2014 ITRC PROJECT PROPOSAL
Remediation Projects Only

Learning Transfer Strategy for Petroleum Vapor Intrusion Technical and Regulatory Guidance Document

Instructions: The Interstate Technology and Regulatory Council (ITRC) requests proposals for ITRC projects **in the remediation area only** for a 2014 start. Proposals should be submitted according to the process outlined in the [2014 ITRC Request for Proposals for Remediation Projects (RFP-Rem)] and [2014 Project Selection Process and Criteria], which are also available on the ITRC website (www.itrcweb.org) under About ITRC – Planning.

Proposals must be prepared using this proposal template. The page limit for the proposal is 5 pages, and the proposal must be printable on a standard black and white laser printer. Only one Microsoft Word file containing the proposal will be accepted (other formats or attachments will not be considered). The file size must be less than 5 MB. Proposers are reminded to present a proposal with a well-focused scope that ITRC can address (e.g. the proposal should be technical in nature and not policy-oriented; research or demonstration projects are not valid). Receipt will be acknowledged by email within one business day of proposal receipt. It is the responsibility of the proposer to follow up, if receipt confirmation by ITRC is not received.

Questions can be addressed to Anna Willett, ITRC Director, awillett@ecos.org, 202-266-4933. More information on ITRC is available at www.itrcweb.org.

Please use brief statements or bullet items to input the requested information

PROPOSAL DATE: June 19, 2013

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Proposals Topical Area

Progressive Learning Transfer Strategy (training related) to support use of the ITRC Petroleum Vapor Intrusion Technical and Regulatory Guidance Document.

Proposal Summary

Problem Statement:
At potential PVI sites there is often uncertainty as to the best approach to assess, investigate, and manage sites. This uncertainty leads to inconsistent and slow decision making, and in some cases inefficient use of resources as well as a lack of confidence in the protection of human health. The current ITRC Petroleum Vapor Intrusion (PVI) Team plans to release a technical and regulatory guidance document in June 2014 to provide much needed guidance and that will provide a scientifically based approach for decision making at potential PVI sites. **The challenge** is how to ensure the PVI Tech Reg is effectively and consistently used at sites across the country. Just releasing a guidance document does not ensure its use.

Although ITRC is often viewed as a "go-to solution provider" in the environmental industry, we are still faced with the inconsistent use of ITRC guidance. More needs to be done to identify and overcome barriers to Tech Reg use and to improve the transfer of skills and knowledge provided by ITRC training courses to improve on-the-job performance of our target users. If we can overcome these barriers we can maximize ITRC's impact. ITRC and its members make significant investments in the development of guidance and traditional training courses;

however, we will not fully maximize the return on these investments until we address barriers to the use of our documents. Barriers are likely two-fold:

    (1) Lack of readiness and/or commitment in state agencies to apply ITRC guidance resulting in inconsistency of application from one cubicle to the next

    (2) Inability for a user to directly apply information attained by reading a guidance document or taking a traditional training course

Solution:

The proposed solution is a Progressive Learning Transfer Strategy facilitated by ITRC to assist PVI Tech Reg target users (regulators at the project management level; consultants at the field work level) with learning new PVI knowledge and skills and then transferring the knowledge and skills to improve their on-the-job performance when addressing potential PVI sites. This strategy focuses on:

    (1) Readying state agencies to use the ITRC PVI Tech Reg

    (2) Learner retention and application of the PVI Tech Reg

ITRC can serve as a catalyst to promote change across the country by assisting state environmental agencies with incorporating ITRC PVI guidance when approaching potential PVI sites. The focus on preparing state agencies to use guidance coupled with supporting individual learners with transferring new PVI skills and knowledge to their on-the-job performance will help build better performing state agencies. With states consistently applying the nationally recognized, scientifically-based ITRC PVI guidance, the broader environmental community will benefit from a more predictable path of assessment, investigation, and management of potential PVI sites. It is expected that this Learning Transfer Strategy will lead to timelier and higher quality site decisions, and a more efficient use of resources, while raising confidence in states that human health is being protected.

This proposed PVI Learning Transfer Strategy is an opportunity for ITRC to support the improvement of on-the-job performance of environmental professionals across our industry leading to better performing environmental agencies when addressing potential PVI sites.

