ENVIRONMENTAL & ENERGY LAW SECTION NEWSLETTER

WELCOME FROM THE SECTION CHAIR AND EDITOR-IN-CHIEF

Welcome to our first all-electronic newsletter, and our first as the Environmental and Energy Law Section of the PBA. This is our first of many steps to make the Section respond better to the needs of its members. In the coming months, the Section will be reaching out to you to help us as we try to help you. The Section is here to make it easier for you—the Section members—to be better and more effective lawyers.

Our goal is to produce a newsletter that will help you be a better lawyer and provide you with a new way to communicate to others in our profession. The newsletter is yours and we would love to hear from you on its content. Please help us by commenting on the content, by writing an article, or just telling us how we are doing!

For this first issue, we decided to keep the traditional look and general content of the old newsletter when it was known as the Environmental, Mineral and Natural Resources Law Section Newsletter. Consider it a "throwback" of sorts for our loyal section members. However, you will notice that we have utilized our all-digital format to include myriad hyperlinks throughout the Newsletter. These hyperlinks are clearly identified by their <u>blue text color and underlining</u> and when clicked on will take you to external websites with additional or primary source information about the linked term. Again, this is an example of one way the Section is trying to provide greater resources and relevant knowledge to our section members.

You may also notice that like the old newsletter, this issue is longer than a traditional newsletter. We have again, however, employed measures to make navigating the Newsletter easy and enjoyable. For example, the Table of Contents allows you to "jump" to any content by simply clicking on the name or page number of the content you wish to view. Further, in the coming quarters, the Newsletter Team—with your feedback—will be implementing a new format to condense the length of the Newsletter, while maintaining the same high level of content you expect. We believe that this transition can be achieved by leveraging user-friendly technology to enable you to navigate and consume information important to you quickly and efficiently.

In terms of content, this issue will not disappoint. The first article, written by Ms. Susan Bucknum of the Attorney General's Office, discusses the effect of Act 38, or "ACRE" (Agriculture, Communities and Rural Environment), on farming operations in the State. Second, Mr. Jordan Yeager investigates how drilling companies, local residents, and municipalities interests intersect and are being affected by due process and zoning issues in the Marcellus Shale play. In the third article, the focus remains on Marcellus Shale issues, as Staff Member Matt McDonnell focuses on natural gas compressor station technology and siting. Fourth, Staff Member Mark Wieder explores the need to move forward on energy legislation—but at the federal, regional, or state level...and how? The final article, authored by Staff Member Jon Johnson, argues that Pennsylvania should significantly increase biodiesel use to reduce carbon output.

Following the articles are summaries of new and important legislative and regulatory developments, policies, and court and agency opinions. This is one area where you will notice hyperlinks that will take to you original, full text documents.

We also take this opportunity to thank all those involved in reviving this Newsletter: the PBA Environmental & Energy Law Section; the Widener University School of Law Environmental Law Center; Staff Members Jon Johnson, Matt McDonnell, and Mark Wieder; and Advisors Andrew Bockis, John Dernbach, Michael Shatto, Maxine Woelfling, and Matt Wolford.

It is with great pleasure that we present this first issue of the new Environmental & Energy Law Section Newsletter, which we will continue to publish quarterly. Please feel free to submit comments and suggestions, as well as articles for publication to <u>PBA-EELSnewsletter@mail.widener.edu</u>.

Respectfully,

Philip L. Hinerman Chair, Environmental & Energy Law Section Brandon J. Pierce *Editor-in-Chief*

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EELS Newsletter Staff (left to right): Mark Wieder, Matt McDonnell, Brandon Pierce, Jon Johnson

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Send your material to our <u>email</u> address. Provide sufficient contact information. The editorial staff may make changes for format, length, and content only and in coordination with original author.

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THE OFFICE OF ATTORNEY GENERAL'S ADMINISTRATION OF THE AGRICULTURE, COMMUNITIES AND RURAL ENVIRONMENT (ACRE) STATUTE by Susan L. Bucknum^{*}

Pennsylvania is "a worldwide leader in agricultural, food, and lumber production" and agriculture is one of the Commonwealth's leading industries.¹ In recent decades, as development in rural areas accelerated, conflicts began to arise between new residents and established farmers over farm practices and operations. For example, non-farming residents raised concerns about the threat of pollution when farmers expanded or diversified animal operations or used biosolids to fertilize farm fields.

Municipalities reacted by enacting ordinances to regulate the practices and operations that gave rise to the conflicts. These ordinances often exceeded or were in conflict with existing federal and State regulation of agricultural operations. These layers of conflicting regulations adversely affected farmers' productivity.

To remedy this situation and to ensure the long-term sustainability of agriculture and normal agricultural operations in a manner consistent with State policies and statutes, the Pennsylvania General Assembly, on July 6, 2005, enacted Act 38, also known as "ACRE" (Agriculture, Communities and Rural Environment).² ACRE establishes a framework for farmers to seek review of municipal ordinances regulating normal agricultural operations to ensure the ordinances are not in violation of State law.³ ACRE confers upon the Office of Attorney General: (1) the power and duty to review local ordinances for compliance with State law; and (2) the authority to bring a legal action against a local government unit to invalidate or enjoin the enforcement of an unauthorized local ordinance.⁴

The purpose of ACRE is to protect normal agricultural operations from unauthorized local regulation and to resolve conflicts arising from the regulation of normal agricultural operations at the local level. ACRE is designed to reinforce existing State laws regulating agricultural

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http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGA 0 2 24476 102 0 43/AgWebsite/Pa ge.aspx?name=Pennsylvania-Agriculture&navid=30&parentnavid=0&pageid=22&

² 3 Pa. C.S.A. § 311, et seq.

³ <u>Id.</u> § 312 (defining a "normal agricultural operation" by incorporating the Right to Farm Act's definition for normal agricultural operation at 3 P.S. § 952).

⁴ <u>Id.</u> §§ 314, 315.

operations and practices by providing a cost-effective and efficient means for a farmer to obtain review of an ordinance without having to first go through zoning hearing proceedings or to a common pleas court.

To understand how ACRE has been implemented since 2005, this article will provide an overview of the ACRE review process within the Office of Attorney General, the statutes and regulations that are typically implicated in an ACRE review, and the precedential decisions interpreting the Office of Attorney General's authority under ACRE and the extent of municipal authority to regulate agricultural operations that have been issued by the Supreme and Commonwealth Courts.

FRAMEWORK FOR THE ATTORNEY GENERAL'S ACRE PROGRAM

In response to the enactment of ACRE, the Office of Attorney General developed and implemented a process for receiving requests for review of ordinances, for completing such reviews within the 120-day time period prescribed by the Act, for negotiating with local government units when legal problems with ordinances are identified, and for bringing legal action against a local government unit when such action is warranted.

When the Office of Attorney General receives a request for review of an ordinance, the request is acknowledged and the promulgating municipality is notified.⁵ The review is then conducted by an attorney with expertise in ACRE and the issues it presents.

Upon completion of the review, the farmer and the municipality are notified in writing whether the Office of Attorney General intends to bring legal action to invalidate or enjoin the enforcement of the ordinance.⁶ If the Office intends to bring a legal action, it affords municipal officers an opportunity to discuss the legal problems identified in the review and to correct them before a legal action is brought.

Since the inception of ACRE, 76 requests have been made for review of ordinances. To date, 66 requests have been reviewed and of those, 31 have been accepted for further action. Seven lawsuits have been filed with the Commonwealth Court challenging ordinances as unauthorized.⁷ As detailed further below, one lawsuit resulted in the Commonwealth Court

⁵ <u>Id.</u> § 314(a) (providing that the "owner or operator of a normal agricultural operation may request the Attorney General to review a local ordinance believed to be an unauthorized local ordinance").

⁶ <u>Id.</u> §§ 314(b)-(c), 315(a) (providing that the "Attorney General may bring an action against the local government unit in Commonwealth Court to invalidate the unauthorized local ordinance or enjoin the enforcement of the unauthorized local ordinance").

 ⁷ <u>Commonwealth v. Heidelberg Twp.</u>, 357 M.D. 2006 (Pa. Cmwlth.); <u>Commonwealth v. Locust Twp.</u>, 358 M.D.
 2006 (Pa. Cmwlth.); <u>Commonwealth v. Lower Oxford Twp.</u>, 359 M.D. 2006 (Pa. Cmwlth.); <u>Commonwealth v.</u>

holding that the ordinance violated several State laws and enjoining the township from enforcing it,⁸ and another lawsuit was discontinued after the township amended its ordinance.⁹ The other five lawsuits are currently pending in the Commonwealth Court. The remaining accepted requests have either been resolved through amendment of the ordinance at issue or are the subject of negotiations with the promulgating municipality.

STATE STATUTES COMMONLY INVOKED IN AN ACRE REVIEW

Under ACRE, an "unauthorized local ordinance" is one that a municipality is prohibited or preempted by State law from enacting and that prohibits or limits a normal agricultural operation.¹⁰ Thus, the Office of Attorney General reviews the ordinance to determine if it duplicates, conflicts with, or exceeds State regulatory schemes for normal agricultural operations. The State statutes and regulations that are considered in an ACRE review necessarily depend on the subject matter the municipality is attempting to regulate. The following is an overview of the statutes and regulations that are frequently considered when the Attorney General is reviewing a local ordinance to determine if it is an unauthorized local ordinance.

The Nutrient and Odor Management Act (NOMA) is designed to establish uniform standards to manage nutrients and odors on Concentrated Animal Operations (CAOs) and Concentrated Animal Feeding Operations (CAFOs) across the Commonwealth to prevent the pollution of surface water and groundwater.¹¹ To that end, the NOMA states that "[t]his chapter and its provisions are of Statewide concern and occupy the whole field of regulation regarding nutrient management and odor management, to the exclusion of all local regulations."¹²

The State Conservation Commission (SCC) is "a departmental administrative commission under the concurrent authority of the PA Department of Environmental Protection

<u>Richmond Twp.</u>, 360 M.D. 2006 (Pa. Cmwlth.); <u>Commonwealth v. East Brunswick Twp.</u>, 476 M.D. 2007 (Pa. Cmwlth.); <u>Commonwealth v. Peach Bottom Twp.</u>, 423 M.D. 2009 (Pa. Cmwlth.); <u>Commonwealth v. Packer Twp.</u>, 432 M.D. 2009 (Pa. Cmwlth.).

⁸ <u>Commonwealth v. Richmond Twp.</u>, 2 A.3d 678 (Pa. Cmwlth. 2010).

⁹ Commonwealth v. East Brunswick Twp., 476 M.D. 2007 (Pa. Cmwlth.).

¹⁰ <u>Id.</u> § 312.

¹¹ 3 Pa. C.S.A. §§ 501, et seq., 502.

¹² 3 Pa. C.S.A. § 519(a).

(DEP) and the PA Department of Agriculture (PDA)." ¹³ The SCC administers and enforces the Nutrient and Odor Management Act Program.¹⁴ The SCC promulgated comprehensive nutrient and odor management regulations that provide for preemption of local ordinances that attempt to regulate the practices for nutrient or odor management on CAOs or CAFOs.¹⁵ The SCC's regulations impose uniform nutrient management requirements on CAOs and CAFOs to "[p]rotect the quality of surface water and groundwater."¹⁶

Pursuant to its authority under the Clean Streams Law, the Department of Environmental Protection regulates all agricultural operations that use or produce manure under 25 Pa. Code § 91.36.¹⁷ Section 91.36 imposes requirements for the design, construction, location, and maintenance of manure storage facilities, as well as standards for the land application of manure.¹⁸ DEP imposes additional regulatory requirements for CAFOs pursuant to 25 Pa. Code § 92.5a. DEP's regulatory scheme is designed to establish uniform and comprehensive regulation of agricultural operations to prevent pollution of surface water and groundwater and protect water quality.¹⁹

The Agricultural Area Security Law (AASL) provides for the creation of agricultural security areas (ASA) to protect and preserve the integrity and economic viability of agriculture in the Commonwealth.²⁰ Once a municipality designates farmland as an ASA, the AASL places unique and significant limitations on the municipality's ability to condemn that land in the future, thus ensuring its preservation.²¹ Section 911 of the AASL precludes a municipality from enacting ordinances which would unreasonably restrict farm structures or farm practices within the area.²²

The Right to Farm Act (RTFA) places limitations on municipal authority to regulate agricultural operations in order "to conserve and protect and encourage the development and improvement of [the Commonwealth's] agricultural land for the production of food and other

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http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGA 0_2_24476_10297_0_43/AgWebsite/ OrganizationDetail.aspx?name=State-Conservation-Commission&navid=34&parentnavid=0&orgid=21& ¹⁴ Id.

¹⁵ 25 Pa. Code § 83.201, *et seq.*; 25 Pa. Code § 83.701, *et. seq*.

¹⁶ 25 Pa. Code § 83.203(3).

¹⁷ 35 P.S. § 691.1, et seq.

¹⁸ 25 Pa. Code § 91.36.

¹⁹ 35 P.S. § 691.5; 3 Pa. C.S.A. §§ 502(4), 505.

²⁰ 3 P.S. § 902, et seq.

²¹ 3 P.S. § 913(a)-(b).

²² 3 P.S. § 911.

agricultural products."²³ The RTFA precludes a municipality from regulating normal agricultural operations as a nuisance.²⁴

The Domestic Animal Law (DAL) authorizes and regulates the methods for the disposal of dead domestic animals and animal wastes, which includes farm animal mortalities and wastes on an agricultural operation.²⁵ The DAL establishes the permissible methods for the disposal of dead domestic animals and preempts any local ordinances that pertain to the procedures for disposal of dead domestic animals.²⁶

The Municipalities Planning Code (MPC) delineates municipal authority to enact zoning ordinances.²⁷ One of the purposes of the MPC is "to ensure that municipalities enact zoning ordinances that facilitate the present and future economic viability of existing agricultural operations in this Commonwealth and do not prevent or impede the owner or operator's need to change or expand their operations in the future in order to remain viable."²⁸ To accomplish this purpose, Section 10603 of the MPC sets forth the extent of municipal authority to enact zoning ordinances regulating agricultural operations.²⁹ Section 10603(b) explicitly provides that a municipality may not exceed the requirements imposed under the NOMA, RTFA, or the AASL when regulating activities related to commercial agricultural production operations, regardless of whether the agricultural operation is a CAO or CAFO.³⁰ With respect to the NOMA, this provision means that a municipality cannot impose requirements that exceed the NOMA on any animal agricultural operation, including those that are too small to be a CAO or CAFO and, thus, are not subject to the NOMA. Section 10603(h) further limits municipal authority to regulate agricultural activities by providing that "[z]oning ordinances may not restrict agricultural operations or changes to or expansions of agricultural operations in geographic areas where agriculture has traditionally been present."31

DEP, pursuant to its authority under the Solid Waste Management Act (SWMA) and accompanying regulations, regulates Class A, Class B, and residential septage biosolids, which includes: (1) permit, application, and testing requirements for land application of Class A, Class

²⁶ <u>Id.</u> §§ 2352, 2389.

²⁸ 53 P.S. § 10505.

³⁰ <u>Id.</u>

²³ 3 P.S. §§ 951, et seq., 952.

²⁴ 3 P.S. § 953.

²⁵ 3 Pa. C.S.A. § 2301, et seq.

²⁷ 53 P.S. § 10601, et seq.

²⁹ 53 P.S. § 10603(b).

³¹ 53 P.S. § 10603(h)

B, and residential septage biosolids; (2) standards for concentration of pollutants, pathogens, and vector attractants and for sampling, analysis, and monitoring; and (3) authority for DEP to deny, suspend, modify, or revoke any permit or license and otherwise to enforce the SWMA and DEP regulations.³² DEP imposes a comprehensive regulatory scheme for the beneficial use of biosolids to fertilize farmland.³³ DEP's regulatory scheme is designed to impose requirements and practices for the beneficial use of biosolids in order to protect the environment.³⁴

PRECEDENTIAL DECISIONS IN ACRE LAWSUITS

<u>Commonwealth v. Locust Township</u>,³⁵ <u>Commonwealth v. Lower</u> <u>Oxford Township</u>,³⁶ and <u>Commonwealth v. Heidelberg Township</u>,³⁷

The first three ACRE lawsuits filed in the Commonwealth Court's original jurisdiction eventually resolved the Attorney General's authority under ACRE to challenge ordinances in existence prior to the enactment of ACRE.³⁸ In response to the lawsuits, the townships filed preliminary objections contending that under section 313(b) of ACRE, a municipality had to enforce a pre-existing ordinance before the Attorney General could bring an action to challenge it. The Commonwealth Court sustained the preliminary objections, interpreting section 313(b) to require that the Attorney General "must aver facts in the Petition to indicate that [a township] has attempted to enforce the challenge pre-existing ordinance" in order to state a cause of action under ACRE to challenge pre-exiting ordinances.³⁹

The Attorney General appealed these rulings to the Supreme Court of Pennsylvania. In April 2009, the Court reversed the Commonwealth Court's holding that "an ordinance that predates the effective date of ACRE cannot be challenged before a local municipality attempts to enforce it."⁴⁰ Upon reviewing the plain language of ACRE, the Court held that "[t]he Attorney General is not constrained in any way to seek invalidation only of unauthorized local

³² 35 P.S. § 6018.101, et seq.; 25 Pa. Code § 271.1, et seq.

³³ 25 Pa. Code § 271.901, *et seq*.

³⁴ <u>Id.</u>; 35 P.S. § 6018.104(18).

³⁵ <u>Commonwealth v. Locust Twp.</u>, 358 M.D. 2006 (Pa. Cmwlth.).

³⁶ <u>Commonwealth v. Lower Oxford Twp.</u>, 359 M.D. 2006 (Pa. Cmwlth.).

³⁷ <u>Commonwealth v. Heidelberg Twp.</u>, 357 M.D. 2006 (Pa. Cmwlth.).

³⁸ <u>Commonwealth v. Lower Oxford Twp.</u>, 915 A.2d 685 (Pa. Cmwlth. 2006); <u>Commonwealth v. Locust Twp.</u>, 915 A.2d 738 (Pa. Cmwlth. 2007); and <u>Commonwealth v. Heidelberg Twp.</u>, No. 357 M.D. 2006, Mem. Op. (Pa. Cmwlth. Dec. 12, 2006).

