



The Evolution of Engineering and Institutional Controls in New Jersey

Kenneth J. Kloo

NJDEP - Site Remediation Program

ASTSWMO Mid-year Meeting

Virginia Beach, VA

April 23 & 24, 2014





What are Engineering Controls?

Any physical mechanism to contain or stabilize contamination or ensure the effectiveness of a remedial action, such as:

- Cap or cover
- Dike or trench
- Leachate collection
- Fence or physical access control
- Ground water containment/treatment system





What are Institutional Controls?

Mechanisms that provide notice of residual contamination and limit human activities to ensure the effectiveness of a remedial action, such as:

- Restrictions on structures, land and natural resources
- Deed notices or Declarations of Environmental Restriction
- Well restriction areas
- Ground water classification exception areas (CEA)





History of the use of Engineering and Institutional Controls in NJ

NJ Solid Waste Management Act,
(N.J.S.A. 13:1E, 1970)

Limited to sanitary landfill closure





History of the use of Engineering and Institutional Controls in NJ

NJ Legislature directed NJDEP to allow the use of the use of engineering and institutional controls as part of remediation

Industrial Site Recovery Act (ISRA) (N.J.S.A. 58:10 and N.J.S.A. 13:1K, 1993)





No Further Action (NFA) Letters

- NJDEP issued NFA letters at the end of a remediation that contained notice of engineering or institutional controls on the property
- Notices were physically attached to deeds





Problems surfaced as properties with controls were sold

Subsequent property owners were not aware of their responsibilities...

- ... to comply with institutional controls
- ... maintain or monitor engineering controls





What would help to ensure the protectiveness of the controls?

- Periodic reporting to NJDEP on the monitoring and maintenance conducted
- In 1998, NJ Legislature amended the NJ Brownfield Act to give NJDEP the authority to require reporting





“Biennial Certification” required

The responsible person must:

- Monitor and maintain controls
- Submit a certification to NJDEP every 2 years
- Certify that the remediation continues to be protective of public health and safety and of the environment





Compliance was still an issue

- New property owners for sites were not aware of the conditions associated with the NFA
- “No Further Action” interpreted literally
- Unaware of, or ignoring, restrictions and obligations





Compliance issues continued

By March 2007 approximately 75% of sites were out of compliance for not submitting required biennial certifications





NJDEP acted to correct Biennial Certification compliance

- Amnesty program giving responsible parties 1 year to submit a biennial certification without penalty
- Names of non-compliers were posted on the NJDEP's web site in Compliance Alerts
- Achieved 90% compliance rate for the submission of biennial certifications





Site Remediation Reform Act (SRRA) N.J.S.A. 58:10C

In 2009, SRRA provided the Department authority to issue Remedial Action **permits** for engineering and institutional controls.
(N.J.S.A. 58:10C-19)





SRRA Remedial Action Permits

- Require the remediating party **and** property owner to have the same responsibility for permit compliance
- Assess annual fees
- Establish schedules for the submission of information





Remedial Action Permittees

- Party that conducted the remediation
- Property owner
- One party is identified as having the primary responsibility for permit compliance





Remedial Action Permits

- Soil Remedial Action Permit
- Ground Water Remedial Action Permit
 - Natural attenuation
 - Active treatment systems





Soil Remedial Action (RA) Permit

A Soil RA permit is required when a soil remediation includes the use of:

- Engineering control and/or
- Institutional control





Soil RA Permit requirements

- Deed notice - properly recorded and stamped (in both paper and PDF file format)
- Permit application form and fee
- Financial assurance (if an engineering control is used)
- Must be submitted 30 days after deed notice is filed





GW Remedial Action (RA) Permit

A Ground Water RA permit is required when remediation includes:

- Natural attenuation as part of the remedial action, or
- An engineering control is part of the remedial action
- An effectiveness determination must be conducted before applying for the permit





GW RA Permit requirements

- CEA/WRA Fact Sheet
- Remedial Action Report demonstrating the effectiveness of the remediation
- Permit application form and fee
- Monitoring plan
- Financial assurance (if an engineering control is used)





Remedial Action Permit Fees

- Permit fees fully support the program
- Rules provide for annual adjustments





Remedial Action Permit Universe

- Soil RA Permits issued to date: 749
- GW RA Permits issued to date: 480





Ongoing compliance issues

Addressing compliance and quality issues through:

- Training and guidance
- Compliance assistance
- NJDEP field inspections
- LSRP involvement





NJDEP Contacts

Assistant Director Wayne Howitz

Wayne.Howitz@dep.state.nj.us

(609) 984-1351

Bureau Chief Robert Soboleski

Bob.Soboleski@dep.state.nj.us

(609) 984-2990