The diagram below contrasts a more traditional approach focused on a single training event with a Learning Transfer Strategy focused on a series of connected learning opportunities. A Learning Transfer Strategy puts learning to work in a way that improves retention and performance, leading to strengthened application of their new knowledge and skills to their job.

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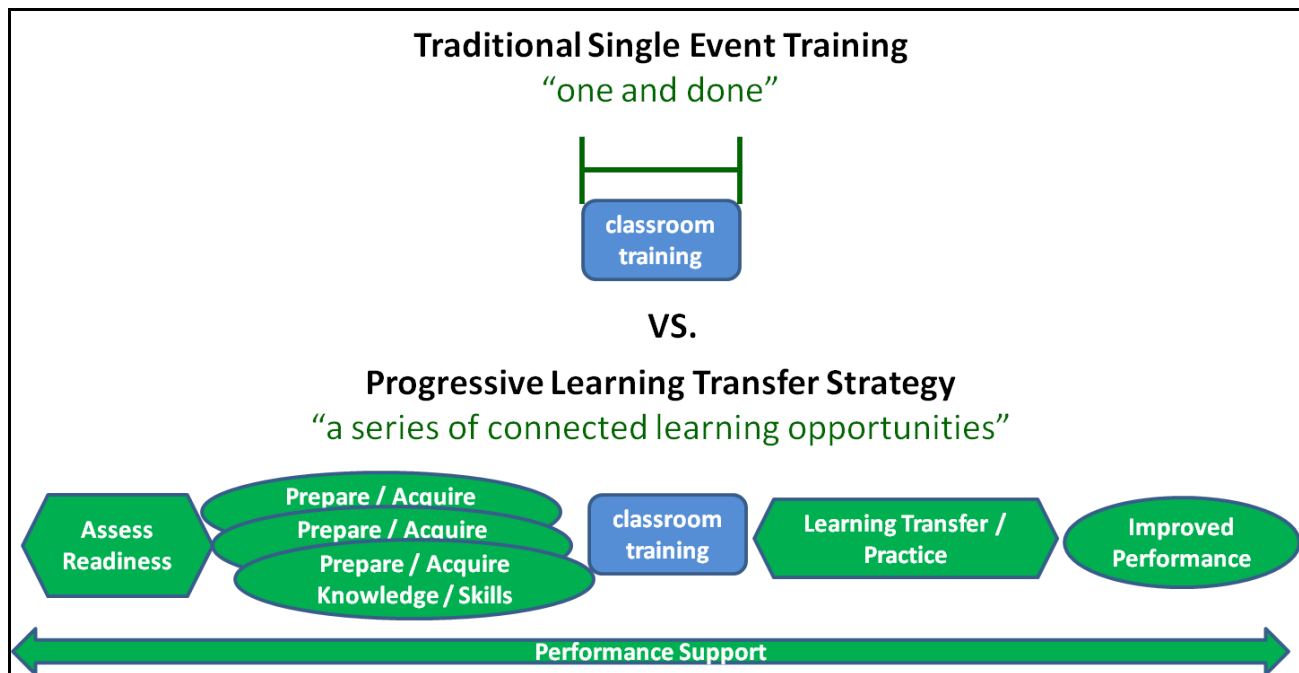
Background on the importance of the vapor intrusion topics:
While the investigation of contaminated soil and groundwater has been around for decades, vapor intrusion has only been in the national spotlight for the last 10-12 years. Scientific research is continually providing new insight into the movement and mitigation of subsurface vapors. Thus, state and federal environmental agencies, consulting firms and industry are desperately trying to stay up-to-date on the ever-changing approaches to vapor intrusion. The main reason that vapor intrusion has remained a critical environmental issue is the continued evolution of the pathway and the lack of national guidance available to states.

