The Remediation Process: Responsible Party Cases*

Within the New Jersey Department of Environmental Protection (NJDEP), the Site Remediation and Waste Management (SRWM) program oversees the remediation of contaminated properties in accordance with our mandate to protect public health and the environment. The type of cases overseen by SRWM range from the replacement of household fuel tanks to large abandoned industrial facilities in the center of some of our largest cities. There are also many rural sites where ground water contamination has raised public health concerns. These concerns dictate that wells be tested and municipal waterlines extended to homes if contamination is found.

Overall, sites are either remediated by the *party* responsible for the contamination, or, in instances where there is no responsible party, by the state of New Jersey. The remediation process is slightly different in the two situations. This guidance document describes cases where there is a responsible party.

Remediating Responsible Party Cases

The remediation process is guided by a set of adopted technical regulations, which are readopted through a public process every five years. The level of remediation required to reuse contaminated property is set by the soil standards criteria. These criteria are established using the most current scientific information and a risk assessment process to evaluate potential exposure scenarios for sensitive populations such as children, elderly and nursing mothers.

The technical regulations apply to all remediation undertaken in New Jersey and offer guidance on each step of the process. That process generally follows three phases: the Initial Assessment (called Preliminary

New Jersey Department of Environmental Protection Site Remediation and Waste Management 401 East State Street, Trenton, NJ 08625-0413 Phone: 609-984-3081 Fax: 609-292-4401

^{* &}quot;Documents provided on the Office of Community Relations website define in non-technical language the more commonly used environmental terms and concepts appearing in Site Remediation & Waste Management publications, news releases, and other documents available to the general public, students, the media, and state employees. These documents do not have regulatory effect, and cannot be relied upon in lieu of officially promulgated NJDEP rules and definitions published in the New Jersey Register and the New Jersey Administrative Code."

Assessment and Site Investigation), Remedial Investigation (where the site is studied to determine the full extent of the contamination) and Construction (the actual physical remediation phase).

Initial Assessment

When a site enters the remediation program, there is a two-step initial assessment. The *Preliminary Assessment* is a search of historic records and deeds to determine what type of activities may have occurred on the site. This review identifies possible contamination (based on the use) and where on the property the contamination may exist. This assessment is followed by a *Site Investigation* during which samples are taken to verify the existence of contamination. Often, the result of this phase will show that the site meets the state's criteria and the case can receive a letter of "No Further Action" which essentially states remediation at the site is complete.*

Remedial Investigation

If the site requires further remediation, it enters the Site Investigation phase. This stage is signified by a thorough series of samples of both soil and groundwater, if needed. It can also involve sampling of properties adjacent to the site; especially when there is an indication that the contamination has traveled off-site. This commonly happens when groundwater has been contaminated, and less frequently, soil of adjacent sites is contaminated.

When contamination moves off-site, the responsible party will request permission of the adjacent landowners to come onto their properties to do sampling. This permission is granted through an agreement and basically authorizes the responsible party to sample the soil and the groundwater on adjacent properties.

In the event that contamination has migrated onto adjacent properties, the regulations obligate remediation of those properties. This remediation can take several forms. If the contamination is limited to the surface (generally considered the first five feet of soil), it is removed and replaced with clean soil. If the contamination is deeper, either the soil can be replaced or it can be left in place with a *deed restriction*. A deed restriction follows the property from owner to owner and simply advises

New Jersey Department of Environmental Protection Site Remediation and Waste Management 401 East State Street, Trenton, NJ 08625-0413 Phone: 609-984-3081 Fax: 609-292-4401

^{*} An NFA letter is either for the entire site (all contamination removed) or conditional. The conditional letter indicates the type of control in place to ensure protection of public health, safety and the environment. These can be engineering or institutional controls (such as a deed notice). In all cases, the remediation is protective and meets DEP requirements.

any future owners of the existence of the contamination. NJDEP does not allow contamination to remain on site if it poses a threat to human health or the environment.

A third scenario is that contamination from a neighboring site has migrated via groundwater and has not affected the soils of the adjacent property. In this situation, a monitoring well may be required on adjacent properties. This is also done in cooperation with owners and is memorialized through an agreement signed by both the property owner and the responsible party.

Construction

The final phase of remediation comes after the site has been thoroughly investigated: samples are analyzed and the results have been verified. The plan for conducting the remediation has been submitted, reviewed and approved by the NJDEP Case Manager. These steps often require a lot of time, but once they are completed, the physical cleanup activities can begin.

Based on the approved plan, the remediation can follow one of several tracks. The most familiar is that of removal. In this situation, all of the contamination is to be physically removed from the site and disposed of at a permitted landfill or other disposal facility. A second type of cleanup involves leaving some or all of the contamination on site, presuming the plan provides an acceptable way of ensuring that neither the public nor the environment will suffer future harm from the materials left behind. This type of cleanup requires engineering controls and obligates the remediating party to track the site and monitor the site on a regular basis to ensure the integrity of the controls and to show that the controls continue to be protective. This is often the solution when ground water is impacted. In these instances, remediation is conducted over a period of years, and tracked by way of permanent monitoring wells.

Natural attenuation is a third remedial option allowed when the contamination is of the type that can dissipate over time.

Public Notification

Following the guidance of the NJDEP Technical Regulations, the party undertaking the remediation must notify the clerk of the municipality 45 days prior to initiating construction. This allows municipal officials time to notify anyone they deem appropriate and make any local arrangements for the additional traffic or to meet other local concerns.

New Jersey Department of Environmental Protection Site Remediation and Waste Management 401 East State Street, Trenton, NJ 08625-0413 Phone: 609-984-3081 Fax: 609-292-4401

Finishing the Job

After the construction is completed, the NJDEP Case Manager will review the case one last time and make a determination of completion. If the site has been properly remediated, the Case Manager can direct that a letter of No Further Action be granted, and the property can be reused.

Reuse of Remediated Properties

Many communities think all remediated sites are 'brownfields' - underutilized old industrial or commercial properties that will live again as business establishments. In reality, remediated properties have a multitude of uses ranging from housing to schools to permanently preserved open space and parks. The technical regulations include a long-term monitoring program for any property where contamination is controlled on site and properly covered.

Information

A key element to the long-term success of a remediation is having access to information about these sites. The NJDEP is committed to providing citizens with the best information possible through a number of channels.

First and foremost, residents are encouraged to call the Office of Community Relations (OCR) and speak to a member of the staff. These specially trained professionals can quickly access information about sites from our databases, give you answers to many questions about site remediation generally and often about individual cases where they are actively involved. They also work as partners with Case Managers on technical teams for cases where there is community interest in a site. OCR staff can be reached at (609) 984-3081.

An increasingly popular means of getting information is through the NJDEP Internet website. The SRWM site is www.nj.gov/dep/srp. Community Relations hosts a website designed to respond to community issues. This site can be reached via www.nj.gov/dep/srp/community, with links to a list of cases with OCR involvement www.nj.gov/dep/srp/community/sites.

Those who wish to be on a mailing list for remediation updates may call and register with the Office at 1-800-253-5647.

February 22, 2005

New Jersey Department of Environmental Protection Site Remediation and Waste Management 401 East State Street, Trenton, NJ 08625-0413 Phone: 609-984-3081 Fax: 609-292-4401