

LABORATORY/PRETREATMENT DIVISION

INDUSTRIAL PRETREATMENT PROGRAM

The Pretreatment Program was established to control the discharges of industrial users into its sewer system. The Environmental Protection Agency first issued pretreatment regulations in 1978. The State of North Carolina identified a need for establishing pretreatment programs in 1980. The four main objectives were and still are:

- To prevent interference with the Wastewater Treatment Facility's operations.
- To prevent pollutant pass-through to the Wastewater Treatment Facility's receiving stream.
- To prevent sludge contamination.
- To prevent worker exposure.



Pretreatment Staff compile lists of potential industries and then survey, inspect and analyze the discharges of these industries. The data from all the tests are analyzed and compiled. Specific industries as defined by NCAC 2H .0903(34) called significant industrial users must be permitted under the Pretreatment Program. A **Significant Industrial User** is defined by the US Environmental Protection Agency (EPA) as an industrial user that discharges process wastewater into a publicly owned treatment works (POTW) and meets at least one of the following:

1. All industrial users subject to Categorical Pretreatment Standards under the Code of Federal Regulations - Title 40 (40 CFR) Part 403.6, and CFR Title 40 Chapter 1, Subchapter N - Effluent Guidelines and Standards; and
2. Any other industrial user that:
 - discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, non-contact cooling and boiler blowdown wastewater); or
 - contributes a process wastestream which makes up 5 percent or more of any design capacity of the POTW treatment plant; or
 - is designated as such by the City of Hickory Industrial Pretreatment Division on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.

If an industry is discharging specific pollutants into the collection system, contributes a specific loading to the POTW treatment plant, has reasonable potential for adversely affecting the POTW treatment plant operation or contributes large amounts of water, steps are taken to permit the industry.

LABORATORY

The Catawba, Henry Fork and Northeast Wastewater Facilities are monitored per their NPDES permit from the State of North Carolina. The Hickory Regional Laboratory, which is certified by the State of North Carolina, performs these analyses in conjunction with a contract laboratory. Some of the regulated constituents are: flow, BOD5, TSS, N/NH3, DO, pH, fecal coliform bacteria, phenol, temperature, total chlorine residual, conductivity, cadmium, chromium, lead, copper, zinc, chloride and silver. The laboratory also performs analyses on the Catawba Landfill discharge, the Henry River, the Hickory Compost Plant, the Catawba River, the Town of Longview, discharges from Burke County, distribution lines and 22 permitted industries. This is a means



of checking for possible pollutants in the wastewater collection systems. The information collected is then reported to the North Carolina Department of Water Quality.

OIL & GREASE PROGRAM

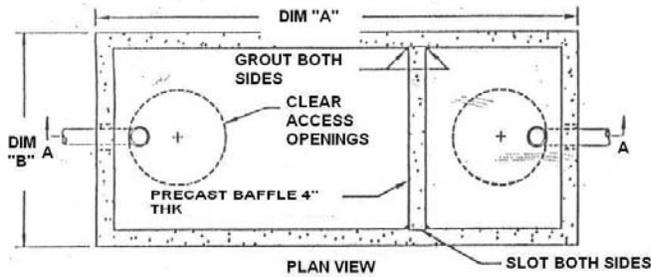
Changes are constantly occurring in the Lab/Pretreatment Division to meet the needs of changing laws. The Pretreatment Division expanded its program to include an Oil & Grease Program. Improperly managed oil and grease can adversely affect sanitary system performance. Fats, oils, and greases (FOG) can coat, congeal, and can potentially accumulate in pipes, pumps and equipment. In response to sanitary sewer overflows that can occur from blockages, in 1998 and 1999 the NC Division of Water Quality implemented a new enforcement policy and spill reporting requirements. This policy promotes the reduction and elimination of overflows. Thus, the City of Hickory's Oil and Grease Program was developed.

