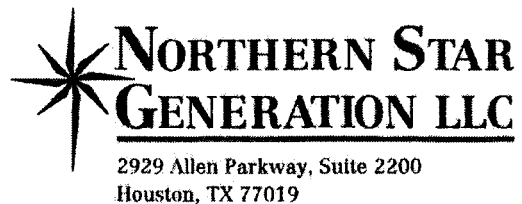


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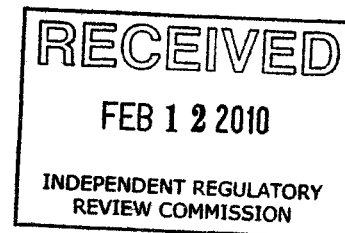


February 12, 2010

Submitted by Express Mail and Electronically at RegComments@state.pa.us

The Pennsylvania Environmental Quality Board
P.O. Box 8477
Harrisburg, PA 17105-8477

RE: Proposed Rulemaking 25 Pa. Code Chapter 95
Wastewater Treatment Requirements
39 Pa. Bulletin 6467 (November 7, 2009)



To Members of the Board:

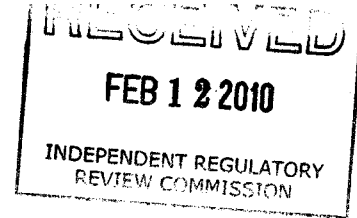
Northern Star Generation LLC, ("Northern Star") as the owner of four electrical generating plants in Pennsylvania is pleased to forward its comments to the Department of Environmental Protection's Proposed Rulemaking related to Wastewater Treatment Requirements under 25 Pa. Code Chapter 95. Recognized under the Pennsylvania Alternative Energy Portfolios Standards Act as providing environmentally beneficial sources of electric energy, Northern Star's operations, by utilizing waste coal as fuel have removed millions of tons of pollution-causing gob and culm from the water sheds in both the bituminous and anthracite coal fields of Pennsylvania. We anticipate continuing reclaiming land and waters through removal of an additional 30 million tons of waste coal over the next 10 years. The comments in the attached document present the Board with our very serious and practical concerns that could impede our environmentally beneficial operations due to the breadth of the Department's Proposed Rules.

Owning and operating electrical generating plants is a highly regulated endeavor and independent power producers like Northern Star rely on a very stable economic and regulatory climate. We are concerned that the Proposed Rules may dramatically change the regulatory framework regarding the waste coal fuel projects throughout the Commonwealth by making them economically infeasible. We also note that Pennsylvania has been a national leader in reclaiming and abating pollution from its long mining legacy and the independent power producers have played a large role in the success of that program by eliminating the sources of pollution and reclaiming the land. The attached comments address these issues and provide the rationale for recommending that the Department reconsider the implications of the Proposed Rules.

Sincerely,
Northern Star Generation LLC

David A. Kellermeier
Vice President, EH&S

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NORTHERN STAR GENERATION LLC

COMMENTS TO PENNSYLVANIA ENVIRONMENTAL QUALITY BOARD NOTICE OF PROPOSED RULEMAKING “WASTEWATER TREATMENT REQUIREMENTS” (25 Pa. Code, Chapter 95)

I. Introduction

Northern Star Generation LLC (“Northern Star”) is pleased to participate in the Pennsylvania Environmental Quality Board’s rulemaking process related to Wastewater Treatment Requirements and in particular those rules related to Total Dissolved Solids (“TDS”) (“Proposed Rules”). Northern Star and representatives from its affiliated power plants have actively participated in the Water Resources Advisory Committee (“WRAC”) and the Chapter 95 Task Force related to the Proposed Rules and are familiar with the background leading to the proposal, the issues considered by the Department and discussions concerning the proposals. Northern Star is very concerned that the implications of the Proposed Rules will have unintended consequences that must be considered prior to promulgating the rules as proposed. Northern Star believes that the Department must recognize that in its effort to regulate wastewater disposal from expansive Marcellus Shale development across Pennsylvania, the breadth of its proposal may have the unintended consequence of discouraging activities that already treat or will actually abate pre-existing water pollution from Pennsylvania’s mining legacy sites.

Our comments provide the Environmental Quality Board with very practical concerns and rationale based on actual operational experience. Related to the issues discussed herein, we also provide proposed language that addresses our concerns while meeting the intent of the rules to provide appropriate environmental protection. We believe that our proposed changes will also allow the benefits of energy production, water pollution abatement and reclamation on thousands of acres in the Pennsylvania coal fields to continue into the future.

II. Northern Star Generation LLC - Who We Are

By participating in this important rulemaking process, we focus on several key aspects of the Proposed Rules that are of particular concern to the independent power industry and in particular to Northern Star as an owner and operator of close to one third of the Pennsylvania waste coal power plant fleet and a holder of significant investments in the Commonwealth.

As a privately owned independent power generator, Northern Star has ownership interests in 12 power plants across the United States, six of which are coal or waste-coal fired. Four of those plants are in Pennsylvania where the Company found and relies upon the 20-year stability and success of the waste-coal power industry attractive for substantial investment.

Northern Star Generation LLC

Pennsylvania Electrical Generating Plants

Cambria Cogeneration, Ebensburg, PA

Colver Power Project, Colver, PA

Panther Creek, Nesquehoning, PA

Gilberton Power Company, Gilberton, PA

Our Pennsylvania power plants have more than 200 direct professional and technical employees and provide an additional 300-400 indirect jobs in mining, transportation and maintenance support.

Northern Star, through affiliate and partnership companies has investment and exclusive rights to numerous and significant waste coal (gob and culm) fuel sites in Pennsylvania that are and will be utilized for fuel and ultimately reclaimed. Our projections for the period of 2010 through 2020 include the removal and use of almost 30 million tons of leaching gob and culm from Pennsylvania watersheds. When completed, reclamation efforts at those sites will restore these lands while abating significant pollution to improve surface and groundwater quality.

