Penn State Environmental Law Review

Volume 5 | Number 1 Article 3

1-1-1996

The New Greenfields Legislation: A Practitioner's Guide to Recycling Old Industrial Sites

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I. Introduction

"Man strides over the earth, and deserts follow in his footsteps."

-Ancient Proverb[1]

It is an age-old phenomenon, but it is happening at a futuristic pace. "Greenfields"[2] are "browning"[3] at an incredible rate. One commonly cited explanation for this phenomenon is that industrial concerns purchase property, contaminate it over a period of years, and then move on or go out of business. The enormous potential for liability connected with such sites makes them improbable candidates for sale, and they lie dormant and unused.[4] New companies, or existing companies looking to expand, will compare "brownfields"[5] to greenfields, note the potential for enormous liability associated with brownfields, and choose the cleaner greenfield sites. Inevitably the greenfields become contaminated, and over time, this process converts greenfields into brownfields.

An overwhelming consensus that the tide of industrial migration must be turned back, combined with Governor Tom Ridge's strong push for environmental compromise, has culminated in the passage of new legislation. This new "greenfields legislation" is designed to promote and facilitate the recycling of industrial sites by providing for funding, clearly delineated cleanup standards, and limited liability for remediators, purchasers, and lenders. This Article analyzes the new legislation and explains the practical applications of its provisions.

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[1] *Quoted in* BRUCE PIASECKI & PETER ASMUS, IN SEARCH OF ENVIRONMENTAL EXCELLENCE 31 (1990).

[2] The term "greenfields" is used throughout this Article to refer to virgin sites or regions not yet impacted by industrial development or pollution. This term has gained widespread acceptance in environmental parlance. *See* William Tucker, *Industry Goes Where the Grass is Greener: Superfund Sparks Flight to Suburban Locations*, WASH. TIMES, Nov. 30, 1993, at A9.

[3] The term "browning" is used throughout this Article to refer to the process of developing or contaminating greenfields. *Id.*

[4] *See* Brooke Southall, *Industrial Sites May Turn Green*, CENT. PENN BUS. J., Sept. 22, 1995, at 1, 6 (noting that a property in York, Pennsylvania "would have been developed many times over but for the fear of contamination" from a neighboring site).

[5] The term "brownfields" is used throughout this Article to refer to sites that have been developed or contaminated.

II. The Legislation

On May 19, 1995 Governor Tom Ridge signed three new bills into law: the Land Recycling and Environmental Remediation Standards Act[6] ("Act 2"); the Economic Development Agency, Fiduciary, and Lender Environmental Liability Protection Act[7] ("Act 3"); and the Industrial Sites Environmental Assessment Act[8] ("Act 4"). This legislation has drastically expanded the number of options that are available with respect to contaminated industrial sites.

The centerpiece of the new legislation is Act 2, which creates a new framework for cleanup standards and releases responsible parties from most state law liability when those standards are met. Act 2 also establishes the Industrial Sites Cleanup Fund ("ISCF") to provide financial assistance to innocent parties who did not cause or contribute to contamination, but who voluntarily propose to undertake cleanup activities. Act 2 is supplemented by Act 3 and Act 4. Act 3 limits the liability of lenders, fiduciaries, and economic development agencies. Act 4 authorizes funding to municipalities for conducting environmental assessments in municipalities which the Department of Commerce ("DOC") has designated as distressed.[9]

The three acts work hand in hand. Acts 2 and 4 provide for funding to facilitate environmental assessments, determine which areas would benefit from the legislation, and finance remediation. Acts 2 and 3 establish a framework for setting cleanup standards and provide for limited liability for those who undertake to clean up, or finance the cleanup of, industrial sites.

A. Funding

Three distinct funds have been set up by the new legislation: the Industrial Land Recycling Fund ("ILRF"), the Industrial Sites Cleanup

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[6] Pub. L. 4, No. 2, 1995 Pa. Legis. Serv. 21 (Purdon) (codified at 35 PA. STAT. §§ 6026.101-.908 (1993 & Supp. 1996)).

[7] Pub. L. 33, No. 3, 1995 Pa. Legis. Serv. 43 (Purdon) (codified at 35 PA. STAT. §§ 6027.1-.14 (1993 & Supp. 1996)).

[8] Pub. L. 43, No. 4, 1995 Pa. Legis. Serv. 51 (Purdon) (codified at 35 (1993 & Supp. 1996) PA. STAT. 6028.1-.5(1993 & Supp. 1996)).

[9] *See* PENNSYLVANIA DEP'T OF COMMERCE DISTRESSED MUNICIPALITIES LIST, February 1993 (supplying the criteria used in evaluating municipalities and an 11-page list of those municipalities which already have been designated as distressed) (on file with the author).

Fund ("ISCF"), and the Industrial Sites Environmental Assessment Fund ("ISEAF"). The ILRF was established by Act 2 and is used by the Department of Environmental Protection ("DEP") to implement the provisions of Act 2.[10] It is an administerial fund that is not accessible by the public.[11]

The ISCF was also established by Act 2. Administered by the DOC, its purpose is to provide financing to innocent[12] persons who propose to conduct voluntary cleanups.[13] The legislature provided for the transfer of fifteen million dollars from the Hazardous Sites Cleanup Fund ("HSCF")-[14] to the ISCF.[15]

Responsibility for administering the ISEAF, created by Act 4, was also given to DOC. Act 4 provides for the annual transfer of two million dollars from the HSCF to the ISEAF.[16] The DOC has implemented the Industrial Sites Reuse Program ("ISR") to administer the funds delegated to it under the authority of the ISCF and the ISEAF. Thus, practitioners working with either of these funds should consult the ISR guidelines[17] promulgated by the DOC.