³⁹ <u>Lower Oxford Twp.</u>, 915 A.2d at 688-89; <u>Locust Twp.</u>, 915 A.2d at 742; and <u>Heidelberg Twp.</u>, No. 357 M.D. 2006, Mem. Op.

⁴⁰ <u>Commonwealth v. Locust Twp.</u>, 968 A.2d 1263, 1271 (Pa. 2009). The Supreme Court issued a per curiam order in the consolidated <u>Heidelberg Twp.</u> and <u>Lower Oxford Twp.</u> appeals that reversed based on its decision in <u>Locust Twp.</u> <u>Commonwealth v. Heidelberg Twp.</u>, 984 A.2d 477 (Pa. 2009).

ordinances which are newly adopted or enforced; to the contrary, the Attorney General is explicitly empowered to invalidate enacted local ordinances without regard to enforcement."⁴¹

Commonwealth v. Richmond Township

The first ACRE decision on the merits was made in a case the Attorney General commenced against Richmond Township, Berks County, in 2006. The Petition for Review challenged zoning ordinance provisions regulating "intensive agriculture" as prohibited or preempted by ACRE, the Nutrient and Odor Management Act (NOMA), Domestic Animal Law (DAL), Agricultural Area Security Law (AASL), Municipalities Planning Code (MPC), and Right to Farm Act (RTFA).

On May 28, 2010, the Commonwealth Court granted summary judgment in favor of the Attorney General on all six counts of the Petition for Review and enjoined Richmond Township from enforcing the provisions of the zoning ordinance relating to intensive agriculture.⁴² The court's opinion sets forth analyses and holdings on issues of first impression in interpreting the statutes alleged to preempt the township's ordinance. The court's rulings provide clear guidance to municipalities and the agricultural community across the Commonwealth on the extent of municipal authority to regulate agricultural operations.

Richmond Township's zoning ordinance defined "Agriculture (Intensive)" as "[s]pecialized agricultural activities including, but not limited to, mushroom production, poultry production, and dry lot livestock production, which due to the intensity of production, necessitate development of specialized sanitary facilities and control."⁴³ The Attorney General contended that this definition was vague, ambiguous, and inviting of discriminatory enforcement. The court agreed and held that "because a person cannot read the Ordinance and ascertain whether a particular agricultural activity would be considered intensive agriculture, the Ordinance is vague and ambiguous."⁴⁴ The court also held that "because enforcement of the Ordinance depends upon the subjective determination of Township officials, the Ordinance invites discriminatory enforcement."⁴⁵

The Attorney General contended that the NOMA prohibited or preempted the requirements under the ordinance for a 1500-foot setback for intensive agricultural operations

⁴¹ Locust Twp., 968 A.2d at 1274.

⁴² <u>Commonwealth v. Richmond Twp.</u>, 2 A.3d 678 (Pa. Cmwlth. 2010).

⁴³ <u>Id.</u> at 682.

⁴⁴ <u>Id.</u> at 683.

⁴⁵ <u>Id.</u>

from other zoning districts or residences; the prohibition of commercial composting and the limitation on on-site composting; and the requirement that solid and liquid wastes be disposed of on a daily basis.⁴⁶ With respect to the setback, the court found that the most stringent setback requirement under the NOMA regulations is 300 feet, so that the 1500 foot setback was more stringent and conflicted with the setbacks imposed by the NOMA regulations.⁴⁷ Thus, the court held that the 1500 foot setback is preempted by the NOMA regulations "to the extent the Township applies the 1500 foot setback to **any facility** covered by the regulations."⁴⁸ The court also held that the ordinance provisions for composting and waste disposal conflicted with, and were therefore preempted by, the NOMA.⁴⁹

The Attorney General contended that the ordinance restricts agricultural operations in violation of the MPC.⁵⁰ The MPC precludes a municipality from exceeding the requirements of the NOMA; thus, based on its conclusion that the ordinance conflicted with the NOMA, the court held that the ordinance violated the MPC.⁵¹ Significantly, the court explained that the language in the MPC under Section 10603(h) "indicates that, as a matter of law, an agricultural operation complying with the NMA, AASL, and the RFL does not constitute an operation that has a direct adverse effect on the public health and safety."⁵²

With respect to the AASL, the Attorney General argued that the ordinance requirements for intensive agriculture unreasonably restrict farm structures and farm practices.⁵³ The court held that the ordinance "restricts the location of manure storage facilities, which are farm structures, by requiring a 1500-foot setback from other zoning districts and residences[, and] [t]he restriction is unreasonable when one considers that the maximum setback in the NMA regulations is 300 feet."⁵⁴ The court further held that the ordinance "restricts composting, which is a farm practice, by prohibiting commercial composting and the exportation of compost for use elsewhere[, and] [t]he restrictions are unreasonable considering that NMA regulations allow these practices."⁵⁵ Finally, the Court held that the ordinance restrictions are "not related

⁵¹ <u>Id.</u> at 687.

⁵⁴ <u>Id.</u>

⁴⁶ <u>Id.</u> at 684.

⁴⁷ <u>Id.</u> at 685.

⁴⁸ <u>Id.</u> (emphasis added).

⁴⁹ <u>Id.</u>

⁵⁰ <u>Id.</u> at 686.

⁵² <u>Id.</u> at 687 n.11.

⁵³ <u>Id.</u> at 687.

to the public health or safety because, as a matter of law, an agricultural operation complying with the NMA is not a threat to the public health or safety."⁵⁶

The Attorney General contended the ordinance requirement for disposal of solid and liquid wastes on a daily basis in a manner to avoid a public nuisance violated the RTFA by defining or prohibiting normal agricultural practices as a nuisance.⁵⁷ The RTFA provides that "[e]very municipality that defines or prohibits a public nuisance shall exclude from the definition of such nuisance any agricultural operation conducted in accordance with normal agricultural operations."⁵⁸ Relying on the undisputed expert report of Gregory P. Martin, Ph.D., PAS, which established that daily disposal of wastes is not part of normal poultry operations, the court held the ordinance requirement violated the RTFA.⁵⁹

The Attorney General contended that the DAL preempted the prohibition of commercial composting.⁶⁰ The court agreed and explained that under the DAL composting is a permissible method for the disposal of dead domestic animals and animal waste and there is no prohibition of commercial composting under the DAL.⁶¹ The DAL contains an express preemption provision that precludes ordinances pertaining to the procedure for the disposal for dead domestic animals and animal waste; therefore, the Court held that the DAL preempted the prohibition on commercial composting under the ordinance.⁶²

Commonwealth v. East Brunswick Township

In 2007, the Attorney General commenced an action against East Brunswick Township, Schuylkill County, by filing a Petition for Review to challenge an ordinance that attempted to regulate the application of biosolids to agricultural land. In a nutshell, the ordinance banned corporations from land applying biosolids and allowed persons to land apply only after obtaining a permit from the Township, which required duplication of DEP's permitting requirements.

East Brunswick Township filed preliminary objections claiming that the township possesses the inalienable right to local self-government that is superior to State government and ACRE unconstitutionally infringes upon that right. The Commonwealth Court overruled

⁵⁸ <u>Id.</u>

- ⁶⁰ <u>Id.</u> at 686.
- ⁶¹ <u>Id.</u> ⁶² Id.

⁵⁶ <u>Id.</u>

⁵⁷ <u>Id.</u> at 688.

⁵⁹ <u>Id.</u>

this preliminary objection and explained that "local governments are creatures of the legislature from which they get their existence."⁶³ The court held that "the General Assembly acted constitutionally when it restricted municipalities from adopting 'unauthorized local ordinances' that interfere with normal agricultural operations."⁶⁴

The Attorney General filed an Application for Summary Relief requesting judgment as a matter of law that the ordinance on its face was preempted by State law, including the Solid Waste Management Act (SWMA) and accompanying regulatory scheme. The court explained that "[t]he threshold issue in any Act 38 [ACRE] case is what constitutes a 'normal agricultural operation.^{''65} The court opined that "the determination of what constitutes a 'normal agricultural operation' is an evidentiary, not a legal, determination.^{''66} The court held that in the absence of an evidentiary record to make the factual finding that land applying biosolids is a normal agricultural operation, it must deny summary relief.⁶⁷

Meanwhile, East Brunswick Township repealed the anti-corporate biosolids ordinance and adopted a new ordinance to regulate the application of biosolids to agricultural land within the township. The new ordinance duplicated and exceeded DEP's notice provisions, required bonding, testing fees, site inspections, and operational requirements that are not required by DEP, and imposed its own enforcement scheme, which included criminal penalties. The Attorney General filed an Amended Petition for Review to challenge the new ordinance. East Brunswick Township filed preliminary objections in the nature of a demurrer.

In overruling the preliminary objections, the court analyzed key precedent on challenges to local ordinances that attempt to regulate the application of biosolids to agricultural land and explained that such ordinances "have not fared well under preemption challenges."⁶⁸ The court discussed the reasoning and holdings in <u>Liverpool Township v.</u> Stephens, 900 A.2d 1030, 1037 (Pa. Cmwlth. 2006) and <u>Synagro-WWT, Inc. v. Rush Township</u>, 299 F. Supp. 2d 410, 420-21 (M.D. Pa. 2003).⁶⁹ The court concluded that "Liverpool Township and <u>Synagro</u> teach that a township cannot duplicate the regulatory regime established in the

⁶³ <u>Commonwealth v. East Brunswick Twp.</u>, 956 A.2d 1100, 1107 (Pa. Cmwlth. 2008) (quoting Robert E. Woodside, Pennsylvania Constitutional Law 507 (1985)).

⁶⁴ <u>Id.</u> at 1008.

⁶⁵ <u>Id.</u> at 1114.

⁶⁶ <u>Id.</u> at 1115.

⁶⁷ <u>Id.</u> at 1116.

^{68 &}lt;u>Commonwealth v. East Brunswick Twp.</u>, 980 A.2d 720, 730 (Pa. Cmwlth. 2009).

⁶⁹ <u>Id.</u> at 731-33.

SWMA and cannot impose more stringent requirements than the SWMA."⁷⁰ The court also held that "[r]equirements that are redundant of or stricter than those in the SWMA are preempted."⁷¹

Based on its analysis, the court explained that:

The SWMA does not authorize the Township to set up its own sewage sludge police force to enforce the SWMA. The Township cannot establish a comprehensive scheme of sewage sludge regulation to replicate the one set forth in the SWMA and the Department's regulations at 25 Pa. Code, Chapter 271. As noted in <u>Synagro</u>, the Township has a remedy in Section 604 of the SWMA to enjoin violations of the SWMA.... The remedies provided by the legislature in the SWMA preclude other forms of "self-help" by the Township.⁷²

With respect to East Brunswick Township's ordinance, the court stated the "Township's signage, notification, testing fees and bonding requirements far exceed what is required in the Department's regulations, and, therefore, conflict with the SWMA."⁷³ The court concluded that the "Township did not have authority to adopt many, if not all, of the provisions of the 2008 Ordinance by reason of the SWMA."⁷⁴ The court held that the Attorney General stated a claim in each count of its amended petition for review and overruled the preliminary objections.⁷⁵

Following the Commonwealth Court's decision, the Attorney General and East Brunswick Township agreed on amendments to the ordinance that, once enacted, resulted in a discontinuance of the ACRE lawsuit.

THE IMPACT OF ACRE

The Attorney General's policy in administering the ACRE program is to avoid litigation with townships and, instead, negotiate on ordinance amendments to resolve the legal problems with ordinance provisions. The fact that only seven lawsuits have been filed, based on 31 ordinances accepted for review, is a testament to the success of the policy. The recent decisions by the Supreme and Commonwealth Courts have fostered increased efforts by municipalities to negotiate proposed amendments to resolve an ACRE review prior to litigation. The Attorney General has also utilized its resources to provide education and consultation to

- ⁷¹ <u>Id.</u>
- ⁷² <u>Id.</u> at 734.
- ⁷³ <u>Id.</u> at 732.
- ⁷⁴ <u>Id.</u> at 730.
- ⁷⁵ <u>Id.</u> at 736.

⁷⁰ <u>Id.</u> at 733.

municipalities on the Commonwealth's regulation of agricultural operations. The ACRE program is fulfilling the intent of the General Assembly.

DUE PROCESS, PREEMPTION, PROPERTY RIGHTS AND THE BATTLE OVER LOCAL REGULATION OF GAS DRILLING by Jordan B. Yeager*

Drill Baby Drill, LLC comes into a local municipality, Resourceful Township, seeking to drill natural gas wells. The company learns that there is a local zoning ordinance that only allows drilling by special exception;⁷⁶ the company does not want the uncertainty of having to appear before the Zoning Hearing Board for each well that it wants to drill. In an effort to avoid such a fate, Drill Baby Drill, LLC sues Resourceful Township on the theory that the ordinance violates the company's substantive due process rights and is preempted by the Pennsylvania Oil and Gas Act.⁷⁷ Concerned about spending tax dollars defending against the litigation, and interested in allowing leaseholders in the Township to collect royalties as soon as possible, the Township agrees with Drill Baby Drill, LLC not to enforce its ordinance.⁷⁸

Does this mean an end to litigation for the drilling company and Township? Not necessarily. As this article discusses, in addition to remedies under the Municipalities Planning Code,⁷⁹ neighboring residents of the Township may seek to intervene in the litigation to defend against the drilling company's claims. Further, if the Township settles the case, the residents may have a claim for a violation of *their* constitutional due process rights.

In the sections that follow, we shall discuss: 1) an overview of the issues raised in defending zoning ordinances provisions that are subject to substantive due process challenges; 2) the limited scope of preemption under the Pennsylvania Oil and Gas Act; and 3) a possible procedural due process claim – utilizing the *void ab initio* doctrine – that neighboring residents may pursue to challenge municipal land use actions.

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⁷⁶ See 53 P.S. §§ 10603(c)(1), 10912.1 (2010).

⁷⁷ 58 P.S. §601.101, et. seq.

⁷⁸ See e.g., <u>Newfield v. Damascus Twp.</u>, U.S.D.C.M.D.PA, Docket No. 3:10-CV-01388.

⁷⁹ 53 P.S. § 10617 (2010).

1. <u>Substantive Due Process Claims</u>

Drilling companies challenging zoning ordinance provisions generally assert substantive due process claims. As this section discusses, municipalities and residents seeking to enforce municipal zoning ordinances can readily defend against such challenges.

Under the Due Process Clause of the Fourteenth Amendment to the United States Constitution, a substantive due process challenge to a zoning ordinance is reviewed under the "rational basis" standard. Under the rational basis standard, an ordinance withstands a substantive due process challenge if the ordinance identifies a legitimate state interest that the legislature rationally could conclude was served by the statute. "As long as a municipality has a rational basis for distinguishing between uses, and that distinction is related to the municipality's legitimate goals, then federal courts will be reluctant to conclude that the ordinance is improper."⁸⁰

A zoning ordinance is a valid exercise of the police power when it promotes public health, safety or welfare and its regulations are substantially related to the purpose the ordinance purports to serve.⁸¹ Valid municipal interests are identified in the Municipalities Planning Code (hereinafter, "MPC"),⁸² which states, "Zoning ordinances should reflect the policy goals of the statement of community development objectives ..., and give consideration to the character of the municipality, the needs of the citizens and the suitabilities and special nature of particular parts of the municipality."⁸³ Among the permissible areas of regulation, "[z]oning ordinances may contain ... provisions to promote and preserve prime agricultural land, environmentally sensitive areas and areas of historic significance."⁸⁴

Also, "[z]oning ordinances may include provisions regulating the siting, density and design of residential, commercial, industrial and other developments in order to assure the availability of reliable, safe and adequate water supplies to support the intended land uses within the capacity of available water resources."⁸⁵

⁸⁰ <u>Congregation Kol Ami v. Abington Twp.</u>, 309 F.3d 120, 136 (3d Cir. 2002).

⁸¹ <u>Euclid v. Ambler Realty Co.</u>, 272 U.S. 365 (1926).

⁸² 53 P.S. §10101, et seq.

⁸³ 53 P.S. §10603(a) (2010).

⁸⁴ 53 P.S. §10603(c)(7) (2010).

^{85 53} P.S. §10603(d) (2010).

The MPC also identifies mandatory requirements for zoning ordinances. For example, "[z]oning ordinances shall protect prime agricultural land and ... shall provide for protection of natural and historic features and resources."⁸⁶

Under Section 604 of the MPC:

The provisions of zoning ordinances shall be designed: (1) to promote, protect and facilitate any or all of the following: the public health, safety, morals, and general welfare; coordinated and practical community development and proper density of population; emergency management preparedness and operations, airports, and national defense facilities, the provisions of adequate light and air, access to incident solar energy, police protection, vehicle parking and loading space, transportation, water, sewerage, schools, recreational facilities, public grounds, the provision of a safe, reliable and adequate water supply for domestic, commercial, agricultural or industrial use, and other public requirements; as well as preservation of the natural, scenic and historic values in the environment and preservation of forests, wetlands, aquifers and floodplains.⁸⁷

The Environmental Rights Amendment to the Pennsylvania Constitution⁸⁸ provides further support for the validity of municipal zoning regulations. The Environmental Rights Amendment states:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of the people.⁸⁹

"There can be no question that the Amendment itself declares and creates a public trust of public natural resources for the benefit of all the people (including future generations as yet unborn) and that the Commonwealth is made the trustee of said resources, commanded to conserve and maintain them."⁹⁰ Municipalities, as agents of the Commonwealth, share duties as trustees to conserve and maintain Pennsylvania's public natural resources for the benefit of the people.⁹¹

⁸⁶ 53 P.S. §10603(g)(1),(2) (2010).

⁸⁷ 53 P.S. §10604 (2010).

⁸⁸ Pa. Const. art. I, § 27.

⁸⁹ <u>Id.</u>.

⁹⁰ <u>Payne v. Kassab</u>, 361 A.2d 263, 272 (Pa. 1976); <u>See also Del-AWARE, Unlimited, Inc. v. Commonwealth Dep't of Envtl. Res.</u>, 508 A.2d 348 (Pa. Commw. 1986); <u>Pa. Envtl. Mgt. Serv., Inc. v. Commonwealth Dep't of Envtl. Res.</u>, 503 A.2d 477, 479-80 (Pa. Commw. 1986).