The Northern Star power plants utilize state of the art circulating fluidized bed (CFB) technology along with limestone injection for control of SO₂ emissions. Our plants are expressly recognized under the Pennsylvania Alternative Energy Portfolio Standards Act¹ as providing environmentally beneficial sources of electric energy.² As an example of the benefits associated with our remining and reclamation activities, at the Maple Coal fuel site, a former significant unreclaimed waste coal site in Cambria County, water quality has improved dramatically over the past 15 years. As a result of Northern Star's work at the site, surface water now meets effluent criteria, and downgradient groundwater monitoring wells have shown dramatic declines in acidity concentrations (up to 98% reduction), iron (97%), manganese (87%), aluminum (99%), sulfates (65%) and TDS (67%) during this period. This project, like other waste coal remining or reprocessing projects, is a reclamation and water quality success story. Reclamation of similar legacy waste coal sites must continue to be encouraged, not discouraged.

III. Purpose and Intent of Rulemaking: Marcellus Shale Development Wastewater

Recognizing that the development of the Marcellus Shale in Pennsylvania presents an enormous opportunity for the Commonwealth and the nation by providing an abundant energy source, the Department also recognizes the serious and potential environmental implications associated with the horizontal drilling process and associated hydraulic fracturing. Hydraulic fracturing, otherwise known as "fracking" includes pumping significant amounts of water, sand and associated chemicals ("fracking fluid") into deep formations under pressure to fracture the pay zone and allow for increased natural gas flow under pressure. Through the pressurized process, fracking fluid and brines rise to the surface and can cause pollution to surface water if not controlled and treated prior to discharge. The Department has determined that fracking fluids from Marcellus Shale gas well development are actually wastewater and classified as

¹ 73 P.S. § 1648.1 *et seq.*

² 73 P.S. § 1648.2(10).

residual waste under the Pennsylvania Solid Waste Management Act and has initiated a program to regulate them under its Chapter 95 wastewater regulatory program, i.e. "Wastewater Treatment Requirements."

The development of the Proposed Rules that are the subject of these Comments are the result of the Department's response to the Marcellus Shale development boom that is occurring from New York to West Virginia with a very large footprint in Appalachian Pennsylvania. The Department recognizes that the wastewater from the fracking process is very high in total dissolved solids ("TDS") which includes many elements such as carbonates, chlorides, sulfates, nitrates, sodium, potassium, calcium and magnesium.

In testimony regarding how his agency is addressing the environmental risks associated with Marcellus Shale development before the Senate Environmental Resources and Energy Committee, John Hines, Deputy Secretary for the Office of Water Management at the Department of Environmental Protection stated:

The treatment and disposal of wastewater poses a challenge for the Department and the oil and gas industry. From a water quality perspective, the pollutants that are expected to affect [could affect] the use of and quality of surface waters are classified as Total Dissolved Solids ("TDS").³

* * *

Recognizing the importance of addressing the TDS issue, the Department took action and issued the permitting strategy for High TDS Wastewater Discharges on April 11, 2009. This strategy presents an approach that allows the Department, until the proposed regulation is finalized and approved, to effectively deal with the increasing demand for assimilative capacity in the surface waters to accept increasing new loads of TDS from current and new facilities. As a major part of the strategy, the Department proposed revisions to its 25 Pa. Code Chapter 95 Wastewater Treatment Requirements to eventually codify key treatment discharge limitations.⁴

In its well-intended effort to regulate wastewater arising from flow back and production fluids associated with the Marcellus Shale, the Department's proposed Regulations are very broad, including many economic sectors having no relation to the oil and gas industry, and may have adverse impacts on areas of Pennsylvania's economy that are unintended or unwarranted. Further, the "Permitting Strategy for High TDS Wastewater Discharges" issued on April 11, 2009 ("Permitting Strategy")⁵ and cited by Deputy Secretary Hines in his Senate testimony

³ See Testimony of John Hines, Deputy Secretary for the Office of Water Management, Department of Environmental Protection before the Senate Environmental Resources and Energy Committee, Wednesday, January 27, 2010, Page 2 (attached).

⁴ *Id.*

⁵ DEP, Permitting Strategy for High Total Dissolved Solids (TDS) Wastewater Discharges (April 11, 2009).

recognized and provided significant and serious rationale to exempt certain mining, re-mining and existing treatment facilities from the new TDS protocols. Those exemptions are not found in the Proposed Rules.

As an example, specific to the independent power industry and related to the waste coal re-mining operations that actually remove historically dumped coal mining and processing waste and abate mine discharges from the Pennsylvania watersheds, without express exceptions the proposed regulations may be interpreted in a manner that thwarts actual reclamation and abatement activities. Further, re-mining and/or reprocessing old legacy waste coal gob piles and culm banks provides the fuel for 13 independent power generating plants in Pennsylvania which are recognized under the Pennsylvania Alternative Energy Portfolio Standards Act as providing environmentally beneficial sources of electric energy. Clearly, discouraging reclamation by sweeping these activities into the regulatory framework intended for the Marcellus Shale wastewater would be counter productive to the goals of protecting waters of the Commonwealth. The following Comments and Recommendations provide the Environmental Quality Board and Department of Environmental Protection with the background and rationale for reconsidering the proposed rulemaking to assure that it is narrowly tailored to meet its intended goals.

IV. Specific Comments/Recommendations

A. Department Rulemaking Authority/Process

The Department has not fully complied with its obligations under its rulemaking authority. Attempting to establish a consensus regarding the development of Chapter 95 Wastewater Regulations after publishing the proposed changes, the Department has worked with and sought input from numerous groups, including but not limited to the Pennsylvania Chamber of Commerce and its Water Works Group, the Electric Generation Association, the Pennsylvania Chemical Industry Counsel, the Pennsylvania Waste Industry Association, the Pennsylvania Coal Association and the Marcellus gas industry representatives, along with other interested parties. It appears that the process was an “after the fact” attempt to obtain economic impact and other information required by law that it failed to account for and analyze prior to proposing such a sweeping regulation.

