

Waste Water Treatment Streams Mena, AR.
To be used with Schematic My Documents/Schematic Pretreatment
40 CFR 403.12 Revision 9/30/2011

- 1- Carousel Parts Washer – This process is located in the assembly department and is approximately in the middle of the plant. It is a JRI 3 stage washing system. Each tank holds about 500 gallons of liquid. Parts pass through the washer on a conveyor, the chemical mix is sprayed on the parts through pipes and nozzles. The tanks are below the conveying system and the chemical mix drops back into the tank to be use over again. All three tanks are sucked out with our large vacuum tank each month and the waste water is taken to the start of the Water Treatment System tank 1.

The chemicals used in the Carousel parts washer are Lily Chemicals. The first stag has Paint Lok 567-LT (Phosphoric Acid 3%, Hydroxylamine 5% and Sodium Nitrate 2%) and additive 503 (Phosphoric Acid). It is added until the PH of the mix reaches 3.8. The second tank is a rinse and has 1/3 cup of Liquid Caustic Soda added to the 500 gallons of water when first charged. The third tank has Lily Rinse 33(Phosphoric Acid 6%)_added to it and is titrated to 8 to10 drops. The water and chemicals are heated to improve the performance of the process.

- 2- Titan Wash Tank – This process is located in the assembly department and is approximately in the middle of the plant. It is a set of two 1100 gallon tanks placed side by side. Parts are placed on a tray that agitates the part up and down in the solution. Once washed the parts are moved to the rinse tank. They are also agitated in this tank. When complete the parts are blown off with air and sent to the assembly operation. Both tanks are sucked out with our large vacuum tank each month and the chemicals are taken to the start of the Water Treatment System tank 1.

The chemicals used in the Titan Wash Tanks are Lily Chemicals. The first tank has Paint Lok 550 (Phosphoric Acid 6% & Iron Phosphate) and additive 503(Phosphoric Acid). in it. It is added until the PH of the mix reaches 3.8. The second tank has Rinse 33 (Phosphoric Acid 6%) added to it and is titrated to 10 drops. Chemicals are heated to improve the performance of the operation.

- 3 – The Alkota Wash system was installed and replaces the old OSI wash System It is located in the Large Machining department next to laminations. The wash tank holds 1000 gallons of solution and the unit has a 200 gallon rinse tank. Parts are placed in a rotating tray inside the machine; the unit then through several spray nozzles at high pressure washes the parts as the tray rotates. The washer shifts a valve and then sprays rinse water on the parts through the same spray nozzles.

The chemicals used in the Alkota parts washer are Lily Chemicals. The first stag has Paint Lok 567-LT (Phosphoric Acid 3%, Hydroxylamine 5% and Sodium Nitrate 2%) 2 to 4% per gallon. It is added until the PH of the mix reaches 4.5-5.5. The second tank is a rinse and has Rinse 33 (Phosphoric Acid 6%) added at ¼ to ½% by volume. It is added until a PH range of 4.0 to 6.0 is reached.