⁹¹ <u>United Artists Theater Circuit v. City of Phil.</u>, 635 A.2d 612 (Pa. 1993); <u>United Artists Theater Circuit v. City of Phil.</u>, 595 A.2d 6, 8-9 (Pa. 1991); <u>Cmty. College of Delaware County v. Fox</u>, 342 A.2d 468, 482 (Pa. Commw.

As one commentator has noted, "Because Article I Section 27 is placed in the state constitution ... it obliges the state and other decision makers to reconcile environmental protection and property rights. Thus, Article I, Section 27 moves the state constitution from an orientation toward conventional development at the environment's expense to one of environmentally sustainable development."⁹²

There should be no question that the resources adversely impacted by gas drilling are protected under the Environmental Rights Amendment, including: "clean air, pure water, and [] the preservation of the natural, scenic, historic and esthetic values of the environment." Thus, municipalities and their residents will find ample arguments to defend zoning ordinances against attacks on substantive due process grounds.

2. <u>Preemption Under the Oil and Gas Act</u>

Likewise, the scope of preemption under the Pennsylvania Oil and Gas Act⁹³ is limited. As explicitly provided for in the Oil and Gas Act, the development of oil and natural gas within the Commonwealth is subject to local zoning regulations under the Municipalities Planning Code.

Section 602 of the Oil and Gas Act provides,

[E]xcept with respect to ordinances adopted pursuant to the act of July 31, 1968 (P.L. 805, No. 247), known as the Pennsylvania Municipalities Planning Code, and the act of October 4, 1978 (P.L. 851, No. 166), known as the Flood Plain Management Act, all local ordinances and enactments purporting to regulate oil and gas well operations regulated by this act are hereby superseded. No ordinances or enactments adopted pursuant to the aforementioned acts shall contain provisions which impose conditions, requirements or limitations on the same features of oil and gas well operations regulated by this act. The Commonwealth, by this enactment, hereby preempts and supersedes the regulation of oil and gas wells as herein defined.⁹⁴

The Oil and Gas Act thus specifically allows for local ordinances enacted pursuant to the Municipalities Planning Code and Flood Plain Management Act.

^{1975) (&}quot;municipal agencies have the responsibility to apply the Section 27 mandate as they fulfill their respective roles in the planning and regulation of land use, and they, of course, are not only agents of the Commonwealth, too, but trustees of the public natural resources as well, just as certainly as is the DER").

⁹² Dernbach, <u>Taking the Pennsylvania Constitutional Seriously When it Protects the Environment: Part I – An</u> <u>Interpretive Framework for Article I, Section 27</u>, 103 Dick. L. Rev. 693, 718-19 (Summer 1999) (citations omitted).

⁹³ 58 P.S. §601.101, et. seq.

^{94 58} P.S. §601.602 (emphasis added).

Indeed, the Pennsylvania Supreme Court, in <u>Huntley & Huntley v. Borough of</u> <u>Oakmont</u>,⁹⁵ clearly held that municipalities in Pennsylvania maintain the right to regulate, by zoning ordinances, where within the municipality natural gas drilling is a permitted use.⁹⁶

The "very essence of zoning is the designation of certain areas for different use purposes."⁹⁷ If an individual municipality cannot designate which areas in its own community are appropriate for the development of oil and gas wells, it will lose the ability to carry out its basic powers under state law, and to "give consideration to the character of the municipality, the needs of the citizens and the suitabilities and special nature of particular parts of the municipality."⁹⁸

3. <u>Procedural Due Process Challenges to Municipal Land Use Actions</u>

A municipality violates procedural due process when it fails to provide notice and an opportunity to be heard in connection with its zoning and permitting decisions under the MPC.⁹⁹ Municipal actions affecting property rights – when taken in violation of procedural due process rights – are *void ab initio*.¹⁰⁰ Thus, a municipality faces exposure to a procedural due process claim when it allows a drilling company to bypass its zoning ordinance provisions for conditional use approval¹⁰¹ or for approval of a special exception¹⁰² – approvals that require notice and an opportunity to be heard.

The discussion below addresses: a) the property rights of neighboring residents; b) due process requirements; and c) the *void ab initio* doctrine.

a) <u>Property Rights of Neighboring Residents</u>

Just as drilling companies and leaseholders have property rights that are impacted by municipal zoning ordinances, so too do neighboring property owners. Neighboring residents' use and enjoyment of their properties are interests that are protected by procedural due

¹⁰¹ See 53 P.S. §§ 10603(c)(2), 10913.2 (2010).

^{95 600} Pa. 207, 964 A.2d 855 (2009).

⁹⁶ See also <u>Range Resources v. Salem Twp.</u>, 964 A.2d 869 (Pa. 2009) and <u>Penneco Oil Co., Inc. v. County of Fayette</u>, 4 A.3d 722 (Pa. Commw. 2010) (finding that a zoning ordinance that allows gas drilling in certain zoning districts by special exception was not preempted).

⁹⁷ Swade v. Zoning Bd. of Adj. of Springfield Twp., 140 A.2d 597, 598 (Pa. 1958).

^{98 53} P.S. §10603 (a)(2010).

⁹⁹ See generally, <u>Glen-Gery Corp. v. Zoning Hearing Bd. of Dover Twp.</u>, 907 A.2d 1033 (Pa. 2006); <u>Luke v.</u> <u>Cataldi</u>, 932 A.2d 45, 54 (Pa. 2007); <u>Appeal of Shawn McGlynn</u>, 974 A.2d 525 (Pa. Commw. 2009).

¹⁰⁰ "A lack of due process protection renders a government act ineffective from its inception." <u>Glen-Gery Corp.</u> <u>v. Zoning Hearing Bd. of Dover Twp.</u>, 907 A.2d 1033, 1043 (Pa. 2006).

¹⁰² 53 P.S. §§ 10603(c)(1), 10912.1 (2010).

process.¹⁰³ Neighbors have property interests in the quiet use and enjoyment of their properties. Gas drilling in close proximity to homes threatens to bring significant noise, light, air and water pollution, reducing the economic, aesthetic and natural value of properties and disrupting the quiet use and enjoyment of the properties. The use of land for gas drilling, when conducted in close proximity to a residence, "has the potential to affect [a neighbor's] property as substantially as would a new zoning ordinance."¹⁰⁴

b) <u>Due Process Requirements</u>

"[D]ue process requires that a deprivation of a property interest be preceded by notice and opportunity for a hearing, appropriate to the nature of the case."¹⁰⁵

For conditional use and special exception applications, Section 908 of the Pennsylvania Municipalities Planning Code requires that written notice of a hearing "shall be conspicuously posted on the affected tract of land at least one week prior to the hearing."¹⁰⁶ "Any person affected by the application [for a zoning permit] shall be a party to the hearing."¹⁰⁷ Parties to the hearing "shall have the right to be represented by counsel and shall be afforded the opportunity to respond and present evidence and argument and cross-examine adverse witnesses on all relevant issues."¹⁰⁸

There is long-standing judicial recognition that, "[t]he statutory notice and publication requirements are to ensure the public's right to participate in the consideration and enactment of municipal land use decisions"¹⁰⁹ This right applies to neighboring residents, who "have an

¹⁰³ <u>Assoc. in Obstetrics & Gynecology v. Upper Merion Twp.</u>, 270 F. Supp. 2d 633, 655 (E.D. Pa. 2003), *citing* <u>DeBlasio v. Zoning Bd. of Adjustment</u>, 53 F.3d 592, 600-01 (3d Cir. 1995); <u>Neiderhiser v. Berwick</u>, 840 F.2d 213, 218 (3d Cir. 1988).

¹⁰⁴ Luke v. Cataldi, 932 A.2d 45, 54 (Pa. 2007).

¹⁰⁵ <u>Assoc. in Obstetrics & Gynecology</u>, 270 F. Supp. 2d at 659, *quoting Gikas v. Washington Sch. Dist.*, 328 F.3d 731 (3d Cir. 2003); <u>Matthews v. Eldridge</u>, 424 U.S. 319, 355 (1976) (three factors that must be considered: "the private interest affected by the government action; the risk of erroneous deprivation of such interest through the procedures used and the probable value, if any, of additional or substitute procedural safeguards; and finally, the government's interest, including the function involved and the administrative burdens that additional or substitute procedural requirements would entail").

¹⁰⁶ 53 P.S. §10908(1) (2010).

¹⁰⁷ 53 P.S. §10908(3) (2010).

¹⁰⁸ 53 P.S. §10908(5) (2010).

¹⁰⁹ In Re Appeal of Shawn F. McGlynn, 974 A.2d 525, 532 (Pa. Commw. 2009), *citing* LaFarge Corp. v. Dep't, 735 A.2d 74 (Pa. 1999); <u>Fountain Capital Fund, Inc. v. Pa. Secs. Comm'n</u>, 948 A.2d 208 (Pa. Commw. 2008), <u>appeal denied</u>, 967 A.2d 961 (Pa. 2009); <u>State Dental Council & Examining Bd. v. Pollock</u>, 318 A.2d 910 (Pa. 1974).

interest in the quiet use and enjoyment of their properties near the proposed use, as well as the right to participate in the Board's hearings."¹¹⁰

The "procedural safeguards afforded to neighboring landowners and the general public by the MPC, [are] grounded in underlying principles of due process, [and] apply with equal force to situations involving either a procedurally defective zoning ordinance or a [zoning] permit granted in violation of statutory procedural requirements."¹¹¹

c) The Void Ab Initio Doctrine

Recent years have seen an increase in litigation – initiated by developers – invoking the *void ab initio* doctrine.¹¹² The doctrine provides that if a procedural defect implicating constitutional due process concerns such as notice is proven, it renders the challenged action *void ab initio*, or void from the beginning.¹¹³

This increase was spawned by the Pennsylvania Supreme Court's decision in <u>Glen-Gery</u> <u>Corp. v. Zoning Hearing Bd. of Dover Twp.¹¹⁴ The Glen-Gery</u> Court looked to its earlier decision, <u>Cranberry Park Assoc. v. Cranberry Twp. Zoning Hearing Bd.</u>,¹¹⁵ which held that certain deviations from the required procedures for enactment of an ordinance will render such an ordinance *void ab initio*, and subject to challenge beyond the thirty day (30) statutory time limitation. "The purpose of requiring compliance with the procedural requirements for enacting township ordinances is premised on the importance of notifying the public of impending changes in the law so that members of the public may comment on those changes and intervene when necessary."¹¹⁶ This application of the doctrine has been extended to municipal action in connection with conditional use hearings.¹¹⁷

¹¹⁰ <u>Appeal of Shawn McGlynn</u>, 974 A.2d 525 (Pa. Commw. 2009).

¹¹¹ <u>Luke v. Cataldi</u>, 932 A.2d 45, 54 (Pa. 2007).

¹¹² See Luke v. Cataldi, 932 A.2d 45 (Pa. 2007); <u>Glen-Gery Corp. v. ZHB of Dover Twp</u>, 907 A.2d 1033 (Pa. 2006); <u>Nockamixon Twp. v. Nockamixon Twp. Zoning Hearing Bd.</u>, 8 A.2d 434 (Pa. Commw. 2010); <u>Messina v. East Penn Twp.</u>, 995 A.2d 517 (Pa. Commw. 2010), <u>appeal granted</u>, 2010 Pa. LEXIS 2836 (Dec. 7, 2010); <u>Hawk v. Eldred Twp. Bd. of Supervisors</u>, 983 A.2d 216 (Pa. Commw. 2009), <u>rearg. denied</u>, 2009 Pa. Commw. LEXIS 1590 (2009); <u>appeal denied</u>, 2010 Pa. LEXIS 2790 (Dec. 1, 2010); <u>In Re Appeal of Shawn F. McGlynn</u>, 974 A.2d 525 (Pa. Commw. 2009); <u>Geryville Materials, Inc. v. Lower Milford Twp. Zoning Hearing Bd.</u>, 972 A.2d 136 (Pa. Commw. 2009), <u>appeal denied</u>, ____ Pa.__, 8 A.3d 347, (Pa. 2010).

¹¹³ <u>Id.</u>.

^{114 907} A.2d 1033 (Pa. 2006).

¹¹⁵ 751 A.2d 165 (Pa. 2000).

¹¹⁶ <u>Glen-Gery.</u> 907 A.2d at 1039, *quoting* <u>Schadler v. Zoning Hearing Bd. of Weisenberg Twp.</u>, 850 A.2d 619, 627 (Pa. 2004).

¹¹⁷ See In Re Appeal of Shawn F. McGlynn, 974 A.2d 525, 532 (Pa. Commw. 2009).

While to date it has been developers who have propelled *void ab initio* claims, doctrinally, there is no reason why aggrieved neighbors cannot pursue such claims as well. Municipal action that effectively grants zoning approval – taken without providing neighbors notice and an opportunity to be heard – constitutes a *de facto* grant of a special exception or conditional use approval, and/or a *de facto* change in zoning. Such municipal action deprives residents of their due process rights to notice and an opportunity to be heard prior to the deprivation of their property interests. As a result, neighboring residents can argue that such municipal action is *void ab initio*, exposing the municipality to competing civil rights claims, and exposing drilling companies to continued uncertainty.

4. <u>Conclusion</u>

When a drilling company challenges a municipal zoning regulation, there is a temptation by the municipality to enter into an agreement with the drilling company whereby the municipality agrees not to enforce its zoning ordinance against the company. Residents who oppose such agreements can assert defenses to the company's substantive due process and preemption claims as detailed above. Further, faced with such agreements, residents may have their own claims for a violation of *their* procedural due process rights. Residents can thus challenge the municipal and drilling company settlement agreements that seek to sidestep the procedures for approving zoning applications and enacting zoning changes. As this analysis demonstrates, municipal officials and drilling companies would be well advised to avoid such settlement agreements and thereby avoid extended litigation and increased uncertainty.

LOOKING TOWARDS FUTURE INFRASTRUCTURE NEEDS WITH THE GROWING MARCELLUS SHALE INDUSTRY by Matthew J. McDonnell^{*}

The growing need for natural gas infrastructure in Pennsylvania has gained a lot of attention in the past year. More and more drilling sites are being proposed and constructed. With the recent end to the moratorium on leasing state forestland, natural gas production will continue to increase and new infrastructure will be needed. With the increase in production comes the need for ways in which to convey the product quicker and more efficiently. To do this, a network of pipelines and compressor stations are being <u>developed</u>.

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First, this article will discuss the nature of the natural gas being extracted from the Marcellus Shale in the various sections of the state. Then the need for compressor stations and how the natural gas is processed will be discussed. Next, the regulatory requirements will be discussed and then finally, what is being done on the legislative front.

In the Western Pennsylvania Marcellus Shale play, a "wet gas" is extracted that contains water and gas liquids including propane, butane and hexane mixed with the ethane. It is necessary to dehydrate the gas after it is removed from the ground, much more so than compared to the gas extracted in the Northeast play. In the Northeast, the gas is more of a "dry gas" which is mostly methane. Drilling sites hook up to compressor stations to process the gas before transferring it to major pipelines that distribute the gas. The compressor stations perform various functions, but the main function is removing the excess water and naturally occurring compounds from the gas after extraction. This is done to refine the gas for the end user, as well as prepare the gas for its journey through the pipelines.

Compressor stations may vary depending on the volume they are designed to handle. State Representatives recently <u>toured</u> an average size station in Susquehanna County. The site houses three compressor stations powered by a 16-cylinder, 1365 horsepower engine.¹ The station can handle up to 30 million cubic feet of natural gas a day, but averages 25 million cubic feet.²

First, water is removed from the gas through a vacuum-like compressor and stored in double lined "slop tanks" that are located on site. The <u>tanks</u> are double insulated to protect from leaks, lined with material underneath, and surrounded by fencing.³ These tanks store the wastewater until they are emptied, emitting low levels of air pollutants as they ventilate.

Next, the gas is dried in a glycol dehydrator, to remove water that contains some portions of acid gases that would cause corrosion in the pipelines. The <u>glycol dehydrators</u> emit pollutants such as benzene, toluene, ethylbenzene, the xylene isomers, n-hexane, iso-octane and in some cases ethylene glycol from the process of removing the water from the gas.⁴ These pollutants are usually controlled by the use of combustion devices such as flares and

¹ Elizabeth Skrapits, Compressor Stations 101. <u>http://citizensvoice.com/news/compressor-stations-101-</u> <u>1.1108100#axzz1FqH6ow3h</u> accessed February 28, 2011.

² *Id.*

³ Id.

⁴ Fact Sheet, Glychol Dehydrators. <u>http://www.cdphe.state.co.us/ap/down/FSgly.pdf</u> accessed March 10, 2011

incinerators. For safety, emergency valves release the gas so it dissipates into the atmosphere. This is <u>cited</u> as the safest way to deal with a malfunction in the station.⁵

There is not a specific natural <u>gas compressor station permit</u>, but any air, soil, or water disruption caused by the station is subject to PA DEP and EPA permit requirements. Owners or operators are required to conduct emissions tests every six to twelve months. A recent <u>study</u> conducted by the PA DEP indicated that emissions levels from Marcellus drilling activities, including compressor stations, do not constitute a concern to the health of residents near the operations.⁶ Although, the report notes that it was not meant to address potential cumulative impacts.⁷ The study focused on volatile organic compounds (benzene, toluene, xylene) and carbon dioxide and nitrogen dioxide.⁸ The tests were conducted at one well, two compressor stations, and a well site being fracked in the northeast region of Sullivan and Susquehanna Counties.

Construction of compressor stations has been springing up around the Commonwealth; some are being placed in close proximity to <u>houses</u> and <u>schools</u>, which has caused controversy with residents because of air pollution concerns. In the wake of the boom of compressor station construction, Senator Lisa Baker (R-Lehman Township) is developing new <u>legislation</u> to mandate where these compressor stations may be located. The bill would set construction and decibel limits on the stations as well as setback requirements in regard to the proximity to schools and hospitals. The legislation may be introduced as an amendment to a new <u>pipeline</u> <u>bill</u>, which fills in a loophole by giving the Pennsylvania Public Utility Commission oversight authority on pipelines throughout the Commonwealth, as well as fee collection authority to offset the cost of increased enforcement and inspection.

Because of the size of compressor stations, it is likely that most that have already been constructed or will be constructed will have emissions that fall under the "potential to emit" thresholds and therefore require a natural minor permit from the PA DEP. This means that a single station is likely not considered a major source polluter, which therefore, does not require a Title V permit.