1. The Industrial Sites Reuse Program

ISR financial assistance consists of low-interest loans and grants for conducting environmental assessments or remediation. Grants are directly available only to certain political subdivisions.[18] However, those political

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[10] 35 PA. STAT. § 6026.701(b).

[11] 35 PA. STAT. § 6026.701(a),(b).

[12] Innocent persons are those persons who "did not cause or contribute to the contamination on property used for industrial activity on or before the effective date of" Act 2. § 6026.702(b)

[13] *Id.*

[14] Hazardous Sites Cleanup Act, 35 PA. STAT. § 6020.901 (1995).

[15] § 6026.702(g).

[16] § 6028.4.

[17] PENNSYLVANIA DEPARTMENT OF COMMERCE, INDUSTRIAL SITES REUSE PROGRAM: PROGRAM GUIDELINES (1995) [hereinafter INDUSTRIAL SITES].

[18] Grants for environmental assessments are available to municipalities, counties, municipal authorities, redevelopment authorities, and economic development agencies applying for projects located in targeted communities or cities of the first class (Philadelphia), second class (Pittsburgh), second class A (Scranton), and third class (Aliquippa, Allentown, Altoona, Arnold, Beaver Falls, Bethlehem, Bradford, Butler, Carbondale, Chester, Clairton, Coatesville, Corry, DuBois, Duquesne, Easton, Erie, Farrell, Franklin, Greensburg, Harrisburg, Hazelton, Hermitage, Jeannette, Johnstown, Lancaster, Lebanon, Lock Haven, Lower Burrell, McKeesport, Meadville, Monessen, Monongahela, Nanticoke, New Castle, New Kensington, Oil City, Pittston, Pottsville, Reading, Shamokin, Sharon, St. Marys, Sunbury, Titusville, Uniontown, Warren, Washington, Wilkes-Barre, Williamsport, and York). Grants for environmental remediation are available only to municipalities, counties, municipal authorities, redevelopment authorities, and economic

subdivisions may apply for grants for environmental assessments (but not remediation) on behalf of private companies, investors, or developers.[19] All eligible[20] applicants may apply for loans for environmental assessments and remediation.

The most important limitation on eligibility is that funds are only available to "applicants who did not cause or contribute to environmental contamination at sites where industrial activity was conducted prior to July 18, 1995."[21] This limitation appears to be ambiguous[22] because it is susceptible to two different interpretations: (1) It could be read to disqualify those who caused or contributed to contamination prior to July 18, 1995, or (2) it could be read to disqualify all applicants who caused or contributed to contamination on any date. It is not clear from the text of the statute whether the wording "prior to July 18, 1995" refers to the time that contamination was caused or the time that industrial activity was conducted. Guidance in resolving this ambiguity, however, has been provided by DEP, which has adopted the latter interpretation.[23]

A number of other limitations on loans and grants exist. For example, the maximum award for an environmental assessment is the lesser of seventy-five percent of the cost of the assessment or two-hundred thousand dollars per fiscal year.[24] The maximum award for remediation is the lesser of seventy-five percent of the cost of the remediation or one million dollars per fiscal year.[25] Interest rates on all loans are set firmly at two percent.[26] The ISR guidelines also contain a number of unrelated yet important provisions in a section entitled "Other Conditions."[27]

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development agencies that own and will oversee the cleanup of the site. *Id.* at 2, appendix I.

[19] *Id.*

[20] Eligible entities include municipalities, counties, municipal authorities, redevelopment authorities, economic development agencies, private companies, investors, and developers. *Id.* at 1.

[21] Industrial activity is defined as "commercial, manufacturing, public utility, mining, distribution of goods and services, research and development, warehousing, stockpiling of raw materials, storage or repair and maintenance of commercial machinery and equipment, and solid waste management." *Id.* at 1.

[22] Another ambiguity exists in the phrase "cause or contribute to," which is not defined in the program guidelines.

[23] DEP'T OF ENVTL. PROTECTION, LAND RECYCLING PROGRAM TECHNICAL GUIDANCE MAN. 11 (1995) [hereinafter MANUAL].

[24] INDUSTRIAL SITES, *supra* note 17, at 4.

[25] *Id.*

[26] *Id.* at 4.

[27] The "Other Conditions" include:

A. The applicant must demonstrate that the proposed project complies with local land use, zoning, and subdivision ordinances.