The WRAC, working with the Department formed the Chapter 95 Task Force, which has spent considerable time and coordinated numerous meetings to work through the details and concerns related to the Proposal. A Chapter 95 Task Force was even formed to provide a further detailed review of the Proposal for the WRAC. The parties worked with WRAC and the Department to review the Proposed Rules by examining the economic aspects of the rule by sector, and to identify and clarify problems that the rule either did not address or unintentionally created are very sophisticated regarding the issues being addressed from both technical and legal perspectives. As a result of its deliberations, the Chapter 95 Task Force will be suggesting options for WRAC to consider recommending to the Department.

Under the Pennsylvania Clean Streams Law, the Department has significant authority to adopt rules and regulations, however the considerations it must take are clearly defined.⁶ The Clean Streams Law states:

35 § 691.5(a) The Department in adopting rules and regulations, in establishing policy and priorities, in issuing orders or permits, and in taking any other action pursuant to this act, shall, in the exercise of sound judgment and discretion, and for the purpose of implementing the declaration of policy set forth in Section 4 of this Act, consider, where applicable, the following:

1. Water quality management and pollution control in the watershed as a whole;
2. The present and possible future uses of particular waters;
3. The feasibility of combined or joint treatment facilities;
4. The state of scientific and technical knowledge; and
5. The immediate and long range economic impact upon the Commonwealth and its citizens.

It is quite clear in reviewing the minutes and notes of the WRAC and its resolution (see below) that the Committee feels that pursuing the rulemaking at this early stage without meeting all of the requirements of 35 P.S. § 691.5(a) is inappropriate. Along with the information cited in our Comments below, as related to the independent power industry and its associated waste coal remining/reprocessing operations that may be adversely impacted by the Proposed Rules as drafted, the professionals that have studied the proposal recognize that the Department has not considered the full spectrum of factors required under the Clean Streams Law.

At its July 15, 2009 meeting, WRAC adopted the following Resolution regarding the Draft Chapter 95 Regulations:

WRAC recognizes and fully supports the protection of all of the Commonwealth's surface and ground waters. However, from the commentary received at WRAC's June meeting and today's discussions, it is clear that the Draft Chapter 95 Regulation to limit the discharge of total dissolved solids and several other pollutants affects not only the quality and uses of the Commonwealth's waters but also many different sectors of Pennsylvania's economy.

WRAC believes that the ramifications of the Draft Chapter 95 Regulations are wide ranging and have not been adequately analyzed by the Department. Specifically, WRAC believes that the draft regulation needs to be supported by science. Among other

⁶ See 35 P.S. § 691.5.

things, the Department needs to analyze more fully the surface water impacts of existing high TDS discharges, potential water quality impacts from new high TDS discharges, the treatment technologies needed to achieve compliance, and the impacts of the regulation on energy consumption, air emissions, residual waste generation and disposal, mine-land reclamation, and the economic impacts on the development of the Marcellus Shale and other affected sectors of Pennsylvania's economy.

Rather than proceeding to public notice with a proposed rule, WRAC recommends that the Department work in conjunction with WRAC to form a statewide stakeholders group to analyze the issues and develop appropriate solutions. This approach was very successful in developing the Department's "Water Quality Antidegradation Implementation Guidance," and WRAC believes that it can be successful in this instance, too.

In the interim, WRAC encourages the Department to use the full range of regulatory resources at its disposal to ensure protection of the existing and designated uses in the Commonwealth's receiving streams.

B. The Proposed Rules Do Not Correct the Problem

The preamble of the Proposed Rules and the Department's Permitting Strategy describe the problem with TDS as manifesting itself by the limited ability of the Commonwealth's waters to assimilate additional TDS. With only loose reference to "recent reports" and "watershed analyses," the Department's Permitting Strategy concludes that the studies "establish that the extent of existing and potential pollution from TDS, sulfates and chlorides is widespread."⁷ The preamble states that "many points in the [Monongahela] watershed are already impaired, with TDS, sulfates and chlorides as the cause." The preamble as well as Deputy Secretary John Hines's presentation on "Chapter 95 – Wastewater Treatment Requirements" refer to impairments of potable water supplies. However, conditions that may be observed at specific locations during specific times of the year under limited environmental conditions do not warrant the broad-scale imposition of the requirements contained in the Proposed Rules.

First, it appears that the Department has exaggerated the impact of TDS on potable water supplies. There appears to be no record that water supplies from the "impacted streams" have any violations of safe drinking water standards. The Department's recent list of impaired waters under Section 303(d) of the Clean Water Act identified zero miles of streams with the designated use of potable water supply that impaired by salinity/TDS/chlorides.⁸ The Department's own report contradicts the Department's assessment of the problem the Proposed Rule are supposed to solve. Second, the questions of loading and assimilative capacity appear to be more restricted

⁷ Permitting Strategy at 3.

⁸ DEP, 2008 Pennsylvania Integrated Water Quality Monitoring and Assessment Report, Clean Water Act Section 305(b) Report and 303(d) List (2008).

than the preamble suggests. There is no upward trend of increasing TDS loads.⁹ In fact, the Tetra Tech study concluded that the Monongahela River had excess assimilative capacity for chloride during the applicable study period and for TDS during high-flow conditions. In other words, the primary cause of TDS concerns was unusually low flow during the fall of 2008. The Proposed Rules will not correct unusual flow conditions, and the Department has provided no analysis that shows that focusing on an undetermined number of High-TDS discharges will result in measurable improvement in the watersheds.

