Public Comments and EPD Responses on Draft Pretreatment Permit
Precision Protective Coatings, Inc. – Permit No. GAP050297

COMMENT RECEIVED	EPD RESPONSE
Precision Protective Coatings Wastewater NPDES application is an excellent example of the kind of industry that should not be allowed to discharge their wastewater into a sanitary sewer system. Sanitary sewage treatment is set up to treat primarily organic waste, not industrial waste, especially from an electroplating/anodizing industry.	Municipal wastewater treatment plants, or publicly owned treatment works (POTW) are designed to collect and treat wastewater from homes, businesses, and industries. Federal pretreatment regulations at 40 C.F.R. 403 and 40 C.F.R. 433 explicitly address the discharge of industrial waste to a POTW as a whole, and more specifically, address wastewater discharges from metal finishing operations such as those performed by Precision Protective Coatings, Inc. (PPC). EPD has evaluated the application and supporting documents and has drafted a pretreatment permit that is protective of the POTW and will not result in pass through or interference with the treatment processes at the POTW.
I am surprised that [Precision Protective Coatings] measured ammonia and TKN in their wastewater. That indicates to me that the wastewater also contains the plant's sewage even though the BOD_5 was undetectable.	The presence of small amounts of ammonia and total Kjeldahl nitrogen and absence of BOD reported by PPC on their application is not an indicator that process wastewater sampling results include PPC's sanitary sewage. The pretreatment application provided by PPC indicates that the building has a separate sanitary sewer line that conveys sanitary wastewater to the POTW's sewerage system. Ammonia compounds may be present in chemical solutions used in a variety of metal finishing operations. A more in-depth discussion of metal finishing operations is provided in EPA's *Development Document for Effluent Limitations Guidelines and Standards for the Metal Finishing Point Source Category,* (June 1983).
EPD should have required Precision Protective Coatings (PPC) to measure and report the concentrations of the metals in the wastewater that EPD has decided need to be in the permit. Why, exactly, were each of those metals selected? Aside from chromium and possibly lead, none of	The pretreatment permit application for PPC includes analytical results for all parameters which were included in the draft pretreatment permit. The metals which have been included in the draft pretreatment permit are required to be included based on the federal pretreatment standards

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them are obvious contaminants. But aluminum is a potential contaminant, but limitations are not included in the permit for aluminum. Of the eight things that EPD required PPC to measure and report only flow appears in the permit. Obviously, the measurements that EPD requires are based on sewage and not on the likely composition of the wastewater. Of the parameters actually measured only flow, TSS and COD are relevant to PPC's discharge. And at 300 mg/L the COD will require more than 20 complete turnovers of oxygen concentration in the water to oxidize those chemicals. By its very nature electroplating and anodizing are the chemical reduction of metals essentially guaranteeing a fairly heavy COD in the wastewater.	for new sources (PSNS) established in 40 C.F.R. 433, regardless of whether they were detected in the discharge. Where the Garden City sewer use ordinance and EPD's local limits evaluation established more stringent effluent limitations than those required by the federal PSNS, the more stringent effluent limitations have been included in the permit. For parameters which do not have federal PSNS, effluent limitations are included where EPD has conducted a local limits evaluation and determined there is a reasonable potential for the discharge to cause or contribute to pass through or interference with the treatment processes in the POTW. The results of the local limits evaluation did not indicate the need for effluent limitations for aluminum, nor the eight "Part A" parameters referenced by the commenter.
The alkaline side of the pH range acceptable by the Garden City POTW seems a bit high for maximal aeration function at the plant, especially at pH 9.5. But even at pH 9.0 (in the permit) it is too high for the efficient use of bacteria in the aeration process. At pH 9.0 the hydrogen ion concentration is 1/100th of the hydrogen ion concentration at pH 7.0. And at pH it is less than 1/500th of the pH 7.0 concentration. These low hydrogen ion concentrations will significantly affect the metabolism of the aerobic bacteria used in the aeration process until the pH gets buffered back closer to 7.0.	The Garden City sewer use ordinance establishes an allowable range of 6.0 – 9.5 s.u. for pH. EPD has further reduced this range to 6.0 – 9.0 s.u. in the pretreatment permit as a conservative measure to protect the POTW. Historical operations give no indication that such pH values have caused interference of the treatment process in the POTW.