The Evolution of Engineering and Institutional Controls in New Jersey

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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


Limited to sanitary landfill closure
History of the use of Engineering and Institutional Controls in NJ

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

No Further Action (NFA) Letters

- NJ DEP 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 NJ DEP on the monitoring and maintenance conducted.
- In 1998, NJ Legislature amended the NJ Brownfield Act to give NJ DEP the authority to require reporting.
“Biennial Certification” required

The responsible person must:

• Monitor and maintain controls
• Submit a certification to NJ DEP 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
By March 2007 approximately 75% of sites were out of compliance for not submitting required biennial certifications.
NJ DEP 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 NJ DEP’s web site in Compliance Alerts
- Achieved 90% compliance rate for the submission of biennial certifications
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
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
• NJ DEP field inspections
• LSRP involvement
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