

NATIONAL POLLUTION STANDARDS AND
THE OPTIONS OF LOCAL RESPONSE

A Case Study: Providence, Rhode Island
and the National Pretreatment Standards
for the Electroplating Industry

by

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INTRODUCTION

State and local governments are responsible for the implementation and enforcement of national pretreatment regulations⁹ under Sec. 208 of the Clean Water Act. They also must achieve other federally set environmental quality goals. The assessment of the compatibility of national pretreatment standards with ambient environmental quality goals and the implementation and enforcement of national standards impose a heavy burden on local governments and agencies. The development of the options and responses of the local government to nationally regulatory standards is the focus of this paper.

The possible responses of the city of Providence, Rhode Island, to the national pretreatment standards for electroplating point sources (Tables I, Ia, and Ib) recently promulgated by the EPA¹⁵ are presented in detail. This situation is of particular interest for a number of reasons. The Providence area has a large concentration of jewelry electroplaters, which are an important part of the economic base of the city. The national standards do not regulate small electroplating shops (using less than 10,000 gallons per day of process water) for such metals as copper, nickel, or zinc. The sizing criteria are efforts to limit the economic impact on small electroplaters. However, the typical shop size in the Providence area is small, and the area has significant environmental problems involving the

metals copper, nickel and zinc. The Providence POTW has not effectively been treating waste and the immediate receiving water; the Providence River supports little aquatic life.⁵⁶ The metal pollutants are believed to significantly contribute to these conditions. In this instance, where the national standards concern an industry which is both a major base of the local economy, the development of the appropriate options by the local government is extremely important.

The development of the local response options is approached in the following stepwise manner:

- 1) definition of the purpose and goals of the national regulations
- 2) assessment of the jewelry industry's contribution to the current pollution load at the Providence POTW
- 3) assessment of the effect of jewelry industry compliance with national standards
- 4) projection of standards necessary to accomplish environmental quality goals in the Providence area
- 5) evaluation of the proposed industry compliance strategy
- 6) identification of the feasible standards and a compliance strategy which maximize environmental benefits and have an economic impact acceptable to the community
- 7) development of an enforcement plan

This approach is meant to serve as a case study for local government response to national pollution standards.