2. *Application Procedures*

To apply for financial assistance, one must submit a letter of Intent ("LOI") to the DOC. Certain information must be contained in the LOI.[28] Both the DOC and DEP will review each LOI to determine that the applicant is eligible, and the DOC will notify the applicant of the decision within 30 days of receipt.[29] Eligible applicants then receive an ISR application and meet with their DEP Regional Office to discuss the scope of the assessment or remediation.[30]

B. Funds for remediation projects will not be dispersed until the applicant takes title to the land on which remediation will take place.
C. Costs incurred prior to the grant or loan offer being made by the Department of Commerce will be ineligible for reimbursement under the program.
D. The Department of Commerce reserves the right to approve or reject contracts between the applicant and consultants for work that will be paid for with ISR funds.
E. No applicant can make or authorize any substantial change in an approved project without first obtaining consent of the Department of Commerce in writing.
F. The applicants will maintain full and accurate records with respect to the project. The Departments of Commerce and Environmental Protection shall have free access to such records and to inspect all project work, and other relevant data and records. The applicant must furnish upon request of either department all data, reports, contracts, documents, and other information relevant to the project, as may be requested.
G. Applicants will be required to submit a copy of the completed site assessment report to the Department of Commerce before final payment of the grant or loan is made.

Id. at 4-5.

[28] The following information is required to be in the LOI:
1. The legal name of the applicant for IRS funds;
2. A narrative description of the project, including the planned future use of the site or the potential for reuse, and the strategic economic importance of the site;
3. The name of the current owners and operators of the site (type of operation);
4. A description of the applicant's past or present ownership interest in the project site, if any;
5. A narrative description of any known contamination at the site, or an explanation of why there is thought to be contamination at the site;
6. The amount and type (grant or loan) of ISR funds requested, and a description of the work to be performed with ISR funds, i.e. phase I, II [or] III assessments or remediation;
7. An estimate of the total project cost and a breakout of the sources and amounts of matching funds for the project;
8. The name and telephone number of a contact person for the applicant. If any applying for funding on behalf of an investor/developer or private company, include a contact name and phone number of the private company or investor/developer.

Id. at 5-6.

[29] *Id.* at 6.

[30] *Id.*

The DEP Regional Office will determine whether the scope of the assessment or remediation is adequate and of acceptable quality. If an official approval is obtained, the applicant must attach it to the ISR application.[31] The original and one copy of the ISR application (for DEP's review) are then sent to the DOC.[32] The DOC and DEP each review the application independently to ensure compliance with the program requirements, and then the DOC determines if the project is "competitive."[33] The DOC rejects or approves all applications, provides notice thereof, and sends formal offers to those whose applications are accepted.[34] It should be noted that competitive bids must be sought for all work to be funded by the ISR program.[35]

B. Cleanup Standards

The new greenfields legislation has established a framework for adopting cleanup standards. Instead of having generic (frequently pristine "zero-tolerance") cleanup standards arbitrarily imposed, companies now have the option of choosing one of four new standards, or any combination thereof. The new standards include a background standard,[36] a statewide

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[31] *Id.*

[32] *Id.*

[33] Whether or not an application is competitive is determined by the following guidelines:

A. Funds will be awarded on a competitive basis. Funding priority will be given to projects:

1. Where contamination is reasonably suspected or known to exist;
2. At sites for which there is a bona fide prospective purchaser, and/or at sites that present the greatest potential for redevelopment;
3. Which are local or regional development priorities;
4. Which will result in the clean-up of contamination that is significantly affecting the environment;
5. Which have secured a high level of matching investment from other private and public sources.

B. Applications will also be evaluated on the basis of the following criteria:

1. The permanence of the remedy;
2. The financial need of the applicant;
3. The ability of the applicant to repay the loan;
4. Cost effectiveness of the project;
5. The financial or economic distress of the area in which the project is being conducted;
6. Project readiness.

Id. at 5.

[34] *Id.* at 7.

[35] Before it will execute approved agreements, the DOC requires "a list of all contractors submitting proposals; signed contracts with the successful bidder which contain the Commonwealth's Non-discrimination Clause; and a final project cost-funding breakdown." *Id.*

[36] § 6026.302.

health standard,[37] a site-specific standard,[38] and a "special industrial area" standard.[39] These standards allow for increased flexibility in developing remediation strategies. The importance of these standards is twofold. First, defined standards allow for increased certainty and planning on the part of responsible persons. Second, Act 2 provides for limited liability once the standards have been attained.

1. Background Standard

The background standard is defined as "[t]he concentration of a regulated substance determined by appropriate statistical methods that is present at the site, but is not related to the release of regulated substances at the site."[40] Thus, an owner is not held accountable for cleaning up contaminants that are found to be either naturally occurring at the site or the result of off-site releases. Where the background standard is utilized, it must be met for each contaminant in each medium (*i.e.*, soil, surface water, groundwater, and air).[41] Attainment of a background standard must be documented by collection and analysis of samples and reported to DEP.[42] Although institutional controls such as fencing and future land use restrictions may not be used to attain background standards, they may be used to maintain them following the initial remediation activities.[43]

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[37] § 6026.303.

[38] § 6026.304.

[39] § 6026.502.

[40] § 6026.103.

[41] § 6026.302(a).

[42] A final report documenting attainment of the background standard shall include, "as appropriate":

> (i) The descriptions of procedures and conclusions of the site investigation to characterize the nature, extent, direction, volume and composition of regulated substances.
>
> (ii) The basis for selecting environmental media of concern, descriptions of removal or decontamination procedures performed in remediation, summaries of sampling methodology and analytical results which demonstrate that remediation has attained the background standard.

§ 6026.302(b)(2).

Where a contaminant is not removed or treated to the background standard, the final report shall demonstrate that any remaining contaminants on the site will meet statewide health standards and show compliance with any postremediation care requirements that may be needed to maintain compliance with the statewide health standards. *Id.* § 302(b)(3).

