

Corrective Action Conferences and Activities: 2004–2013

Underground Storage Tank (UST) Section, February 2014

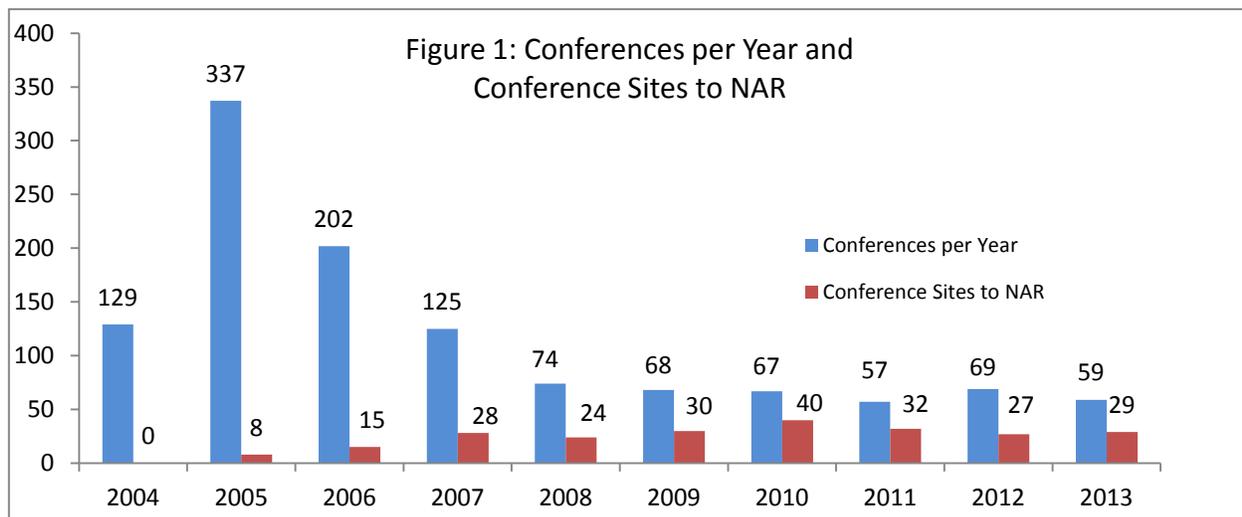
Background and Summary

In 2004, a backlog of high risk LUST sites prompted UST Section staff and other stakeholders to implement a system of meetings called corrective action conferences. Representatives of the DNR UST Section, funding organization, responsible party, and environmental consultant meet to discuss and reach consensus on a corrective action plan to take high risk, low risk, or free product sites to a no action required (NAR) classification. Participants sign a memorandum of agreement (MOA) after consensus. This MOA is a legally enforceable agreement between the DNR and the responsible party.

A full-time corrective action specialist/facilitator was added to the UST staff in 2005. By December 31, 2013, staff held 1,190 conferences covering 627 sites resulting in 486 MOAs. A total of 233 (37%) of these sites have been reclassified to NAR - a high success rate given the generally more contaminated and complex nature of sites undergoing the conference process.

Conference and Facilitator Activities

UST staff began addressing the backlog by conducting multiple conferences almost every day in 2005. In succeeding years fewer conferences were held; approximately 60 conferences per year have been held since 2008 (Figure 1). Sites reclassified to NAR generally completed conferences at least three years prior to reclassification.



Conferences are now held for newly classified high risk sites; long-term low risk sites; or recalcitrant sites with financial, ownership, and/or geological complications. Some difficult LUST sites have required as many as nine conferences to reach a consensus on the first plan. Sites with large, resistant contamination plumes can need multiple and sequential remediation events, sometimes called a “remediation train”.

Conference Outcomes

By the end of 2013, the high risk LUST backlog was reduced to 499 sites. Conference participants selected various options to address high risk conditions:

- Tier 3 alternative evaluations such as demonstrating plume stability (40%)
- Excavating contaminated soil and treating at a soil landfarm/landfill (25%)
- Installing or modifying a remediation system such as soil vapor extraction (25%)
- Modifying a receptor such plugging a drinking water well (7%)
- Other options (3%)

Most conference sites are in active remediation, post-remediation monitoring, Tier 3 evaluation, or low risk monitoring. In the last year we have begun to address sites which are classified no action required but have free product.

Trust and improved communication are important benefits engendered by conference activities. All parties participate toward a common goal of clearing the site and gain insight into technical and regulatory issues, as well as the perspective of each party.

Success Stories

Two adjacent LUST sites in western Iowa had commingled soil and groundwater plumes with free product and multiple high risk receptors, including municipal and private drinking water wells and a protected groundwater source. A corrective action conference in 2010 initiated installation of a sparge and vent system and its operation through most of 2011-12. In 2013, free product was gone and groundwater sample results were less than target levels; the sites are nearing reclassification.

An abandoned gas station in central Iowa with numerous nearby drinking water wells was addressed with an excavation in 2003, but it was not successful in removing all the contamination. A vapor extraction/ biosparge system was proposed in a 2005 conference. It was installed and operated for five years. The discovery of free phase product in 2012 required additional conferences and operation of a sparge and vent system for several months. Groundwater has met target levels and the site is awaiting confirmation sampling.

Areas for Improvement

Agreed-upon schedules for remediation and reporting are not always met. We encourage participants to set reasonable schedules. Tracking and follow-up on the progress or lack of progress of corrective action requires increasing time and resources.

Responsibilities of Corrective Action Specialist/Facilitator

Besides scheduling, facilitating, and providing detailed notes of conferences, the corrective action specialist/facilitator serves as a resource for technical review of corrective action design plans and reports, remediation proposals, and remediation monitoring reports. The corrective action facilitator also maintains a database to track sites for report submittals, remediation startups, and other significant events. The facilitator notifies the DNR project manager of due dates and overdue activities.

It is projected 50 to 70 corrective action conferences will be held yearly to address remaining and upcoming high risk and low risk sites. The intention of these conferences is to move sites toward no action required classification while protecting human health and the environment.

Iowa DNR acknowledges and thanks EPA for providing funds to support the Corrective Action Specialist/Facilitator position.