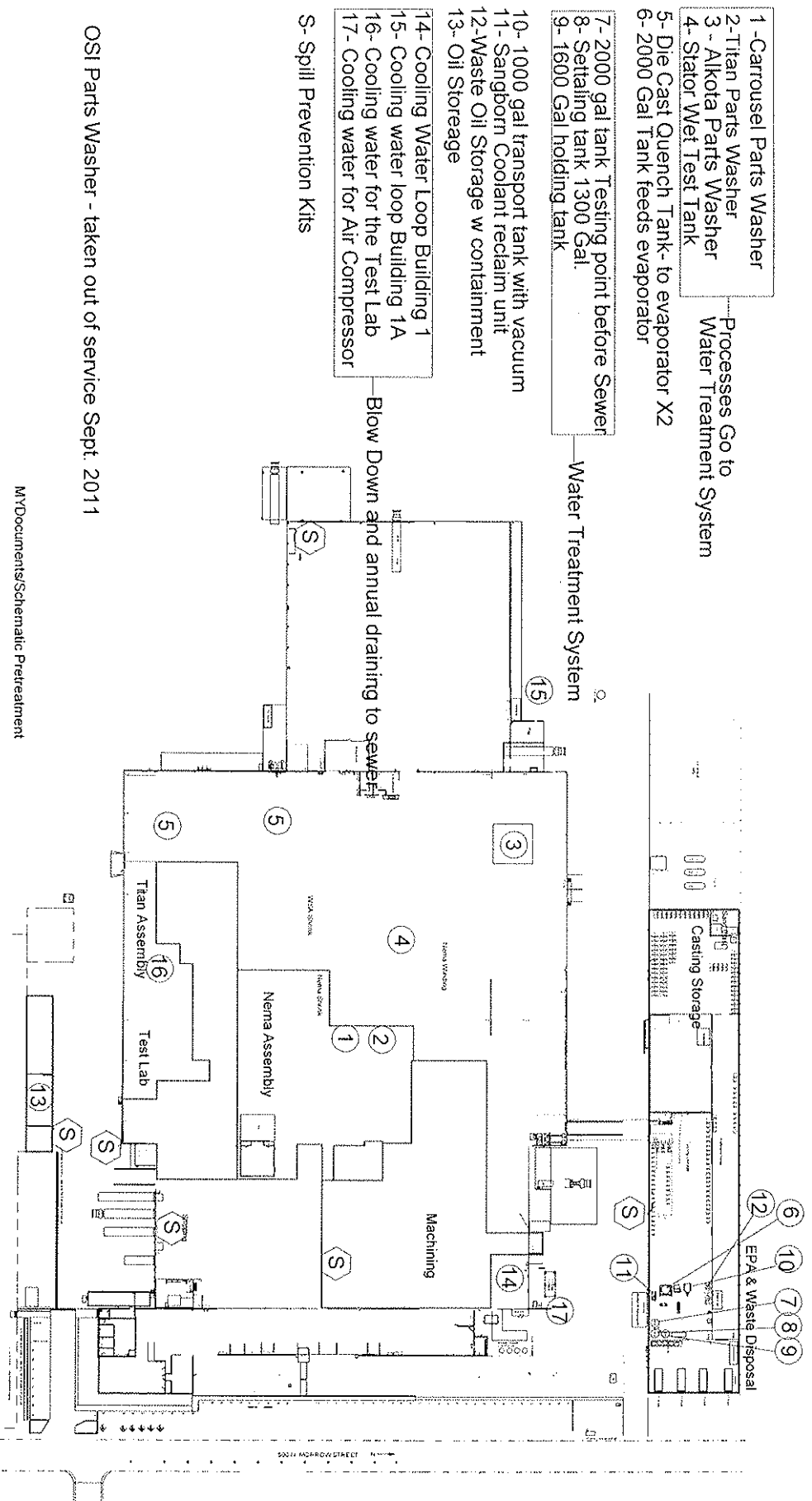
4- Stator Submersion Electrical Test – This is a large tank located in our winding department. It is in the Northwest part of the building, this tank is filled with 1130 gallons of water with 64 oz. of Finish Dishwasher Rinse(Nonionic Surfactant 15%, Polymer 5%, & Sodium Cumenesulfonate 5%). The tank has a lid and the tank isn't used very often so the water is only changed as needed. When the water is changed the tank is vacuumed out and taken to the Water Treatment System Tank 1 or the Evaporator Tank.

Notes: The OSI Dip System was taken out of service September 2011.

OSI Wash System – This is a wash process that is located in building two approximately in the middle of the building. It is made up of two 4200 gallon tanks placed side by side. Parts are suspended from a hoist in these tanks and air is blown into the tank to agitate the mix. The parts are first washed then dipped into the rinse tank before being blown off with air. The part then goes on pallets to the next operation which could be welding, machining or assembly. These tanks are vacuumed out once every 6 months and the chemicals sent to tank 1 of the Water Treatment System.

