which could prevent the oil from being recycled.

Interesting tidbit: About 2.1 tons of used crankcase oil ends up in our rivers and streams every year. A single quart of motor oil can pollute 250,000 gallons of drinking water. (State of Delaware Department of Natural Resources and Environmental Control. December 1996).

Best Management Practices for used oil:

- Use drip pans or trays to collect fluids where fluids are transferred, under leaking cars and under parts that have been removed.
- Collect oil in dedicated drums or storage containers.
- Use dedicated equipment such as funnels and pans to prevent contamination from other wastes and fluids.
- Do not mix used oils with other substances.
- Do not pour used oil on the ground or use for weed control.

Proper storage of used oil

Used Filters: Oil, Transmission, and Fuel

Filters capture impurities from fluids in automobiles and often contain metals that can be hazardous. Florida law prohibits disposal of used oil/transmission filters in a landfill or in any trash destined for a landfill. Used filters can be recycled through a state registered used oil filter processor. Check with your FDEP District office for a list of approved used filter transporters and processors.

Best Management Practices for used filters:

- Puncture and drain your used oil filters for 24 hours before you store them.
- Put oil from filters in the used oil storage container.
- Keep drained filters in dedicated containers.

Antifreeze

Antifreeze is a water-soluble compound containing ethylene or propylene glycol. Antifreeze is toxic to fish and wildlife, but it is also sweet smelling and animals are attracted to it. Ethylene glycol can cause skin irritation and if inhaled, headaches, dizziness, nausea, and heart palpitation. During use antifreeze picks up hazardous amounts of metals such as lead, cadmium, chromium.

<u>Best Management Practices for Antifreeze:</u>

- Use tight fitting lids, leak proof spigots, funnel, or pumps to transfer fluids.
- Use dedicated drip pans for antifreeze.
- Do not mix with any other fluids such as used oil.
- Clean up any spills at once.
- Used antifreeze shall **<u>not</u>** be disposed of to the sanitary sewer system as it contains NDMA which is a pass-through risk for the POTW.
- Recycle antifreeze when possible.

Antifreeze recycling equipment is commercially available for use by automotive repair.

It is estimated that only 12% of all waste antifreeze generated in the United States is recycled each year! (FDEP's Best Environmental Practices for Auto Repair and Fleet Maintenance, November 1999).

Parts Cleaning Waste/Solvents

Solvents are used to clean engine parts and in parts washers. Although parts washer solvents are non-hazardous products, they may become heavily contaminated during use and exhibit hazardous waste characteristics.

Best Management Practices for solvents:

- Clean parts mechanically rather than chemically when possible. An example is to use wire or abrasive brushes.
- Perform all parts cleaning at a centralized station, so the solvents and residues stay in one area. Place parts-cleaning equipment in a convenient location near the service bays to reduce drips and spills while moving parts.

- To reduce hazardous waste generation and to extend the life of cleaning solvents used, try the following:
  - Use a two-stage cleaning system. The first stage should clean the dirtiest parts. The second stage uses fresh solvent for final cleaning and rinsing. When the cleaning solution in the second stage is no longer effective, it can be used to replace solvent in the first stage. Fresh solvent is then added to the second stage.
  - Parts washers should have a recirculating feature with built-in filtration to continuously remove dirt and contaminants. Drip racks or trays can help recycle drainage from parts to minimize solvent loss.
  - When not in use, keep lids on parts washers to reduce solvent loss due to evaporation.
  - Scrape off heavy contamination before placing parts in the bath.
- Substitute aqueous or detergent-based solution for solvents. See “Alternatives to Solvent Use” below.
- Use one multi-purpose solvent that can serve a variety of uses. This use will minimize the number of waste streams and increase the recycling potential of the spent solvent.
- Use on-site recovery techniques to make solvents reusable. Consider leasing or purchasing solvent recovery equipment.
- Use self-contained solvent sinks to cycle the liquid directly back into a storage drum. Use "closed loop" services to pick up spent solvent and supply fresh solvent.

Leading Alternatives to Solvent Use

Aqueous cleaners are water-based solutions that, unlike petroleum-based solvent, are typically nonflammable and nontoxic. Aqueous cleaners rely on heat, agitation, high pressure sprays and soap action to clean. These systems can also be fitted with equipment to filter out contaminants, return chemicals for cleaning and to recycle water. Aqueous cleaners perform as well as solvents, are environmentally friendly, and reduce hazardous waste management costs and liabilities. (EPA Aqueous Parts Cleaning Fact Sheet, November 1999).