⁵ Skrapits<u>, supra note 1.</u>

⁶ Northeastern Pennsylvania Marcellus Shale Short-Term Ambient Air Sampling Report, <u>http://files.dep.state.pa.us/RegionalResources/NERO/NEROPortalFiles/Marcellus NE 01-12-11.pdf</u> accessed March 10, 2011.

 $^{^{7}}$ Id.

⁸ Id.

These essential additions to the network of natural gas drilling sites signal that the natural gas industry will continue to thrive in Pennsylvania. The next step is building and expanding pipelines thereby further extending the reach of the gas to end-users. However, a growing number of small or medium sized compressor stations could substantially contribute to the degradation of air quality throughout the Commonwealth, especially in the communities where they are located. It is therefore not only prudent to start regulating these facilities with setback and decibel requirements, but to also develop better technologies and methods to curb emissions.

DOES PENNSYLVANIA REALLY CARE ABOUT BEING GREEN? by Mark Wieder*

The Pennsylvania Bar Association believes in being green and wants to be proactive. As a result, this newsletter is in online-only format. You may print this or any other article found within the newsletter if you'd like but (1) you will lose the benefit of the hyperlinks provided herein, and (2) you increase your carbon footprint. This brief article is meant to provide you with the tools to make informed opinions as to whether or not Pennsylvania really cares about being green, and whether you are doing your part.

The first section of this article focuses on the Commonwealth's position regarding federal regulation of greenhouse gas emissions. Part One states that Pennsylvania opposes federal regulation and lists several reasons why the Commonwealth takes this position. Part Two addresses Pennsylvania's efforts to reduce its carbon footprint. This section includes legislation currently before the Pennsylvania House and Senate regarding in-state green initiatives; particularly those pertaining to Commonwealth-owned and operated vehicles and buildings. The article concludes by proposing two theories for the Commonwealth to move forward. Pennsylvania is moving toward greener pastures, but it can only accomplish a greener Commonwealth with you as a partner.

Part One: Just Say "No" to Federal Regulation

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Over the past few years, the Pennsylvania Legislature has expressed clear opposition to federal regulation of greenhouse gas emissions from stationary structures. In 2009, the Pennsylvania House passed <u>a resolution requesting Congress to refrain from implementing a cap and trade system</u>. ¹¹⁸ Our Legislature then renewed its efforts to separate from federal regulation when in 2010 <u>it requested Congress to refrain from implementing another</u> greenhouse gas reduction initiative aimed at decreasing greenhouse gas emissions under the Clean Air Act.¹¹⁹

In support of Pennsylvania's opposition the following is noted: First and foremost, the Commonwealth fears that companies required to participate in a federal cap and trade program will ultimately pass along additional costs, thereby increasing expenses for consumers. Further, implementing such a system on the coal industry will significantly affect Pennsylvanians because our state relies heavily on coal for electricity.¹²⁰ Finally, our Commonwealth fears that many greenhouse gas emitting industries may relocate to states and countries with less stringent standards rather than face increased costs.¹²¹

Part Two: Pennsylvania's Efforts to Reduce Greenhouse Gas Emissions¹²²

While Pennsylvania is clearly opposed to federal regulation, the Commonwealth appears to be interested in working toward a greener Pennsylvania by focusing its efforts on reducing greenhouse gas emissions from Commonwealth vehicles and buildings. In June of 2010, the Legislative Budget and Finance Committee was directed to conduct a study on the feasibility and effectiveness of converting the bus system in southeastern Pennsylvania to operate on natural gas fuel.¹²³ The State Fleet Biodiesel Fuel Act is another initiative that requires Commonwealth agencies owning and operating diesel-powered vehicles to use a diesel and biodiesel blend, with the percentage of biodiesel in the fuel mixture increasing every two years until 2016.¹²⁴

¹²² See the National Conference of State Legislatures Energy and Environmental Legislation Tracking Database for proposed energy and environmental bills for all fifty states and the District of Columbia. <u>http://www.ncsl.org/?tabid=13011</u> (last visited Mar. 9, 2011).

¹²³ S.R. 363 (Pa. 2010).

¹¹⁸ H.R. 440 (Pa. 2009).

¹¹⁹ H.R. 778 (Pa. 2010).

¹²⁰ Id.

¹²¹ Id.

¹²⁴ H.B. 110 (Pa. 2009).

Regarding buildings, the Pennsylvania House recently passed <u>the Green Technology</u> <u>Implementation Act (GTIA)</u>.¹²⁵ To reduce costs and improve energy efficiency, the GTIA permits the Department of General Services (DGS) to test proven, energy efficient technologies.¹²⁶ The Pennsylvania Senate is also currently considering the <u>High-Performance</u>, <u>State Government Buildings Standards Act</u>, which takes the GTIA one step further by applying water-saving and waste-reduction technology to Commonwealth buildings.¹²⁷ With these steps, Pennsylvania intends to lead by example;¹²⁸ but one wonders whether Pennsylvania is trying to achieve too much on its own.

Part Three: Where Do We Go from Here?

It is a major initiative that will greatly impact our lives to convert an entire bus fleet to run on natural gas fuel. At the same time, permitting the DGS to test *proven* energy efficient technologies, seems inefficient. Right now, the Commonwealth is focused on reducing Pennsylvania's carbon footprint on its own; however, Pennsylvania has a number of options at its disposal. As indicated above, the Legislature has expressed a strong opposition to federal regulation but has not ruled out being involved in a regional initiative. Pennsylvania has the option and indeed proposed joining ¹²⁹ the <u>Regional Greenhouse Gas Initiative (RGGI)</u>. RGGI is a mandatory initiative which has capped and will lower greenhouse gas emissions in ten participating northeastern states.¹³⁰ <u>A February 28, 2011 press release touts the program's</u> benefits. Joining a regional greenhouse gas initiative, however, is a huge step. Pennsylvania's efforts could start small and increase incrementally. For example, it is amazing to see nearly every light on in many Commonwealth buildings in Harrisburg during the wee hours of the night. Since the Commonwealth is clearly interested in adopting a green strategy, it could start with simple, low-cost solutions. Motion detecting switches, energy efficient light bulbs, waterless toilets and recycling programs are a few options currently being implemented in homes and buildings across the country which are well suited for adaptation in Commonwealth owned and operated buildings.

Conclusion

¹²⁶ Id.

¹²⁵ H.B. 2601 (Pa. 2010).

¹²⁷ S.B. 728 (Pa. 2010).

¹²⁸ H.B. 110 (Pa. 2009).

¹²⁹ H.R. 30 (Pa. 2009).

¹³⁰ See the Regional Greenhouse Gas Initiative for more information. http://www.rggi.org/home

Whether regional initiatives will continue to grow or whether a federal plan will be implemented remains unclear. What is certain is that regional initiatives and the Commonwealth's proposals are clear indicators that the United States and Pennsylvania are interested in lessening the world's greenhouse gas problem and decreasing our nation's reliance on fossil fuels. The financial problems persisting throughout much of the world may temporarily place carbon reduction initiatives on the backburner, but the greenhouse gas problem will not be solved while states and our nation sit idly by. To do our part, Pennsylvania needs to assess its current energy needs, its financial stability, and its ability to implement a worthwhile program while remaining mindful of both the current consumer and the pressing need to ensure a healthy environment for the future. Pennsylvania will do its part; are we doing our part to make our lives and our world a better place to live?

STRIVING FOR GREENHOUSE GAS MITIGATION AND ENERGY INDEPENDENCE IN

PENNSYLVANIA by Jonathan W. Johnson^{*}



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As the wave of revolution sweeps across North Africa and Southwest Asia, energy independence must become a priority for America and the individual states. Although oil still flows from these regions, we have already seen the impact the current uncertainty and instability are playing with the world oil markets. Based on the New York Mercantile Exchange data, at the time of this writing the price per barrel of crude oil was \$101.16. Over the past six months the price has risen by approximately \$15.00 per barrel.¹³¹ As gasoline and fuel oil prices begin to surge in Pennsylvania and across the nation, it should now be apparent that collectively, we have not done enough to ensure that we have access to enough alternative resources such as biofuels, solar and hydrogen technologies. The development of alternative energies is intrinsically linked to Greenhouse Gases (GHG) and climate change, which are now widely accepted as real issues that must be dealt with in our lifetimes.¹³² The alternative energy and greenhouse gas emission mitigation policies we establish now will determine the quality of life for future generations. If we choose to continue making only minor alternative energy and greenhouse gases emission mitigation policies, we will guarantee that adverse effects of global climate change will come to pass and the price of fuels generated from crude oil will climb to a point that will cripple Pennsylvania and the nation.

It has been continuously proven that GHG emissions have a substantial impact on climate change.¹³³ The type of fuel that we use determines how much GHG emissions are produced. The influence of GHG emissions on climate change has caused a general global warming which has begun to melt the arctic poles and significantly change weather patterns worldwide. GHG emissions have also contributed to an increase in respiratory problems and other significant medical issues. Given that many GHG emissions take decades or more to degrade in the atmosphere, mitigation must begin now. Therefore, government GHG emission

¹³² INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, FORTH ASSESSMENT REPORT, CLIMATE CHANGE 2007: SYNTHESIS REPORT, SUMMARY FOR POLICYMAKERS 7 (2007), <u>http://www.ipcc.ch/pdf/assessment-</u>

<u>report/ar4/syr/ar4_syr_spm.pdf</u>; ENERGY INFO. ADMIN., GREENHOUSE GASES, CLIMATE CHANGE, & ENERGY, (2008), available at <u>http://www.eia.doe.gov/bookshelf/brochures/greenhouse/greenhouse.pdf</u>.

¹³³ Herve Le Treut, Richard Somerville, Ulrich Cubasch, Yihui Ding, Cecilie Mauritzen, Abdalah Mokssit, Thomas Peterson and Michael Prather, Historical Overview of Climate Change. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the*

¹³¹ CnnMoney.com, Commodities – Light Crude Oil over 1 year period.

http://money.cnn.com/data/commodities/.

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (SOLOMON, S., D. QIN, M. MANNING, Z. CHEN, M. MARQUIS, K.B. AVERYT, M. TIGNOR AND H.L. MILLER EDS.) 97 (2007), <u>http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter1.pdf</u>.

mitigation policies must change so that fewer emissions are allowed to be released by all, thereby mitigating the growing adverse effects of climate change.

One of the major contributors to GHG emissions is the continued use of petroleum based fuels.¹³⁴ As reported in the 2011 U.S. Greenhouse Gas Inventory Draft Report, published by the Environmental Protection Agency (EPA), the United States contributed 5.212 billion metric tons of Carbon Dioxide (CO₂) emissions from petroleum based fuels in 2009.¹³⁵ This is an increase of 470.8 million tons of CO₂ emissions from the 1990 baseline year.¹³⁶

Looking at historical data in Figures 1 and 2 from the EPA, it becomes quite clear that more must be done with urgency. The most significant contributor to increased CO_2 emissions is the combustion of fossil fuels as shown below.

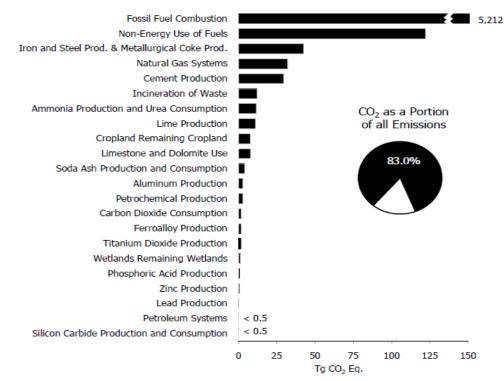


Figure 1: 2009 Energy Sector Greenhouse Gas Sources in Tg (Teragrams) CO₂ ¹³⁷

¹³⁴ Energy Info. Admin., *supra* n.1.

¹³⁵ ENVTL. PROT. AGENCY, DRAFT INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2009, at 2-9 (2011), http://epa.gov/climatechange/emissions/downloads11/US-GHG-Inventory-2011-

<u>Complete Report.pdf</u>.http://www.epa.gov/climatechange/emissions/downloads09/Energy.pdfhttp://www.epa.gov/climatechange/emissions/downloads09/Energy.pdf

¹³⁶ *Id.* The data was calculated by taking the total CO2 emissions from base year 1990 from year 2009.

¹³⁷ ENVTL. PROT. AGENCY, DRAFT INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2009, at ES-20 (2011), *available at*

http://www.epa.gov/climatechange/emissions/downloads09/TrendsGhGEmissions.pdfhttp://epa.gov/clim

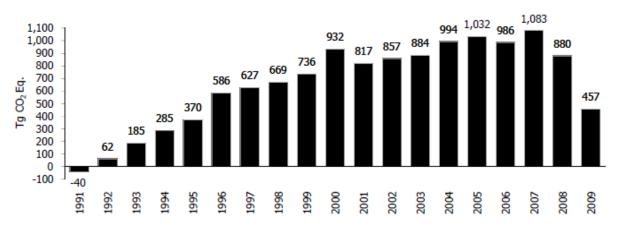


Figure 2: Cumulative Change in Annual U.S. Greenhouse Gas Emissions Relative to 1990¹³⁸

As we search for alternative fuels that will emit little or no GHGs, we should use our legal system to encourage the technologies that have been determined to be economically beneficial for the state and generate positive, real, and sustainable GHG mitigating effects and abandon the technologies that provide little or no sustainable GHG reductions.

One fuel that has shown promise in greatly reducing greenhouse gas emissions is biomass-based diesel, also known as biodiesel. To determine if biodiesel could be used as an alternative energy source to increase energy independence and reduce GHGs, this article explains in Part I what biodiesel is and how it is made. Part II discusses whether it is economically feasible and advantageous to produce biodiesel in Pennsylvania to meet diesel fuel demands. Part III explains how the use of biodiesel will be beneficial in reducing GHG emissions. Part IV explains why the current state and federal regulations fall short in utilizing biodiesel to decrease GHGs and increase energy independence. Finally, Part V proposes a few recommended courses of action regarding biodiesel production and integration for the Commonwealth to consider as we strive to become more energy independent and reduce GHG emissions.

I. Biomass-Based Diesel Basics (Biodiesel)

According to the Energy Independence and Security Act of 2007 (EISA), biomass-based diesel (biodiesel)¹³⁹ is a diesel fuel substitute produced from nonpetroleum renewable

<u>atechange/emissions/downloads11/US-GHG-Inventory-2011-Complete_Report.pdf</u>; 1Tg CO₂ equals 1 megaton CO₂.

¹³⁸ *Id.* at ES-19.

¹³⁹ Energy Independence & Security Act of 2007, § 201(1)(D), (codified as amended at 42 U.S.C. § 7545(o)(1)(D) (2007)) [hereinafter EISA].

resources that meets the registration requirements for fuels and fuel additives established by the EPA.¹⁴⁰ Biodiesel is a fuel substitute for use in compression-ignition engines.¹⁴¹ To be classified as biodiesel, the fuel should have lifecycle GHG emissions that are at least fifty percent less than the baseline lifecycle greenhouse gas emissions.¹⁴² The baseline lifecycle GHG emissions is defined as the average lifecycle GHG emissions, as determined by the EPA for diesel sold or distributed as transportation fuel in 2005.¹⁴³

EISA defines the average lifecycle GHG emissions as the aggregate quantity of GHG emissions related to the full fuel lifecycle. This includes all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through distribution and delivery and use of the finished fuel by the ultimate consumer. The mass value for all GHGs is adjusted to account for their relative global warming potential.¹⁴⁴ This means a complete lifecycle study of each GHG emitter must be conducted individually to determine the average lifecycle. Therefore, when determining the GHG emissions of biodiesel, the complete life cycle must be considered. This includes the production of the feedstock to make the fuel all the way to the end use.

To understand if biodiesel is a suitable and environmentally friendly alternative to petroleum based diesel, the process by which biodiesel is made needs to be examined. Biodiesel is produced through a refinement process called transesterification.¹⁴⁵ Transesterification involves using an alcohol, usually methanol combined with a catalyst,¹⁴⁶ to produce glycerin and a substance made of mono-alkyl esters of long-chain fatty acids which are commonly called biodiesel.¹⁴⁷ Once the process is complete, the alcohol is reclaimed for further production and the resulting end products are glycerin and biodiesel, which are separated from each other and stored.¹⁴⁸

¹⁴²EISA, *supra* n.9 at § 201(1)(D).

http://www.biodiesel.org/pdf_files/fuelfactsheets/production.pdf (last visited Jan. 2, 2010). ¹⁴⁶ Id.

¹⁴⁰ Energy Policy Act of 1992, § 312(f), (codified as amended at 42 U.S.C. § 13220(f)(1)(A) (2007)) [hereinafter Energy Policy 1992].

¹⁴¹ NAT'L RENEWABLE ENERGY LAB., BIODIESEL HANDLING AND USE GUIDE 6 (4th ed. 2009), *available at* <u>http://www.nrel.gov/vehiclesandfuels/pdfs/43672.pdf</u>

¹⁴³ *Id.* at 42 U.S.C. § 7545(o)(1)(C).

¹⁴⁴ Id. at 42 U.S.C. § 7545(o)(1)(H).

¹⁴⁵ NATIONAL BIODIESEL BOARD, BIODIESEL PRODUCTION,

¹⁴⁷ Id.

¹⁴⁸ Id.

Looking at the possible economic benefits of biodiesel production, we find that there are two additional streams of revenue in the form of livestock meal and glycerin.¹⁴⁹ With the ability to sell the biodiesel, livestock meal and glycerin, producers have an excellent opportunity to become profitable.¹⁵⁰ Each planted acre of soybean yields approximately 45 to 50 bushels, and according to Ben Wootton, President of Keystone Biofuels, one bushel of soybeans makes approximately one gallon of soybean oil.¹⁵¹ The oil is then introduced into the transesterification process.¹⁵² When the process is complete, the primary product is biodiesel.¹⁵³ One gallon of soybean oil makes approximately .95 gallons of biodiesel.¹⁵⁴ Therefore, one acre of land is capable of producing at least 42 gallons of biodiesel.¹⁵⁵

When using most feedstock to generate biodiesel, glycerin is produced, which is sold in many industries for a variety of uses.¹⁵⁶ The current market however, has seen a surplus in glycerin and therefore potential revenue has decreased.¹⁵⁷ That being said, according to a new study, conducted by Ramon Gonzalez and Syed Shams Yazdani, there is a way to convert this excess glycerin into ethanol, which will increase its value for biodiesel producers and may help the biofuels industry in general.¹⁵⁸

The most common feedstock sources of oil for biodiesel production are derived from animal fats¹⁵⁹ and oils from soybeans, cottonseed, sunflowers, canola, and peanuts.¹⁶⁰ Figure 3, listed below, provides a simplified view of the biodiesel transesterification process.