[43] § 6026.302(b)(4).

2. *Statewide Health Standards*

Statewide health standards will be determined by assessing human health considerations. They have the advantage of being readily ascertainable and are not dependent on the idiosyncrasies of a particular site. Act 2 directs the Environmental Quality Board ("EQB") to adopt health-based standards for all regulated substances in each environmental medium.[44] The legislature delineated detailed guidelines which govern the creation of the standards by EQB.[45] Statewide health standards which are numerically less than the background standards need not be met.[46] Attainment of statewide health standards must be demonstrated by collection and analysis, or by other methods "generally recognized as appropriate," and submitted in a final report.[47] Although institutional controls such as fencing and future land use restrictions may not be used to attain statewide health standards, they may be used to maintain them following the initial remediation activities.[48]

3. *Site-specific Standards*

Site-specific standards can be specifically tailored to individual sites, taking into account each site's own unique characteristics, contaminants,

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[44] EQB is directed to include any existing numerical residential and nonresidential health-based standards previously adopted by the state or federal government and to propose by regulation (by July 18, 1996) other medium-specific concentrations. Standards may not be more stringent than federal standards and the methods used to calculate the standards must also be published. § 6026.303(a).

[45] § 6026.303(b),(c).

[46] Instead the person need meet only the background standard for any substance where the statewide health standard is numerically less than the background standard for that substance. § 6026.303(d).

[47] The Act specifies that a final report documenting attainment of the statewide health standard must be submitted to "the department," § 6026.303(e)(2), which is defined as DER or its successor agency (DEP), § 6026.103. The final report shall include the following:

> the descriptions of procedures and conclusions of the site investigation to characterize the nature, extent, direction, rate of movement of the site and cumulative effects, if any, volume, composition, and concentration of contaminants in environmental media, the basis for selecting environmental media of concern, documentation supporting the selection of residential or nonresidential exposure factors, descriptions of removal or treatment procedures performed in remediation, summaries of sampling methodology and analytical results which demonstrate that contaminants have been removed or treated to applicable levels and documentation of compliance with postremediation care requirements if they are needed to maintain the Statewide health standard.

§ 6026.303(e)(2).

[48] § 6026.303(e)(3).

and level of human exposure. Because this standard is likely to be less stringent than background or statewide health standards, it requires the responsible person to jump through a more extensive series of hoops in the investigation, public notice, and reporting procedures. Despite these drawbacks, the site-specific standard is a very tempting option for those who are unable to comply with background or statewide health standards.

Explicit limitations exist when developing site-specific standards for carcinogens or systemic toxicants. For carcinogens, soil and groundwater cleanup standards must be set at exposures that represent an upper-bound lifetime risk of developing cancer in between 1 in 10,000 and 1 in 1,000,000 human beings.[49] For systemic toxicants, soil and ground cleanup standards must be set at levels which human beings can be exposed to on a daily basis without "appreciable risk of deleterious effect."[50]

In addition to the limitations on carcinogens and systemic toxicants, other limitations pertain to the establishment of standards for groundwater and soil. A procedure for establishing site-specific standards for groundwater in aquifers is specifically set forth.[51] Groundwater not located in aquifers is regulated less stringently. It must be evaluated by examining the possible exposure scenarios and taking "appropriate management actions."[52]

"Where direct contact exposure to the soil may reasonably occur," site-specific standards for soil must not exceed the values set for carcinogens and systemic toxicants, presupposing human ingestion of the soil.[53] In the absence of a reasonable probability of human ingestion of the soil, soil standards need be only as stringent as those required to protect groundwa-

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[49] § 6026.304(b).

[50] § 6026.304(c). The act further states:

> Where several systemic toxicants affect the same target organ or act by the same method of toxicity, the hazard index shall not exceed one. The hazard index is the sum of the hazard quotients for multiple systemic toxicants acting through a single-medium exposure pathway or through multiple-media exposure pathways.

Id.

[51] The procedure is as follows:

> (i) The current and probable future use of groundwater shall be identified and protected. Groundwater that has a background total dissolved solids content greater than 2,500 milligrams per liter or is not capable of transmitting water to a pumping well in usable and sustainable quantities shall not be considered a current or potential source of drinking water.
>
> (ii) Site-specific sources of contaminants and potential receptors shall be identified.
>
> (iii) Natural environmental conditions affecting the fate and transport of contaminants, such as natural attenuation, shall be determined by appropriate scientific methods.

§ 6026.304(d)(1).

[52] § 6026.304(d)(2).

[53] § 6026.304(e).

ter in aquifers or to ensure that discharges to outdoor air or surface water comply with the laws and regulations applicable to such discharges.[54] Finally, Act 2 lists four factors that must be considered in any determination of site-specific soil or groundwater cleanup standards.[55]

Site-specific standards may be attained through a wide variety of remediation techniques (including combinations).[56] However, DEP is specifically directed to reject plans which consist solely of fencing, warning signs, or future land use restrictions.[57] Remediation alternatives and a final remedy must be submitted to DEP in a final remediation plan, which must contain a detailed analysis of the various remediation alternatives.[58]

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[54] § 6026.304(e), (g).

[55] The factors are as follows:

(1) Use of appropriate standard exposure factors for the land use of the site with reference to current and currently planned future land use and the effectiveness of institutional or legal controls placed on the future use of the land.