C. Environmentally Beneficial Activities Will Be Economically Unfeasible.

The preamble acknowledges that there is currently no treatment other than dilution for TDS, sulfates, and chlorides and that new and increased discharges will be required to install “advanced treatment.”¹⁰ Without explanation or analysis the Department estimated the cost of the advance treatment at \$0.25/gallon. Northern Star believes that this may drastically underestimate the actual cost of additional treatment. If imposed, however, even this cost would result in prohibitive treatment costs as is shown by the following examples.

Consider first the case of an 80MW waste coal power plant with a wastewater discharge of approximately 50 million gallons per year, annual revenues of approximately \$40 million, and net cash earnings of from \$6 to \$12 million. If the discharge of this power plant comes under the Proposed Rules and incurs the estimated \$0.25/gallon cost of treatment, then the result will be an additional \$12.5 million in operating expenses and cause the power plant to operate at a financial loss even under the best circumstances.

The second case concerns a remining project conducted under a Subchapter F permit. The site has a discharge of 10 gpm with TDS of 3,000 mg/L and so would be subject to the effluent limitations of the Proposed Rule unless exempted by express language. The 10 gpm discharge over a year yields 5.26 million gallons, which, at \$0.25/gallon would cost approximately \$1.3 million for additional advanced treatment. Assuming that the site produced 500,000 tons per year, the advanced treatment would cost approximately \$2.63 per ton and would make the remining financially impracticable. Further, the waste coal remining and reprocessing operations are short term. The material is removed over a short period required to obtain the fuel and the site is reclaimed. Installing high cost, high technology treatment systems for the relatively short duration of these projects is economically infeasible. As a result, the operator would not pursue this permit and the abandoned waste coal site, remain in place continuing to produce polluted water.

⁹ As summarized by Tetra Tech, in its January 2009 study, the impact of mass loading of TDS is not the cause of recently observed issues with TDS and related pollutants. Tetra Tech NUS, Inc., Evaluation of High TDS Concentrations in the Monongahela River 13 (2009) (“[a] long-term statistical trend analysis . . . indicated that there is no statistically significant difference in the mass loadings of TDS, sulfates or other TDS components in the Monongahela River over the last seven years.”).

¹⁰ “The existing practice for high TDS wastewaters is the removal of heavy metals, but currently no treatment exists for TDS, sulfates and chlorides other than dilution.” Preamble Section D *Background and Purpose*. “The regulation will impose new costs on new or increased discharges of high TDS wastewater. New or increased discharges will be required to install advanced treatment to meet the requirements of this proposed rulemaking. It is anticipated that treatment costs could be on the order of \$0.25/gallon.” Preamble Section F *Benefits, Costs and Compliance*.

The Proposed Rules as drafted may impose costs of advanced treatment on projects that improve water quality over the long-run. The projects that utilize waste coal and reclaim otherwise abandoned sites. With the additional costs of advanced treatment, these projects will not longer be viable and those sites will remain unreclaimed. As a result, the Proposed Rules will only perpetuate the problems that it is intended to solve.

Recommendation:

Based on the overwhelming conclusion that the Department has been premature in its regulations without reviewing ancillary and unintended consequences to other affected sectors of Pennsylvania's economy, NSG recommends that the Department withdraw the rulemaking at this point for further consideration in cooperation with the WRAC and Chapter 95 Task Force professionals who have developed significant expertise regarding the issues during the pending Proposal so that the ambiguities and unintended consequences may be further defined and prevented in the final rule.

In the event that the Department proceeds with the Rulemaking, it must consider the following comments.

D. Chapter 95.10(a) - Definition of "New Discharges"

In the preamble to the Proposed Rules¹¹ the Department, in explaining its definition of "new discharge" significantly expands the universe of facilities impacted by the new rules to include:

- A new discharge from an existing facility;
- An additional discharge from an existing facility; or
- An expanded discharge from an existing facility.

Recognizing the overwhelming positive environmental benefits of mine drainage treatment by third parties including, non profits, trustees or the government itself, the Department's preamble states that the regulations should not thwart such activities by imposing limits on the projects.¹² Going one step further, the Department also indicates that remining projects with pre-existing discharges under both the bituminous coal and anthracite coal mining programs¹³ are not included in the definition of "new discharges." In both instances, i.e. for existing treatment systems and remining operations, the Department has chosen the arbitrary date April 1, 2009 as the date by which any exclusion applies.

The Permitting Strategy described by Deputy Secretary Hines in his Senate testimony provides a precise "Statement of the Problem" as related to the Marcellus Shale development throughout the Commonwealth. The Permitting Strategy, he described in providing the rationale for regulating new sources of high TDS discharges expressly acknowledges that existing sources

¹¹ See Section E, Summary of Regulatory Requirements.

¹² *Id.*

¹³ 25 Pa. Code § 87 Subchapter F (bituminous); 25 Pa. Code § 88 Subchapter G (anthracite).

related to the mining sector should be excluded from the new protocols. The Permitting Strategy provided significant rationale to demonstrate that the imposition of a TDS, sulfates and chloride standard for numerous mine drainage related facilities would be counter productive to mine drainage treatment and abatement efforts that have been developed in Pennsylvania.¹⁴

Recognizing that sources such as abandoned mines, bond forfeiture sites, inactive mines with existing treatment facilities, existing active mines and related sources should be encouraged as a matter of public policy, the Department's Permitting Strategy attempted to define the framework for excluding those facilities. Unfortunately the Proposed Rules do not adequately address or support the well-founded public policy that should exclude such facilities. The preamble to the Proposed Rules provides three sentences regarding this very important environmentally beneficial economic sector and without further detail in the rules themselves will discourage waste coal remining, reprocessing and development of expanded treatment facilities and thwart a very successful framework that has developed in Pennsylvania to abate the legacy of the past mining projects.