¹⁴⁹ JOHN DUNCAN, COSTS OF BIODIESEL PRODUCTION, ENERGY EFFICIENCY AND CONSERVATION AUTHORITY 10 (2003), *available at*http://www.eeca.govt.nz/eeca-library/renewable-energy/biofuels/report/cost-of-biodiesel-production-03.pdfhttp://www.eeca.govt.nz/eeca-library/renewable-energy/biofuels/report/cost-of-biodiesel-production-03.pdf <u>http://www.globalbioenergy.org/uploads/media/0305_Duncan_-Cost-of-biodiesel-production.pdf</u>.

¹⁵⁰ *Id.*; Interview with Charles Cross, President, United Oils Co. in Pittsburgh, Pa. (Mar. 4, 2009).

¹⁵¹ Id.

¹⁵² Id.

¹⁵³ Id.

¹⁵⁴ Id.

¹⁵⁵ Id.

¹⁵⁶ DUNCAN, *supra* n.19 at 10.

¹⁵⁷ *Id*.

¹⁵⁸ Id.

¹⁵⁹ Energy Policy 1992, *supra* n.10 at § 13220(f)(1)(B)(i).

¹⁶⁰ NATIONAL GOVERNOR'S ASSOCIATION, SECURING A GREEN FUTURE: GREENER FUELS, GREEN VEHICLES: A STATE RESOURCE GUIDE 7 *available at* <u>http://www.nga.org/Files/pdf/0712SCEFCALLTOACTION.PDF</u>.

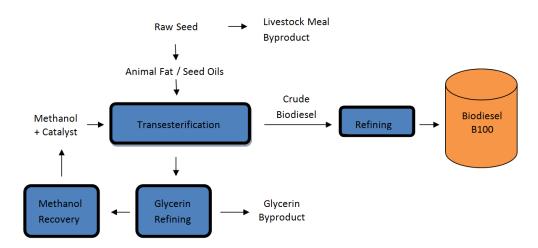


Figure 3 – The Transesterification Process ¹⁶¹

When biodiesel is produced, the end product is known as biodiesel or B100, meaning that the contents are 100% pure biodiesel as specified by the American Society for Testing and Materials (ASTM).¹⁶² Currently very few people use B100 because it is not on the market in many places.¹⁶³ The blends more commonly used in Pennsylvania are B6, B10, and B20.¹⁶⁴ Each of these grades of biodiesel includes blends of 6%, 10%, or 20% of biodiesel, respectively, mixed with conventional petroleum grade diesel.¹⁶⁵ At this time only a B2 blend is mandatory in Pennsylvania.

When using biodiesel in equipment, the individual must keep in mind that biodiesel also acts as an excellent cleaning agent.¹⁶⁶ It is therefore recommended that when switching an automobile or other diesel burning engine to fuel containing more than a B20 blend, maintenance should be performed on a periodic basis until all deposits, from the use of diesel, in the fuel system have been removed.¹⁶⁷ Periodically changing the fuel filter is advised to help

¹⁶² NATIONAL BIODIESEL BOARD, SPECIFICATION FOR BIODIESEL (B100) – ASTM 6751-10, http://www.biodiesel.org/pdf_files/fuelfactsheets/B100_Specification.pdf,

http://www.biodiesel.org/pdf_files/fuelfactsheets/BDSpec.pdfhttp://www.biodiesel.org/pdf_files/fuelfactsh eets/BDSpec.pdf(last visited Mar. 2, 2011).

¹⁶³ NATIONAL BIODIESEL BOARD, RETAIL REFUELING SITES, PA,
 <u>http://www.biodiesel.org/buyingbiodiesel/retailfuelingsites/showall.aspx</u>, (last visited Mar. 2, 2011).
 ¹⁶⁴ NATIONAL BIODIESEL BOARD, SPECIFICATION FOR BIODIESEL BLENDS B6-B20 ASTM 7467-10,
 <u>http://www.biodiesel.org/pdf files/fuelfactsheets/B20_Specification.pdf</u>.

¹⁶⁶ ANTHONY RADICH, BIODIESEL PERFORMANCE, COSTS, AND USE, ENERGY INFORMATION ADMINISTRATION 3 (2004) [hereinafter Radich] *available at* <u>http://www.eia.doe.gov/oiaf/analysispaper/biodiesel/pdf/biodiesel.pdf;</u> NATIONAL BIODIESEL BOARD, BIODIESEL USAGE CHECKLIST,

http://www.biodiesel.org/pdf_files/Usage_Checklist.pdf, (last visited Mar. 2, 2011). ¹⁶⁷ *Id*.

¹⁶¹ *Id*.

¹⁶⁵ *Id*.

mitigate more serious issues.¹⁶⁸ For new vehicles and other diesel burning sources, the immediate use of biodiesel from B2 all the way up to B100 can be used with no adverse effects.¹⁶⁹ The only restriction at this time is that most manufacturers of diesel burning equipment and vehicles will not honor their warranty if certain percentages of biodiesel are used.¹⁷⁰ It is advisable for consumers to check with their equipment manufacturer to determine the maximum percentage of biodiesel allowable to ensure their warranty will be honored. The equipment and vehicle manufacturers believe that if an engine is harmed by this type of fuel used, liability should be found in the suppliers of the fuel.¹⁷¹ Even though this is their general stance, many manufacturers have begun to research the use of biodiesel in their products.¹⁷²

II. The Economic Feasibility of Producing Biodiesel to Meet the Diesel Fuel Demands of Pennsylvania

In July 2008, former Pennsylvania Governor Edward G. Rendell signed into law new legislation with the goal of increasing in-state biofuel production to reduce our dependency on imported oil and mitigate security risks from a sudden shortage of supply.¹⁷³ Although there is state law (Biofuel Development and In-State Production Incentive Act) requiring the use of biodiesel after certain benchmarks are achieved, the big question is whether in-state production of biodiesel is feasible. In other words, when the time comes that biodiesel must be blended with diesel, can suppliers produce enough biodiesel to meet that demand and sustain such levels of production over time? And at what cost to Pennsylvanians?

To understand if biodiesel can be used as a replacement fuel in Pennsylvania, the current supply and consumption of diesel fuel oil must be considered. As of 2009, crude oil production in Pennsylvania totaled 3.540 million barrels (42 gallon capacity).¹⁷⁴ The total

http://www.portal.state.pa.us/portal/server.pt?open=512&objID=2999&PageID=431162&mode=2&content id=http://pubcontent.state.pa.us/publishedcontent/publish/global/news releases/governor s office/news releases/governor rendell signs biofuels development and incentives acts to strengthen national security _spur economic development.html, (last visited Mar. 3, 2011).

¹⁶⁸ Id.

¹⁶⁹ Id.

¹⁷⁰ Id.

¹⁷¹ NATIONAL BIODIESEL BOARD, OEM INFORMATION / STANDARDS & WARRANTIES,

http://www.biodiesel.org/resources/oems/default.shtm, (last visited Mar. 2, 2011).

 $^{^{172}}$ Id.

¹⁷³ Office of the Governor of Pennsylvania, Governor Rendell Signs Biofuels Development and Incentives Acts to Strengthen National Security, Spur Economic Development (2008)

¹⁷⁴ ENERGY INFORMATION ADMINISTRATION, PETROLEUM NAVIGATOR, PENNSYLVANIA FIELD PRODUCTION OF CRUDE OIL (THOUSAND BARRELS), OFFICIAL ENERGY STATISTICS FROM THE U.S. GOVERNMENT,

stock of distillate fuel oil as of 2009 amounted to 5.925 million barrels (42 gallon capacity).¹⁷⁵ The consumption of diesel fuel oil in Pennsylvania as of 2008 was 64.132 million barrels (42 gallon capacity).¹⁷⁶ Due to the lack of availability of consumption levels for 2009, if we assume that consumption stayed at least at 2008 levels in 2009, 58.207 million barrels (42 gallon capacity) of diesel fuel oil was imported to the state to meet demand.¹⁷⁷

Additionally, the current production of biodiesel and feedstock supplies needs to be evaluated. Looking at in-state production of biodiesel, currently, there are six fully operational and licensed production facilities.¹⁷⁸ According to the National Biodiesel Board, these facilities produced 1.45 million barrels (42 gallon capacity) of pure biodiesel as of September 2008.¹⁷⁹

According to Charles Cross, President of United Oil Company in Pittsburgh, Pennsylvania, there are many external factors that greatly influence the ability to produce biodiesel in Pennsylvania.¹⁸⁰ For example, the cost of feedstock fluctuates dramatically, thereby undermining a producer's ability to keep costs down on a gallon of fuel.¹⁸¹ A secondary issue affecting the production and availability of fuel is a lack of infrastructure in the distribution network for feedstock.¹⁸² Presently, only a few companies are capable of blending biodiesel into mixtures with diesel in all B6 and up ranges.¹⁸³ This makes it increasingly difficult to distribute blended biodiesel on a larger scale.

¹⁷⁶ ENERGY INFORMATION ADMINISTRATION, TABLE F4A: DISTILLATE FUEL OIL CONSUMPTION ESTIMATES BY SECTOR, (2008), <u>http://www.eia.doe.gov/emeu/states/sep_fuel/html/pdf/fuel_use_df.pdf</u>; *Latest data available for Distillate fuel oil consumption in Pennsylvania was 2008.*

¹⁷⁷ Pennsylvania consumption 2008 minus in-state production stock 2009 = amount imported.
 ¹⁷⁸ NATIONAL BIODIESEL BOARD, COMMERCIAL BIODIESEL PRODUCTION PLANTS 7

(2008),http://www.biodiesel.org/buyingbiodiesel/producers_marketers/Producers%20Map-

¹⁷⁹ Id.

 181 Id.

¹⁸² Id.

¹⁸³ Id.

<u>http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRFPPA1&f=M</u>.http://tonto.eia.doe.gov/d nav/pet/hist/mdisxpa1a.htmhttp://tonto.eia.doe.gov/dnav/pet/hist/mdisxpa1a.htm

¹⁷⁵ ENERGY INFORMATION ADMINISTRATION, PETROLEUM NAVIGATOR, PENNSYLVANIA REFINERY, BULK TERMINAL, AND NATURAL GAS PLANT STOCKS BY STATE, PENNSYLVANIA DISTILLATE FUEL OIL-ANNUAL (THOUSAND BARRELS), OFFICIAL ENERGY STATISTICS FROM THE U.S. GOVERNMENT,

http://www.eia.doe.gov/dnav/pet/pet_stoc_st_a_EPD0_STR_mbbl_a.htm.

Existing.pdfhttp://www.biodiesel.org/buyingbiodiesel/producers_marketers/Producers%20Map-Existing.pdfno longer available at biodiesel.org; On file with author.

¹⁸⁰ Interview with Charles Cross, President, United Oils Co. in Pittsburgh, Pa. (Mar. 4, 2009).

III. The Use of Biodiesel Will Reduce Greenhouse Gas Emissions

a. The Complete Fuel Lifecycle

When looking at the GHG emissions of a particular fuel source, it is standard practice to look at the emissions produced when used in vehicles, as well as the complete fuel lifecycle.¹⁸⁴ "[U]nderstanding the benefit of biodiesel means understanding how its life cycle emissions compare to those of petroleum diesel."¹⁸⁵ The complete fuel lifecycle includes: GHG emissions produced from feedstock growth, extraction of seed oil, production of oil into fuel, distribution, and combustion.¹⁸⁶ This complete fuel lifecycle is commonly known as the well-to-wheels analysis (WTW).¹⁸⁷

According to the Office of Transportation and Air Quality, the increased usage of alternative fuels can provide significant reductions in GHG emissions from petroleum-based fuels.¹⁸⁸ Additionally, the EPA reports biodiesel, when used as B100, provides a 67.7 % reduction in GHG emissions when replacing diesel.¹⁸⁹ Biodiesel B20 provides a 10% reduction in GHG emissions as compared to diesel.¹⁹⁰

More specifically, an EPA analysis of biodiesel impacts on exhaust emissions from diesel engines, published in October 2002, indicated that as the amount of biodiesel blend was increased from zero percent to one hundred percent, all recorded emissions Particulate Matter (PM 2.5 / PM 10), Carbon Monoxide (CO), and Hydrocarbons (HC) decreased dramatically, with the exception of mono-nitrogen oxides NO_x .¹⁹¹ As the blend of biodiesel was increased to one hundred percent, NO_x increased to ten percent above the baseline of zero percent biodiesel

¹⁸⁴ U.S. DEPARTMENT OF ENERGY & U.S. DEPARTMENT OF AGRICULTURE, LIFE CYCLE INVENTORY OF BIODIESEL AND PETROLEUM DIESEL FOR USE IN AN URBAN BUS IV (1998) [hereinafter USDA Urban Bus], *available at* http://www.nrel.gov/docs/legosti/fy98/24089.pdf.

¹⁸⁵ *Id*.

¹⁸⁶ Id.

¹⁸⁷ Argonne Transportation - GREET Is A Standard Tool for Well-to-Wheel Analyses of Vehicle/Fuel Systems, <u>http://www.transportation.anl.gov/modeling_simulation/GREET/greet_gold_standard.html</u>, (last visited Mar. 4, 2011).

¹⁸⁸ OFFICE OF TRANSPORTATION AND AIR QUALITY, GREENHOUSE GAS IMPACTS OF EXPANDED RENEWABLE AND ALTERNATIVE FUELS USE (EPA420-F-07-035) 1-2 (2007), *available at* http://www.epa.gov/otag/renewablefuels/420f07035.pdf.

¹⁸⁹ Id.

¹⁹⁰ OFFICE OF TRANSPORTATION AND AIR QUALITY, PROGRAM OVERVIEW SMARTWAY GROW & Go 2 (2006), *available at* <u>http://www.epa.gov/otaq/smartway/growandgo/documents/420f06068.pdf</u>.

¹⁹¹ OFFICE OF TRANSPORTATION AND AIR QUALITY, A COMPREHENSIVE ANALYSIS OF BIODIESEL IMPACTS ON EXHAUST EMISSIONS 37-41, 74 (2002), [hereinafter Biodiesel Impacts] EPA420-P-02-001, *available at* <u>http://epa.gov/otaq/models/analysis/biodsl/p02001.pdf</u>.

blended with diesel.¹⁹² There is some cause for concern as NO_x is a chief ingredient in groundlevel smog, acid rain, and global warming in general.¹⁹³ To reduce the amount of NO_x resulting from biodiesel, the EPA has authorized and funded several pilot programs to research techniques that can be used to mitigate the increase in NO_x.¹⁹⁴ A 2004 EPA report has shown promising results by adding cetane additive to biodiesel, thus reducing NO_x emissions significantly.¹⁹⁵ Even with the increase in NO_x, the potential benefit from total GHG emission reduction from biodiesel usage outweighs this drawback.

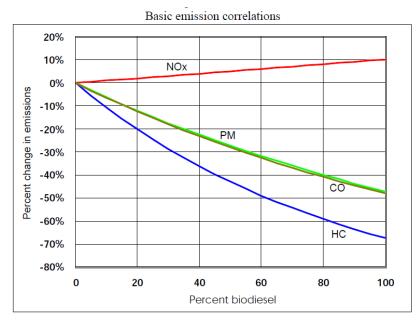




Figure 4 above shows the results from the EPA study on exhaust emissions from diesel engines. When twenty percent biodiesel, or B20, is used, the CO emissions are reduced fifteen percent below the baseline.¹⁹⁷ Overall, the study indicated while all blends of biodiesel greatly

¹⁹² Id.

¹⁹³ OFFICE OF AIR QUALITY PLANNING AND STANDARDS, HOW NITROGEN OXIDES AFFECT THE WAY WE LIVE AND BREATHE 2-3 (1998) EPA456/F-98-005, available at http://www.nchh.org/Portals/0/Contents/EPA_Nitrogen_Oxides.pdf. ¹⁹⁴ OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, OSWER INNOVATIONS PILOT: REDUCING PRODUCTION COSTS AND NITROGEN OXIDE (NOX) EMISSIONS FROM BIODIESEL (2004), available at

http://www.epa.gov/oswer/docs/iwg/fs biodieseland nox final.pdf.

¹⁹⁵ OFFICE OF TRANSPORTATION AND AIR QUALITY, GUIDANCE ON QUANTIFYING NOX BENEFITS FOR CETANE IMPROVEMENT PROGRAMS FOR USE IN SIPS AND TRANSPORTATION CONFORMITY 20 (2004), *available at* http://www.epa.gov/OTAO/guidance/420b04005.pdf.

¹⁹⁶ Biodiesel Impacts, supra n.61, at 37-41.

¹⁹⁷ U.S. DEPT. OF ENERGY, ENERGY EFFICIENCY AND RENEWABLE ENERGY, CLEAN CITIES FACT SHEET 2 (2008), *available at* <u>http://www.afdc.energy.gov/afdc/pdfs/42562.pdf.</u>

reduced GHG emissions, the amount achieved varied.¹⁹⁸ The data shows that depending on the type of feedstock used, whether soybean or yellow grease, the resulting benefits from using biodiesel will either increase or decrease slightly.¹⁹⁹ The study also shows that oil obtained from seeds generates improved reductions as compared to yellow grease and tallow.²⁰⁰ In all cases, there were substantial GHG emission reductions as compared to petroleum diesel fuel oil.²⁰¹ One constraint of this study is that the results were limited to emissions generated when biodiesel was used in compression-ignition engines and did not take into account the complete well-to-wheels analysis.

