

US EPA ARCHIVE DOCUMENT

United States
Environmental Protection
Agency

Office of the
Administrator
[Mail Code 1802]

EPA-XXX-X-XX-XXX
July 2000
(<http://www.epa.gov>)

DRAFT 8/10/00

PROJECT XL: U.S. FILTER RECOVERY SYSTEMS

What is Project XL?

Project XL, which stands for “eXcellence and Leadership,” is a national initiative that tests innovative ways of achieving better and more cost-effective public health and environmental protection. The information and lessons learned from Project XL are being used to assist the U.S. Environmental Protection Agency (EPA) in redesigning its current regulatory and policy-setting approaches. Project XL encourages testing of cleaner, cheaper, and smarter ways to attain environmental results superior to those achieved under current regulations and policies, in conjunction with greater accountability to stakeholders. It is vital that each project tests new ideas with the potential for wide application and broad environmental benefits. As of July 2000, twenty-six pilot experiments are being implemented and approximately thirty additional projects are in various stages of development.

Summary of the U.S. Filter Project

The U.S. Filter Recovery Systems (USFRS) XL project addresses metal finishing, electroplating and similar operations. In most of these manufacturing processes today, wash and rinse water is used once, then treated on-site and discharged to a publicly owned treatment works (POTW) or surface water pursuant to the Clean Water Act (CWA). Metal sludges are typically land disposed off-site. USFRS proposes to install an ion exchange canister resin system at certain approved customers’ facilities. The deionization process causes the metals in the waste water to adhere to the resin material in the canister, rendering the water free of metal contaminants. The water can then be reused in the customer’s process lines. USFRS would collect the spent ion exchange canister containing the metals, replace the spent canister with a fresh one at the generator facility, and treat to regenerate the spent resin at USFRS’ facility. There would be no long-term storage of spent canisters at a generator facility. Recovered acid and hydroxide from resin regeneration can be reused at USFRS, and the resulting metal sludge will be recovered for reuse by a secondary metals recovery company.

The resin in the USFRS customer’s ion exchange column would be typically considered a listed hazardous waste (F006) under RCRA if the customer’s waste streams include wastewater from electroplating or other similar operations. F006 resins are regulated under RCRA’s reporting, storage and transportation requirements. Under current RCRA

regulations, taking advantage of recycling and recovery opportunities may trigger certain requirements for USFRS' customers (including generator requirements related to on-site accumulation, reporting and tracking). USFRS proposes that alternative waste management requirements will be less costly and believes that the removal of certain RCRA regulatory requirements will encourage its potential customers to pursue legitimate recycling of their waste streams rather than continuing to dispose of them by discharge to the local POTW.

Superior Environmental Performance

The USFRS XL project will provide superior environmental performance by promoting recycling of water and recovery and reuse of metals that would otherwise be land disposed. USFRS and its customers will be complying with requirements, enforceable through a site-specific rule, that are as protective of public health and the environment as the RCRA requirements that would otherwise be applicable. USFRS' state-issued XL permit will incorporate required elements of this program. Additionally, USFRS will be required to retain and submit certain reports which RCRA would normally require of its customers, recycle the metals from its treatment of the resins, and report ongoing environmental performance and success in meeting its targets.

Flexibility

EPA is proposing to implement the USFRS XL Project by providing the generators and transporters with a "temporary deferral" from certain RCRA requirements for USFRS XL waste. Generators and transporters who are approved to participate would handle, store and transport the ion exchange resin wastes in accordance with specific standards contained in a new site-specific rule (part 266, subpart N of Title 40 of the Federal Code of Regulations) in lieu of certain RCRA requirements. USFRS will handle the ion exchange resin wastes as an F006 waste and in accordance with its existing hazardous waste permit. The proposed rule would impose on USFRS additional reporting and handling requirements in exchange for the regulatory flexibility provided to the generators and transporters.

These new substitute requirements include specific requirements for the management of the USFRS XL wastes in a manner which ensures protection of human health and the environment while providing some flexibility to encourage water reuse and metals reclamation. They are enforceable in the same way as current RCRA standards are enforceable to ensure that handling of the USFRS XL wastes would be protective of human health and the environment.

The USFRS XL Project will enter the implementation phase after EPA promulgates the final federal rule, the state of Minnesota adopts the required state legal mechanisms and the participants sign the FPA.

Stakeholder Involvement

Stakeholder involvement is essential for the success of this innovative environmental program. Stakeholder input will also help to further develop the Project specifics and evaluate performance. Nine public meetings were held to inform the general public and national environmental groups about the Project and to invite their comments and participation. Additional public meetings may be held during implementation of the Agreement based on public interest or as decided by the direct participants. Stakeholder input and community goals have been and will continue to be considered throughout project implementation.

Approaches to be Tested

1) The ability to conserve potable water; 2) The ability to achieve better metals recovery through waste segregation and use of ion exchange columns; 3) The ability to reduce energy costs associated with water treatment; and 4) The ability to reduce cost to generators for record-keeping, manifesting and transportation of F006 waste.

Contacts

EPA Region 5:	Bob Egan	(312) 886-6212
EPA Headquarters:	Sandra Panetta	(202) 260-6632
U.S. Filter:	George Anderson	(651) 638-1300
MPCA:	Joe Carruth	(651) 297-8372

For Electronic Information

More information about the Project XL Program is available on the Internet at <http://www.epa.gov/projectxl> or via Project XL's Information Line at 202-260-5754.