Given the breadth of the regulatory framework proposed by the Department and the fact that it may impact both 1) existing pollution treatment systems and 2) remining operations, it is crucial to the independent power producing industry and Northern Star in particular that the exclusions proposed by the Department in the Preamble be expressly stated in the final rule so that no ambiguity exists whatsoever regarding the applicability of TDS regulations to mine drainage treatment facilities and mining operations that reclaim waste coal sites. These exclusions should apply both to existing water treatment facilities and to remining/reclamation activities regardless of when the activity takes place in order to continue implementation of legislative policies that encourage remining, abatement of associated pollution and land reclamation.

The Department of Water Quality through this rulemaking as proposed is creating confusion and unnecessary criteria for the already heavily regulated coal mining/coal reprocessing industry that has an established framework for water treatment and remining operations as extensively regulated by the Bureau of Mining and Reclamation for dealing with these facilities. If the goal is actually treatment of mine drainage, there are instances where it has and will make sense to allow the expansion of existing facilities or the construction of new ones, and an increase of a discharge from a treatment facility regardless of when it existed without being subject to preclusive new TDS regulations. For example, there are numerous instances where multiple mines or mine features may be sufficiently close to allow a more cost effective treatment of multiple discharge sources with one treatment facility rather than multiple treatment facilities. Implementation of such an approach would require expanding an existing facility and increasing the discharge at that location. In most cases it would allow the retrofitting or rebuilding a facility with the latest economically feasible technology. Integrating pollutional sources into one treatment facility should be encouraged and not restricted as the proposed regulations would do. Further as the Commonwealth continues to develop its long term trust fund based acid mine drainage treatment program¹⁵, (which is the leader in the United States), the non-profits, trustees, mining companies and the Department need the flexibility to optimize the use of limited trust funds in order to obtain the largest volume of water treatment without

¹⁴ See Permitting Strategy pp 8 - 11.

¹⁵ 52 P.S. § 1396.4(d.2)

regard for whether or not an expansion subjects them to TDS regulations that make the project economically infeasible.

Recommendation:

1. Northern Star Generation highly recommends that the exclusions related to mine drainage discharges and the expansion of treatment facilities associated with these discharges be expressly stated and not impede or discourage water treatment in the Commonwealth;

2. The Department should eliminate any date associated with determining if a mine drainage treatment facility is eligible for the exclusion; and

3. Northern Star recommends the following language be added to the § 95.10(a):

The term “new discharge” shall not include any “legacy discharges” which are defined as follows:

- 1. Pre-existing discharges associated with mining operations permitted under:
25 Pa. Code Chapter 87, Subchapter F;
25 Pa. Code Chapter 88, Subchapter G; or
25 Pa. Code Chapter 90, Subchapter G;**
- 2. Discharges from existing mines that are presently treating water under NPDES permits and have or are establishing long term treatment trusts or other financial assurances to cover future costs;**
- 3. Discharges associated with the aggregation of multiple pollutional sources and relocated as part of a more cost effective and efficient comprehensive treatment system program;**
- 4. Upgrades of existing treatment systems to enable them to receive and treat larger volumes of mine drainage;**
- 5. Discharges that are being treated by treatment systems that are being funded by long term treatment trusts or other long term financial assurances, including those administered by the Department, non-profit entities, Trustees, mining companies or third parties on behalf of any of them;**
- 6. Discharges for which passive treatment systems, including but not limited to anoxic drains, wetlands or other biologic systems are used to treat mine drainage;**
- 7. Discharges from waste coal remining or coal refuse reprocessing sites where waste coal is being utilized as fuel for power generation at facilities recognized under the**

Pennsylvania Alternative Energy Portfolio Standards Act and the long term discharges associated with the site are expected to be significantly reduced or abated.

E. Chapter 95.10(a) - Effluent Standards/defining “High” TDS

The Proposed Rules define a High-TDS wastewater source as, among other characteristics, one that discharges with a “TDS concentration that exceeds 2,000 mg/L or a TDS loading that exceeds 100,000 lbs. per day.” This definition is arbitrary because, as drafted, it fails to include some sources of pollutants that have the greatest likelihood of having an impact on the watershed and yet imposes restrictions on sources that have little potential of having such impact.

To illustrate these points consider two hypothetical discharges. The first hypothetical discharge consists of seven million gallons per day (7 mgd) with a concentration of 1,500 mg/L. This discharge would produce a daily loading of 87,570 pounds. Nonetheless, this discharge would not be defined as a High-TDS discharge because it meets neither of the Proposed Rules’ concentration nor loading thresholds.

The second hypothetical discharge consists of 100 gallons per minute (0.144 mgd) with a concentration of 2,500 mg/L, which would result in a total load of 3,000 pounds per day. Under the Proposed Rules this second discharge would be classified as a High-TDS discharge because its concentration exceeds 2,000 mg/L, even though the overall impact on the watershed of the second discharge is miniscule compared to the first discharge (the second produces a load that is almost 30 times less than the first), the second discharge would be classified as a High-TDS discharge and, therefore, subject to the limitations of the Proposed Rules.

This arbitrary designation is inconsistent with the stated purposes of the Proposed Rules and with the facts. In 2000, Sams and Beer reported in 1980 that Allegheny River contributed 1.2 million tons of sulfate to the Ohio River at Pittsburgh.¹⁶ Based on this 1.2 million ton annual load, if all of the TDS from the second hypothetical discharge discussed above were sulfate (approximately 1,095,000 pounds/year), this the second discharge would be subject to the Proposed Rules but would contribute only approximately 0.05% of the annual total sulfate load. Reducing this miniscule impact at great cost will produce little or no improvement to the watershed.

Recommendations:

1. The Department should recognize that loading is a critical issue and, therefore, limit the definition of High-TDS discharges to only those that discharge more than 100,000 pounds/day and has a TDS concentration greater than 2,000 mg/L. Northern Star recommends the following revision to the definition of “High-TDS discharges in § 95.10(a):” strike “or” and replace with “and” which should read: **“... concentration that exceeds 2,000 mg/L and a TDS loading that exceeds 100,000 pounds per day ...”**

¹⁶ James I. Sams III and Kevin M. Beer, Effects of Coal-Mine Drainage on Stream Water Quality in the Allegheny and Monongahela River Basins – Sulfate Transport and Trends 9 (2000).