Refrigerants/chlorofluorocarbons

A refrigerant is a media used in heat exchange units such as, chlorofluorocarbon (CFC), hydro chlorofluorocarbon (HCFC), and hydro fluorocarbon (HFC). Chlorofluorocarbons (CFCs) are known for weakening the ozone layer which protects the Earth from harmful ultraviolet radiation. "Automotive refrigerant from air conditioners is one of the largest sources of CFCs in the United States (OCAPP 2000)." Most refrigerants are referred to as "Freon".

It is illegal to knowingly vent refrigerants into the environment during repair, service, maintenance, reclamation, recycling, or disposal of refrigeration and air conditioning equipment. Do not attempt to service auto air conditioning systems unless you have proper training and certification.

Best Management Practices for refrigerants:

- Use EPA approved refrigerants.
- Allow only EPA-certified technicians to service air conditioning systems.
- Use EPA-approved collection and recycling equipment.
- Perform a leak test before recharging any air conditioner.
- Don't dispose of worn-out air conditioners without first removing and recycling the Freon.

Certified automotive facilities can recycle, recover, or reclaim refrigerants. Equipment is available which processes the refrigerant through a separator, filter and dryer. The refrigerant can then be returned to the air conditioner after repairs are completed. For more information on refrigerants, please see:

- U.S. EPA Regulatory Requirements for Servicing of Motor Vehicle Air Conditioners found at https://www.epa.gov/mvac/epa-regulatory-requirements-mvac-system-servicing
- Ozone Protection Regulations of the Environmental Protection Agency
- EPA's Choosing and Using a Retrofit Refrigerant for a CFC-12 MVAC found at https://19january2021snapshot.epa.gov/mvac/choosing-and-using-retrofit-refrigerant-cfc-12-mvac_.html

Interesting tidbit: According to "Consumer Reports," lost coolant from automotive air conditioners, comprised of chlorofluorocarbons (CFC's) contributes 16 percent of ozone destruction.

Auto Body Repair Shops, Refinishers, and Detailers

Best Management Practices:

- Mix only the amount of paint needed for the job to minimize waste. Reduce waste by using low-volume paint-mixing equipment and high-efficiency painting tools.
- Clean spray guns in a self-contained cleaner. Recycle the cleaning solution when it becomes too dirty to use. Do not discharge spent cleaning solutions to the sanitary sewer.

- If you wet down your paint booth to control dust, the wastewater generated ***is not*** allowed to be discharged to the sanitary sewer. Only use the amount of water that can be evaporated and not cause a disposal problem.
- Do not hose-off degreasers. Brush off loose debris and use rags to wipe down parts.

Oil/Water Separators

All auto shop floor drains which discharge to the sewer system must be plumbed to an oil/water separator OR the floor drains must be sealed to prevent discharge. *Facilities with improperly maintained oil/water separators that cause damage to the JEA sanitary sewer system, may be held liable for any cost associated with cleaning and restoring the JEA system.* **If your facility has an oil/water separator on site you are required to follow the JEA Oil/Water Separators located in Appendix F.**

Training Employees

Employee training can prevent accidents and teach your employees the proper method of handling and disposing of waste. Training programs reduce the chance of employees making mistakes, causing injuries, or putting your shop in violation of environmental regulations. Training also helps to prevent pollution that could put you, the community, and the environment at risk.

A comprehensive training program consists of the following:

- Identify hazardous materials and wastes in the shop
- How to read and use Material Safety Data Sheets (MSDS)
- Understanding warning labels
- How to avoid spills.
- Proper handling, storage, and disposal of waste
- Emergency response and spill procedures
- Environmental policies
- Pollution Prevention practices
- Record keeping of your training program and sessions

An example of a training program is shown in Appendix C.

Conclusion

Following the requirements and suggestions in this document and utilizing Best Management Practices will help businesses comply with the JEA Industrial Pretreatment discharge standards will assist JEA in protecting public health and our Northeast Florida waterways. Your business may benefit by reducing environmental liability through the implementation of practical and typical cost saving practices.