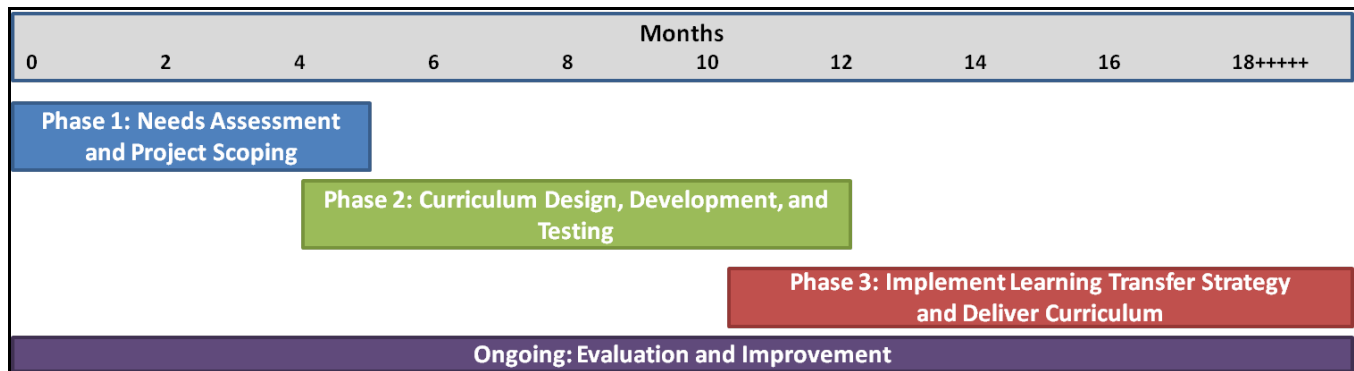***Background on state interest in vapor intrusion topics:***
As was the case in 2004 when the original ITRC Vapor Intrusion Team was formed – the importance of the vapor intrusion pathway remains one of the top environmental issues for state agencies. The results of the most recent five years of the ITRC State Priorities Survey indicates states have consistently ranked vapor intrusion in the Top 4 amongst environmental priorities (see ITRC State Priorities available at: http://www.itrcweb.org/About/Planning). States across the country have consistently indicated vapor intrusion as a high priority topic due to the lack of current, reliable and scientifically-based information on the investigative strategies and mitigation measures of the vapor intrusion pathway. Specifically, there has been a lack of clear guidance on the application of multiple lines of evidence for petroleum vapor intrusion. In June 2014 ITRC plans to address this ongoing need by issuing an ITRC Petroleum Vapor Intrusion (PVI) technical and regulatory guidance document. However, the guidance itself will only be impactful if it is implemented effectively by its target users. The need for expanded training opportunities focused on ITRC's PVI Tech Reg were confirmed by states attending the April 2013 ITRC PVI Technical Session with 75% indicating their interest in PVI training beyond the typical Internet-based training. Strategically supporting the target users of the PVI Tech Reg will be critical in maximizing the positive impact of the PVI Tech Reg and to achieve quality and consistent decision-making at potential PVI sites.

Approach and General Project Schedule (schedule example for ideal start time):

Project Phase	Required Time	Draft Schedule	Outcomes/Deliverables
1. Needs Assessment and Project Scoping to Support Performance Improvement			
• Assess potential to maximize value of Learning Transfer Strategy (e.g., surveys, research, interviews) • Assess delivery mechanisms keeping in mind target user options and capabilities • Assess options for overcoming identified implementation barriers • Scope Learning Transfer Strategy based on PVI Tech Reg content and target users	3-5 months	Aug. 15, 2013 – Jan. 15, 2014	• Criteria to select state targets where highest potential for positive impact exists • List of targeted states based on the potential positive impact and interest (and commitment) in actively participating in a Learning Transfer Strategy • List of barriers to the use of ITRC PVI Tech Reg and recommend solutions to overcome barriers • Reconfirmed target user needs (basis is PVI Tech Reg) • Recommended Learning Transfer Strategy
2. Curriculum Design, Development, and Testing			

• Design curriculum (based on outputs of Phase 1)
• Select delivery mechanism (based on curriculum design and target users)
• Coach Subject Matter Expert (SMEs) from the ITRC PVI Team
• Develop curriculum (based on PVI Tech Reg content)
• Test Learning Transfer Strategy (making improvements along the way)
• Finalize curriculum and delivery
	8-9 months	Dec. 15, 2013 – Aug. 15, 2014	• Tested, and ready to deliver curriculum to support the Learning Transfer Strategy
			    • State agency readiness
			    • Learner retention and application of Tech Reg
			• Prepared Subject Matter Experts (SMEs) ready to deliver curriculum

