

TECHNOLOGY ACCEPTANCE AND RECIPROCITY PARTNERSHIP

ACCOMPLISHMENTS AND SUCCESS STORIES

(OCTOBER, 2000)

INTRODUCTION

The six states that initiated the Memorandum of Understanding for the Evaluation and Promotion of Environmental Technologies (MOU) – California, Illinois, Massachusetts, New Jersey, New York and Pennsylvania - have been working since 1996 to define a process for the reciprocal state approval and permitting of environmental technologies.

This document serves to outline the accomplishments and successes achieved within and among these states over the past four years.

ACCOMPLISHMENTS

1. Technology Pilot Projects

Description – To begin implementation of the MOU the six states selected eleven sample technologies for a pilot project. The sample technologies included at least one technology of particular interest to each of the six states and also represented the full range of environmental technologies for pollution prevention, measurement and monitoring, treatment and control, and remediation.

States submitting a technology for consideration in this pilot project had the responsibility of acting as an “applicant for a permit” to one or more of the other six states. Through this exercise the “applicant state” and reviewing states became more aware of the review requirements of states concerning new technologies, the obstacles to use and deployment and the similarities and differences among states permit or approval processes.

What We Learned – Through the pilot project, the six states identified common data, performance testing and regulatory review protocols for the sample technologies and defined the most efficient approval pathway for each technology class. The states used the pilot project results to push the boundaries of interstate cooperation and confirm that:

- ◆ Reciprocity is possible

- ◆ Reciprocity can build on existing processes and protocols
- ◆ Reciprocity can reduce cost and save time for regulators

- ◆ All six states can support reciprocity for environmental technology data on performance testing
- ◆ Interstate reciprocity has the greatest potential for expediting acceptance of treatment and control technologies.

Next Steps – Through this project the states identified three tiers of data requirements for specific technologies, beginning with general requirements for all technology classes and continuing through to a detailed technology-specific template for regulatory or permitting decisions. Development of these documents is critical to the successful implementation of the MOU goals.

2. Strategy Document Publication

Description – In September 1999, the six states published a document entitled “Strategy for Reciprocal Acceptance of Environmental Technologies”. This document was prepared as a tool to explain in detail, the work of the group to date. Specifically, this document described the pilot projects and the definition of the tiered approach through which state regulators can accept data, performance tests and regulatory templates for approvals or permits produced by and for other states.

This document also served to outline:

- ◆ the ways in which reciprocity is possible within certain technology classes (based upon the results of the pilot project)
- ◆ the tiered approach to technology evaluation and respective benefits to this approach
- ◆ the process for reciprocity implementation
- ◆ the plan to expand this effort to additional states

This document, approved by all six-state environmental agency heads, has been distributed to all ECOS member state heads to introduce them to this effort. Additional copies have been distributed to technology developers and users who may benefit from this process in all six states.

What We Learned –The publication and distribution of this document has sparked interest from other states interested in participating in the MOU projects and for developing a reciprocity partnership with other states.

Next Steps –

- ◆ Identification of particular areas of state environmental concern to implement the strategy.

- ◆ Development of document outlining process for adding new states to the reciprocity partnership.
- ◆ Composite document of state's needs for technology demonstration and detailing level of commitment required for active participation.

3. Tier 1 Guidance Document Completed

Description - This document provides vendors with guidance for the development of credible data pertaining to all technology classes, with regulatory assurance that such data is acceptable to states. All technology developers and vendors would have to meet or address Tier 1 sampling, testing and data evaluation minimum standards as a condition for receiving further evaluation by the participating states. This document also describes the “tiered approach” to interstate reciprocity and how states could apply it to a range of technologies.

This document was finalized and approved by all six states. It has been posted on several of the state's web sites and has been distributed to technology vendors in all six states.

What We Learned – The states' request from vendors for developing credible technology data is very similar and therefore encouraging for making technology reciprocity and “sharing” possible.