A more comprehensive study on the complete lifecycle of biodiesel GHG emissions conducted by the United States Department of Energy (DOE) and the Department of Agriculture (USDA) concluded that biodiesel could provide substantial reductions.²⁰² They found that B20 biodiesel provided a 15.66% net CO_2 reduction and the reduction increases to 78.45% when using B100 as compared to petroleum diesel.²⁰³ The study reported reductions in all areas with the exception of NO_x, which increased as compared to petroleum diesel by 13% when using B100.²⁰⁴ When soybean feedstock was used, the DOE / USDA study reported that CO_2 was reduced by 78%, CO was reduced by 35%, PM10 was reduced by 32%, total PM soot was reduced by 83.6%, Sulfur oxides SO_x was reduced by 8%, methane (CH₄) was reduced by 3%, HC was reduced by 37%, wastewater was reduced by 79%, and hazardous solid waste was reduced by 96%.²⁰⁵

Conducting an independent analysis using software developed by the Argonne National Laboratory called the <u>Greenhouse Gases</u>, <u>Regulated Emissions</u>, and <u>Energy</u> Use in <u>Transportation</u> (otherwise known as GREET) Model,²⁰⁶ the author found biodiesel provides

¹⁹⁸ Biodiesel Impacts, *supra* n.61, at 37-41.

¹⁹⁹ Id.

²⁰⁰ *Id.* at iii.

²⁰¹ *Id.* at 41-42.

²⁰² USDA Urban Bus, *supra* n.54, at ii, ("The DOE and USDA collected and constructed their own lifecycle model. With help from Ecobalance, Inc. and the Colorado Institute for Fuels and High Altitude Engine Research (CIFER) at the Colorado School of Mine.").

²⁰³ USDA Urban Bus, *supra* n.54, at 21.

²⁰⁴ *Id.* at 21.

²⁰⁵ USDA Urban Bus, *supra* n.54, at 33-34.

²⁰⁶ "To fully evaluate energy and emission impacts of advanced vehicle technologies and new transportation fuels, the fuel cycle from wells to wheels and the vehicle cycle through material recovery and vehicle disposal need to be considered. Sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), Argonne has developed a full life-cycle model called GREET (Greenhouse gases, Regulated Emissions, and Energy use in Transportation). It allows researchers and analysts to evaluate

substantial reductions in GHG emissions when the percentage of biodiesel used is increased.²⁰⁷ Using the WTW (well-to-wheels) analysis, the amount of total GHG emissions was reduced from 25.14 lbs/gal to 21.38 lbs/gal when using B20.²⁰⁸ Finally, when using B100, *total* GHG emissions were reduced to 5.90 lbs/gal.²⁰⁹ Looking only at the CO₂ emissions from petroleum diesel, B20, and B100, the emission are 24.28 lbs/gal, 20.47 lbs/gal, and 4.62 lbs/gal, respectively.²¹⁰ Figure 5 below shows the corresponding reductions.

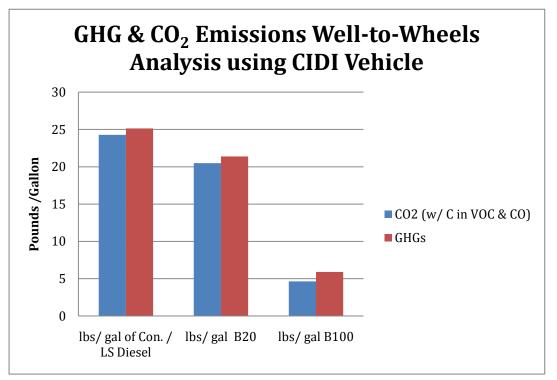


Figure 5 – GHG & CO_2 emissions using well-to-wheel analysis created from Argonne Greet Model.²¹¹

Overall, the WTW analysis shows that as the percentage of biodiesel increases, the GHG emissions that cause hazardous health and environmental effects decreases.

various vehicle and fuel combinations on a full fuel-cycle/vehicle-cycle basis." *available at* <u>http://www.transportation.anl.gov/modeling_simulation/GREET/index.html</u>.

²⁰⁷ Basic constraints in the study – baseline year was 2010, target year was 2012. The energy mix was based on the NE mixture and assumed broad bases of input fuels to generate electricity. The basic combustion ignition direct injection (CIDI) engine was used. Grams/mmBTU was converted to pounds /gallon for ease of understanding for reader. Input and Output file on file with author [hereinafter Johnson GREET Calculations].
²⁰⁸ Id.

²⁰⁹ Id.

²¹⁰ *Id*.

²¹¹ Id.

IV. Current Mandates and Incentives Are Not Enough to Achieve the Maximum Benefits of Biodiesel in Commercial and Residential Life in Pennsylvania to Thereby Reduce Greenhouse Gas Emissions From Diesel Burning Sources and Increase Energy Independence

The current interest by the U.S. Congress and Pennsylvania Legislature to increase the use of biodiesel as well as other biofuels in order to reduce our dependency of foreign petroleum as well as reduce greenhouse gas emissions is encouraging. But, the mandates and incentives enacted are not sufficient to realize the full potential of biodiesel. When determining the full potential of biodiesel, the current mandates and incentives must be weighed against the overall reduction in greenhouse gas emissions that will be realized under those requirements.

Looking at the mandates first, the current federal requirement, as stipulated by EISA, required only 0.5 billion gallons of biodiesel production nationwide for year 2009 and will increase by 150 million gallons each year until 2012.²¹² During the year 2012, production must increase by 200 million gallons.²¹³ Even though this seems to be a large quantity, the 2009 mandate only accounts for 0.94% of the total consumption (52,731,010,000 gallons) of diesel fuel consumed in the United States as of year 2009.²¹⁴ On a positive note, total biodiesel production in the United States in 2009 was a little over 0.5 billion gallons.²¹⁵ Hence, the biodiesel industry has already exceeded the requirements of EISA.²¹⁶ Moreover, according to the National Biodiesel Board, potential production capacity reached 2.737 billion gallons per year as of January 2008.²¹⁷ With the ability to produce more than twice the required 2012 production as mandated in EISA, the current law does little to encourage more growth in this sector.²¹⁸

²¹⁴ ENERGY INFORMATION ADMINISTRATION, PETROLEUM NAVIGATOR, SALES OF DISTILLATE FUEL OIL BY END USE FOR THE U.S. (THOUSAND GALLONS PER DAY), OFFICIAL ENERGY STATISTICS FROM THE U.S. GOVERNMENT (2003-2009), http://tonto.eia.doe.gov/dnav/pet/pet cons 821dst dcu nus a.htm.

²¹⁵ Energy Information Administration, Table 10.4 Biodiesel overview (MMgal, Million US Gallons), Official Energy Statistics from the U.S. Government (2003-2009),

http://tonto.eia.doe.gov/mer/pdf/pages/sec10_8.pdf.

²¹⁶BIOMASS RESEARCH AND DEVELOPMENT BOARD (BRDB), THE ECONOMICS OF BIOMASS FEEDSTOCKS IN THE UNITED STATES: A REVIEW OF LITERATURE 30 (2008) [hereinafter BRDB] *available at*

http://www.usbiomassboard.gov/pdfs/7_Feedstocks_Literature_Review.pdf.

²¹² EISA, *supra* n.9, § 202(a)(2)(B)(i)(IV).

²¹³ Id.

²¹⁷ NATIONAL BIODIESEL BOARD, U.S. BIODIESEL PRODUCTION CAPACITY,

http://www.biodiesel.org/buyingbiodiesel/plants/.http://www.biodiesel.org/pdf_files/fuelfactsheets/Prod uction_Capacity.pdfhttp://www.biodiesel.org/pdf_files/fuelfactsheets/Production_Capacity.pdf²¹⁸ EISA, *supra* n.9.

Upon closer inspection of the Pennsylvania Biofuel Development and In-State Production Incentive Act, it is clear that Pennsylvania is attempting to encourage growth in the biofuel sector by requiring a percentage of biodiesel to be blended with diesel once certain criteria are met. Unfortunately, the mandates are only triggered as the industry grows to the required benchmark levels. Normally, it would be acceptable practice to allow the industry time to grow and work towards incremental benchmarks, but the benchmarks Pennsylvania has set are too low, too spread out, and based on a three month sustainable production level before the next increase in biodiesel blending requirements is mandated. Essentially, the legislation requires biodiesel production sites to double their current facilities' capacity or build twice the number of plants to reach each new benchmark.²¹⁹

Looking at both mandates together, the federal mandate has little effect on the current growth of the industry and the state mandate is highly unattainable in its current formulation. Furthermore, the federal mandate only requires a certain amount of biodiesel be produced each year. There are currently no federal statutes requiring a percentage of biodiesel to be blended with petroleum based diesel. On a national scale, it is difficult to determine how much reduction in greenhouse gases is currently being achieved because state laws governing the percent of biodiesel to be blended with petroleum diesel vary greatly.²²⁰ At the state level, some states do not require the use of biodiesel at all, while other states, like Illinois, allow but do not require, biodiesel blended above eleven percent (B11) to be sold tax free.²²¹ Additionally, because the Pennsylvania mandate requires blending only when certain benchmarks in production are reached, and allows a large gap between the benchmarks and increased percentage blending requirements, the law virtually ensures meaningful greenhouse gas emission reductions from the use of biodiesel in Pennsylvania will be many years away. The past federal and current state per gallon credits for the production and usage of Biodiesel were likely the only real reason why production of biodiesel continued to rise until 2008. Since the economic downturn in 2008, production continues to fall.²²²

²²⁰ ENERGY INFORMATION ADMINISTRATION, FEDERAL AND STATE ETHANOL AND BIODIESEL REQUIREMENTS, OFFICIAL
 ENERGY STATISTICS FROM THE U.S. GOVERNMENT, <u>http://www.eia.doe.gov/oiaf/aeo/otheranalysis/ethanol.html</u>.
 ²²¹ National Biodiesel Board, Rapid Growth of Biodiesel in Illinois (2003),

http://www.biodieselconference.org/2008/post/secure/_xlI10o0/08%20Regulatory%20Boyle.pdf. ²²² National Biodiesel Board, Estimated Production for Calendar Years 2005-2010, http://www.biodiesel.org/pdf_files/fuelfactsheets/Estimated_Production_Calendar_Years_05-10.ppt.

²¹⁹ Calculations based on an average size plant that produces 45 million gallons per year.

Combining both incentives together, Pennsylvania biodiesel producers were able to take a total of \$1.75 credit for each gallon of biodiesel produced.²²³ These credits helped bring the cost per gallon closer in line with diesel fuel prices, but left them still slightly higher.²²⁴ Unfortunately since the federal credit of \$1.00 expired on December 31, 2009, a gallon of biodiesel became even more expensive and producer incentives were reduced to the state offered \$0.75 credit. The expiration of this incentive was mandated by law and did not account for other economic conditions such as the recent downturn of world economies or the current production of biodiesel.²²⁵ For the consumer, there is an incentive to use biodiesel with a \$1.00 income tax credit for each gallon of pure B100 biodiesel used.²²⁶ However, at this time very few people can take advantage of this credit because the majority of manufacturers will not warrant engines that are damaged while using a blend of biodiesel higher than B20.²²⁷

The recently passed Food Conservation and Energy Act of 2008 (Farm Bill) is another federal incentive enacted to offer grants and loans for the construction of new biodiesel production plants.²²⁸ As of 2009, 173 biodiesel production facilities were located in the United States.²²⁹ One of the many features of the Farm Bill is to increase the number of new sites producing biodiesel.²³⁰ Total capital cost for a new biodiesel production facility is on average \$67.5 to \$144 million depending on total production capacity.²³¹ With funding available from the Farm Bill, roughly 13 new facilities could be built, capable of generating about 45 million gallons per year of biodiesel, at a cost of \$67.5 million²³² each.²³³ This would increase the total number of plants nationally by 7.5% and would increase the total production capacity in the United States by 585,000,000 gallons. The size of these facilities would be equivalent to Pennsylvania's largest producer, HeroBX, located in Erie, Pennsylvania, which has the capacity

²²⁸ H.R. 2419, 110th Cong. § 9003(a) (2008) (enacted).

²²⁹ National Biodiesel Board, U.S. Biodiesel Production Capacity, http://www.biodiesel.org/pdf files/fuelfactsheets/Production Capacity.pdf.

²²³ Alternative Fuel Mixtures Credit, *supra* n.152; Alternative Fuels Incentive Fund, *supra* n.175 at § 1647.3.1(a)(1).

²²⁴ Radich, *supra* n.36, at 8.

²²⁵ Alternative Fuel Mixtures Credit, *supra* n.152.

²²⁶ 26 U.S.C. § 40A(B)(2) (2008).

²²⁷ *Id.*; NATIONAL BIODIESEL BOARD, OEM WARRANTY STATEMENTS AND USE OF BIODIESEL BLENDS OVER 5% (B5), <u>http://www.biodiesel.org/pdf files/B5 warranty statement 32206.pdf.</u>

²³⁰ 7 U.S.C.A. § 8103 (2008).

²³¹ Duncan, *supra* n.19 (with my calculations and estimates).

²³² Calculated at an estimated cost of \$1.50/gal of annual capacity.

²³³ *Id.;* Interview with Charles Cross, President, United Oils Co. in Pittsburgh, Pa. (Apr. 26, 2009).

to generate 45 million gallons per year (Mgy) of biodiesel.²³⁴ If all funding from the Farm Bill is used for larger capacity facilities (75-80 million gallons per year), about six new facilities could be built at a cost of \$144 million for each facility.²³⁵ This would increase the number of facilities by 3.5% and would increase the total gallons of biodiesel that could by produced by only 480,000,000 gallons per year.²³⁶

Because all of the funding will not go to any one state, but will be spread out across the country, this will be a benefit to the national biodiesel production capacity, but will not do enough to help Pennsylvania with production. Unless Pennsylvania is fortunate enough to have new companies that receive the funding interested in building and producing biodiesel in the state, the funding will do little to help in-state production.

V. Proposed Legal Steps to Maximize GHG Emission Reductions Using Biodiesel in Pennsylvania

a. Proposed Legal Mandates

The state should enact new legislation requiring a mandatory blending level of diesel with twenty percent of biodiesel to be effective in two years. By switching in two years to B20 fuel, Pennsylvania will realize an immediate forty percent reduction in GHG emissions, an increase in new jobs across many private sectors for its citizens, energy independence, and be well on its way to reducing the GHG emissions produced in Pennsylvania.

The legislation should require only B20 to be sold in Pennsylvania for automobile use and for home fuel oil needs. This would be an increase from the current requirement of B2 (98% diesel / 2% biodiesel) blending that came into effect in January 2010. Additionally, this would include home fuel oil consumption, which is exempt under current legislation.

By increasing the blending requirement to B20, 14 new 45 Mgy biodiesel production facilities would need to be constructed to meet the additional 589,814,400 gallons of biodiesel needed to blend into B20 fuel.²³⁷ With the additional facilities, the total Pennsylvania production capacity would increase to 650,714,400 gallons.²³⁸ Because the B20 standard would be mandatory, this would spur incentives for producers to want to increase production

²³⁴ See http://herobx.com, HEROBX (*formally known as* Lake Erie Biofuels, using soy feedstock is capable of producing 45 Mgy. The facility started production in September 2007.

 ²³⁵ Calculated at an estimated cost of \$1.80/gal of annual capacity; Duncan, *supra* n.20 (with my calculations and estimates); Interview with Charles Cross, President, United Oils Co. in Pittsburgh, Pa. (Apr. 26, 2009).
 ²³⁶ Id.

²³⁷ Fuel consumption calculations based on 2007 levels and emission results for GREET model analysis performed by Jonathan Johnson (2009).

capacity by ensuring they will have a product that they will be able to sell. Hopefully this will encourage investors to offer capital for some of these new facilities. By changing to a B20 standard, the state would realize an approximately 16% or 11,234,746,943 lbs/gal (5,617,373 short tons) CO_2 reduction per year.²³⁹ Additionally, this would reduce overall GHG emissions from diesel vehicles by 15% or 10,981,966,647.00 lbs/ gallons (5,490,983 short tons) in total GHGs per year.²⁴⁰

The legislation should also mandate automobile and equipment manufacturers honor warranties when B20 or higher biodiesel is used starting with the 2013 model year. Since the state has a legitimate state interest in reducing GHG emissions and protecting its citizens from invalidation of automobile warranties, the state legislature would use its inherent power to mandate such a requirement and would not be in danger of violating the dormant commerce clause (DCC). Since this piece of legislation would affect all automobile and equipment manufacturers selling goods in Pennsylvania, this could be seen as protectionist under the DCC. When determining whether legislation is in violation of the DCC, the Supreme Court looks to see if the statute has an incidental effect on interstate commerce.²⁴¹ This includes a balancing test to determine whether the burden on commerce is clearly excessive relative to putative local benefits.²⁴² The presumption is the statute will be upheld unless shown to be excessive.²⁴³ In this case, the statute would not impose an excessive burden on manufacturers to meet the state requirements, because many manufacturers already honor their warranties to a certain percentages of biodiesel.²⁴⁴ Furthermore, the state has a very important interest in protecting the health and environment of Pennsylvania. Finally, the statute would not be designed as a protectionist statute that would favor in-state manufactures of goods.

Opposition to this increase to a B20 standard will argue that B20 and higher blends have a higher clouding point than diesel and due to the cold harsh winters in Pennsylvania, they will be unable to operate the necessary trucks and equipment. However, this is an

²³⁹ Id.

²⁴⁰ Id.

²⁴¹ Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).

²⁴² Id.

²⁴³ Id.

²⁴⁴ National Biodiesel Board, "OEM Information / Standards and Warranties", <u>http://www.biodiesel.org/resources/oems/.</u>

argument without legs as technology is already used and available to the public to mitigate this issue. ²⁴⁵

b. Proposed Legal Incentives

Since the B20 standard would be mandatory, this would affect all citizens. To alleviate the potential adverse economic impacts and incite a demand for changes, incentives would have to be provided. A simple search of biodiesel conversion kits, which would allow a vehicle built to run on diesel to efficiently use biodiesel, show that the average cost is approximately \$1,500 to \$2,000. The legislation should provide a state rebate of approximately \$2,000 to \$3,000 toward initial maintenance when modifying an existing vehicle to B20 compatibility or when the consumer purchases a new B20 compliant vehicle. This would include any necessary equipment to prevent clouding of the fuel during the cold winter months which normally costs approximately \$200 plus installation. Funding for this rebate is already available through the state Alternative Fuels Incentive Fund.²⁴⁶ The Fund would need to be amended to include this specific purpose, but should not be an issue as the addition is in accordance with the purpose of the Fund. Additionally, the Fund would need to be amended to include other equipment that uses diesel, such as home fuel oil furnaces and farm equipment. This would be a onetime rebate for each participant in the program. Exceptions could be given for businesses and family farms to increase the total rebate if all equipment is changed over in a defined period of time. The rebate for home heating would be a one-time credit per household.

c. Proposed Biodiesel Working Group

The legislation should create a working group comprised of members of state agencies, state universities, private citizens, and businesses in the private sector within 30 days of this legislation's effective date to study the impact on fueling stations and what would be required, if anything, to change over existing infrastructure. The working group should report its findings and recommendations to the legislature within six months.

d. Proposed Future Studies

Legislation should mandate a study to determine the feasibility of increasing the blend of biodiesel to higher percentages in the next few years. This study should look at emerging technologies that increase efficiency and reduce energy use and GHG emissions. The study should ultimately conduct a final determination on the ability to use glycerin to make ethanol

²⁴⁵ *See supra* pp. *8-9*.