(2) Use of appropriate statistical techniques, including, but not limited to, Monte Carlo simulations, to establish statistically valid cleanup standards.

(3) The potential of human ingestion of regulated substances in surface water or other site-specific surface water exposure pathways, if applicable.

(4) The potential of human inhalation of regulated substances from the outdoor air and other site-specific air exposure pathways, if applicable.

§ 6026.304(f).

[56] The act explicitly approves of "innovative" measures. § 6026.304(i).

[57] There is an exception whereby a plan consisting solely of fencing, warning signs, or future land use restrictions may be acceptable if the "site-specific standard is developed on the basis of exposure factors which are no less stringent than those which would apply to the site at the time the contamination is discovered." § 6026.304(i).

[58] The following factors must be evaluated for each of the proposed remedies:

(1) Long-term risks and effectiveness of the proposed remedy that includes an evaluation of:

(i) The magnitude of risks remaining after completion of the remedial action.

(ii) The type, degree and duration of post remediation care required, including, but not limited to, operation and maintenance, monitoring, inspections and reports and their frequencies or other activities which will be necessary to protect human health and the environment.

(iii) Potential for exposure of human and environmental receptors to regulated substances remaining at the site.

(iv) Long-term reliability of any engineering and voluntary institutional controls.

(v) Potential need for repair, maintenance or replacement of components of the remedy.

(vi) Time to achieve cleanup standards.

(2) Reduction of the toxicity, mobility or volume of regulated substances, including the amount of regulated substances that will be removed, contained, treated or destroyed, the degree of expected reduction in toxicity, mobility or volume and the type, quantity, toxicity and mobility of regulated substances remaining after implementation of the remedy.

(3) Short-term risks and effectiveness of the remedy, including the short-term risks that may be posed to the community, workers or the environment during implementation

To obtain compliance with a site-specific standard, a remedy approved by DEP must have been utilized to achieve the soil, groundwater, surface water, and air emission standards set forth in § 6026.304.[59] Compliance with a site-specific standard must be proven by collection and analysis of samples from the "applicable" affected media or by any of "those methods of attainment demonstration generally recognized as appropriate for that particular remediation."[60]

4. Special Industrial Areas

An alternative to the three above-mentioned standards is found in the provisions on special industrial areas. "Special industrial areas" are areas where there is either (1) no financially viable responsible person to clean up a contaminated industrial site, or (2) land located within Enterprise Zones designated by the Department of Community Affairs ("DCA").[61] To take advantage of the special industrial areas provisions, a person must not have caused or contributed to releases of contamination at the site, must comply with public review provisions, and must be undertaking remediation activities.[62]

The special industrial area provisions offer qualified persons the option to conduct a radically different cleanup than is possible under the other Act 2 standards. Cleanups under the special industrial areas provisions need only address contamination within the boundaries of the property, whereas cleanups under the other Act 2 standards must address contamina-

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of the remedy and the effectiveness and reliability of protective measures to address short-term risks.

(4) The ease or difficulty of implementing the proposed remedy, including commercially available remedial measures which are BADCT, degree of difficulty associated with constructing the remedy, expected operational reliability, available capacity and location of needed treatment, storage and disposal services for wastes, time to initiate remedial efforts and approvals necessary to implement the remedial efforts.

(5) The cost of the remediation measure, including capital costs, operation and maintenance costs, net present value of capital and operation and maintenance costs and the total costs and effectiveness of the system.

(6) The incremental health and economic benefits shall be evaluated by comparing those benefits to the incremental health and economic costs associated with implementation of remedial measures.

§ 6026.304(j).

[59] § 6026.304(k).

[60] § 6026.304(k)(2).

[61] § 6026.305(a).

[62] § 6026.305(a), (c).

tion throughout the entire "site" (frequently a much larger region).[63] Furthermore, it appears that greatly reduced standards will apply to cleanups within the boundaries of special industrial areas.

There is, however, a conflict within the text of Act 2 regarding the degree to which special industrial areas must be cleaned up. Section 6026.305(a) mandates that "[a]ny environmental remediation undertaken pursuant to this section shall comply with one or more of the standards established in this chapter."[64] Because the standard for special industrial areas is set forth in chapter 5, instead of chapter 3, this would appear to require compliance with the background, statewide health, or site-specific standards set forth in chapter 3.[65] Section 6026.502(b)(1), however, appears to dispense with that requirement by providing for limited liability even where a background, statewide health, or site-specific standard has not been met: "The person shall *only* be responsible for remediation of any immediate, direct or imminent threats[66] to public health or the environment, such as drummed waste, which would prevent the property from being occupied for its intended purpose."[67] Furthermore, reading a requirement of compliance with one of the other three standards into the special industrial area standard would render the special industrial area provisions meaningless in most cases. Therefore, the better interpretation is that the special industrial area standard set forth in chapter 5 can be

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[63] MANUAL, *supra* note 23, ch. 3, at 15 (1995). "Site" is defined as "the extent of contamination originating within the property boundaries and all areas in close proximity to the contamination necessary for the implementation of remediation activities to be conducted" under Act 2. § 6026.103. A "site", therefore, has the potential to extend beyond the boundary lines of the property. The background, statewide health, and site-specific standards all apply to the entire site, whereas persons cleaning up special industrial areas need only clean up contamination within the boundary lines of their property. MANUAL, *supra* note 23, ch.3, at 15. Although contamination emanating from the property need not be cleaned up, the property owner must "cooperate" with any efforts to address it. *Id.*

[64] § 6026.305(2).