Questions can be directed to:

JEA

Industrial Pretreatment, JEA HQ
225 North Pearl Street
Jacksonville, FL 32202
Email: ip@jea.com
Or at our website: https://www.jea.com/Business_Resources/Industrial_Pretreatment/

References

Compliance Assistance Pilot Project. June 2004. Florida Department of Environmental Protection.

A Pollution Prevention Guide for Automotive Repair Shops. December 1996. State of Delaware Department of Natural Resources and Environmental Control. https://dnrec.alpha.delaware.gov/dnrec-regulations/

Automotive Repair Facilities. 2006. Office of Compliance Assistance and Pollution Prevention. Ohio Environmental Protection Agency. Columbus, Ohio. Retrieved from https://www.epa.ohio.gov/dir/permit_assistance

Environmental Protection Agency. 1999. Best Environmental Practices for Auto Repair and Fleet Maintenance.

Environmental Protection Agency. November 1999. Best Environmental Practices for Auto Repair. Retrieved from "Floor Cleanup - Best Environmental Practices for Auto Repair and Vehicle Fleet Maintenance, November 1999".

Resources

CCAR – Green link® - Automotive industry organization whose mission is to augment the professionalism of automotive technicians.
Toll-free: (888) GRN-LINK (476-5465)
Website: www.ccar-greenlink.org

National Compliance Assistance Clearinghouse – comprehensive source of compliance assistance materials.
Website: https://www.epa.gov/compliance/compliance-assistance-centers

Used Filter Hotline – sponsored by the Filter Manufacturers Council, provides commercial generators of used oil filters with a summary of the states filter management regulations, companies that provide filter management services, and state agencies.
Phone: (800) 993-4583
Website: www.filtercouncil.org

Small Business Ombudsman Hotline – provides regulatory and environmental information concerning small business assistance to enhance regulatory compliance.
Phone: (800) 368-5888 or (202) 566-1970

EPA's Pollution Prevention and Information Clearinghouse – EPA's pollution prevention site with information and brochures on P_2 in the regulations and voluntary programs.
Website: https://www.epa.gov/p2/pollution-prevention-resources#p2rx

National Pollution Prevention Roundtable– Information and publications on P_2.
Website: www.p2.org

Special Thanks To:

Florida Automobile Dealers Assoc.
400 North Meridian Street
Tallahassee, FL
(850) 224-1466

KPA, Southeast District
(877) 378-0510

B&D Automotive
4738 San Juan Ave.
Jacksonville, FL
(904) 387-1863

Industrial Pretreatment

Prohibited Discharges

In accordance with §2.1 of JEA's *Industrial Pretreatment Regulation*, no user shall introduce or cause to be introduced into JEA's Wastewater Treatment Facilities (JEAWWF) any pollutant or wastewater which causes pass-through or interference or shall introduce or cause to be introduced pollutants, substances, or wastewater that have not been processed or stored in such a manner that they could be discharged to JEAWWF. No significant industrial user shall discharge to JEAWWF without authorization from JEA. These general prohibitions apply to all users of JEAWWF whether or not they are subject to categorical pretreatment standards or any other Federal, State, or local pretreatment standards or requirements.

Additionally, no user shall introduce or cause to be introduced into JEAWWF the following pollutants, substances, or wastewater:

(1) Pollutants which create a fire or explosive hazard in JEAWWF, including, but not limited to, waste streams with a closed-cup flash point of less than 140°F (60°C) using the test methods specified in 40 CFR 261.21.

(2) Wastewater having a pH lower than 5.5 or higher than 12.0, or otherwise causing corrosive structural damage to JEAWWF or equipment.

(3) Any solids or viscous substances that may cause obstruction to flow or be detrimental to sewerage system operations. These objectionable substances include, but are not limited to, asphalt, dead animals, offal, ashes, sand, mud, straw, industrial process shavings, metals, glass, rags, feathers, tar, plastics, wood, whole blood, paunch manure, bones, hair and fleshings, entrails, paper dishes, paper cups, milk containers, or other similar paper products, either whole or ground.

(4) Any animal or vegetable based oils, fats, or greases whether or not emulsified, which would tend to coat or clog, cause interference, pass through, or adverse effects on JEAWWF. Grease removed from grease traps or interceptors shall not be discharged to JEAWWF.

(5) Pollutants, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with JEAWWF.