²⁴⁶ 73 P.S. § 1647.3(b)(ii),(iv), (d) (2008).

on a larger scale. The participants of this study should be formed by including state agencies, state universities, and businesses in the private sector. Further, grants should be awarded to conduct these studies.

VI. Conclusion

Looking at the cumulative effect of all federal and state biodiesel mandates and incentives, it is clear that neither approach is doing enough to bring about the maximum benefits possible. It is also clear that greenhouse gas emissions from diesel-burning sources will not be reduced unless something is done now. Based on the author's cost benefit analysis of switching to biodiesel, the Pennsylvania Legislature should take additional steps to achieve the maximum reduction in GHG emissions from biodiesel use. The state should impose new legislation requiring a mandatory blending of twenty percent biodiesel with regular petroleum diesel (B20), effective in two years. The legislation should require only B20 to be sold in Pennsylvania for both automobile use and home fuel oil needs.

Every year that Pennsylvania waits to increase the standards and incentives for biodiesel usage is another year of ever increasing GHG emissions, lost opportunity in mitigation, and increased difficulty in curbing further adverse climate change effects on the state and region. Every year that is wasted decreases the chances of successful in-state biodiesel production facilities and stunts the growth of emerging technologies. By switching to B20 in two years, Pennsylvania will realize an immediate fifteen percent reduction in GHG emissions.²⁴⁷ This has the potential to increase the quality of air and can reduce harmful health-related issues. Additionally, mandating a B20 standard now will, in effect, create jobs in a broad section of the private sector, potentially generating new opportunities for many Pennsylvanians who desperately need employment in these current economic times. With the proposed legislation, Pennsylvania will be well on its way to becoming independent in its diesel fuel needs.

²⁴⁷ Johnson, *supra* n. 78.

LEGISLATIVE DEVELOPMENTS

<u>Senate Bill 91</u> – (Greenleaf, R. – 12) SB91 would amend the Oil and Gas Act, requiring disclosure to landowner that they may be held liable to other landowners for damages the result from gas drilling. The disclosure must be approved by Department. A gas mineral rights lease agreement shall also include an indemnification clause. SB91 referred to Environmental Resources and Energy Committee on Jan. 12, 2011.

<u>Senate Bill 127</u> – (Williams, D. – 8) SB 127 would amend the Oil and Gas Act, requiring, notwithstanding trade secret claim, a well operator to disclose to the Department within 30 days after completion of well using hydraulic fracturing process, listing all volumes and Chemical Abstract Service number of each chemical and chemical compound used in hydraulic fracturing process. Information shall be published on Department's website and available to the public. In case of a medical emergency, the well operator shall provide the concentration of each constituent chemical and the formula for each chemical emergency all information shall remain confidential and only released by lawful order of the court. A copy of report shall be kept at well site and available upon request by department, local EMS or surface landowners residing within 5,500 feet of the well. Well operator shall also kept log indicating total volume of fracturing fluids used for well operation as well as all fluids returned to the surface. Well operator shall submit information to department on semi-annual basis. SB 127 referred to Environmental Resources and Energy Committee on Jan. 12, 2011.

<u>Senate Bill 151</u> – (Pileggi, R. – 9) SB 151 would amend the Air Pollution Control Act by requiring that in certain circumstances, an incident that results in imposition of a fine or civil penalty of at least \$50,000, 25% of the fine or civil penalty collected shall be returned by the department to the municipality in which the violation occurred to be used for projects that eliminate or reduce air pollution or for parks, recreation projects, trails or open space. SB 151 referred to Environmental Resources and Energy Committee on Jan. 12, 2011.

<u>Senate Bill 153</u> – (Folmer, R. – 48) SB153 would provide for the reduction of energy use in State buildings, for energy efficiency and the State motor vehicle fleet and for other energy efficiency and procurement; establishing the Interagency Task Force on Energy and providing for its powers and duties; and providing for recognition of efforts to improve State energy efficiency and for reporting. Referred to State Government on Jan. 12, 2011.

<u>House Bill 37</u> – (White, D. Allegheny, Beaver, Washington) HB37 would provide for abandonment of mineral rights in real property, for the recording by surface owners of title to mineral rights in their real property after ten years of nonuse by the subsurface owner; and establishing a right of action to settle title to mineral rights. HB37 referred to Environmental Resources and Energy Committee on Jan. 19, 2011.

<u>House Bill 168</u> – (Miller, R. – York) HB168 would amend Conservation District Law by adding Section 14.1 that requires the Department to impose and collect a surcharge on each fine and penalty that is collected by it under this or any other act and that is deposited into a special fund. The amount of surcharge would be ten percent of amount of fine or penalty. Surcharge

to be deposited into special fund in which fine or penalty is deposited. HB168 referred to Environmental Resources and Energy Committee on Jan. 24, 2011.

House Bill 193 – (Harper, R. – Montgomery) HB193 would require the design, construction and renovation of State-owned or State-leased buildings to comply with specified energy and environmental building standards. HB193 referred to Environmental Resources and Energy Committee on Jan. 24, 2011.

<u>House Resolution 28</u> – (Miller, R. – York) HR28 would direct the Legislative Budget and Finance Committee to review the Commonwealth's program for beneficial use of sewage sludge by land application. HR28 referred to Environmental Resources and Energy Committee on Jan. 24, 2011.

<u>Senate Bill 228</u> – (Piccola, R. – 15) SB228 would amend the Stony Creek Wild and Scenic River Act, further providing for legislative findings and purpose; providing for limitations on use; and making editorial changes. SB228 referred to Environmental Resources and Energy Committee on Jan. 24, 2011.

<u>House Bill 230</u> – (Mundy, D. – Luzerne) HB230 would amend the Oil and Gas Act, further providing for well location restrictions. HB230 referred to Environmental Resources and Energy Committee on Jan. 26, 2011.

<u>House Bill 232</u> – (Mundy, D. – Luzerne) HB232 would amend the Oil and Gas Act, further providing for well location restrictions and providing for disposal of wastewater from oil and gas activities targeting unconventional shale formations and for a cumulative impacts study.. HB232 referred to Environmental Resources and Energy Committee on Jan. 26, 2011.

<u>House Bill 233</u> – (Mundy, D. – Luzerne) HB233 would establish an Act providing for a moratorium on the issuance of new well permits for natural gas drilling in the Marcellus Shale formation. HB233 referred to Environmental Resources and Energy Committee on Jan. 26, 2011.

<u>House Bill 234</u> – (Mundy, D. – Luzerne) HB234 would amend Oil and Gas Act, providing for the definition of "unconventional shale formation"; and further providing for well reporting requirements. HB234 referred to Environmental Resources and Energy Committee on Jan. 26, 2011.

<u>Senate Bill 304</u> – (White, R. – 41) SB 304 would amend Air Pollution Control Act to include proposed or finalized revisions to SIP to be published and maintained on publicly accessible internet website of department that developed the plan or revision. The plan or revision shall also be submitted to the Chairman and minority chairman of Environmental Resources and Energy Committee at same time it is published for public comment or submitted to the board. SB 304 referred to Environmental Resources and Energy Committee on Jan. 27, 2011.

<u>Senate bill 305</u> – (White, R. – 21) SB 305 would amend the Clean Streams Law to exempt operator of oil and gas construction activity from applying for an NPDES permit as consistent with 33 U.S.C. Sec. 1342(1)(2), unless construction activity contributes to a violation of water

quality standards. SB 305 referred to Environmental Resources and Energy Committee on Jan. 27, 2011.

<u>Senate Bill 333</u> – (Tomlinson, R. – 6) SB333 would enact the Home Energy Assistance Act providing for home energy assistance to certain persons through payment of matching funds to the hardship funds of certain home energy providers and for powers and duties of the Department of Public Welfare. SB 333 referred to Environmental Resources and Energy Committee on Jan. 28, 2011.

<u>Senate Bill 341</u> – (Greenleaf, R. – 12) SB 341would amend Title 3 (Agriculture) establishing an Automotive Fuel Testing and Disclosure Program to eliminate the possibility that a new motor vehicle will have to be inspected twice in one year and provide other testing by Department. Department to test no more than ten percent of automotive fuel dispensers. Inspect and Test octane level on random, unannounced basis to ensure it complies with ASTM. Promulgate regulations to set standards for gasoline sold, offered or exposed for sale, stored, or held for distribution, pursuant to ASTM specifications. Act additionally provides for labeling requirements. Establish fines for fines and penalties. Reporting requirements by Department to Transportation committees. SB 341 referred to Consumer Protection and Professional Licensure on Jan. 28, 2011.

<u>House Bill 326</u> – (Harper, R. – Montgomery) HB 326 would amend an act relating to the recycling and reuse of waste tires. Increases the expenditure limit for collection events to \$150,000 per fiscal year for any county having a population of 250,000 or more as determined by the most recent Federal decennial census. HB 326 Referred to Environmental Resources and Energy Committee on Jan. 31, 2011.

<u>Senate Bill 352</u> – (Dinniman, D. – 19) SB352 would amend Title 72 imposing a tax on the extraction of natural gas; providing for natural resource severance tax license, for duties of the Department of Revenue, for tax assessments and tax liens; imposing penalties; providing for service of process, for rulemaking, for cooperation with other governments and for bonds; establishing the Natural Gas Conservation and Community Investment Fund; and making an appropriation. SB352 referred to Finance Committee on Feb. 1, 2011.

<u>Senate Bill 367</u> – (White, R. – 41) SB367 would establish the Indigenous Mineral Resources Development Act and would provide for indigenous mineral resource development of state owned land; and imposing powers and duties on the Department of General Services. SB 367 referred to Environmental Resources and Energy Committee on Feb. 1, 2011.

<u>House Bill 375</u> – (Godshall, R. – Montgomery) HB 375 would amend an act of July 11, 2006 (P.L. 1134, No. 115) further defining when an oil or gas well has been abandoned and in which circumstances oil and gas well and ownership rights transfer back to surface owner of land or remain with person holding oil or gas interest in the land. HB 375 Referred to Environmental Resources and Energy Committee on Feb. 1, 2011.

<u>*House Bill 376*</u> – (Godshall, R. – Montgomery) HB 376 would amend an Title 66 (Public Utilities) by providing definitions; in rates and ratemaking, further providing for sliding scale of rates and adjustments; and, in service and facilities, further providing for ownership and

maintenance of natural gas and artificial gas service lines. HB 376 Referred to Consumer Affairs Committee on Feb. 1, 2011.

<u>House Bill 437</u> – (Preston, D. – Allegheny) HB 437 is a joint resolution proposing to amendment to the Constitution of the Commonwealth of Pennsylvania, further providing for gasoline taxes and motor license fees and restrictions on the use of these funds. HB 437 Referred to Appropriations Committee on Feb. 3, 2011.

<u>House Bill 441</u> – (Preston, D. – Allegheny) HB 411 would amend Titles 53 and 66 and providing for municipal aggregation of electric generation supply. HB 411 Referred to Consumer Affairs Committee on Feb. 3, 2011.

Senate Bill 425 – (Leach, D. – 17) SB425 would amend the Oil and Gas Act, further providing for definitions, for well permits on site during preparation and construction of well site or access road, for plat preparation of well to be drilled, operated or altered and name of surface landowners within 2500 ft. Conservation districts shall be authorized to conduct quarterly review of erosion and sediment control permit applications. Well location may not be drilled within 1000 feet measured horizontally from any existing building or existing water well without owner consent. No well may be drilled using hydraulic fracturing or horizontal drilling within 2,500 feet of surface water source and within 1000 of ground water source that serves public water system. The Department shall inspect each phase of cementing before applicant can proceed to next phase. Applicant shall provide predrilling and prealteration survey to landowners residing within 2,500 and 5,500 from well site. Unless rebutted by one of five defenses well operator shall be liable for pollution of water supply within 2,500 feet of oil or gas well and extend additional 2,500 feet from end of horizontal drilling. Well operator shall file report to department for each well drilled using hydraulic fracturing process within thirty days upon completion of well. The report shall include complete list of chemicals and chemical compounds. Required information supplied to emergency medical personnel in case of emergency. Where centralized flowback impoundments are used to temporarily store flowback water, the department shall require the use of dual liner systems with a leak detection system installed between the two liners. The department shall inspect such impoundments on a monthly basis. Additional bonding requirements and Local Zoning limitations. SB425 referred to Environmental Resources and Energy Committee on Feb. 7, 2011.

<u>Senate Bill 426</u> – (Leach, D. – 17) SB426 would establish the State Forest Natural Gas Lease Moratorium Act providing for a moratorium on leasing State forest lands for the purposes of natural gas exploration, drilling or production; imposing duties on the Department of Conservation and Natural Resources; and providing for report contents and for Legislative Budget and Finance Committee study. SB426 referred to Environmental Resources and Energy Committee on Feb. 7, 2011.

<u>Senate Bill 452</u> – (Erickson, R. – 26) SB452 updating and expanding the storm water planning requirements to be undertaken by counties and authorizing counties to regulate storm water within a watershed-based planning area; authorizing the formation of water resources management authorities; enabling counties, municipalities and water resources management authorities to develop integrated water resources management plans; imposing duties and conferring powers on the Department of Environmental Protection, the Environmental Quality Board, counties, municipalities and water resources management authorities; providing for

financing and for waiver of use for certain grant or loan funds; and making related repeals. SB452 referred to Environmental Resources and Energy Committee on Feb. 7, 2011.

<u>Senate Bill 454</u> – (Erickson, R. – 26) SB454 would establish a program for the purchase of certain types of environmental liability insurance and for subsidies for the costs of premiums and provide for powers and duties of the Department of Environmental Protection. SB 454 referred to Environmental Resources and Energy Committee on Feb. 7, 2011.

<u>Senate Bill 460</u> – (Yaw, R. – 23) SB460 would establish an act regulating the terms and conditions of certain leases regarding natural gas and oil," adding definitions; providing for payment information to interest owners for accumulation of proceeds from production, for nonpayment of royalties and for effects of nonpayment; and making editorial changes. SB460 referred to Environmental Resources and Energy Committee on Feb. 7, 2011.

House Bill 547 – (Petri, R. – Bucks) HB 547 amends an act (P.L.1376, No. 178) that established the Alternative Fuels Incentive Fund and authorizes grants and rebates to promote the use of alternative fuels. Increase the number of hybrid and alternative energy vehicles in state fleet. HB 547 Referred to Environmental Resources and Energy on Feb. 8, 2011.

<u>Senate Bill 447</u> – (Yaw, R. – 23) SB447 would amend Title 58 (Oil and Gas) of the Pennsylvania Consolidated Statutes, consolidating the Oil and Gas Conservation Law with modifications relating to definitions, standard unit order, process, administration, standard of review, hearings and appeals, establishment of units, integration of various interests, lease extension and scope; providing for gas and hazardous liquids pipelines; and making a related repeal. SB447 referred to Environmental Resources and Energy Committee on Feb. 11, 2011.

<u>Senate Bill 531</u> – (Rafferty, R. – 44) SB531 would amend the Solid Waste Management Act, further providing for criminal penalties. SB531 referred to Environmental Resources and Energy Committee on Feb. 14, 2011.

<u>Senate Bill 265</u> – (White, R. – 21) SB 265 would amend Coal and Gas Resource Coordination Act, further providing for definitions, for permits, for permit application, for minimum distance between gas wells, for well class designation and for coordination of gas well drilling through active coal mines; providing for a pillar support study; and further providing for plugging gas wells penetrating workable coal seams, for penalties and for validity of other laws. SB 265 referred to Environmental Resources and Energy Committee on Jan. 26, 2011. SB 265 re-referred to Appropriations Committee on Feb. 16, 2011.

<u>Senate Bill 574</u> – (Ferlo, D. – 38) SB574 would provide restrictions regarding gas distribution operation for termination of utility service during months of December through March. SB574 referred to Consumer Protection and Professional Licensure on Feb. 18, 2011.

<u>Senate Bill 596</u> – (Costa, D. – 43) SB596 would establish an act relating to safe drinking water; establishing the Emergency Drinking Water Support Fund; and providing for testing, for purchase of clean drinking water and for surcharge. SB596 referred to Environmental Resources and Energy Committee on Feb. 18, 2011.

<u>Senate Bill 618</u> – (Yudichak, D. - 14) SB 618 would provide independent counsel to all members of the EQB to assist members of the board on all matters including rulemaking petitions, drafting petitions, proposed and final rulemaking and procedural matters. SB 618 referred to Environmental Resources and Energy Committee on Feb. 23, 2011.

<u>Senate Bill 325</u> – (Baker, R. – 20) SB 325 would establish an act providing for gas and hazardous liquids pipelines and for powers and duties of the Pennsylvania Public Utility Commission; and imposing civil penalties. SB 325 re-reported as amended on Feb. 28, 2011.

<u>Senate Bill 722</u> – (Yaw, R. – 23) SB722 would amend Oil and Gas Act and provides for lease extended by production. SB722 referred to Environmental Resources and Energy Committee on Feb. 28, 2011.

<u>Senate Bill 303</u> – (White, R. – 21) SB303 would amend Hazardous Sites Cleanup Act, further providing for the fund and for civil penalties. SB 303 re-referred to Appropriations on Mar. 1, 2011.

<u>House Bill 344</u> – (Baker, R. – Bradford/Tioga) HB 344 would amend an act relating to the recycling and reuse of waste tires. Increases the expenditure limit for collection events to \$150,000 per fiscal year for any county having a population of 250,000 or more as determined by the most recent Federal decennial census. HB 344 as reported from Committee on Consumer Affairs, as amended on Mar. 1, 2011.