2. The Department should abandon the one-size-fits all approach of the Proposed Rules and, instead, implement its authority under 25 Pa. Code Chapter 95 to impose water quality-based effluent limitations that involve analyzing the impact of the discharge on the receiving water.¹⁷

F. Chapter 95.10(b)(5) - Discharges to Mine Pools

The proposed Regulation would require that discharges to groundwater, including discharges to underlying mine pools comply with the Underground Disposal Regulations contained at 25 Pa. Code 91.51 and 91.52. As drafted, the mandate is inconsistent with existing law that permits mining companies or other parties that are responsible for mine drainage to direct the surface discharge into a mine pool that is otherwise being treated. It is a common practice through the coal fields where deep mine water is pumped for use at a coal preparation plant or power plant for process water and discharged back into an abandoned deep mine. In many instances the underground mines are already being pumped and treated. NSG understands the issue regarding underground mine pools becoming a repository for Marcellus Shale development process waters, however the Department must understand that it is a common practice in the coal industry to utilize mine pool water and return water to the mine pools. Further the aggregation of surface facility mine drainage (for example, under drains from coal refuse sites) may be most efficiently and economically treated by discharging into a mine pool if the mine pool is subject to an existing or proposed mine drainage treatment system.

Another consideration that the Department should acknowledge is that it may be advisable to various parties including trustee, mining companies, non profits and the government itself to aggregate discharges from the surface for treatment at one location. Accumulating surface pollutional discharges by discharging to mine pools that are subject to existing or proposed treatment may make a project economically feasible.

Recommendation:

We recommend that the language of 95.10(b)(5) be revised to address the situations as described above. Northern Star recommends the following language be added to the existing Proposed Rule: **Discharges to mine pools that are or will be permitted under 25 Pa. Code Chapters 87, 88, 89 and 90 are exempt from this paragraph.**

G. Chapter 95.10(b)(6) - Exemptions from High-TDS Standards

The Proposed Rules exempt certain operations from the effluent standards imposed for High-TDS discharges. The Proposed Rules should expressly acknowledge that coal remining or refuse reprocessing operations such as those operated in Pennsylvania's independent power industry are already regulated by standards under the Federal Clean Water Act Effluent Criteria.

In 2002 the EPA established a new subcategory, coal remining, within the coal mining point source category.¹⁸ The regulatory definition of a "coal remining operation" includes the

¹⁷See, e.g., 25 Pa. Code § 96.4; U.S.E.P.A., Permit Writers' Manual 87 – 114 (1996).

¹⁸See 67 Fed. Reg. 3370 (Jan. 23, 2002). See also 40 C.F.R. Part 434.

types of sites utilized by NSG.¹⁹ EPA recognized that, “Coal remining is the mining of surface mine lands, underground mine lands, and coal refuse piles that have been previously mined.” Remining activities improve water quality associated with abandoned mines, and EPA “recognizes that one of the most successful means for improvement of abandoned mine land is for coal mining companies to remine abandoned areas and extract the coal reserves that remain.”²⁰

EPA developed effluent limitations for best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT) for the coal remining category that do not include numeric limitations for TSS or sulfates but, instead, considers focused site-specific conditions, development of a Pollution Abatement Plan, and effluent limitations for net acidity, iron, and manganese.²¹ EPA considered the use of sulfate effluent limitations related to coal mining and for various reasons, including economic infeasibility chose not to impose them.²² Because the EPA has considered and rejected imposing effluent limitations for sulfates on these types of operations, the Proposed Rules should expressly exclude them from coverage.

Recommendation:

The Proposed Rule should acknowledge U.S. EPA’s finding and expressly state that coal remining operations as defined by U.S. EPA and permitted by the Department under the applicable requirements of 25 Pa. Code § 87 and 88 are exempt from the Proposed Rulemaking.

V. Conclusion

Northern Star appreciates the opportunity to participate in the rulemaking process as the Department attempts to promote water quality in the Commonwealth. As explained in the preceding comments, however, Northern Star believes strongly that the Department has incorrectly identified a problem and has devised a solution to that problem that will cause more harm than good. The Department’s efforts began out of concern for the impact of development of the Marcellus Shale, but the Proposed Rules reach far beyond those operations. The Department has not provided adequate factual support to show that the Proposed Rules will protect water quality. Northern Star’s operations and other similar efforts at remining and processing coal wastes remove tons of pollution-generating materials every year. The Department’s failure to consider the economic impact of the Proposed Rules on operations such as Northern Star’s has resulted in a proposal that, if adopted, will be extremely harmful to these beneficial activities. The best outcome of this process is for the Department to withdraw the Proposed Rules and continue research and dialogue with stakeholder groups. If the Department goes forward with the Proposed Rules, then Northern Star has provided suggested language for revisions to correct some of the Proposed Rules’ negative effects.

340438:4

¹⁹ See 40 C.F.R. § 434.70; 67 Fed. Reg. 3375.

²⁰ 67 Fed. Reg. 3375.

²¹ See, e.g. 40 C.R.F. §§ 434.73 and 434.74; 67 Fed. Reg. 3379 – 80.

²² 67 Fed. Reg. 3388.