(6) No user shall discharge into a sewer line or other appurtenance of the JEAWWF any wastewater having a temperature greater than 140^{o}F (60^{o}C) or which will inhibit biological activity in the treatment plant resulting in interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104 ^{o}F (40^{o}C). If a lower temperature limit is required than 140^{o}F at the point of connection to JEAWWF, then the limit shall be depicted in the user's wastewater discharge permit.

(7) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin at a total concentration exceeding 100 mg/l.

(8) Wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with a wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of JEAWWF, causing the treatment plant to fail a toxicity test or exceed the limitation set forth in a categorical pretreatment standard.

(9) Storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, condensate, deionized water, non-contact cooling water, and unpolluted wastewater, unless specifically authorized by JEA.

(10) Pollutants which result in the presence of toxic gases, vapors, or fumes within JEAWWF in a quantity that may cause acute worker health and safety problems. Acute worker health and safety problems may be defined using the most recent information on TWA-TLV, TWA-STEL, and IDLH from the American Conference of Governmental Industrial Hygienists (ACGIH), National Institute for Occupational Safety and Health (NIOSH), EPA, and the Occupational Health and Safety Administration (OSHA).

(11) Trucked or hauled pollutants, except at discharge points designated by JEA in accordance with §6.3 of JEA's *Industrial Pretreatment Regulation*.

(12) Noxious or malodorous liquids (City of Jacksonville, City Odor Ordinance, Chapter 376, Ordinance Code), gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life, or to prevent entry into the sewers for maintenance, inspection or repair.

(13) Wastewater which imparts color that cannot be removed by the treatment process and causes a violation of JEAWWF's NPDES permit such as, but not limited to, dye wastes and vegetable tanning solutions.

(14) Wastewater containing any radioactive wastes or isotopes except in compliance with applicable Federal and State regulations or permits issued by Federal and State Agencies and specifically authorized by JEA.

(15) Sludge, screenings, or other residues from the pretreatment of industrial wastes.

(16) Medical or infectious wastes, except as specifically authorized by JEA in a wastewater discharge permit

(17) Detergents, surface-active agents, or other substances which may cause excessive foaming and cause interference and pass-through JEA Wastewater Treatment Plants.

(18) Waters or wastes containing phenol or other taste- or odor-producing substances in such concentrations exceeding limits established by JEA, as necessary after treatment of the composite sewage to meet requirements of Federal, State or other public agencies having jurisdiction for the discharge to the receiving waters.

(19) Garbage that has not been properly shredded to such a degree that all particles will be carried freely in suspension under flow conditions normally prevailing in JEAWWF. At no time shall the concentration of properly ground garbage exceed a level that would prevent JEAWWF from maintaining the required efficiency or cause operational difficulties.

(20) Swimming pool drainage unless specifically authorized by JEA. No person who fills a swimming pool with non-metered water may discharge swimming pool drainage to a sanitary sewer without a JEA wastewater discharge authorization.

(21) It shall be unlawful for silver-rich solution from a photographic processing facility to be discharged or otherwise introduced into JEAWWF, unless such silver-rich solution is managed by the photographic processing facility in accordance with the most recent version of the Silver CMP prior to its introduction into JEAWWF.

Appendix B Local Limits

Local Limits

The following pollutant limits are established to protect against pass-through and interference. No person shall discharge wastewater containing in excess of the following:

Maximum Allowable Discharge Limits

POLLUTANTS	BUCKMAN ST WWF	DISTRICT II WWF	SOUTHW EST WWF	ARLING TON EAST WWF	MANDARIN WWF
Cadmium (mg/l)	1.20	1.20	1.20	1.20	1.20
Chromium (mg/l)	10.00	10.00	10.00	10.00	10.00
Copper (mg/l)	3.38	0.82(1)	none	3.38	3.38
Cyanide (mg/l)	3.38	3.38	3.38	3.38	3.38
Lead (mg/l)	1.40	0.70	1.90	1.17	1.90
Mercury (mg/l)	0.006(1)	0.006(1)	0.006(1)	0.006(1)	0.006
Molybdenum (mg/l)	2.66(1)	0.741 lb/day(1) (2)	none	none	none
Nickel (mg/l)	3.98(1)	3.98	3.98	3.98	3.98
Silver (mg/l)	0.43	0.43	0.43	0.43	0.43
Zinc (mg/l)	2.61	2.61	2.61	2.61	2.61

(1) Limits for contributory flow users only. Industrial user will be notified by JEA regarding its status as a contributory user.
(2) Limitations applied in IU permits as determined by JEA.