Staff of the Oil and Grease Program meet with area restaurants one-on-one to educate, to inspect the restaurants and their oil and grease traps, to gather information, and to reinspect restaurants for compliance. A properly designed and maintained oil and grease trap allows solids and oils and greases to be trapped, while allowing water to flow from the trap into the collection system. In order to properly maintain the restaurant's oil and grease trap, the oil and grease must be pumped from the trap on a regular schedule by an approved company. This helps reduce oil and grease in the collection system. To help prevent overflows, staff also meets with pump station crews and water/sewer construction to determine problem areas, research lines and check manholes and pump stations.

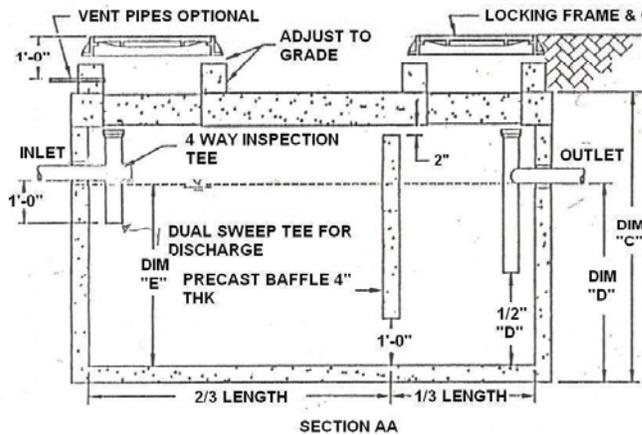


The Pretreatment Program, the Hickory Regional Laboratory and the Oil & Grease Program assists the Wastewater Treatment Facilities to process wastewater more efficiently by identifying and preventing pollutants from entering our streams. This in turn helps to protect human health and aquatic life.

Oil and Grease Trap



SIZING CHART					
GALLON CAPACITY	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"
600	7'-0"	4'-8"	7'-0"	3'-6"	3'-2"
750	7'-0"	4'-8"	7'-0"	4'-3"	3'-11"
1000	7'-0"	5'-0"	7'-2"	4'-2"	3'-10"
1250	9'-0"	5'-0"	7'-2"	5'-2"	4'-10"
1500	9'-0"	5'-8"	7'-2"	4'-4"	4'-0"
1750	11'-2"	5'-8"	7'-2"	4'-11"	4'-7"
2000	11'-2"	6'-8"	8'-0"	4'-7"	3'-10"
2500	12'-8"	6'-8"	8'-0"	5'-6"	4'-9"
2750	12'-8"	6'-8"	8'-0"	6'-0"	5'-3"
3000	15'-7"	9'-7"	8'-6.5"	6'-3"	3'-9"
4000	15'-7"	9'-7"	8'-6.5"	6'-3"	5'-0"
5000	19'-11"	9'-11"	8'-11"	6'-2"	4'-8"
6000	19'-11"	9'-11"	10'-5"	7'-2"	5'-9"



NOTES:

1. CONCRETE: 28 DAY f'c = 4500 psi
2. REBAR: ASTM A615 GRADE 60
3. MESH: ASTM A-155 GRADE 65
4. DESIGN: ACI 318-93 BUILDING CODE
ASTM C-857 MINIMUM STRUCTURAL DESIGN
LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES
5. LOADS: H-20 TRUCK WHEEL w/30% IMPACT PER AASHTO
6. FILL w/CLEAN WATER PRIOR TO START UP OF SYSTEM
7. CONTRACTOR TO SUPPLY & INSTALL ALL PIPING AND SANITARY TEES, 4 CLEAN OUTS, FOR CLEANING TOWARD TRAP AND FOR CLEANING AWAY FROM TRAP ON BOTH THE INLET AND OUTLET/ALT. DUAL SWEEP CLEAN OUTS
8. GRAY WATER ONLY, BLACK WATER SHALL BE CARRIED BY SEPARATE SEWER
9. EFFLUENT FILTER REQUIRED: ZABEL A300-12 OR EQUAL

[Click Here to print Oil & Grease Trap Drawing](#)

[Click Here for Oil & Grease Policy](#)

FURTHER INFORMATION:

Thank you for stopping by our web site. If I can be of further assistance, please feel free to contact me at (828) 294-6484.