<u>Senate Bill 601</u> – (Yaw, R. – 23) SB601 would amend an act related to development of oil, gas, and coal (P.L. 1140, No. 223). Provides for additional definitions, additional requirements for plat and notification to surface landowners within additional distance. Authorizes department to establish additional protective measures for the storage of hazardous chemicals or material intended to be used on the well drilling site within 500 feet of any such stream, spring, body of water or wetland. Requires Department to ensure restored or replacement water supply meets standards of SDWA. SB601 referred to Environmental Resources and Energy Committee on Mar. 7, 2011.

<u>Senate Bill 602</u> – (White, R. – 21) SB602 would amend an act amending the Oil and Gas Act, further providing for bonding. SB602 referred to Environmental Resources and Energy Committee on Mar. 8, 2011.

REGULATORY DEVELOPMENTS

Proposed DEP Regulations

<u>Clean Streams Law—Rates to be Used for Calculating Long-Term Operation and Maintenance</u> 41 Pa. B. 972 Sat. 2/19/11

Clean Streams Law 35 P.S. §§691.1-691.1001

Applies to operation and maintenance costs for anthracite and bituminous coal and industrial mineral mining operations. Rates are used to calculate the water supply operation and maintenance bond amounts for replacement water supplies affected by mine activities. The proposed rates are as follows: 2006-2009 Consumer Price Index 2.43%, 20-Year Treasury Bill 2006-2009 4.482%. Rates effective April 1, 2011.

MAJOR DEP POLICIES, GUIDANCES, DIRECTIVES, AND NOTICES

<u>Rescission of Technical Guidance—Policy for the Evaluation of Impacts of Oil and</u> <u>Gas Development on State Parks and State Forests</u>

41 Pa. B. 971 Sat. 2/19/11

Rescission of former Gov. Ed Rendell's policy cited as redundant. The policy rescission removes the ban on drilling activities in State Parks. Removes the State's authority to have input on drilling operations in state parks. The State does not own <u>85%</u> of the mineral rights in those State parks.

Notice to Rescind and Remove from the Official List of Department Technical Guidance Documents and Policies Interim Guidance for Performing Single Stationary Source Determinations for the Oil and Gas Industries 40 Pa.B. 7429 12/25/10

41 Pa.B. 1066 Sat. 2/26/11

Removes the technical guidance on the books, but the DEP will still perform single stationary source determinations at sites to determine the applicability of Prevention of Significant Deterioration, Nonattainment New Source Review and Title V permitting requirements consistent with the Clean Air Act (42 U.S.C.A. §§ 7401—7671q), Air Pollution Control Act (35 P. S. §§ 4001—4015) and implementing regulations under the acts.

Notice of Intent to Reopen Public Comment Period on Air Quality Permit Exemptions 40 Pa.B. 2822 5/29/10

41 Pa.B. 1066 Sat. 2/26/11

Reopening comment period for 45 days, interested in comments related to Exemption B.38 on oil and gas exploration and production facilities and operations.

<u>General Plan Approval and/or General Operating Permit for Natural Gas, Coal Bed Methane, or</u> <u>Gob Gas Production or Recovery Facilities 40 Pa.B. 5387 9/18/10</u>

41 Pa.B. 1066 Sat. 2/26/11

Proposed modifications: Condition No. 2 is proposed to be revised to limit a source's potential emissions; and Condition No. 4 is proposed to be revised to require compliance with the specifications in the Application for Authorization to Use GP-5. These modifications are intended to give the regulated community greater flexibility.

Notice of Bond Rate Guidelines for the Calculation of Land Reclamation Bonds on Coal Mining Operations

41 Pa.B. 1258 Sat. March 5, 2011

New rates become effective April 1, 2011. Authority under 35 P.S. §§ 69.1 – 69.1001, 52 P.S. §§ 1396.1 – 1396.19a, 52 P.S. §§ 30.51 – 30.66, and 25 Pa. Code Chapter 86, Subchapter F. The unit costs listed with be used in calculating the land reclamation bonds for surface coal mining operations. Calculation method diagramed in Bulletin.

Clean Air Interstate Rule; Proposed 2015 Annual and Ozone Season CAIR Nitrogen Oxides Allowance Allocations and Redistribution of 2010-2014 Allowances for Certain Facilities

41 Pa.B. 1389 Sat. March 12, 2011

Rule in accordance with 25 Pa. Code §§ 145.211(d) and 145.221(d). This proposal is open for comment until March 28, 2011. The proposal redistributes NOx allowances that were granted back to DEP from EPA after it determined that a certain plant that got allocations was not subject to CAIR.

Interstate Pollution Transport Reduction; Proposed 2011 Ozone Season NOx Emission Limits for Nonelectric Generating Units

41 Pa.B. 1409 Sat. March 12, 2011

Trading Program budget established in accordance with 25 Pa. Code § 145.8(d). The new emissions cap provides 181 tons of NOx emissions to non-EGUs and the other units that need to address their emissions through accounting adjustments, including units that previously participated in the NOx Budget Trading Program. This year, the Department plans to use 121 tons for account adjustments, leaving the remaining 60 tons available at the end of the control period for adjustments.

COURT OPINIONS

Commonwealth Court

Stambaugh v. DEP, 2036 CD 2009 (filed Dec. 10, 2010)

The Board assessed penalties under Sections 401 and 402 of Clean Steams Law, based upon a finding that farmers acted recklessly in failing to submit various plans. The Board must reevaluate and recalculate the penalties. In doing so, the Board must explain its reasoning for assessing the penalties and also needs to explain whether it believed the farmers delay was willful.

Key concepts: penalty DEP, violations, Clean Streams Law

Petroff & Tymoczko v. City of Erie Zoning Bd., 735 C.D. 2010 (filed Dec. 14, 2010).

Erie Renewable Energy's plan to construct a tires-to-energy power plant was rejected for violating a local ordinance restricting the height of structures. The company's application for exclusion was granted. The ordinance was *de facto* exclusion of power plants because it prevented any power plant from operating within city limits since the necessary components of the power plant had to be built in excess of the 100 foot limit. The municipality offered no evidence to show that the ordinance had a substantial relationship to health, safety, morality, or welfare of the public concerns.

Key concepts: power plants, de facto exclusion, ordinances, zoning, exclusionary challenge, substantial relationship

Popowsky, Consumer Advocate v. Pa. PUC, 715 C.D. 2010 (filed Jan. 21, 2011).

Water supplier sells at a base rate. Any rate increases are delayed in effect. The supplier is entitled to collect a surcharge, as part of its base rate from the date that an increase in purchased water rate becomes effective and the date that the supplier is able to reflect this

increase in its base, since the expenses is easily identifiable and beyond the utility's control. Upon the rate increase taking effect, the additional expense is to be dropped. This does not constitute impermissible single-issue ratemaking.

Key concepts: public utility, purchased water, base rates, adjustment clauses

In Re: Appeal of Broad Mountain Dev. Co., LLC, No. 1254 C.D. 2010 (filed Mar. 7, 2011).

Broad Mountain sought to develop a wind turbine project in a Woodland-Conservation Zoning District located in Butler Township. Neighboring landowners appealed the issuance of the zoning permit more than one year after it was issued by the Township's zoning officer. The Board revoked the permit, concluding that the permit had been improperly issued because a wind turbine project is not a permissible use. The Board's determination was affirmed on appeal.

Key concepts: wind turbines, zoning officer, substantial interest, plot plan, Butler township

Joseph & N. Whitehall for Sustainable Dev. v. N. Whitehall Twp. Bd. of Supervisors, N. Whitehall Twp., & Wal-Mart Stores E., L.P., 770 C.D. 2010 (filed Mar. 11, 2011).

In 2006, Wal-Mart purchased 40 acres of undeveloped land in Lehigh County to build a superstore. All but 1.7 acres were zoned for commercial use. Wal-Mart application for a conditional use approval of the 1.7 acres was granted because it complied with the specific criteria set forth in the zoning ordinance. The Board determined that Objectors presented insufficient evidence to establish that the proposed use would have a detrimental effect on the public health, safety and welfare. Objectors appealed. The Court determined that (1) the Board did not misinterpret the relevant provisions of the zoning ordinance, (2) the Board properly refused to issue a subpoena to the Township's traffic engineer to testify at the hearing, (3) Walmart complied with wastewater treatment requirements in the zoning ordinance, and (4) the Board and solicitor did not need to recuse themselves.

Key concepts: zoning ordinance, Wal-Mart, conditional use, special exception, traffic hazard, detrimental effect

ENVIRONMENTAL HEARING BOARD OPINIONS AND ORDERS

Sayreville Seaport Assoc. Acquisition Co., LCC v. Pa. DEP, EHB Docket No. 2010-127-L (issued Jan. 4, 2011).

Sayreville asked DEP via email whether it could send its contaminated soil to a Cumberland County landfill. The Cumberland County landfill has a determination of applicability which allows it to operate. DEP responded to the inquiry via letter that it disapproved of the proposal, claiming that Sayreville needed its own determination of applicability. Sayreville appealed. The EHB determined that the letter was appealable. If there was a regulatory process which Sayreville should have followed, as the Department claims, then the DEP should have indicated this in its response.

Paul Lynch Investments, Inc. v. Pa. DEP, EHB Docket No. 2010-151-M (issued Jan. 7, 2011).

The DEP assessed a \$5,000 penalty against Paul Lynch Investments. The company appealed claiming that it was unable to prepay the penalty assessment as required by law. The Board held a hearing and determined that appellant would suffer no hardship by prepaying. The court agreed that appellant was financially able to pay since it was a business entity with a net

value of more than \$7,000,000. As a result, the Court held that the appeal would not move forward unless appellant prepaid.

Perano v. Pa. DEP & Tilden Twp., EHB Docket No. 2009-067-L (issued Jan. 11, 2011).

The Board found that Mr. Perano was under a duty to preserve evidence and that he breached his duty by deleting potentially relevant emails after litigation was reasonably anticipated. If not remedied, an adverse inference may be drawn against the appellant for the spoliation of evidence. The Appellant's spoliation of evidence if not remedied will result in prejudice to the Department. As a result, the Appellant was instructed to take all measures reasonably necessary to retrieve the emails. The Board will evaluate the Appellant's efforts at the hearing on the merits and, if those efforts are not fruitful, the Board when issuing its final Adjudication may draw an adverse inference against the Appellant.

Reading Anthracite Co. v. Commonwealth, EHB Docket No. 2008-225-C (Adjudication, Jan. 11, 2011)

Multi-phase mining permit and reclamation dispute. Department attached special condition to authorization to mine final phase under permit stating expansion of permit will not be granted and release from excess bond will be denied until reclamation dispute is resolved. Board held that special condition more resembled a pronouncement of future intent to act if there were a future request to mine or a bond release. Special Condition not properly part of authorization and was stricken. Board stated that Department has other methods of remedy regarding reclamation dispute.

Schlick v. Commonwealth, EHB Docket No.2010-180-C (Opinion and Order on Motion for Leave to Amend Notice and Appeal, Jan. 14, 2011)

Pro se appeal filed regarding permits approved by Department in October 2010 regarding gas wells. After obtaining counsel, Appellant filed this motion to amend appeal to include permits approved by Department in July 2010. Upon final agency action, an aggrieved party has 30 days to file an appeal upon publication in the Pennsylvania Bulletin or 30 days from actual notice if not published in the Bulletin. The July permits were published in the Pennsylvania Bulletin on July 24 and as such, the Appellant had 30 days to appeal this action and failed to do so. Therefore, the board could not expand its jurisdiction to include challenges to any of the July permits which were untimely filed. Motion denied to challenge July permits but granted to allow Appellant to amend appeal to include any new challenges of October permits.

Kraft v. Commonwealth, EHB Docket No.2010-042-M (Opinion and Order on Motion for Summary Judgment, Jan. 28, 2011) Appellant fails to make any showing of proof to dispute any facts alleged by the Department. Board held that the record established that there are no genuine issues of fact regarding whether the Department had proven the facts underlying its order, that the order was authorized by applicable law, and that the order is reasonable and appropriate under the circumstances.

Pine Creek Valley Watershed Assoc., Inc. v. Pa. DEP of Rockland Twp., EHB 2005-249-L (issued Jan. 31, 2011).

Pine Creek sought interest for attorney's fees pursuant to Section 8101 of the Judicial Code, 42 Pa.C.S. §8101. The Board determined that Section 8101 did not provided a basis for awarding interest on the fee award because the EHB is not a component of the unified judicial system, the Board enters adjudications and orders, not judgments, and there is no Pennsylvania authority

for the proposition that Section 8101 applies to an award for attorney's fees because such awards are thought of as ancillary to judgments.

<u>Gadinski v. Commonwealth, EHB Docket No.2009-147-M (Opinion and Order on Permittee's</u> <u>Motion in Limine, Feb. 1, 2011)</u>

The Board denied a permittee's motion in limine which sought to exclude from evidence two Department guidance documents and an EPA regulation not in effect when the Department issued a permit to permittee. The Board found that it is not precluded from considering these materials. The Board stated that the extent of relevant evidence can be quite broad, especially when considering the breadth of its review. The Board conducts a de novo review to determine whether the Department's action is supported by the evidence.

Perano v. Commonwealth, EHB Docket No.2009-067-L (Opinion and Order on Motion for Reconsideration, Feb. 1, 2011)

Board denied motion for reconsideration from an order directing an appellant to take all reasonable steps necessary to retrieve and produce improperly deleted electronically stored information at his own expense. Appellant argued that the Department must prove that additional electronically stored information (ESI) exists that is responsive to the Department's discovery request before he has an obligation to produce it, and the Department has made no such showing. The Board held that the appellant's obligation to respond to discovery requests is not limited by the fact that the Department is not able to identify particular missing emails. If the Department were able to identify all missing mail without discovery it would not need discovery to obtain this information. Department's request for sanctions deferred pending review at a later date of Appellant's efforts to comply with prior order of the Board. Petitions for reconsideration of final orders will only be granted for "compelling and persuasive reasons." (25 Pa. Code § 1021.152(a)).

<u>PA Waste, LLC v. Commonwealth, EHB Docket No.2008-249-L (Opinion and Order on Application for Attorney's Fees and Costs, Feb. 2, 2011)</u>

Petitioner applied for Attorney's fees and costs under the Cost Act 71 P.S. § 2031. Department made motion to dismiss the application because it was made pursuant to an expired statute. Petitioner failed to respond to Department's motion. Board rules do not provide for a motion to dismiss a fee application. Therefore, the board treated the Department's motion as its response to the application under 25 Pa. Code § 1021.173. Application denied.

Beyerl v. Commonwealth, EHB Docket No.2010-053-L (Opinion and Order on Motion to Dismiss, Feb. 9, 2011)

The Board dismissed an appeal of an assessment of civil penalties where an appellant failed to prepay the civil penalty, post a bond, or demonstrate his inability to prepay the penalty. Appellant appealed assessment of civil penalties issued by the Department for violation of the Storage Tank and Spill Prevention Act ("Storage Tank Act"), 35 P.S. §§ 6021.101-6021.2104. Board held that where a party fails to prepay the penalty, post a bond, demonstrate an inability to pay, or otherwise respond in any way to the Department's motion to dismiss for failure to prepay, he must be deemed to have waived his appeal rights and the appeal must be dismissed.

<u>Pine Creek Valley Watershed Assoc., Inc. v. Commonwealth, EHB Docket No.2009-168-L</u> (Opinion and Order on Motion to Exclude Expert Testimony, Feb. 15, 2011)

The Board denied a motion to exclude expert testimony because there was a legitimate dispute about whether the application of the methodology used by the expert is generally accepted in the scientific community. Appellant relied on Pennsylvania Rule of Civil Procedure 207.1, which allows a motion to be made to exclude expert testimony based on novel scientific evidence. Board stated that the rules of Civil Procedure do not apply to the Board unless the Board's rules or applicable portions of the Administrative code provide otherwise. Board noted that the proper vehicle for such challenges is a motion in limine. (25 Pa. Code § 1021.12). Board stated that Pennsylvania follows the standard set under *Frye v. United States* 293 F. 1013 (D.C. 1923) The *Frye* standard provides that an expert opinion based on a scientific technique is admissible if the technique is generally accepted as reliable in the relevant scientific community.

<u>Pine Creek Valley Watershed Assoc., Inc. v. Commonwealth, EHB Docket No.2009-168-L</u> (Opinion and Order on Motion to Exclude Documents, Feb. 24, 2011)

Motion in limine to exclude expert reports denied. Appellant did not object to the substance of expert's testimony; rather they only objected to the admission of the reports themselves as inadmissible hearsay. Board stated that Appellant was correct that the reports are hearsay; however, the Board encouraged the practice because the reports are a helpful tool in understanding the experts' testimony.

Damascus Citizens for Sustainability v. Commonwealth, EHB Docket No. 2010-102-M (Opinion and Order on Appellant's Motion for an Extension of Time, Mar. 4, 2011) Matter involves appeal of permit issued by Department to Newfield Appalachia LLC for oil and gas well development. To properly manage the Board's responsibility to regulate prehearing discovery, the Board recognizes that we must adequately balance the need to move matters to conclusion while providing parties with enough time to prepare their cases. In doing so, the Board has broad discretion to decide how discovery will and will not be conducted. The Board stated that all parties benefit from well informed opponents in litigation, who may be better suited to agree to factual stipulations limiting the need for presentations of evidence on certain matters at hearing. Motion granted for Appellant's first request for an extension of discovery to allow for depositions where the extension will not prejudice any party or lead to a delay in the scheduled hearing.

McKissick Trucking Inc. v. Commonwealth, EHB Docket No. 2011-007-M (Opinion and Order on Department's Motion to Dismiss, Mar. 8, 2011) Appeal from assessment for violation of SWMA. Department filed motion to dismiss for untimely appeal. Appellant failed to file answer to Department's motion. A motion to dismiss will be granted by the Board where the moving party is clearly entitled to judgment as a matter of law and there is no dispute over any issue of material fact. Where the Department has directed or issued its decision to a party, that party must file its appeal within thirty days after it receives written notice of the action, unless a different time period is specified by statute. 25 Pa. Code § 1021.52(a)(1). Except in the very rare circumstances where an appeal *nunc pro tunc* may be granted, the Board, lacking jurisdiction over untimely appeals, will grant a motion to dismiss where an appeal in question has in fact been filed after the deadline set by the Board rules. Department's motion to dismiss granted.