Through actual technology reviews in several member states, it was confirmed that the basic information in Tier 1 is acceptable to all states. This protocol can be used as the basic information gathering tool for member states.

Next Steps - Following the merge of the MOU group with the Verification Team it was determined that components of the Verification team's document which provided the technology demonstration needs from 16 states and an evaluation of 11 verification programs should be integrated into the Tier 1 document. The information in these documents along with the Strategy – Reciprocal State Acceptance of Environmental Technologies and The Strategic Envirotechnology Partnership Green Book Technology Summary, Report Guidance Document from Massachusetts, will be consolidated. This final report will review the state needs for technology demonstration and review of state reciprocity opportunities.

4. Merge Between 6-State MOU Team and Verification Team to Form Technology Acceptance and Reciprocity Partnership (TARP) Team Under ITRC

Description – The Six-State Memorandum of Understanding Group and the Verification Teams of ITRC formed a new team known as TARP – Technology Acceptance and Reciprocity Partnership. For the participating states, this change means improved communication and information sharing among state regulators, more

efficient permit reviews, more environmental technologies available to solve tough environmental problems and better relationships with technology vendors. The TARP team can improve the way research is conducted and how quickly a technology gets used in the field by melding scientific analysis with policy analysis and regulatory framework.

As the TARP Team moves forward with the development of protocols they will use the verification matrix produced by the Verification Team thereby addressing regulatory and verification requirements for specific technologies. TARP will play a continuing role in fostering cooperation and dialogue among the verification programs and states.

What We Learned – Through this merge the teams can better serve technology vendors interested in either obtaining an independent technology verification or in utilizing data and information generated for a verification in the regulatory / approval process.

Next Steps – Merging Tier 1 Guidance Document with Verification Team’s Document entitled “*Multi-State Evaluation of Elements Important to the Verification of Remediation Technologies.*”

5. Establishment of Protocol Teams for Stormwater, Beneficial Use and Septic Systems

Description – As a means of applying the tiered protocol templates to actual environmental program areas, focus areas of stormwater management, beneficial use and septic technologies/processes have been selected. Technologies/processes in these areas are being reviewed against the participating states’ regulations to establish guidelines applicants can use to ensure a complete application submittal across all participating states.

What We Learned –

- ◆ Professional development – staff see value in devoting time to document how we review proposals and performance claims, clarify performance expectations and research other efforts.
- ◆ Regulatory streamlining – NJ provided framework for regulatory exemptions in BUD that are being considered in MA.

Next Steps – Finalize Tier 2 protocol documents for stormwater, beneficial use and septic.

6. Development of Criteria for Joining TARP Effort

Description – The original MOU was established as a pilot project between six states. The ultimate goal of this initiative is that all states interested in reciprocity could use the process and documents established under this MOU.

The Strategy Document and Tier 1 Documents are completed and work is underway to develop several technology-specific Tier 2 protocols based upon the findings of the pilot project. The TARP team developed a process to bring in new states who will sign on to the use of Tier 1 and assist in development of technology-specific protocols. Several states had already expressed an interest in joining the initiative while others, who were already members of ITRC, were interested in learning more about the project, technology areas of focus and time commitments.

A document entitled “Joining the Technology and Reciprocity Partnership” was developed and approved by the states. This document outlines the goals and objectives of the effort as well as the level of commitment expected from a state interested in participating. Commissioner/Secretary – level sign off is required for participation in this effort as the goal of reciprocity.

Since the development of this document the state of Virginia has signed up to this effort. The Commissioners/Secretaries from the seven states will work with staff to bring additional states into this effort.

What We Learned – The initial work of the 6 states through the MOU, proved to be a starting step for illustrating interstate reciprocity in a variety of technology areas. This success can now be applied to a variety of technology areas and include any state interested.

Next Steps – Continued outreach to interested states. Outreach to all states (through ITRC and ECOS) regarding this effort, successes and value of participation.