[65] The standard for special industrial areas is set forth in § 6026.502.

[66] Further guidance on the types of imminent threats that would be required to be cleaned up is available in DEP's technical manual. The manual states:

> Cleanups in special industrial areas must meet the following requirements on the property: (1) cleanups may utilize treatment, storage, containment or control methods, or any combination of the above; (2) cleanups must address all containerized waste at the property in accordance with applicable regulations; (3) soil that is available for direct contact must meet the human health protection goals established elsewhere in the act; (4) removal of any uncontainerized waste that is posing an imminent, immediate or direct threat based on the plans for reuse of the property; and (5) if groundwater is to be used at the property, the groundwater must either be remediated in ground or at the point-of-use so that it is safe for its intended use.

MANUAL, *supra* note 23, ch. 3, at 15.

[67] § 6026.502(b)(1).

viewed as a chapter 3 standard by incorporating it into the special industrial area provisions contained in chapter 3.[68]

Assuming, then, that only remediation of immediate, direct, or imminent threats located on the property will be required for eligible special industrial areas, these provisions provide a radically different and extremely attractive option for persons dealing with contaminated sites.

C. Limited Liability

The goal of attaining any of the above-mentioned standards is to obtain limited liability. The greenfields legislation contains several different types of liability limitations. Act 3 provides for limited liability for economic development agencies,[69] lenders,[70] and fiduciaries.[71] Act 2 provides for limited liability for owners, developers, and others who clean up property or come to own or occupy cleaned up property.[72] Act 2 also provides a special category of limited liability for "special industrial areas."[73]

1. Limiting Liability with Background, Statewide Health, or Site-specific Standards

Although economic development agencies, fiduciaries, and lenders will want to look to Act 3, most other persons will focus on the limited liability available under Act 2. Act 2 provides:

> Any person demonstrating compliance with the environmental remediation standards established in Chapter 3 shall be relieved of further liability for the remediation of the site under the statutes outlined in section 106[74] for any contamination identified in reports submitted to and approved by the department to demonstrate compliance with these standards and shall not be subject to

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[68] The special industrial area provisions in chapter 3 are found at § 6026.305.

[69] § 6027.4.

[70] § 6027.5.

[71] § 6027.6.

[72] See *infra* note 75 and accompanying text.

[73] See *infra* notes 78-86 and accompanying text.

[74] The statutes outlined in § 106 are the Clean Streams Law, 35 PA. STAT. §§ 691.1-760.2 (1995), the Hazardous Sites Cleanup Act, 35 PA. STAT. § 6020.101-.1305 (1995), the Air Pollution Control Act, 35 PA. STAT. §§ 4001-4013.5 (1995), the Solid Waste Management Act, 35 PA. STAT. § 6018.101-.1003 (1995), the Infectious and Chemotherapeutic Waste Law, 35 PA. STAT. § 6019.1-.6 (1995) and the Storage Tank and Spill Prevention Act, 35 PA. STAT. § 6021.101-.2104 (1992). § 2026.106.

citizen suits or other contribution actions brought by responsible persons. The cleanup liability protection provided by this chapter applies to the following persons:

> (1) The current or future owner of the identified property or any other person who participated in the remediation of the site.
>
> (2) A person who develops or otherwise occupies the identified site.
>
> (3) A successor or assign of any person to whom the liability protection applies.
>
> (4) A public utility to the extent the public performs activities on the identified site.[75]

Note that the limitation on liability applies only where the remediation standards established in chapter 3 of Act 2 have been attained. It is therefore imperative that cleanups meet the standards set forth in chapter 3.[76] Limited liability may not be realized where different standards are utilized. Since the statewide health standards provided for in chapter 3 do not yet exist for soil, there can be no guarantee of limited liability for a person who chooses to remediate soil using statewide health standards until those standards are adopted in accordance with the procedures delineated in chapter 3.[77]

2. *Limiting Liability in Special Industrial Areas*

Special procedures must be followed to take advantage of the limited liability available under Act 2's special industrial areas provisions. The first step for eligible persons involved with eligible[78] sites is to submit a workplan for a baseline remedial investigation of the property to DEP.[79] Upon approval of the workplan, the baseline remedial investigation should be conducted and a baseline environmental report submitted to DEP to

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[75] § 6026.501(a).

[76] The cleanup standards set forth in Chapter 3 include the background standard, statewide health standard, and site-specific standard, or any combination of these three standards. § 6026.-301(a), (b).

[77] Interim standards for soil have been created by DEP. For a list, see MANUAL, *supra* note 23, appendix B2. *See also Id.* ch. III. at 3.

[78] For discussion of the eligibility of sites and persons, see discussion, *supra* part II-B.

