

Background

The Niagara Falls POTW, an advanced technology physical - chemical plant designed to treat 48 MGD of wastewater, (60% of which is industrial in origin) is in non-compliance with its NPDES permit. This plant, costing \$61 million, of which EPA provided \$44.3 million, went on line in 12/77, 1 year behind schedule and 6 months behind the date for achievement of effluent limits of 3/77. Since start-up, the plant has experienced serious operational problems, the causes of which are not fully known, involving the carbon adsorption beds. The beds were completely taken out of operation in 7/78 and the plant is only providing chemical addition, flocculation, sedimentation and chlorination at this time. This current treatment is unable to produce an effluent meeting all the permit requirements. In addition, there is a 12 MGD dry-weather bypass of raw wastewater directly to the lower Niagara River. Since the city's collection system is combined, additional wastewater overflows occur during and following wet weather.

The grantee and its consultant engineer have proposed rehabilitation of the carbon bed and other plant modifications as a change order to the existing contract. This change order was reviewed by the State and grant increase request certified to this agency in December 1979. It was determined that we could not participate in such work unless safeguards were provided which would insure that the work proposed was necessary would lead to proper plant operations, and the grantee would pursue all appropriate legal action to recover costs from any parties found responsible for the failures. At the same time, enforcement actions are expected to result in a consent judgment.

EPA Action,

EPA Regional and Headquarters water and enforcement people have been working out necessary safeguards prior to any subsequent grant award. On April 8, 1980 EPA Region II and New York State Department of Environmental Conservation personnel met with the grantee and its consulting engineers to explain the conditions under which authorization to proceed with the rehabilitation work would be given.

The grant conditions provide for a phased investigatory study. An investigatory consultant would be hired by the grantee (with prior EPA and NYSDEC approval) to review the probable causes of the failure, etc., and the rehabilitation work proposed and comment on the appropriateness of proceeding with the rehabilitation as soon as possible. Concurrently, the same consultant would investigate and make recommendations as to the potential liability related to the system failure.

If the proposed method of rehabilitation is acceptable, construction could begin within 8 months of the grant amendments. If not, a complete reassessment of the problem will be necessary.

Based upon the consultant's assessment of potential liability, further litigation may be pursued by the grantee and/or EPA/State related to recovery of costs related to the rehabilitation.

The Regional Enforcement Division is currently preparing a consent judgment which will contain a schedule which is an agreement with the above grant condition. This action is expected to take place in April 1980.

The evaluation of method of rehabilitation to eliminate the excess flow problem is currently being pursued with the State, who has been delegated infiltration/inflow responsibilities.

Based upon EPA Region II analysis of the most expeditious schedule for completion of the required reanalysis the earliest that rehabilitation could begin would be 245 days from the date of grant amendment. This assumes that the proposed rehabilitation method is determined to be acceptable.

<u>Days From Grant Amendment</u>	<u>Action</u>
10	Acceptance of grant amendment
40	Grantee to submit proposed advertisement for professional services
50	EPA/DEC approval of advertisement
110	Completion of advertisement period
140	Complete analysis of respondents and select consultants
150	EPA approval of consultant
160	Issue notice for consultant to proceed
215	Consultant report on feasibility of rehabilitation
245	Acceptance/approval of report by grantee/EPA/NTSDEC and authorization to proceed with carbon system rehabilitation

Assuming that the presently proposed method is acceptable, it is currently estimated that the actual time necessary to perform the rehabilitation work will be 12 to 18 months. It is also estimated that half of the system could be operational in about 12 months.

Concerning the dry-weather bypass problem, this agency awarded the city a grant for studying the problem. This study concluded that the excess flow originated from a number of sources, some of which the grantee was able to correct with its own forces. The remainder of the flow is excessive infiltration/inflow which will require a Sewer System Evaluation Survey to locate and quantify these flows prior to undertaking sewer rehabilitation work. Region II anticipates receipt of a grant application for the costs associated with this remedial work in the near future.