Remediation Portfolio Management Through Value Engineering

Allen Stegman & Charles Thomas – BNSF
Fred Payne, Jon Smith, Todd O'Brien & Martina Jones – ARCADIS

BNSF has more than 200 remediation sites in its current portfolio and manages those sites to maximize the reserve reduction efficiency of its expenditures. In 2011, BNSF teamed with ARCADIS to begin development of a systematic portfolio management process to support its reserve efficiency goals. The process 1) assures that the remedy matches the site conditions and project objectives, 2) provides the project teams with clear metrics to measure progress, and 3) gives project teams the information needed to make adjustments when the pace of remediation falls below expectations. The Value Engineering process overcomes the tendencies of remedial project teams to collect unneeded data and to be slow to act when site operations data show lack of progress.

The Value Engineering process includes several elements to produce data discipline and decisiveness:

- For each remedial technology, a standard dashboard has been developed that focuses the team on the critical decision making data. At the same time, ancillary (non-decision-making) data collections are identified and eliminated.
- Key metrics are established to measure the pace and effectiveness of the technologies at each site. The site teams can readily see their pace of remediation for comparison against expected rates and project goals.
- System operations are reviewed routinely and action items are developed to drive sites to closure or to a more appropriate remedy.

The process was first implemented in 2013 and has now been extended to 63 sites. Project savings have exceeded $2MM to-date and are forecast to exceed $9MM within 5 years.

The presentation provides an overview of the Value Engineering process, along with case study examples to show the process at-work.