The above limits apply at the point where the wastewater is discharged to JEAWWF. All concentrations for metallic substances are for "total" metal unless indicated otherwise. JEA may impose mass limitations in addition to, or in place of, the concentration-based limitations above.

Appendix C

Training Guide for Managing Automotive Waste Streams

Directions: Each employee should read this document entirely. If you have any questions on how to properly manage automotive repair wastes, please contact your supervisor/manager.

1. Pollution Prevention
    a. Use aqueous, hands free parts washer.
    b. Use detergent based solution when cleaning floors.
    c. Reduce the amount of aerosol cleaner used in each job.
    d. Pre-clean parts with rag or wire brush to reduce need for solvents.
    e. Use steam or pressure washing to reduce the need for chemicals.

2. Recycle
    a. Recycle used oil and coolant.
    b. Use drip pans to collect leaking fluids when possible.
    c. Use separate containers for used oil and coolant.
    d. Store partially used absorbents in closed container for future use.
    e. Use cloth towels that can be commercially laundered and reused.

3. Housekeeping
    a. Store and use solvents away from parts washer.
    b. Keep containers covered and cool to reduce evaporation.
    c. Label all waste containers to prevent contamination.
    d. Use “first in first out” policy for product storage to prevent materials from becoming outdated.

Hazardous Waste – the following substances are typically considered hazardous waste.

- ❖ Waste solvent degreasers
- ❖ Parts washer fluid
- ❖ Mineral spirits
- ❖ Brake and Carburetor cleaner
- ❖ Sludge, filters or bottoms from parts cleaners
- ❖ Coolant/antifreeze
- ❖ Hot dip tanks
- ❖ Waste aerosol cans that are not empty

Not Hazardous Wastes if Recycled – when the following are recycled, they are not considered hazardous wastes.

- ❖ Gasoline
- ❖ Lead acid batteries
- ❖ Contaminated shop towels, wipes and rags
- ❖ Used oil

- ❖ Filter-including oil, transmission and fuel filters
- ❖ Coolant/antifreeze

Waste Storage

1. Keep all used rags in container provided, off floor.
2. Place all used oil filters & fuel filters in correct drum.
3. Check containers every week to insure none are leaking.
4. Clean up spills with laundry rags.
5. Avoid spills by using funnels, drip pans and absorbent materials.
6. Store parts or cores on a surface that will contain spills and leaks.
7. Place all fluids in proper storage container.
8. Label all containers clearly and accurately.

Handling Spills and Leaks

1. Prevent spills or leaks onto ground or into the water.
2. If a battery spills or leaks, stop the leak and clean up the spill.
3. Place the broken, cracked, or leaking battery in closed, watertight, acid resistant storage containers. Never assume a broken battery is completely dry.
4. Neutralize the acid with baking soda or lime. Soak up neutralized acid with a clean dry rag, absorbent, or kitty litter.
5. Dispose of clean-up material in a labeled, acid resistant, covered storage container.
6. Have used clean up material collected by an authorized hazardous waste hauler.

Used Filter: Oil, Transmission and Fuel

1. Keep drained used oil filters in a dedicated above ground container that does not leak.
2. Clearly label used oil filter storage containers with the words “Used Oil Filter”. Label containers that just hold fuel filters with the words “Used Fuel Filters”.
3. Keep containers on concrete or another surface that oil cannot pass through.
4. Keep containers closed or otherwise protected from the weather.
5. Puncture and drain used oil filters.
6. Metal fuel filters can be managed with the used oil filters once they have been drained dry.
7. Do not use water or detergents to clean up spills. Use an absorbing mop or absorbent material.

I have read this *Training Guide for Managing Automotive Waste Streams* in its entirety and understand that I must direct any questions concerning automotive waste management to my supervisor/manager.

_____ _____

Employee Signature Date

Appendix D – JEA Contact List

NOTIFICATION PROCEDURE FOR POTENTIAL PROBLEMS TO THE SANITARY SEWER

In the event of any discharge that may adversely impact the JEA Water Reclamation Facility, the User shall notify JEA according to the following procedure. Such notification is required by §7.6 of JEA's *Industrial Pretreatment Regulation*.