Northern Star Generation LLC

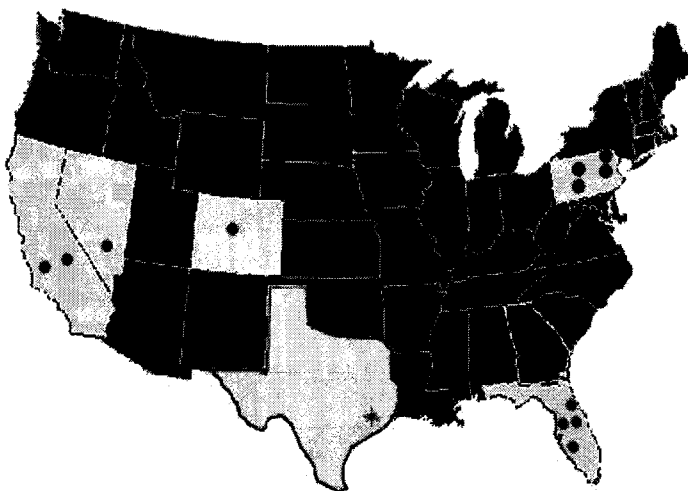
Northern Star Generation LLC ("NSG") is a privately held power generation company dedicated to providing reliable service to its customers, most of whom hold long term contracts with NSG for power generation availability and energy production. NSG was formed in early 2004 to own and operate a portfolio of power plants with long term contracts that was being divested by El Paso Corporation. Since the initial acquisition from El Paso in 2004, NSG has completed several transactions to add to its ownership share of these plants. NSG anticipates growing the portfolio further as acquisition opportunities become available. Northern Star Generation Services Company LLC, a subsidiary of NSG, provides asset management and operations and maintenance services to the parent company and to its subsidiary project companies.



NSG's Measure of Success

- Maintain a safe work environment for our employees and contractors
- Minimize impacts on the environment
- Provide reliable service to our customers
- Maximize the value to our investors

Plants

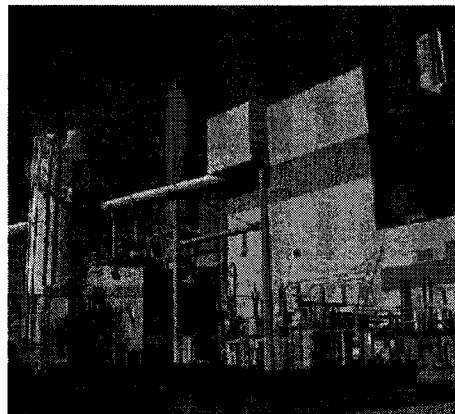


The twelve plants currently owned by Northern Star Generation include 6 gas fired combustion turbine plants and 6 steam turbine plants, of which 4 are fueled by waste coal and 2 fueled primarily by coal.

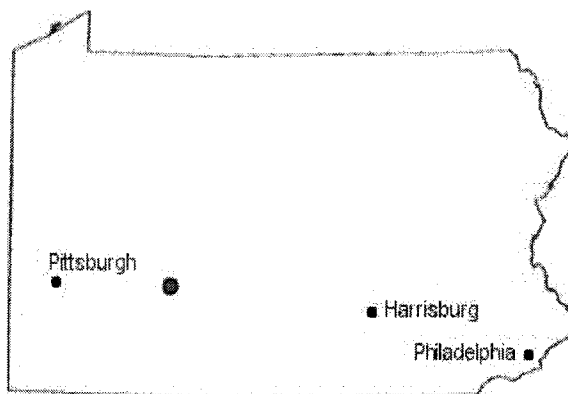
- Coal
- Natural Gas
- Waste Coal
- * NSG Headquarters

Cambria Cogeneration Company

This 85 MW, base load, circulating fluidized bed (CFB) boiler plant is a Qualifying Facility that began commercial operations in March 1991. It has an agreement to supply power to Pennsylvania Electric Company until March 2011. The waste coal burned by the plant helps eliminate the source of acid water run-off from waste coal piles in the area and the ash produced by the plant is used beneficially to restore the landscape after removal of the waste coal.



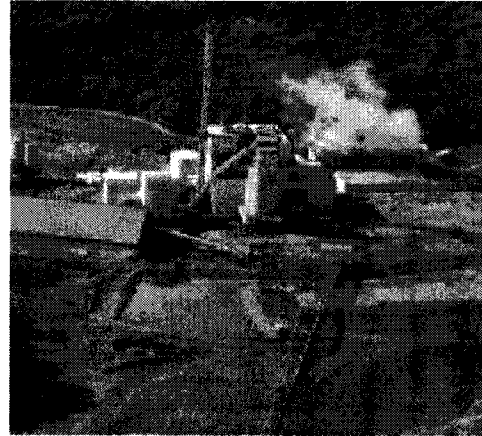
Location:	Ebensburg, Pennsylvania
Net Capacity:	85 MW
Equipment:	2 - CFB Ahlstrom Boilers 1 - ABB VAX Steam Turbine
Fuel:	Waste Coal
Power Purchasers:	Pennsylvania Electric Company
Electrical Transmission:	Pennsylvania Electric Company
NSG Interest:	100%



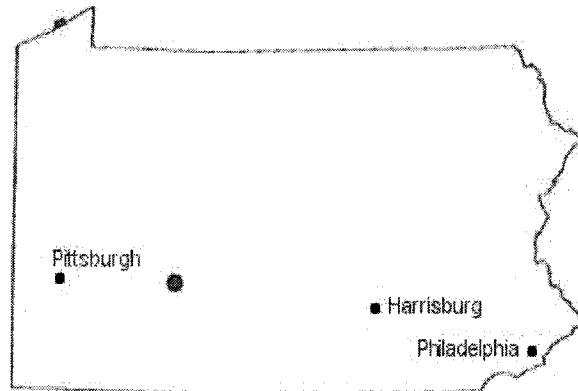
[back to top](#)

Colver Power Project

This 102 MW, base load, circulating fluidized bed (CFB) boiler plant is a Qualifying Facility that began commercial operations in March 1995. It has an agreement to supply power to Pennsylvania Electric Company until March 2020. The waste coal burned by the plant helps eliminate the source of acid water run-off from waste coal piles in the area and the ash produced by the plant is used beneficially to restore the landscape after removal of the waste coal.