ON GOING PROJECTS

1. Integration of Tier 1 Guidance with Verification Team Document.
2. Finalizing Tier 2 Protocol for stormwater, beneficial use and septic systems.
3. Integration of TARP activities with ITRC. Both organizations will fall under the umbrella organization of the Environmental Research Institute of the States (ERIS).
4. Developing proposals for new work areas: greenhouse gas/renewable energy technologies and pollution prevention.

SUCCESS STORIES

1. Institutional Changes

PA Integration of Tier 1 Document into Technology Review – In addition to the acceptance of the Tier 1 protocol document prepared by the TARP team, Pennsylvania DEP has adopted the protocol in its technology review process and verification projects. The protocol is being used as the template for on-line, web-based review of technologies. This procedure will bring consistency of information to other states for review in a format already acceptable to them. Pennsylvania has also required that verification projects funded by the Commonwealth use the protocol for all vendors performing projects with PA DEP. This will insure that information used in evaluation of technologies will be consistent and reciprocally reviewed by other states.

NJ Legislation – On January 18, 2000 Governor Whitman signed into law legislation (N.J.S.A. 13:1D134) “The Energy and Environmental Technology Act,” that directs the New Jersey Department of Environmental Protection and the New Jersey Corporation for Advanced Technology to implement energy and environmental technology verification programs.

This legislation specifically addresses “reciprocal environmental technology agreements” and how they may be used to further facilitate the use and deployment of environmental technologies. It streamlines implementation of the reciprocal environmental technology acceptance model by incorporating it as an “over-arching” procedural requirements. This supersedes and replaces the more traditional implementation strategy of adding this directive program-by-program at time of regulatory renewal. Additionally, NJDEP must work with the Treasury Department to develop bid specifications for the procurement of verified technologies.

2. Technology Deployments/Expedited Reviews

- ◆ **CASTion** is a technology, which addresses the treatment, recovery and reuse of industrial process wastewater. It was submitted by Massachusetts to be part of the initial MOU pilot project.

CASTion technology treats hazardous and/or industrial wastewater from aqueous metal finishing processes in electronics, automotive, aerospace, machinery/hardware and decorative jewelry industries. Their systems are almost always a “zero discharge” systems with purified wastewater recycled internally and the concentrated hazardous chemistry recycled, reclaimed or sent out as a hazardous waste.

Following completion of the MOU pilot project, the company reports that the interstate acceptance and regulatory decisions made by the states are “huge incentives” and a primary selling point in encouraging their customers to purchase these systems. Cost savings result from the partnership’s regulatory determination in the form of reduced compliance reporting, permitting as well as avoided sewer discharge costs and reuse of chemicals. Its installations in New England, PA, CA, NY, NJ and elsewhere will recover approximately 35-40 million gallons per year of hazardous wastewater, thus eliminating either sewer or atmospheric discharge.

- ◆ **United Retek Corporation of America, LLC** is a Massachusetts corporation that has pioneered the development and utilization of on-site ambient temperature asphalt emulsion stabilization recycling of contaminated soils. This technology was verified by the New Jersey Corporation for Advanced Technology in September 1998. Following this verification, the NJDEP Office of Innovative Technology and Market Development issued a Technology Certification which, among other things officially accepted the NJCAT verification data for use in regulatory reviews of the technology and referenced the use of this data as a Tier 3 template for any subsequent on site remediation approvals for beneficial use of total petroleum hydrocarbons (TPH) and lead contaminated soils through the MOU.

Since receiving NJCAT verification and NJDEP certification, United Retek has pursued projects in Pennsylvania and New York. United Retek has received notification from PA DEP that their technology would be acceptable for use at various sites and that only site-specific information would be required for the use of their technology.

- ◆ **TIER II Draft Stormwater Protocol Used in Permit Review by PA DEP:** A vendor in PA (name confidential) used the draft TIER II Protocol in submitting permit information about their technology to the PA DEP. After review by regulatory permitting staff, the information was deemed sufficient for issuance of a permit of the technology. The permitting staff concluded that using the draft protocol provided sufficient information and that only minor modifications to the protocol would be necessary for further use in permitting.