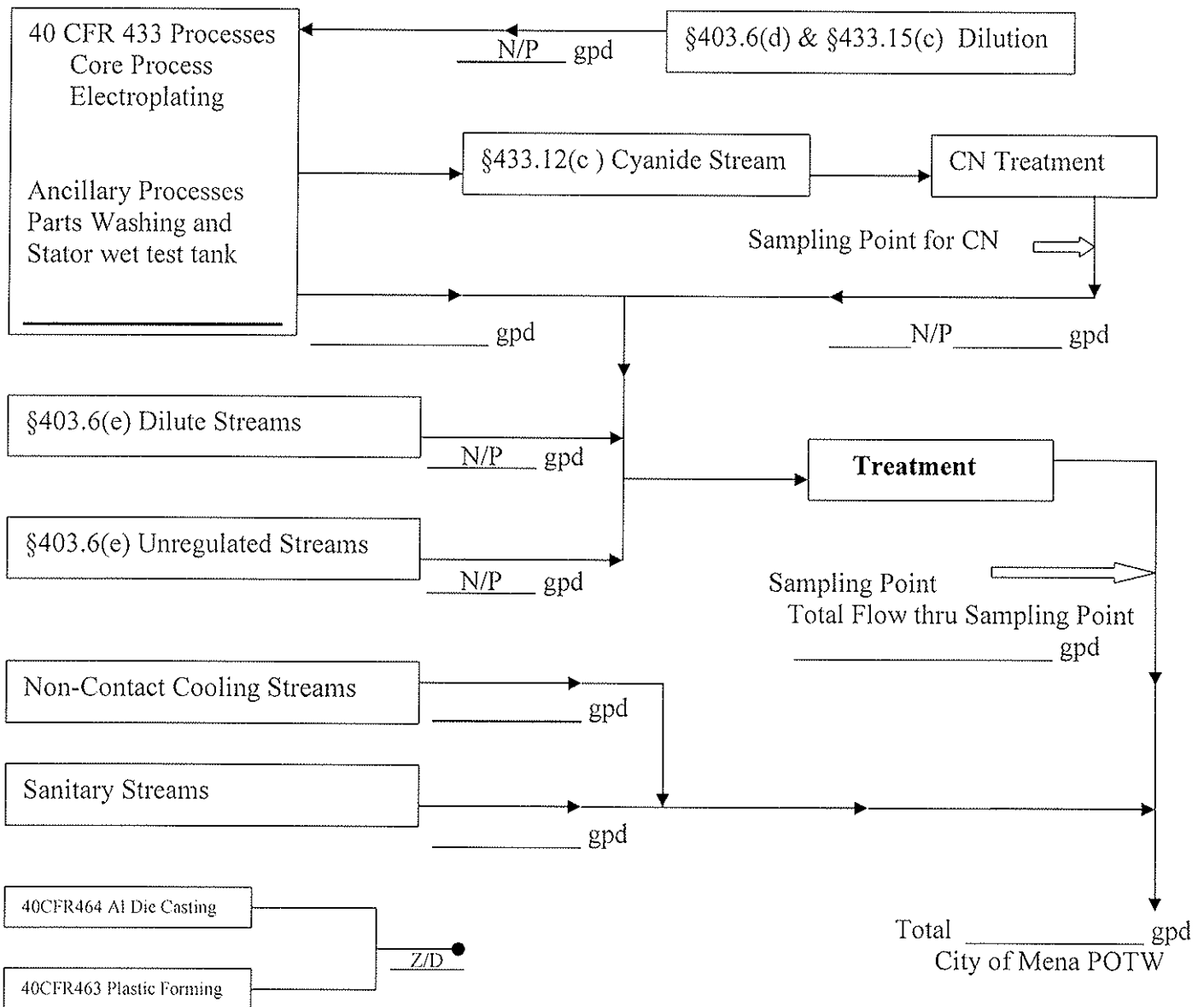
The chemicals used in the OSI Wash System are Lily Chemicals. The first tank has Paint Lok 580(Phosphoric Acid 15%, Iron Phosphate & Butyl Cellosolve) and additive 503(Phosphoric Acid). in it. It is added until the PH of the mix reaches 3.8. The second tank has Rinse 33 (Phosphoric Acid 6%) added to it and is titrated to 8 to10 drops. Chemicals are heated to improve the performance of the operation.

Mena Arkansas US Motors Water Treatment Schematic



OSI Parts Washer - taken out of service Sept. 2011

Any water that comes in contact with the floor, machines, parts, paint water falls, coolant, oil etc. is vacuumed up and sent thorough the evaporator. The evaporator boils the water and releases it as steam the remaining liquid is handled as non-hazarous waste and is put in drums for pick up by our waste handler.



If a stream is not present, show NOT PRESENT or N/P. If a stream is present, the wastewater can enter the POTW but currently has no flow, show 0.0 gpd. If a stream is present but the wastewater cannot enter the POTW, show Zero Discharge or Z/D. If an unregulated stream is present but the User has decided not to declare it at this time, show N/P.

Signature of §403.12(b) Professional

Date

I certify under penalty of law that I have personally examined and am familiar with the information in this document and that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Plant Manager or the authorized §403.12(l) official

Date
UEM_Diagram.doc (08-06-2002)