[79] § 6026.305(b). Suggested formats for the workplan and baseline investigation are provided in the DEP technical manual. MANUAL, *supra* note 23, ch. 2, at 4-10.

establish the extent of existing contamination on the property.[80] Before any remediation activities are conducted, the public notice and review process must be initiated by the filing with DEP of a notice of intent to remediate ("NIR").[81] DEP reviews the baseline environmental report, and if the report is approved, enters into an agreement that outlines the cleanup liability for the property.[82] Persons included in such an agreement shall not "be subject to a citizen suit, other contribution actions brought by responsible persons not participating in the remediation of the property or other actions brought by [DEP] with respect to the property except those which may be necessary to enforce the terms of the agreement."[83]

More important, the statute explicitly states that persons covered by special industrial area agreements are *only* responsible for remediating immediate, direct, or imminent threats that would prevent the property from being occupied for its intended purpose.[84] Such persons need not conduct any further remediation of any contamination that has been identified in the environmental report, but do not receive protection from liability for subsequently caused contamination.[85] Innocent successors and assigns receive the same liability protection enjoyed by their predecessors.[86]

3. *Drawbacks to Act 2 Limited Liability*

Although the limitation of liability provided by Act 2 is clearly beneficial, there are some drawbacks. First, by its very nature as a law of the Commonwealth of Pennsylvania, Act 2 cannot override more stringent federal laws. Therefore, one who complies with the letter of Act 2 could

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[80] The statute says the baseline remedial investigation should be "conducted on the property," but then says that the baseline environmental report should show "existing contamination on the site." §6026. 305(b). Guidance in resolving this ambiguity may be found in the technical manual, which states that the BRI must be conducted on the "property" and does not use the term "site." MANUAL, *supra* note 23, ch. 3, at 15.

[81] § 6026.305(c)(1). The entire notice and review procedure, discussed *infra*, must be completed to obtain limited liability.

[82] § 6026.305(d), (e).

[83] § 6026.502(a).

[84] § 6026.502(b)(1).

[85] § 6026.502(b)(2), (b)(3). It is advisable to conduct an extremely thorough investigation in order to maximize the protection obtained with respect to existing contamination on the property. It would be extremely difficult to distinguish undiscovered contamination from subsequently caused contamination, which is explicitly excluded from the limited liability provisions. §§ 6026.504, 502(b)(3).

[86] § 6026.502(d).

conceivably still be subject to liability under federal laws, including citizen suits. The Act addresses this shortcoming to some degree by stating that "the remediation standards established under this act shall be considered as applicable, relevant and appropriate requirements for this Commonwealth under" HSCA and the Comprehensive Environmental Response, Compensation and Liability Act.[87] However, it has yet to be demonstrated conclusively that the Environmental Protection Agency ("EPA") will abide by the Act's mandate, and this provision does not preclude liability under other federal laws.

Another drawback for those taking advantage of Act 2 is that the Act contains five reopener provisions for fraud, newly discovered — possibly preexisting — contamination, failure to meet the chosen cleanup standards, changed exposure circumstances, and previously non-industrial sites contaminated after the Act's effective date.[88] All of these reopener provisions are important and should be examined carefully. An important caveat here, however, is that Act 2 provides limited liability only for the extent of contamination that is known, reported to DEP, and approved of by DEP. Act 2's limited liability would not protect a responsible party from liability for subsequently discovered contamination at levels above those set by the Act - even if that party was a subsequent purchaser who did not cause or contribute to the contamination. Therefore, one should always complete a thorough site investigation before relying on the limited liability provisions of Act 2.

D. Public Participation

Act 2 contains a number of provisions designed to facilitate public involvement in cleaning up contaminated sites. For instance, all reports and notices required under the Act must contain a summary or special "plain language" section that can be easily understood by the public.[89] More specific public notice requirements correspond to the particular cleanup standards chosen. The public notice requirements pertaining to background and statewide health standards are identical. As an incentive for speedy remedial action, no public notice is required where the

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[87] § 6026.106(a). The language used by the Act intentionally mirrors the language found in the CERCLA requirement that remediation comply with "applicable" or "relevant and appropriate requirements." Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9621 (1988 & Supp. 1993).

[88] § 6026.505. Act 2 was signed into law on May 19, 1995 and took effect 60 days later on July 18, 1995. Pub. L. 4, No. 2, § 909, 1995 Pa. Legis. Serv. 21, 43 (Purdon).

[89] § 6026.901.

person conducting the remediation submits a final report demonstrating attainment of either standard within 90 days of a release that occurred after July 18, 1995.[90] If, however, the standards will not be met within 90 days or the release occurred prior to July 18, 1995, the formal notice procedures should be followed.[91]

The first step in the formal notice process is to submit a notice of intent to remediate ("NIR") to DEP and to the municipality in which the site is located.[92] A summary of the NIR must be published in a newspaper of general circulation in the community where the site is located.[93] DEP must then acknowledge receipt of the NIR by publishing in the *Pennsylvania Bulletin* an acknowledgment of receipt of the NIR.[94] The municipality must again be notified when the final report demonstrating attainment is submitted to DEP, and notice of that fact also must be published in the newspaper and Pennsylvania Bulletin.[95]

The public notice requirements for sites utilizing site-specific or special industrial area standards are more extensive. All of the notice requirements applicable to background or statewide health standards also apply to site-specific and special industrial area standards.[96] Where site-specific standards or special industrial areas are involved, however, the standard public notices are followed by a 30-day public comment period.[97] During this period, municipalities may require public involvement in the planning of the various stages of the investigation and cleanup.[98] Additional public notice requirements are triggered every time that a remedial investigation report, risk assessment report, cleanup plan, or final report is submitted to DEP.[99] Finally, the provision waiving the public notice requirements

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[90] §§ 6026.302(e)(4),.303(h)(4). July 18, 1995 is the effective date of the legislation. See *supra* note 88.