1. VERBAL NOTIFICATION

Verbal notification shall be made immediately by the fastest means of communication available (generally by telephone) to one of the following contacts. Notification shall include the location of the discharge; date and time thereof; type of waste, concentration and volume of the waste; and corrective actions taken.

A. Normal Business Hours:

JEA Industrial Pretreatment
904-665-5326

B. After Hours, Weekends, Holidays:

JEA Environmental Incident Response Line
904-620-9921

2. WRITTEN NOTIFICATION

Within five (5) days following an accidental discharge, the permittee shall submit a detailed written report describing the cause(s) of the discharge and the measures to be taken to prevent similar future occurrences. The report shall be submitted to:

JEA
Industrial Pretreatment Program
225 N. Peal Street
Jacksonville, FL 32202-3139
Email: ip@jea.com

Appendix F

Best Management Practices for Oil/Water Separators

Introduction

This guide is designed to inform industrial and garage facilities that contains an oil water separator (OWS), and discharges to the sewer system, the proper method maintaining these devices under JEA Industrial Pretreatment Regulations. As part of the Clean Water Act, the National Pretreatment Regulation (40 CFR 403) was established to protect WRFs and the waterways to which they discharge. The Environmental Protection Agency (EPA) delegates this responsibility to the State of Florida Department of Environmental Protection (FDEP). In Jacksonville, FL, the state has delegated local authority to JEA. It is the responsibility of the JEA Industrial Pretreatment (IP) Program to regulate discharges to the WRF and control contaminants that enter the sanitary sewer system.

Oil water separators (OWS) are a pretreatment measure to remove oil and solids from process wastewater before discharging to the sewer system. All facilities where petroleum-based products, wastes containing petroleum, or oily and/or flammable materials are used, produced, or stored are required to maintain an **oil/water separator OR the floor drains must be sealed to prevent discharge.** Maintenance of oil/water separators is vital for proper operation and efficient removal of oil.

Required Oil/Water Maintenance Practices:

1. At a minimum of once every **30 days** the oil/water separator must be inspected for accumulation of surface oil. *
2. If free or standing oil is covering the surface, the oil must be removed from the separator. At a minimum of once every **90 days** regardless of the interceptor inspection results, the interceptor must be pumped out.
3. The enclosed maintenance log must be used to document separator inspections and maintenance activities.
4. All records, such as waste manifest and maintenance logs, shall be maintained on site for at **least 3 years**.

* Facilities with improperly maintained oil/water separator that cause damage to the JEA sanitary sewer system, may be held liable for any cost associated with cleaning and restoring the JEA system

JEA's Techniques to improve OWS performance and reduce maintenance costs:

- Eliminate contaminants: Don't rely on the OWS to handle wash from fuel, coolant, solvent, oil, or paint spills. Instead, clean up spills when and where they occur with dry methods.
- Wash without detergents: Emulsifying cleaning compounds disperse oil in wash water and make OWS's ineffective as oil passes right through to the sewer system. High pressure water or non-emulsifying cleaners are sufficient for most cleaning applications.
- Minimize the amount of solids and oils that enter your OWS. The fewer solids and oils that reach the OWS, the less frequently they must be removed. Filters and screens can be used to reduce the amount of solids that enter the o/w separator.
- Use reusable absorbent pads to absorb the oil and grease in the separator.

For more information on OWS please visit The Florida Billing Code- Traps, Interceptors, and Separators at: Chapter 10: Traps, Interceptors and Separators, 2020 FBC - Plumbing, 7th edition | UpCodes

Appendix G

JEA Oil Water Separator Maintenance Log

Facility Name _____

Address: _____

Directions: Facility must inspect oil water separated at a minimum of every 90 days and record results. If free oil has accumulated on surface it must be removed. Regardless of inspection, the separator must be pumped out at a minimum frequency of once every 180 days.

DATE	SURFACE OF SEPARATOR OBSERVATION CHOOSE ONE: NO VISIBLE OIL SHEEN FREE OIL	SEPARATOR PUMPED OUT? YES/NO	NAME OF INSPECTOR (PRINT)	SIGNATURE OF INSPECTOR

Maintain log for minimum three years from last record.