3. Implement Learning Transfer Strategy and Deliver Curriculum			

• Transfer knowledge and skills to Learners • Provide "practice" opportunities to assist Learner with mastering new skills • Support Learner performance • Evaluate Learner knowledge and skills to guide	2-4 years (with 4-8 month transfer strategy included over several years of offerings)	Fall 2014 to ??? (specific dates TBD)	• Learners and states agencies "ready" to use ITRC PVI Tech Reg [before key learning events] • Knowledge and skills delivered to Learners • Learner performance support options (before, during, and after) key training events • Learners and states able to use ITRC PVI Tech Reg [during and after key learning events]
Ongoing Evaluation and Improvement			
Identify results and lessons learned for ongoing incorporation	Aligns with longevity of overall project	Ongoing (through Phase 1-3)	• Incremental improvements based on Learner feedback and lessons learned • Short and long term impacts of the Learning Transfer Strategy

Project Schedule Overview

Months

Phase 1: Needs Assessment and Project Scoping

Phase 2: Curriculum Design, Development, and Testing

Phase 3: Implement Learning Transfer Strategy and Deliver Curriculum

Ongoing: Evaluation and Improvement

Proposed Personnel

It is expected that a subset of the current ITRC PVI Team will support the development and delivery of this proposed PVI Learning Transfer Strategy. The 2013 PVI Team includes over 125 members to draw on for their expertise (41 state/local government members representing 30 states; 9 federal agency representatives from EPA (OSWER/OSRTI, Office of Water, Office of UST, ERT) and DoD (Navy, USACE, NAVFAC, Air National Guard); 70 members from the private sectors; 2 community/tribal stakeholders and 2 members from academia). The following states are currently members of the PVI Team: AK, AZ, CA, CO, DE, DC, GA, HI, IL, KY, ME, MI, MN, MS, MO, MT, NV, NH, NJ, NM, NY, NC, SC, TN, TX, UT, VT, VA, WA, WV.

Track record by those involved with the PVI project:
Many of the members from the original VI team are also engaged in the current PVI team including the consistent leadership of John Boyer (NJ DEP). Results generated by the original VI team are showcased in "State Ownership: Building, Accepting and Using ITRC Products" in the "ITRC Vapor Intrusion Guidance and Training at: http://www.itrcweb.org/SuccessStories/CurrentYear. The original ITRC VI Team delivered both Internet-based training reaching 2,589 participants in 8 classes (324 per class average is the high for ITRC) and 1,818 participants in 2-day classroom training (see Vapor Intrusion Training Topics Report at http://www.itrcweb.org/Team/Private?teamID=49).

Summary of Deliverables (primary project product(s))

The specific details of the proposed PVI Tech Reg Progressive Learning Transfer Strategy will be determined from the results of Phase 1 and 2 as outlined in the table above. Below is an example of what a Learning Transfer Strategy may include:

Focus on State Agencies: (Example)		
Activity	Delivery Mechanism	Learning Time
"Assess Readiness to use ITRC PVI Tech Reg"	Online / Telephone interview / Survey	Self-paced, Live
Results of Readiness Assessment determine next steps – "NOT Ready"		
If determined "not ready" – determine commitment to take steps to achieve readiness	Depends on state specific needs	Depends on state specific needs
Results of Readiness Assessment determine next steps – "READY"		
Commitment of agency to take steps to incorporate ITRC PVI Tech Reg	Depends on state specific needs	Depends on state specific needs
Enroll staff in Individual Learner Transfer Strategy	See Individual Learner Transfer Strategy	See Individual Learner Transfer Strategy

Focus on Individual Learner in "Ready" States: (Example)		
Activity	Delivery Mechanism	Learning Time
"PVI Knowledge and Skills Assessment" (depending on results…recommended reading and/or other resources)	online	Self-paced
"Introduction to ITRC PVI Tech Reg"	online	Live, interactive (archive could be made available)
"PVI – The Fundamentals"	online	Self-paced (built in knowledge check)
"PVI – Applications and Scenario-based Learning"	classroom (could include indoor and outdoor)	In-person (built in practice)
Performance Support (ongoing for period of time to assist learners with transferring new knowledge and skill to job)	online	TBD – driven by Learner needs

Targeted Users (who will use products generated by this project?)

For this Learning Transfer Strategy the same target users are the focus as for the PVI Tech Reg:
Primary
- State Regulators – Project Management level
- Consultants – Field work level

Secondary
- Site owners
- Public and tribal stakeholders
- Regulatory and consultant management

Emphasis 1: working with state agencies to incorporate the ITRC PVI guidance into their approach at potential PVI sites and to go beyond individual use of the guidance to more of a state organizational commitment to use the guidance across their agency

Emphasis 2: supporting the site level regulators and field staff in using the ITRC PVI guidance on a site basis