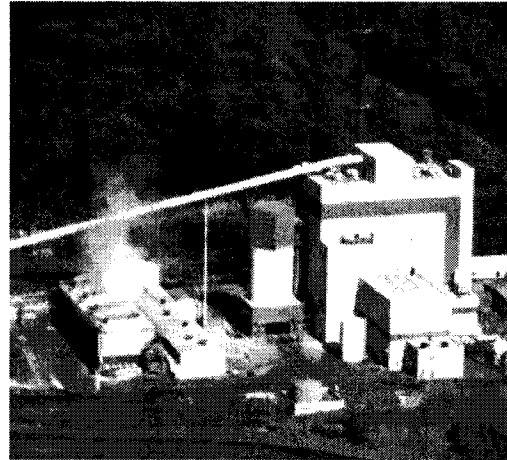
Location:	Colver, Pennsylvania
Net Capacity:	102 MW
Equipment:	1 - Ahlstrom PyroPower CFB Boiler 1 - Mitsubishi ("MHI") Stream Turbine
Fuel:	Waste Coal
Power Purchasers:	Pennsylvania Electric Company
Electrical Transmission:	Pennsylvania Electric Company
NSG Interest:	75%



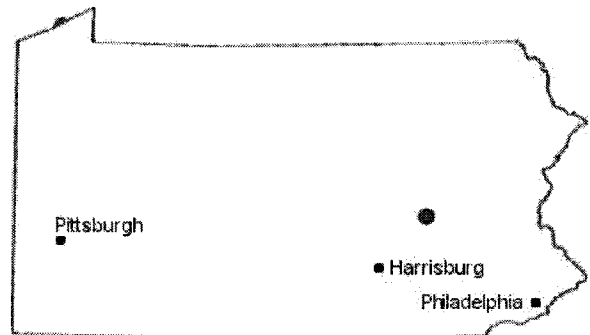
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Panther Creek

This 81 MW, base load, circulating fluidized bed (CFB) boiler plant is a Qualifying Facility that began commercial operations in December 1992. It has an agreement to supply power to Metropolitan Edison until October 2012. The waste coal burned by the plant helps eliminate the source of acid water run-off from waste coal piles in the area and the ash produced by the plant is used beneficially to restore the landscape after removal of the waste coal.



Location:	Nesquehoning, Pennsylvania
Net Capacity:	81 MW
Equipment:	1 - FW PyroPower CFB Boiler 1 - Ahlstrom Steam Turbine
Fuel:	Waste Coal
Power Purchasers:	FirstEnergy
Electrical Transmission:	FirstEnergy
NSG Interest:	50%



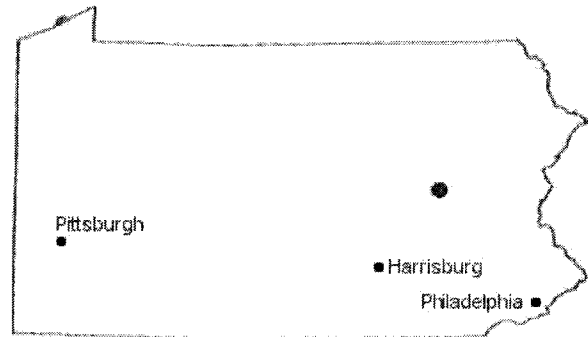
[back to top](#)

Gilberton Power Company

This 80 MW, base load, circulating fluidized bed (CFB) boiler plant is a Qualifying Facility that began commercial operations in October 1998. It has an agreement to supply power to Pennsylvania Electric Company until December 2007. The waste coal burned by the plant helps eliminate the source of acid water run-off from waste coal piles in the area and the ash produced by the plant is used beneficially to restore the landscape after removal of the waste coal.



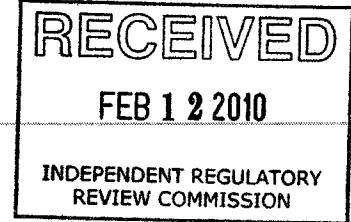
Location:	Frackville, Pennsylvania
Net Capacity:	80 MW
Equipment:	2 - Ahlstrom PyroPower CFB Boiler 1 - GE Steam Turbine
Fuel:	Anthracite Waste Coal
Power Purchasers:	Pennsylvania Power & Light
Electrical Transmission:	Pennsylvania Power & Light
NSG Interest:	25%



2806

From: Jewett, John H.
Sent: Friday, February 12, 2010 3:10 PM
To: Cooper, Kathy; IRRC; Gelnett, Wanda B.; Wilmarth, Fiona E.; Johnson, Leslie A. Lewis
Subject: FW: Comments to Proposed Rulemaking: 25 Pa. Code Ch. 95 "Wastewater Treatment Requirements"
Attachments: LETTER TO PA ENVIRONMENTAL QUALITY BOARD 21210.pdf; NSG Comments to PA EQB Proposed Rulemaking on Wastewater Treatment Requirements.pdf

Comments on #2806



From: Gorton, III, William T. [mailto:wgorton@stites.com]
Sent: Friday, February 12, 2010 3:08 PM
To: Jewett, John H.
Cc: Kellermeyer, Dave; GLMERRITT@aol.com
Subject: FW: Comments to Proposed Rulemaking: 25 Pa. Code Ch. 95 "Wastewater Treatment Requirements"

John,
As a follow up to the meeting that you had last Friday, Feb. 5, 2010 with Northern Star Generation LLC representatives, Gary Merritt and David Kellermeyer regarding DEP's Chapter 95 proposed Rulemaking, I am forwarding the comments that were submitted to the EQB today.
Regards,
Bill Gorton

William T. Gorton III | Member | **STITES & HARBISON PLLC** | 250 West Main Street, Suite 2300, Lexington KY 40507
direct 859.226.2241 | cell 859.312.7300 | fax 859.253.9144 | wgorton@stites.com | www.stites.com |

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