[91] Where there is any chance that the background or statewide health standards will not be met within 90 days of the release, the notice provisions should be followed. This is prudent because the Act makes no provision for those who do not provide notice and then are unable to comply with the standards within 90 days.

[92] The notice of intent to remediate must include, "to the extent known," a brief description of the site, the contamination present, the proposed remediation measures, and a description of the intended future use of the property (employment opportunities, housing, open space, recreation, or other uses). §§ 6026.302(e)(1)(i), .303(h)(1)(i).

[93] §§ 6026.302(e)(1)(ii), .303(h)(1)(ii).

[94] §§ 6026.302(e)(1)(i), .303(h)(1)(i).

[95] §§ 6026.302(e)(2), .303(h)(2).

[96] §§ 6026.304(n)(1)(i), .305(c)(1).

[97] §§ 6026.304(n)(1)(ii), .305(c)(2).

[98] §§ 6026.304(n)(1)(ii), .304(o), .305(c)(2).

[99] The additional public notice requirements are as follows:

(i) When the report or plan is submitted to the department, a notice of its submission shall be provided to the municipality in which the site is located, and a notice

pertaining to background or statewide health standards where compliance is demonstrated within 90 days does not apply to the site-specific or special industrial area standards.[100]

Act 2 also contains provisions pertaining to the deed notices required by the Solid Waste Management Act ("SWMA")[101] and the Hazardous Sites Cleanup Act ("HSCA").[102] Deed notices under these two acts will not be required of persons demonstrating attainment of the background or residential statewide health standards. In addition, pre-existing notices may be removed upon attainment of those standards.[103] This provision has the potential to facilitate the sale of properties that have been burdened with deed notices in the past. Deed notices, however, will continue to be required under the terms of HSCA and SWMA for persons utilizing nonresidential statewide health standards, site-specific standards, and special industrial area standards.[104]

E. Permitting and Other Requirements

Act 2 specifically provides that state and local permits or permit revisions will not be required for on-site remediation activities conducted pursuant to the Act.[105] However, this provision does not eliminate federal permitting requirements.[106] Although federal permitting will still

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summarizing the findings and recommendations of the report or plan shall be published in a newspaper of general circulation serving the area in which the site is located. If the municipality requested to be involved in the development of the remediation and reuse plans, the reports shall also include the comments submitted by the municipality, the public and the responses from the persons preparing the reports and plans.

(ii) The department shall review the report or plan within no more than 90 days of its receipt or notify the person submitting the report of deficiencies. If the department does not respond with deficiencies within 90 days, the report shall be deemed approved.

§ 6026.304(n)(2).

[100] §§ 6026.302(e)(4), .303(h)(4).

[101] Solid Waste Management Act, 35 PA. STAT. § 6018.101-.1003 (1995).

[102] Hazardous Sites Cleanup Act, 35 PA. STAT. § 6020.101-.1305 (1995).

[103] §§ 6026.302(d), .303(g).

[104] §§ 6026.303(g), .304(m), .305(g).

[105] § 6026.902(a).

[106] Many if not most Act 2 remediation activities will require permitting under the Clean Air Act, 42 U.S.C. §§ 7401-7671q (1988 & Supp. 1993), the Clean Water Act, 33 U.S.C. 1251-1387 (1988 & Supp. 1993), and the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-92k (1988 & Supp. 1993). DEP'T OF ENVTL. PROTECTION, LAND RECYCLING PROGRAM FACT SHEET 10: PERMIT REQUIREMENTS FOR CLEANUPS CONDUCTED UNDER ACT 2 (1995).

be required at some sites, DEP has instituted procedures to expedite the federal permitting process pertaining to remedial technology.[107]

Act 2 also contains a provision authorizing DEP to waive "otherwise applicable requirements" in certain enumerated situations.[108] DEP may waive other requirements where compliance with a requirement would result in greater risk to health, welfare, or the environment, where compliance with a requirement would "substantially interfere" with natural or artificial structures or features, where compliance with a requirement would not be cost-effective, and where an equivalent standard can be met through an alternative method.[109] These provisions include a great deal of flexibility. That flexibility is tempered, however, by a provision that prohibits DEP from waiving three of the standards — background, statewide health, and site-specific — created under Act 2.[110]

III. Conclusion

The new greenfields legislation goes a long way towards accomplishing its goals of halting the industrial migration from brownfields to greenfields and facilitating the cleanup and reuse of existing industrial sites. The framework of standards, funding, limited liability, and public participation appears to be workable. Furthermore, there is a strong commitment by DEP and the new administration to work with industry as partners seeking compromise, rather than as adversaries. The biggest drawback is the potential for a site to be subjected to a citizen suit or liability under CERCLA despite having met the standards for Act 2 limited liability. For most sites, however, this is not a very realistic prospect. Thus, a large number of sites across the Commonwealth will be able to safely benefit from the funding, clearly delineated standards, and limited liability offered by the greenfields legislation.**

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[107] *Id.*

[108] § 6026.902(b).

[109] *Id.*

[110] § 6026.902(b)(4).

** This Article was current as of Sept. 1995.